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A MEDICAL TRANSLATION AND ANALYSIS OF SOME DOCUMENTS FROM SPANISH TO ENGLISH AND FROM ENGLISH TO SPANISH

Thesis Submitted to Obtain the Licentiate Degree in English with Concentration in Translation

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Dedication

As a linguist, I am at a loss for words to describe my immeasurable gratitude for Andrea Somogyi, which is saying something in and of itself. She is my north star, a humbling teacher, a scintillating partner in life, and an all-around incredible human being. Thank you for being there, for your encouragement, and wonderful love.

Abstract

The aim of this thesis is to investigate the effect of the translation methods and procedures used to translate medical documents from private medical practices in Costa Rica and the United States from English to Spanish and from Spanish to English during the second quarter of 2023. As it is qualitative research, the work focuses on collecting and analyzing non-numerical data in order to understand concepts, opinions, and experiences, in this case, theories used by different authors cited in the investigation to create a good quality technical translation of the documents. The work also highlights an in-depth analysis of the source text and the process used in the translation, which covers a series of points including grammar structures, vocabulary, text style, and translation techniques. Moreover, the level of difficulty of these documents as technical texts is uncovered and analyzed, which helped improve the translation by the use of several translation techniques applied to the texts. This in turn provided a higher level of professionalism and naturalness that medical translation demands. The sum of the work culminates in an interesting process using translation theory to render the closest natural equivalent of the source language message within a medical communicative situation.

Resumen

El objetivo de esta tesis es investigar el efecto de los métodos de traducción y los procedimientos usados para traducir documentos médicos de clínicas privadas en Costa Rica y los Estados Unidos de inglés a español y de español a inglés durante el segundo cuatrimestre del 2023. Como es una investigación cualitativa, el proyecto se enfoca en la recolección y análisis de datos no numéricos para comprender conceptos, opiniones y experiencias, que en este caso se comprenden de teorías utilizadas por diferentes autores citados en la investigación para crear una traducción técnica de buena calidad de los documentos. La tesis también destaca un análisis en profundidad del texto de partida y del proceso utilizado en la traducción, el cual abarca una serie de puntos que incluyen las estructuras gramaticales, el vocabulario, el estilo del texto y las técnicas de traducción. Además, al ser textos técnicos, se descubre el nivel de dificultada de los documentos y se analizan lo que ayuda a mejorar la traducción al usar varias técnicas de traducción en los textos. Asimismo, se generó el nivel de profesionalismo y de naturalidad que demanda una traducción médica. a realizar un análisis más profundo del texto y a mejorar el resultado de la traducción del texto dramático. La suma del trabajo culmina en un interesante proceso que utiliza la teoría de la traducción para obtener el equivalente natural más cercano del mensaje de la lengua de partida dentro de una situación comunicativa médica.

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Chapter I

Introductory Framework

The translator's role as a bridge for "carrying across" values among cultures has been discussed since Terence, a Roman playwright who translated and adapted Greek comedies into Latin in the 2nd century BCE (Lebert, 2022). Further development has given humanity important breakthroughs and understanding and has brought humans closer together. Such developments have happened thanks to medical translation, the type of translation explored in this work. It continues to provide pivotal services to communities and advances human society to this day. This first chapter will delve into the dawn of medical translation, its contributions throughout history, and why it is needed in every doctor's office today.

1.1 Problem Statement

There is nothing worse than being abroad and coming down with an illness. This implies a need to go to a foreign provider to seek the help one needs. Most hospitals and clinics offer medical interpretation services to visitors of their country to help ease some of the anxiety and fear they might experience during this time. However, not all do, and even worse, most of these practices do not have complete written information in their patients' language. This causes communication problems that range from simple diet education to something as serious as informed medical consent. Private practices in the United States do a better job of providing interpretation services for patients, but they often need more accurate medical documents in target languages. Likewise, in Costa Rica, private practices and many hospitals and clinics do not offer interpretation services or translated medical documentation for foreign patients.

Consequently, this work aims to ease some of the anxiety and fear patients present when facing health issues and cannot communicate or understand their ailments. The investigator will look at processes and methods used in the medical translation of some of these documents, the analysis of these texts, and the application of various translation techniques to achieve an accurate communicative text written for visiting patients. Since this is a technical text, the following question stands: What is the effect of the procedures and methods used to translate medical documents from Spanish into English for private medical practices in Costa Rica and medical documents from English into Spanish for private medical practices in New York during the second quarter of 2023?

1.2 Objectives

1.2.1 General objectives

To analyze the effect of procedures and methods used to translate medical documents from Spanish into English for private medical clinics in Costa Rica and medical documents from English into Spanish for private medical practices in New York during the second quarter of 2023

1.2.2 Specific objectives

- To translate medical documents from Spanish into English for private medical clinics in Costa Rica and medical documents from English into Spanish for private medical practices in New York
- To apply various translation techniques to the documents to achieve accurate, cohesive, and precise target texts

- To evaluate the effect of the translation techniques applied to the documents
- To create a glossary with the most relevant terminology found in both texts

1.3 Justification of the Study

Any translation demands quality and accuracy; however, these characteristics are never more integral than in healthcare and medical settings. Medical tourism has also become popular worldwide in the 21st century. This is when a person travels to another country for medical care. Millions of US residents travel annually for this purpose (cdc.gov, 2022). Furthermore, in 2019, there were about 3 139 008 visitors from other countries in Costa Rica, with 41.93% coming from the United States and 7.19% from Canada among English speakers alone (datosmacro.com, 2021). There was also a 4.04% increase in visitors that same year; that is to say, there were 122 008 more people in 2019. As projections show, the number is set to increase following the end of the terrible global COVID-19 pandemic. Incidentally, any potential mistake in translation can change the entire meaning of a text or can lead to misinterpretation of content, which can be incredibly dangerous, especially to someone's health. For example, the pharmaceutical industry has been globalized, like many other healthcare sectors, where products are developed to enter developing markets. In this stage, the smallest of errors in dosage or nomenclature may lead to a fatal outcome. Every word matters and this is why these delicate medical texts must be handled by specialized professionals who completely understand, in a way, that they might hold someone's life in their hands.

In addition to medical misinformation, there is a legal misinformation component that a medical translation of good quality must avoid. Among the plethora of medical documents that need to be translated, some have legal clauses that can become a real problem for patients and

healthcare institutions if misinterpreted or unclear. Some of these documents include informed medical consent, patient rights and responsibilities, confidentiality agreements, surgery consent, anesthesia consent, and financial agreement forms. If any of these texts present a discrepancy or mistake, it can invite a heated and dragged-out legal battle that a good quality medical translation could have avoided. Negligence in these texts may lead to stress, frustration, and pain to already sickly individuals, not to mention an unwelcome financial and marketing hit for healthcare institutions.

Healthcare is a human right and, just like it, a means to communicate clearly and accurately through medical translation and interpretation should also be a basic human right. This work seeks to use translation procedures and methods to translate some of these documents for private medical practices for English-speaking patients visiting Costa Rica and Spanish-speaking patients in the United States. Moreover, these medical practices will have some of these medical translations as templates for "as-needed use" so that they are readily available when dealing with a visitor who is ill. Completing this process will also help patients understand what they might have, how to treat it, and in some cases, how to prevent it in the future.

To produce a good quality medical translation, the task of performing a technical translation for the medical field will be accomplished through appropriate translation techniques, analyses, meticulous research, and past specialized experience. The investigator will transfer meaning and text through these systematic processes from English to Spanish and Spanish to English. The task is noble, as are the future patients it is meant for, hoping that one day it will ease someone's suffering even by a minuscule amount. It is a task worthy of a student of the humanities.

1.3 Antecedents

Translators have always been around since the dawn of history itself. According to Marie Lebert (2022), translators have aided societies' development and had major roles in shaping languages and cultures. She goes on to provide some examples of early translation in antiquity:

> The translation of the Hebrew Bible into Greek in the 3rd century BCE is regarded as the first major translation in the Western world. Most Jews had forgotten Hebrew, their ancestral language, and needed the Bible to be available in Greek to read it. This translation is known as the "Septuagint," a name that refers to the seventy scholars commissioned to translate the Hebrew Bible in Alexandria, Egypt. Each translator worked in solitary confinement in his cell, and according to legend, all seventy versions proved identical.
>
> The translator's role as a bridge for "carrying across" values between cultures has been discussed since Terence, a Roman playwright, translated and adapted Greek comedies into Latin in the 2nd century BCE. (pg. 2)

Early debate on how to go about a translation of a text has permeated into modern times. The never-ending struggle pertains to the accuracy and efficiency of a "word-for-word" translation of a text or a "sense-for-sense" translation instead. In his text "De Oratore" (55 BCE), Marcus Tullius Cicero cautions readers of engaging in a word-for-word translation, while St Jerome (396) encourages a more sense-for-sense approach.

As time progressed, many took to the craft of translation, starting with religious and sacred texts, which then evolved as the need arose. Later, translation practices continued with

multiple classical, literary, technical, and scientific texts. Some translators worth mentioning and whose achievements have rippled through time range from Kumārajīva to Alexander Pope, to John of Seville, to Geoffrey Chaucer, to William Caxton, to Joseph Charles Mardrus, to Bede, to Alfred the Great, the latter two who were among the first translators to translate from Latin to English and whose contributions aided in the development of the English language itself (Lebert, 2022).

In modern times, translation has branched out and is now woven into several different fields and industries. Incidentally, one of them is medical translation, as it plays a pivotal role in modern human society. It encompasses many specialties that include the pharmaceutical industry, microbiology, genetics, research, and clinical, among many others. Early texts with medical content have been found throughout history, which helped build the foundation of medical curricula in the first universities in Europe and furthered translation objectives. Some of the earliest records of such texts are the Ebers papyrus from the 16th century and the Edwin Smith papyrus from the 17th century, both of which made incredible discoveries and aided in spreading medical understanding throughout the ancient world. Thanks, in particular, to the Ebers papyrus, as it contains significant references to skin illnesses and cosmetic issues (Allen Pusey, 1933). Some of its contents include magical formulas and folk remedies meant to cure afflictions ranging from crocodile bites to toenail pain, among other ailments plaguing the Egyptian population, such as dermatitis, pustules, scurf, scabies, sores, and ulcers. Furthermore, it is understood that Egyptian medicine was translated and passed on to influence Greek and Mesopotamian medicine. Much of the Hippocratic Corpus is thought to be of Egyptian origin (D.J. Tracey, 2018).

Many of these ancient texts received an intralingual transfer process through history and the world. Around the 6th and 7th centuries, Greek and medical practices were somewhat forgotten. However, Greco-Roman pioneers helped to translate Hippocratic and Galenic texts into Latin at medical schools in Italy, Calabria, and Monte Cassino. Later translation works by Arabic physicians transferred Greek medical texts into Syriac and Arabic in the Middle East. The Baghdad movement in the 9th and 10th centuries gave birth to translated texts from Greek into Arabic, which was then transferred into Latin and Castilian in Spain in the 12th and 13th centuries (D.J. Tracey, 2018). Some contributors to Western medicine through their medical and translation works who are worth mentioning are Hippocrates (ca. 460-ca. 370 BC), Celsus (c. 25 BC-c. 50 AD), Dioscorides (c. 40-c. 90 AD), Galen (AD129-ca. 216), Hunayn ibn Ishâq (809–875), and Constantine the African (1020–1087).

The world recently experienced a healthcare crisis as no current generation had seen. COVID-19 ran rampant, and many medical advances were prioritized to combat the pandemic. Likewise, medical translations became pivotal in the fast-paced viral emergency; it was Translation that aided humanity with constant updates and informed the world and the scientific community about what was going on. Hence, the importance of a good quality translation becomes all the more apparent. This is highlighted in a paper by Letizia Leonardi (2022) from the translation department at the University of Aberdeen, Scotland, published in the Granite Journal, "The importance of accurate medical translation in the context of the COVID-19 pandemic." Within the work, Leonardi uses the translation of a peer-reviewed medical publication dealing with COVID-19 as a case study to outline some strategies and techniques that can be adopted to ensure accuracy when relaying health-related content from English into Italian (Leonardi, 2022).

Leonardi explains several contributions medical translation made during the pandemic, such as the international readiness and availability of COVID-19 PSA, protocol, and workplace safety documents, as well as clinical trial findings and therapeutic and vaccine advances. She goes on to state that the incidence of mistakes with these types of texts is high and that the consequences of creating a bad medical translation of a pharmaceutical text, for example, can lead to grave errors in areas such as dosage and instructions, which can jeopardize human life. Companies who use non-human translation, that is to say, machine translation, run great risks of this type of scenario happening due to spelling or misinterpretation problems. She cautions blind confidence in machine translation as a rule of thumb.

Leonardi analyses grammatical issues and syntactic restructuring, and although her work pairs are English and Italian, the analysis is relevant because Spanish shares similarities with showcased communicative situations. She explains this with the following about a complex medical noun phrase: *"critically ill, mechanically ventilated COVID-19 patients,"* where, just like in Spanish, Italian medical texts use a higher register in comparison with English medical texts. This conversion is from a more simplistic to a more complex register. Therefore, she goes on to say that a solution to the modifiers of the noun of the phrase could be an interlinguistic transfer using such a register as *"pazienti con COVID-19 di grado severo"* (patients with a serious level of COVID-19) instead of translating *critically ill* for *"pavement Malati"* (seriously ill) which is in a lower register. Regarding *"medically ventilated*," Leonardi uses some translation procedures such as modification to show that the phrase references medical ventilation as a COVID-19 treatment, and a solution to this particular communicative situation is *"sottoposti a ventilazione meccanica"* (treated with mechanical ventilation). This way, she explains that "ST premodifiers have been changed into prepositional phrases used in postmodifying position, a strategy

commonly employed in English-to-Italian translation: *pazienti con COVID-19 di grado severo sottoposti a ventilazione meccanica*," (Leonardi, 2022). One can see that the phrase now has a more idiomatic language achieved with such strategies, and strategies like this are implemented in medical translation from English into Spanish as well.

In medical translations, using resources such as specialized dictionaries, glossaries, and reputable online sources is almost demanded to produce an accurate translation and avoid lexical-semantical issues due to a lack of understanding of medical procedures, terminology, or subject matter. These resources can help with translation challenges that might come up during a medical translation. Leonardi finds that acronyms and abbreviations are typical characteristics of medical translations, and she provides some recommendations to deal with them. Many authors have also stated that English is the *lingua franca* of the medical field. Therefore, according to Leonardi, some texts might have abbreviations and acronyms presented in English by themselves, which causes confusion and erroneous meaning because they are used without their full-length referents (Leonardi, 2022).

Furthermore, she proposes a few solutions using omission, for example, when dealing with acronyms. Instead of writing the acronym, one omits it and writes the full nomenclature. Another proposed solution is strategically borrowing similar terminology in both languages.

Lexical-semantical and word formation theories are crucial to carefully translating a medical text. The medical industry contains a plethora of specialized terminology, which may become overwhelming to the translator. According to Wioleta Karwacka (2015) from the University of Gdańsk, eponyms may cause serious challenges to translators engaging in these types of texts because there may not always be a correspondence of eponymous terminology

between certain languages. Karwacka works with Polish and English and analyses how eponymous terms behave within this language pair. She states, "What may be a potential challenge for a translator is the correspondence in which only one of the terms (only source or only target) is eponymous, while its counterpart is a descriptive term or is formed based on a Greek or Latin root," (Bogucki et al., 2015).

eponymous term	non-eponymous term
Lyme disease	borelioza
Fallopian tube	jajowód
metoda Vojty	reflexlocomotion
odczyn Biernackiego (OB)	erythrocyte sedimentation rate (ESR)

Table 1. Karwacka's corresponding pairs of eponymous and non-eponymous terminology in English and Polish (Bogucki et al., 2015, p. 275)

This statement holds with eponyms in Spanish as well. Luckily, in the case of the language pair English and Spanish, most eponyms correspond, and Karwacka also explains that this is possible in her findings depending on the language pair. For example, most people know or, at least, have heard of *Lyme disease* but have never heard of *borreliosis,* which is what Lyme disease is also called in Spanish, and, of course, there is *enfermedad de Lyme* as an eponymous equivalent. The same holds true for *amyotrophic lateral sclerosis (ALS)* also known as *Lou Gehrig's disease* in English or *esclerosis lateral amiotrófica (ELA)* or *enfermedad de Lou Gehrig* in Spanish. Moreover, the process of affixation is undoubtedly present in specialized medical terminology. Prefixes and suffixes play an important role in medical translation as they usually come from Latin and Greek, which are languages constantly observed in the medical field. According to Karwacka, the differences in affixation between terms in various languages lead to the differences in semantic distribution observed in pairs of corresponding terms with a multi-word term in one language; hence, recognizing multi-word terms as a single translation unit is of extreme importance for medical translators (Bogucki et al., 2015).

In the Universidad Nacional de Costa Rica (UNA), Adriana Castro Bernítez (2012) summited a dissertation called "Oportunidades de mejora para la traducción de resúmenes de artículos de revistas científico-médicas costarricenses". In this work, the investigator explores the comparative analysis proposed by Belén López Arroyo in her own work, "Estudio descriptivo comparado inglés-español de la presentación del conocimineto en los abstractos de las ciencias de la salud", regarding macrostructures and microstructures in the translation of abstracts of medical articles in the "Revista médica de la Universidad de Costa Rica" as well as its communicative situation. Castro Benítez analyses and points out several mistakes in these abstracts, which vary from a mild error in punctuation to a serious indiscretion such as errors in faithfulness and accuracy which is a criminal offense in translation, and as previously aforementioned in this work, more so in medical translations. These findings showcase the importance of diligence and perfectionism that translation requires to produce a high-quality text. The work found issues with the communicative situation in terms of developing the abstract where a philologist in English or translation was not used; issues with methodology, structures, and clear objectives and conclusions; as well as issues with grammar, punctuation, English syntax, and style (predominately in English) (Castro Bernítez, 2012).

The culmination of the study and results of these works from investigators who searched for the accurate transfer of style, meaning, tone, and cultural elements from one language to another of medical texts shows the level of attention to detail a translator must have lest tragedy strikes on human life in nothing else. The humanities are meant to aid humankind, and a well-made medical translation achieves just that. It falls under ethics, virtue, and pride in producing excellent work, just as written in these texts.

1.4 Scope

- Read and analyze the medical documents of private medical practices from Costa Rica and New York
- Follow and apply a translation model to translate the medical documents.
- Revise initial translations of the documents
- Proofread and polish the translation further
- Turn in the translated documents to each medical practice in their respective countries for appropriate use

Chapter II

Theoretical Framework

To better grasp what all translation entails, it is important to mention the basics of the craft—according to Nida and Taber (1982), translating consists of reproducing in the receptor language the closest natural equivalent of the source-language message, first in terms of meaning and secondly in terms of style. It is important to spotlight basic concepts, models, and definitions that make the foundation of a translator's work in this endeavor.

2.1 Text Analysis

Text understanding and analysis play a major role when setting the stage, if you will, before engaging in a translation. Translators are interested in communication. Hence, a complete text analysis must be systematically achieved appropriately to reach that goal.

First, the translator reads the entirety of the text. This part tends to be forgotten or omitted due to the amount of precious time it might take, but it is essential and affects the overall quality of the work. The translator who skips this step might save time and hurry to their due date. However, they will do so at a high cost, sacrificing quality for a slightly quicker turnover. In this initial step, the translator gets the general gist of the text, expands their base knowledge, identifies the Chrono topical distance of the text (if any), and, most importantly, figures out what to quote the client for the work that will be done. Second, the translator performs a closer reading of the text. In this step, there is much more attention to detail, vocabulary, style, method, stylistic scales, conversions, and the overall time frame of the actual work. Third, the translator performs the final reading of the text to translate. This step focuses on cultural aspects found in the ST that will affect the translation. The translator analyzes text function, and underlines neologisms, metaphors, cultural words, and nomenclature peculiar to the SL, such as proper names, technical

terminology, and untranslatable words. These steps to analyze the text are pivotal to a good quality translation, and they should not be omitted; they should be part of the translator's analysis of the text.

2.1.1 Text Styles

Style is but one more tool that translators use to aid their work. It provides consistency throughout documents and projects so that the author's fingerprint transfers in a way from the ST to the TT. The style will help translators achieve what Nida believes a good translation should be; that is, a good translation should not sound like a translation at all. The more natural sounding to the readership, the better. According to Leech and Short (2007), style, "in its most general interpretation… has a fairly uncontroversial meaning: it refers to how language is used in a given context, by a given person, for a given purpose and so on" (pg. 9). They go on to say that *parole* plays a pivotal role in style. It is the selection of certain terminology, words, or phrases that a given translator chooses to implement throughout a given test. Therefore, different texts require different styles, and to properly use the style in translation, the translator must carefully select their repertoire of lexemes within that particular text. According to Nida (as cited by Newmark, 1988), there are four types of (literary or non-literary) text:

(1) *Narrative:* a dynamic sequence of events, where the emphasis is on the verbs or. for English, 'dummy' or 'empty' verbs plus verb-nouns or phrasal verbs ('He made a sudden appearance,' he burst in). A dynamic sequence of events united by a concept, idea, or plot to tell a story (Ghenaeit, 2023).

(2) *Description:* static, emphasizing linking verbs, adjectives, and adjectival nouns.

(3) *Discussion:* a treatment of ideas, with emphasis on abstract nouns (concepts), verbs of thought, mental activity ('consider, 'argue,' etc.), logical argument and connectives,

(4) *Dialogue:* with emphasis on colloquialisms and fanaticisms.

2.1.2 Stylistic Scales

2.1.2.1 Scale of Formality

Regarding stylistic scales, also known as register, language may appear in several ways with how or to whom it is directed. It is a major aspect of analyzing a text to understand further what is being worked on. The various registers utilize different vocabulary, and it is equally important to know when to use and how to select each one. It may seem tempting to illustrate vivacious wording when selecting extensive nomenclature from a language's many lexicons. However, a translator should refrain from showing off their linguistic ability and knowledge as this would not characterize the readership of the ST, leading to errors in the register upon translation. The formality scale consists of the abovementioned aspects when translating and taken from Newmark (as cited by Joos, 1962). The formal scale may be divided as the following:

Officialese: The consumption of nutriments is categorically prohibited in this establishment.

Official: The consumption of nutriments is prohibited.

Formal You are requested to refrain from consuming food in this establishment.

Neutral: Eating is not allowed here.

Informal: Please don't eat here.

Colloquial: You can't feed your face here.

Slang: Lay off the nosh.

Taboo: Lay off the fucking nosh.

The official formality text is much like the officialese with the distinction of its content; the official formality text pertains more to an informative intent of the text. Officialese formality texts may be found in such documents as current written laws and strict governmental documentation; it is of the highest formality of register. Formal texts are utilized in diverse fields where a higher level of complexity of language is required, for example, business documentation, corporate texts, or company documents. However, a text with a neutral formality is used with familiar language to convey a message to people regardless of educational level. With this last point, an informal formality register is similar to low educational content. Colloquialisms within its text characterize the colloquial formality and may go hand in hand with the informal register, which, similarly, slang may fall within informal. However, this register is directed specifically toward a social population that commonly uses this register.

2.1.2.2 Scale of Generality or Difficulty

Newmark (1988) elaborates that "As always, the distinctions are fuzzy. In not so informal language, translate demoms en moins by 'decreasingly,' tout a fait by 'entirely,' d'un seut coup by 'at one attempt' or 'simultaneously'" (pg. 14). In this case, this register considers how to say a statement and the level of complexity of a document, involving the choice in vocabulary. This readership will read the text and their level of comprehension of the text. Similarly, Newmark suggests the following scale of generality or difficulty:

Simple: The sea floor has rows of big mountains and deep pits. Popular: The floor of the oceans is covered with great mountain chains and deep trenches.

Neutral: (Using basic vocabulary only) A graveyard of animal and plant remains lies buried in the earth's crust.

Educated: The latest step in vertebrate evolution was the tool-making man.

Technical: Critical path analysis is an operational research technique used in management.

Opaquely technical: (comprehensible only to an expert) Neuraminic acid in the form of its alkali-stable methoxy derivative was first isolated by Klenk from gangliosides (Letter to Nature November 1955, quoted in Quirk, 1984.)(Newmark, 1988).

A simple complexity register shows the basic or low difficulty in terminology and content. Popular difficulty register involves a lexicon used in day-to-day life, where vocabulary in a document is popular with the public. A more balanced text shows neutral difficulty. The document is simple and simple enough. Educated difficulty register pertains to texts which deal with education or instructions; such documents may be found in schools and universities. Technical difficulty differs from opaquely technical difficulty in that the technical dwells in texts with such vocabulary specific to operator manuals of a device. In contrast, opaquely technical deals with vocabulary only certain experts may understand, such as a medical doctor's epicrisis.

2.1.2.3 Scale of Emotional Tone

Regarding the emotional tone scale, the translator uses this tool to aid in selecting terminology appropriate to the text to be translated. It consists of the author’s intention and use of morphemes to convey his expressed text, that is, the emotional nuances of the ST. This means that the translator needs to understand the text, the cultural references, and the linguistic devices to express the ST's emotions accurately. It is important to note that formality and emotional tone are closely related and should be considered as a whole, not separate text characteristics.

Furthermore, Newmark (1988) suggests the following scale of emotional tone:

Intense: (Profuse use of intensifiers) ("hot")

"Absolutely wonderful. . . ideally dark bass . . . enormously successful. . . superbly controlled."

In the intense emotional tone of the register, the message is conveyed using intensifiers.

Warm:

"Gentle, soft, heart-warming melodies"

In the warm emotional tone of the register, the message is conveyed with a gentler vocabulary found within the text.

Factual: ("cool")

"Significant, exceptionally well-judged, personable, presentable, considerable."

Understatement: ("cold")

"Not. . . undignified"

2.1.3 Text Function

2.1.3.1 Informative

The informative function is there to inform the readership, to be representational, and convey information. "The core of the informative function of language is the external situation, the facts of a topic, reality outside language, including reported ideas or theories." (Newmark, 1988, pg. 40) It is relevant to state that these functions reflect how the language is used. In this case, the language or the text is used to convey factual information. Here the content of the text's message takes center stage, and the author's status is anonymous or irrelevant. Furthermore, the domains in which this function is dominant are texts about science, technology, education, commerce, industrial texts, the media, etc.

2.1.3.2 Expressive

In this text function, the language is used to convey emotions and express experiences or attitudes in which the author intends personal expression. Nida and Taber (1982) mention this function's importance as vital to certain translation processes. They state: "In fact, one of the most essential, and yet often neglected, elements is the expressive factor, for people must also feel as well as understand what is said" (Nida, Taber, 1982, pg. 25). This function is typical of literature, poetry, novels, and dramatic texts where the author's status is crucial, and their intention and style have relevance. According to Newmark (1988), the characteristic "expressive" text types are divided into three types:

> *1. Serious imaginative literature:* Of the four principal types -lyrical poetry, short stories, novels, plays - lyrical poetry is the most intimate expression, while plays are more evidently addressed to a large audience, which, in the translation, is entitled to some assistance with cultural expressions.
>
> *2. Authoritative statements:* These texts of any nature derive their authority from their authors' high status or reliability and linguistic competence. Typical authoritative statements are political speeches, documents, etc., by ministers or party leaders; statutes and legal documents; scientific, philosophical, and 'academic' works written by acknowledged authorities.

Such texts have their authors' personal 'stamp,' although they are denotative, not connotative.

> *3. Autobiography, essays, personal correspondence:* These are expressive when they are personal effusions when the readers are from a remote background. (pg.39)

2.1.3.3 Vocative

Newmark (1988) states: "The core of the vocative function of language is the readership, the addressee. He used the term Vocative to call upon the readership to act, think or feel, in fact, to 'react' in the way intended by the text." (pg. 41) The language is used to influence the reader, to make a request or a call for action. It may be found in advertisements, instructions, political documents, etc. The function of language aims to make the readership act in a specific way; the reader is emphasized, and while the author may have a traditional role, the reader's behavior is affected.

2.1.4 Translation Methods

2.1.4.1 Semantic translation

The multiple methods Newmark (1988) notates in his work need to be clarified, if not (to some extent) intertwined in some cases. This is the case with faithful translation and semantic translation. In this regard, Newmark provides us with the following clarification on the matter:

> “Semantic translation differs from 'faithful translation' only in as far as it must take more account of the aesthetic value (that is, the beautiful and natural sounds of the SL text, compromising on 'meaning' where appropriate so that no assonance, word-play or repetition jars in the finished version” (pg. 46).

This adds more complexity and depth as the translation process follows, focusing on transmitting the author's message and finding the balance between figurative and literal meanings. While it adds more flexibility, it is more personal and follows the author's thought processes concisely. According to Anderman and Rogers (2003), in particular, semantic translation highlights the attempt of the translator to grasp the full meanings expressed in the source text (ST) and to render as much as possible into the TL version (pg. 70). With great care, the translator must proceed with caution as semantic translations tend to add a component of

interpretation in transmitting the author's message. The translator needs to have the authority to correct or improve the ST. Hence the translator must respect the original document. A semantic translation attempts to transmit the contextual meaning of the ST through semantic and syntactic structures. "In general, a semantic translation is written at the author's linguistic level." (Newmark, 1988, p. 41)

2.1.4.2 Communicative translation

Unlike semantic translation, communicative translation is not about procedures as it aims to produce a natural contextual effect mainly focused on the readership. This is the kernel of this particular method. According to Newmark (1981), a communicative translation is likely to be smoother, simpler, clearer, more direct, more conventional, conforming to a particular language register, tending to under-translate, i.e., to use more generic hold-all terms in difficult passages (pg. 39). A natural-sounding text is preferred over the more complex and over-translated semantic counterpart to make it friendlier and easier for the reader. The reader must comprehend the same idea of the original text as simply as possible. To illustrate an example, this is a communicative translation of a sign that states: *¡Perro bravo!* In this case, it would be better translated to *Beware of the dog!* As opposed to a semantic translation: *Angry dog!*

Newmark (1981) says that a communicative translated text is superior to its original as it tends to explain the contextual meaning of the ST. It is informative, and it is concentrated on the message as well as conveys the same information and tone as the original "A communicative translation works on a narrow basis. It is 'tailored-made' for one category of readership, does one job, fulfills a particular function" (Newmark, 1981, p. 48). Also, it is worth mentioning that according to Mizani (as cited by Hervey and Higgins, 2002), communicative translation is usually adopted for culture-specific clichés such as idioms, proverbs, fixed expressions, etc. In

such cases, the translator substitutes the SL word with an existing concept in the target culture. (pg. 56) Translators using this method must consider the license given by the commissioners of the translation.

2.2 Translation Procedures

As with any craft, there needs to be tools and strategies used to obtain a good quality product. The toolset required in translation entails meticulous work and analysis and the mastery of multiple linguistic, cultural, and transfer competencies to achieve professional work successfully. This section attempts to clarify certain concepts vital to the translator, the translation process, and the quality of the work.

2.2.1 Transposition

The first procedure from the oblique translation is a transposition. Here, syntactic understanding is analyzed in which a translator replaces form or structure from one grammatical class to another while expressing the same idea from the source text to the target text. According to Vazquez-Ayora (1977), this procedure is the soul of translation. He states that translation consists precisely of a "change of vehicles" because the vehicle in which an idea travels is not the same, nor equal, within languages. Many authors have referred to this concept by name, from Jean Rey to Nida, to Catford. Nonetheless, it remains true to its basic definition in layman's terms, as Newmark puts it: "transposition is a translation procedure involving a change in the grammar from SL to TL" (pg. 85).

Newmark explains the several grammatical changes in sentences, as does Vazquez Ayora, which reflects the different types of transposition. One type is a change from singular to plural, where the lexeme element may change from the SL to the TL. For instance, some uncountable nouns may become plurals from English to French. A second type is required when an SL

grammatical structure does not exist in the TL. Newmark argues that there are always several options to resolve this: for the neutral adjective as subject, the English gerund, which can be translated by verb-noun, or a subordinate clause, or in some languages, a noun-infinitive, or an infinitive. (pg. 85) The third type of transposition is where literal translation is grammatically possible. However, it does not agree with the natural form of language of the TL. In these cases, the translator's judgment to make choices when faced with such questions of currency and probability is crucial.

2.2.2 Modulation

Modulation is a translation procedure to achieve a certain degree of naturalness in the TL. According to Newmark (1988), it happens when there is a variation in the message formed by a change of viewpoint, a change of perspective, the focus, or a change of category of thought as opposed to a grammatical category (pg. 88). Newmark (1988), of course, referencing Viney and Darbelnet's 1958 work: *Stylistique comparée du français et de l'anglais : méthode de traduction*. Two modulation types are further divided into more specific categories: free modulations and standard or mandatory modulations.

As aforementioned, modifications happen in several ways, and different authors may refer to them as different things. Nonetheless, the basic principles remain the same within the literature research. One way is to explain logically what has contained an explicative proposition in the subject. In explicative modulation, there are such changes as in the cause and effect, the means, and the final result. Example: to the practiced eye vs. para el Ojo experto. In this example, the practice eye's result is that with time, one may become an expert at it. Hence, while the grammatical structure is not altered (the adjective remains an adjective upon translation), its perspective is.

Another type of modulation has a synecdoche component, described as writing a piece of something for its whole. Here is an example: let's go to the track vs. Vamos al hipódromo. A hippodrome is an oval-shaped stadium for horse races. It typically has a track where the horses race. However, the word hippodrome is not commonly used in vernacular English, so it is better translated as "racetrack" or "track."

Another type of modulation is changing the abstract for the concrete. In the sentence, you can bet your life. One can properly deduce that his life is on the line. The same is deduced from puedes apostar la cabeza. In this example, one can observe the change from life to Cabeza, where both are alluding to losing one's life, but it is more idiomatic to the TL to say Cabeza instead of Vida.

Another modulation type is when there is a change from one part to another. In this case, there is not a change purse but a substitution. Example: *eye to eye* vs. *Cara a cara* or *he was seated at the driver's seat* vs. *estaba sentado al volante*. There is a clear exchange in parts where in the first example, there is a change from the eye, which is clearly on one's face, to the face. Furthermore, the second example illustrates the change from the driver's seat, which includes an array of parts, the seat, the wheel, the seatbelt, the door mirror, et al., to a specific part: the wheel. A reversal of terms or viewpoints can also happen in modulation. One of the terms becomes its opposite in the TT. For example, *you will be a father* vs. *vas a tener un hijo*. Here, one may notice a complete reversal in point of view and terms from son to father. The sentence in the TT has the same appropriate meaning. However, it is written quite differently from its original ST. Another usual modulation is when there is a double negative for an affirmation or vice versa. In the sentence: *Don't get so excited*, one might be tempted to write: *No te emociones tanto*, which is more literal than one might hope for in this case. In addition, it sounds forced and rigid in the TL.

According to Lopez Guix (1997), when modulation is not mandatory, it is up to the translator to determine its convenience depending on the context. Therefore, *tranquilízate* is a better, more natural way to translate the previous example even though the translation is the opposite of what was said but carries the exact meaning over.

Symbols are used in each culture in a specific way to produce the desired meaning or intent of the text, author, or situation. There is also a possible change in comparison or symbols. When a translator is faced with the challenge of carrying comparisons or metaphors from one language to the other, an analytical component brings to light the different symbols used to make such comparisons. It becomes clear that each language would use different symbols in their respective idioms, metaphors, and the like; this is when this type of modulation happens. For example, *you are running at a snail's pace* vs. *Estas corriendo al paso de tortuga*. Symbols to reflect slowness vary from English to Spanish, so we change turtle for snail in the TL to carry meaning accurately.

In addition, another type of modulation comes when there is a change in everyday speech vs. the cultured form. What does this mean? That English tends to use a more descriptive form, something more relatable and real, whereas Spanish prefers a more technical form or a more cultured form. This is widely the case in medical, scientific, and technical terminology. An example is the following sentence: *he is color blind* vs. *el es daltónico*. As one can see, the term color blindness is more commonly used than its more medical term, daltonism or protanopia.

The last modulation type is when there is a change in passive voice for active voice. English tends to prefer and use the passive voice, while on the contrary, Spanish is defined by avoiding the passive and leaning toward an active voice. This modulation type reflects quite well

the change in perspective or point of view of a sentence. For example, the meeting was held vs. la reunion se celebró (Lopez Guix, 1997), a clear modulation from passive to active voice that aims to use idiomatic language, a way to achieve naturalness.

2.2.3 Omission

This process of translation is referred to differently by different authors as well. Nida (1964), for example, names it subtraction; others call it zero translation. This is simply leaving out parts of the ST in the translation, so they are lost in the TT. There is a frequent need in translation sometimes to omit or add words or phrases which do not affect the meaning at all. In other words, the omission is achieved by not explicitly rendering elements of information from the ST to the TT when the information is evident from the context or the situation and can be inferred within the TT. Example: *unplug the microwave from the electrical outlet before you go* vs. *desconecte el microondas antes de irse*.

2.2.4 Amplification

Also referred to as expansion by several authors, amplification occurs when more words are used in the TT to reinforce an idea or meaning in the SL. There needs to be correspondence in the TL to express what was written fully. According to Vazquez-Ayora (1977), amplification is a complementary method that is combined with other processes to produce a dynamic transfer to the TT. On the other hand, Nida and Taber (1982) write about amplification as a salvation method because they find amplification to correct a serious problem for new writers. They tend to be unbearably brief and unaccustomed to writing in their language. This process will prevent the writer from producing short sentences and provide further expansion of ideas that could come from mentioned short and simple sentences.

Furthermore, when amplifying or expanding, the translation will demand more words in the TT translated from one word in the ST. For linguistic purposes, amplification is in direct contrast to the linguistic economy. Expansion may affect English prepositions, adverbs, and other grammatical categories.

2.2.5 Explicitation

Explicitation, in its simplest form, is an explanation. It introduces precise details into a TT when clarification is needed. According to Vazquez-Ayora (1977), explicitation entails expressing what is implicit from the SL into the TL, and they go on to point out the known predisposition of English to use "concise linguistic thought" (pg. 349), which, when not explained, would cause ambiguity and confusion in the TL translation. It happens in situations where something is implied or understood in the ST. Hence, there needs to be a clear rendition of said situations that may come about due to linguistic habits, language culture, or familiarity with the intended readership. There is a discrepancy among authors regarding the use and explanation of explicitation, and some would criticize its functionality as redundant.

However, Baker states (as cited by Séguinot, 1988). Moreover, explicitation should be reserved for additions that cannot be explained by structural, stylistic, or rhetorical differences between the two languages. According to Baker (1988), among the different types of explicitation are obligatory explicitation, which is when syntactical and semantic explications are mandatory because, without them, the TT would be ungrammatical; optional explicitation, which is when the TT is grammatically correct without the process, although the text as a whole comes across as clumsy or unnatural; pragmatic explicitation (as cited by Pym, 1993), which is when implicit cultural information is dictated by differences between cultures meaning that some countries may lack certain cultural information in the TT. Therefore, the translator has to include certain

explications in the TL text; lastly, translation-inherent explications are when there is a distinction between choices that can be accounted for in the language system and choices that come about because of the nature of the translation process.

2.2.6 Literal translation

Literary translation, also known as a close translation by some authors, may be defined as a process that closely resembles and respects forms of the ST. Other authors define it as a word-for-word or interlinear translation, which is somewhat correct. However, one must remember that literal translation does not entirely encompass those definitions. Its essence is how it closely follows the form of the ST. According to Lopez Guix and Minett Wilkinson (1997) (as cited by Vinay and Darbelnet), literal translation or word-for-word translation provides a text which is simultaneously correct and idiomatic without the translator worrying about anything other than idiomatic forms of the ST. Lopez Guix and Minett Wilkinson also state that this type of translation can be acceptable when translating word-for-word when both languages share similar forms. With some language pairs, it becomes rare. According to Nida (1988), "The prevailing orthodoxy leads to the rejection of literal translation as a legitimate translation procedure. Thus Neubert (1983) states that one word of an SL text and a TL word in the translation rarely correspond semantically, and grammatically hardly ever."

It is worth mentioning that literal translation is only sometimes correct, but it is licit. Some forms justify (and sometimes call for) a more literal or word-for-word translation. Example: *My name is Marc* vs. *mi nombre es Marc*. In this example, the syntactic structure or form is highly compatible from the ST to the TT, and there is usually no better way (keeping context in mind) to render such a sentence.

Incidentally, Newmark recommends not to avoid literal translation if it secures referential and pragmatic equivalence to the original. A literal translation may happen as one word to one word, collocation to collocation, clause to clause, or sentence to sentence.

2.2.7 Punctuation changes

Punctuations are the rules of the road when reading and interpreting a text. It imposes guidelines for the readership to understand the text. Therefore, it plays an important role in translation. Notably, there are several changes in punctuation when translating from one SL to a TL. The translator's job is to know and apply such changes appropriately whenever possible to aid in the transfer of meaning. Style may play a secondary role here as each language practices its punctuation rulebook. The quest for naturalness style may provide an extra push in reaching that goal. According to Mariana Orellana (2005), several punctuation changes occur from Spanish to English.

Start! vs. *¡Comience!* First, exclamation and interrogative signs. As one can see, English places these signs at the end of the sentence, phrase, or word. On the other hand, Spanish places them at the beginning and the end. The coma has several uses and important distinctions from one language to another. One example is how a coma may come after a greeting for a personal letter (example: Dear Sarah); however, it uses a colon for commercial letter purposes (example: Dear Sirs:).

Many punctuation rules affect translations, of course, and to mention them all is a herculean task. However, within literary translation, some may become priorities to the translator, such as the dash. The dash is more commonly used in English, whether in dialog, to interrupt a sentence, or add a new element to an existing list. Moreover, Spanish uses a colon for both

situations (pg. 199). The same user does not transfer into Spanish, where a colon or a comma is typically used.

Capital letters are an art form, so seeing them apply correctly is akin to going to a museum. We use English in the days of the week, the months, the seasons, and nationalities; in Spanish, lowercase is used. Example*: I'll see you Sunday* vs. *Te veré el domingo* (Orellana, 2005, p. 201). Punctuation changes may be related to semantic syntax, formal syntax, or intonation principles. Finally, translations should transfer not only meaning but also style.

2.2.8 Compensation.

According to Vazquez-Ayora (1977), compensation theory happens when the translator faces two problems: difficulty finding accurate and natural equivalence and a possible loss of content or nuance (pg. 374). Peter Newmark (1988) provides little information about compensation and is direct, short, to the point, and almost curt. Nonetheless, the authors agree that compensation serves to avoid a capital sin in translation: a loss in meaning. Semantic loss may not seem readily evident to the target readership, but it surely will catch the eye of someone who knows the SL of the text. Newmark (1988) states that compensation occurs when loss of meaning, sound effect, metaphor, or pragmatic effect in one part of a sentence is compensated in another part of a contiguous sentence (pg. 90). Furthermore, Lopez Guix and Minett Wilkinson (1997) take it further, stating that compensation is a dance of expansion and reduction techniques, making addition and subtractions inevitable when engaging in compensation (pg. 293).

Other authors, such as Hervey and Higgins (1992), point out that compensation is more of a concern in non-technical texts than in technical ones (pg. 44). In this regard, a translation of a medical or legal document would have fewer compensations since there are usually appropriate

TL expressions to use. They go on to state that compensation is a matter of choice. It avoids an unacceptable loss in translation through a calculated addition of a less unacceptable one (pg. 52).

Like many translation issues, compensation is most clearly illustrated in literary texts. However, various texts use the procedure to produce a successful translation.

2.2.9 Equivalence.

Language is culture. In instances where there is no appropriate way to express the meaning using SL forms during translation, then the use of equivalence becomes necessary. According to Vazquez-Ayora (1977), as a translation procedure, equivalence is an extreme modulation case. Vazquez-Ayora illustrates that certain modulation types become fixed expressions in a way that technically belongs in the realm of equivalence and further states that equivalence is a lexicalized modulation.

Other authors, such as Roger Bell (1991), define equivalence as "the replacement of a stretch of the source language (particularly idioms, cliches, proverbs, and the like) by its functional equivalent (greeting, etc.)" (pg. 70). In this regard, the goal is to search for the most natural and closest equivalences. The form of the SL here becomes irrelevant as sense or meaning takes center stage in this procedure. Lopez Guix and Minett Wilkinson (1997) state (as cited by Vinay and Darbelnet) that the equivalence procedure tries to transfer an identical situation through completely different stylistic and structural means (pg. 271). He states that, like previous authors, equivalence is a modulation type but correlates more to the semantic plane than the lexical one. Unlike previous authors, he states that it surpasses modulation as it engulfs la totality of the message linked to the situation.

Other authors are not keen on the procedure of equivalence. Nida (1988) claims that, along with adaptation, equivalence is not a usable procedure (pg. 91). Lopez Guix and Minett Wilkinson (1997) (as cited by Gideon Toury) mention that the concept of equivalence serves the SL more than the TL as it is based solely on the original text to evoke an equivalent procedure of translation.

2.2.10 Adaptation

Adaptation is the seventh translation procedure by Vinay and Darbelnet (1973). It mainly applies to instances where the situation referenced by the message does not exist in the TL, so there is a need to create another situation considered equivalent wherever cultural mismatches occur.

The situation is the keyword in the previous sentence and throughout this section. According to Baker (1992) (as cited by Vinay and Darbelnet) states that adaptation “is a procedure which can be used whenever the context referred to in the original text does not exist in the culture of the target text. Thereby necessitating some form of re-creation" (pg. 6). Vazquez Ayora (1977) states it is a message expressed with another equivalent situation (pg. 322). He explains the different points of view regarding the readership of the TT, arguing whether a reader should read a translation and need clarification about its meaning or should they understand it effortlessly.

The comprehension of a play or literary work does not rely on the level of intelligence of the readership but on communication principles (pg. 323). Some translators may be confronted by impossible, difficult, or badly written texts. Nonetheless, it is important to remember not to make excuses and put in the work. A translator needs to translate for himself. Rather he translates for everyone else.

Adaptation prevents the issue of cultural calc, which may cause confusion, obscurities, or contradictions. Consequently, it may prevent a cultural clash where the situation would not be equivalent or even insulting. For example, *he kissed his daughter on the mouth* vs. *abrazo tiernamente a su hija*. The example could apply in a cultural situation where kissing a daughter on the lips would come across as repugnant or inappropriate, so the situation is adapted to suit the culture of the TL better. Furthermore, Nida and Taber (1982) mention that rather than start with a translation, it is better to start with adaptation in a text as it is much harder to require a high level of cultural competency (pg. 161). Examples of adaptation may happen in movie titles, music, and possibly in poems, but that is another rabbit hole.

2.2.11 Localization

Localization is part of what is known as GILT (Globalization et al., and Translation). It has arisen due to globalization and technological advances within the last few decades. Hence, localization is linked primarily to the modern needs of an ever-changing world, and as such, neither Nida nor Newmark or any of the classics will help much in this type of specialization. Localization is a procedure of translation fairly modern in translation history. Different authors agree that localization has been around since the digital revolution 1980s, and it may prove difficult to define by new students unfamiliar with the field.

Every author has their definition with hints at common ground and areas that are unique to their definition. In the *Handbook for Translation Studies (2010)* by editors Yves Gambier and Luc van Doorslaer, contributor Reinhard Schäler from the University of Limerick states that localization is "the linguistic and cultural adaptation of digital content to the requirements and the locale of a foreign market; it includes the provision of services and technologies for the management of multilingualism across the digital global information flow" (pg. 219). However,

the localization procedure is used throughout various literary texts and not only on digital content, as mentioned by Schäler.

Incidentally, localization occurred due to software companies expanding their market to provide spreadsheet programs and word processors to people other than professional computer programmers, software engineers, or hardware engineers. According to Keiran J. Dunne from Kenn State University (2015) in the Routledge Encyclopedia of Translation Technology edited by Sin-Wai Chan, the idea was to give software and hardware access to these people for them to work or for leisure, so they initially engaged in translation of text in the user interface. As they branched out internationally, they quickly realized that they also needed to consider cultural requirements such as (but not limited to):

- Character sets, scripts, and glyphs for the representation of various writing systems
- Encodings to enable the storage, retrieval, and manipulation of multilingual data
- Text comparison, searching, and sorting (collation)
- Line and word breaking
- Calendars (e.g., Buddhist, Coptic, Gregorian, Hebrew lunar, Hijiri, Japanese Emperor Year, Julian, Year of the Republic of China, and Tangun Era calendars)
- Date formats
- Time formats
- Number formats
- Paper sizes (A3, A4, legal, and letter)
- Units of measurement (metric vs. imperial)

These local market requirements are known as "locale." Dunne's (2015) definition of localization is "an umbrella term that refers to the processes whereby digital content and products developed in one locale are adapted for sale and use in one or more locales." A locale references country was pairing such as French-Canada as one locale and French-France as another locale (pg. 551).

English to Russian translator Franka J. Hadley (2020) states that localization is more than just translation. She writes: "localization is a more comprehensive process that addresses cultural and non-textual components and linguistic issues when adopting a text, product or service for another country or locale." When speaking of literary translation, she explains why localization is a much more complicated topic. It is really up to the translator's choices what will allow him to tackle the challenges the text may present.

Without localization, translations between two completely different cultures may result in stilted or senseless work. Hadley (2020) provides several examples, one of which illustrates quite nicely the importance of the translator's judgment on when and if to use localization. She proposes a translation exercise of a paragraph of a Christmas story from English to Russian.

In the exercise, she explains that when engaging in literary translation, localization is not always correct and must warrant caution as if one key concept is localized and adapted, the translator might be forced to localize and replace all other cultural concepts relating to the first, thereby ending up with a completely different story. The Christmas story talks about Santa and the holiday. Hadley explains that Christmas in Russia is celebrated on the 7th of January, not the 25th of December, and there is a completely different name for Santa. Consequently, Santa is a

popular international character, well-known among children, so it should be somewhere other than Russia. The same applies to its celebrated date.

Furthermore, she explains that there are instances where localization is much needed. For Example: *Oh boy!* vs. *ну и дела*! The literal translation would be "*well and matter*!" (Haddley, 2020) This does not make sense and violates the transference principle of the meaning of translation itself. Hence, localization would help increase the quality of this particular translation, as this is how "oh boy!" is said in Russian.

According to Sherry E. Gapper (2008), it is important to look for reference sources to base decisions on the terminology used (pg. 25). Gapper states several different support material sources to produce a "sense" of the TL culture for which the localization will be done. She provides several source types, such as parallel texts, which she defines as 1- a text with two versions of the same text on one page. The format provides a detailed comparison between the ST and TT. 2- texts about using certain terminology or style within a determined field of the narrative genre. Preferably written in the TL (pg. 30).

The idea behind localization correlates to the idea that a translation must have the intent of the text, which involves linguistic and extra-linguistic characteristics, not just the translation of the words in a text. This idea has been previously mentioned concerning the age-old debate of word-for-word or sense-for-sense translation. Localization extends past translation principles, which are now brought and modernized to the 21st century.

2.2.12 Borrowing

Some authors also know borrowing as lending, and it is the first out of the seventh translation procedure by Vinay and Darbelnet (1973). Furthermore, they describe it as a word

taken from another language without translation (Vinay, Darbelnet, 1973). This procedure is known to be the simplest of all procedures. It is usually applied when there is a lexical void, when the word or term has no correspondence in the TL. This leads the translator to bring these words or phrases from the ST into the TT in a type of foreignization and introduce and merge a taste of one culture with another.

In addition, the word introduced to a new language might become so overused in the receiving language that it can become somewhat naturalized and fully adopted into it. For example, the word *football* has been received and fully adopted from English to Spanish with the naturalization of its morphemes so that the word is written as *fútbol* in Spanish. In this case, the word was used so much in the TL that its grammatical forms and rules are used to modify the original word from the SL, as it is shown with the accentuation mark Spanish demands over the *U* in the word, as mentioned above due to the grammatical accentuation of Spanish words. Moreover, there are necessary cases where borrowing is mandatory, and there are cases where it is unnecessary. These cases include words that are simply taken from the SL and used in the TL; however, the word has a corresponding word in the TL, so the use of borrowing should be omitted. For example, hardware (CPUs) = *disco duro* or tip = *consejo*. Finally, this procedure adds flavor to the TT, and some authors denounce it as translation.

2.2.13 Calque

Calque might be confused with borrowing; however, the difference is clear to the translator. However, according to Vinay and Darbelnet (1973), it is a type of borrowing in which one borrows syntagms from the SL, and its components are translated literally. They go on to state that there are two types of calques: lexical calque and structural calque. The former deals with expressions, and it respects the syntactic structure of the TL to create a new form of

expression. Hence, it abides by the syntax of the TL. The latter respects the structures from the SL, and it introduces a new construction to the TL (Lopez et al., 1997).

For example, the word *weekend* can be translated using calque as *fin de semana*, where the word order of the TL is respected and fitted accordingly. Another example is using calque to translate *science fiction* as *ciencia ficción*. Here, the structure from the SL is respected, and it is introduced into the TL as a new construction. In addition, there are certain cautions one should take when using calque as a translation procedure. Several errors can happen when trying to calque a syntagm from one language to another; for example, confusion with false cognates can occur, as well as errors in punctuation and structural rules of the language. Moreover, the main difference Calque has from borrowing can be seen in the abovementioned example with the word "football." In this case, *football* can be translated using calque as *balompié*, where it reflects the SL but respects the appropriate word order of the TL.

2.2.14 Sentence inversion

There are many procedures in the translator's toolbox that specifically help create and improve naturalness within a text. According to Vázquez Ayora (1977), sentence inversion, or mentioned *inversion*, is when more than one element in a sentence switches places when transferred into the TL (p. 248). This considers the stylistic tendencies and intention of the languages, as well as the communicative situation, resulting in a more idiomatic text in the TL. This procedure arranges word order, particles, or entire parts of the sentence to fit the speech pattern of the TL. For example, in English, it is common to follow dialogue with the word order: *said Newmark*; however, using sentence inversion from English into Spanish, it is more natural to switch the position of the verb to make it: *Newmark dijo*. Another example is an inversion of the direct object: *The book was given to Mark* vs *El libro le dieron a Mark*. Here, there is little

naturalness, if any; hence, sentence inversion can be used to switch the direct object and prevent redundancy, a stylistic sin, to make it: *A Mark le dieron el libro*.

2.3 Glossaries

Glossaries are essential to any research document's guide, organization, consistency, and structure. In this section, the necessity for creating a glossary will be explored. It will analyze three different relevancies about the translator, the translation process, and the process of creating a glossary. According to the Cambridge dictionary, a glossary is an alphabetical list, with meanings, of the words or phrases in a text that are difficult to understand (dictionary.cambridge.org, 2023). Knowing a word of any language to be learned does not mean seeing the word just because it is needed at the time. It needs to be known forever. The importance of developing a system that helps translators organize complicated words to brand them in their minds is unmeasurable.

2.3.1 Relevance for the translator

At its core, a translation glossary aids translators in using a defined term accurately and consistently throughout the text worked to produce high-quality content. Gapper (2008) states that monolingual and bilingual terminology is essential within the work of translation, interpretation, assisted translation, and language education for specific purposes and institutions that require the elaboration of a glossary to meet the requirements of the International Organization for Standardization (pg. 9). Hence, creating a glossary helps the translator keep track of the different terminology used within the translated text to provide a high-quality translation, clarity, and consistency within the work, as mentioned previously.

Creating a glossary is a good practice for the translator when engaging in any work. Gapper says that those who need more experience in engaging in this labor face daily difficulties

to find a systematic guide regarding analytic techniques in terminology and the use of available resources to satisfy the different translation needs. Therefore, this leads to improvised solutions when dealing with unknown terminology, affecting communication fluency. However, it also leads to the inappropriate use of specialized language, alternate or inconsistent vocabulary, the inappropriate creation of glossaries, and the inefficient use of foreign words, such as anglicisms.

2.3.2 Relevance for the translation process

A glossary is a list of vocabulary words in alphabetical order found within the documentation, categorized, organized, and defined. Furthermore, a translator must gather information from different sources to follow Newmark's remarks about understanding the text, which requires a general reading and a more detailed reading following the first. A translation glossary is made to explain the meaning or context of the vocabulary used in the texts. This, in turn, helps clarify certain words used, which may be contextually ambiguous and may trample meaning if not clear. Translators make glossaries to ensure accurate and contextual translations with specific terminology used throughout the entirety of the text. A company or client in need of translation services may also ask the translator to use a specific in-house glossary to ensure consistent translation of relevant terms across localization projects. Cabré (2004) states that the relationship between terminology and translation is interdisciplinary and is formed by cognitive, linguistic, and communicative foundations (pg. 2). The connection between the previous concepts paves the way to good quality work. The need to systematically create a glossary with a clear definition of grammatical structure, meaning, and terminology assists the translation process. It makes the translator's life only a little easier.

Chapter III

Methodological Framework

This next chapter delves into the systematic approach to the investigation. In this section, the investigator will analyze elements that compose the foundation of the study by exploring the two main research approaches to an investigation, its design, its informational sources, its categories, data collection instruments, and finally, how that data will be processed and analyzed. This is vital to the investigation's order, development, and success.

3.1 Research Approach

The research collects, analyzes, and interprets non-numerical data in the qualitative method, such as language. Qualitative research can understand how individuals subjectively perceive and give meaning to their social reality (Mcleod, 2019). It is a humanistic approach, so it includes the context of different varieties that other approaches may not, such as the quantitative. This method of collecting information is versatile and interpretative as it provides real-time data on the problem explored; the information is also raw and unadulterated, making it pure since it usually comes directly from focus groups determined in the investigation structure.

In this case, what they are doing is less important than why they are doing it. According to Sanjay Kalra et al. (2013), the qualitative method is used to understand people's beliefs, experiences, attitudes, behaviors, and interactions. It has a phenomenological component and, as mentioned, aims to understand social-cultural phenomena from the research's perspective. According to the University of Texas: "Rather than by logical and statistical procedures, qualitative researchers use multiple systems of inquiry for the study of human phenomena including biography, case study, historical analysis, discourse analysis, ethnography, grounded theory, and phenomenology” (libguides.uta.edu, 2021).

According to Barrantes Echeverria (1999), the qualitative research approach aims to discover or generate theories and emphasize deep analysis. The qualitative method's objective is to identify authors' theories to guide the functioning of the translation. Furthermore, data recollection may come from different sources such as interviews, participant observations, videos, biographies, et al. (pg. 71). Additionally, interviews and meetings were used as part of the approach and as background information.

3.2 Research Design

As with any research, an important part of the process is the compilation of data to answer the root question of the work. Since this work will use the qualitative research approach, furthering structural work dictates that a descriptive research design be used. The descriptive method is appropriate as it aims to accurately describe the problem, identifying characteristics, patterns, categories, et. Among its definitions, descriptive research is a type of research used to describe a population's characteristics. It collects data to answer a wide range of what, when, and how questions about a particular population or group (researchconnections.org, 2022).

Another definition comes from Koh and Owen (2000). Chapter 12 of their book *Introduction to Nutrition and Health Research* states that descriptive research's value is based on the premise that problems can be solved and practices improved through observation, analysis, and description (pg. 219). The *Pacific Rim International Journal of Nursing Research* (2012) explains that data collection involves minimal to moderate, structured, open-ended, individual or focus group interviews. However, data collection may include observations and examination of records, reports, photographs, and documents (pg. 256). This methodology focuses on the "what" of the research subject rather than the "why." When focusing on the "why" something happens, it

describes the research subject without conveying why it occurs. Researchconnections.org provides some bullet points on the strengths and limits of the descriptive method:

Strengths:

- Study participants are questioned or observed in a natural setting (e.g., their homes, childcare, or educational settings).
- Study data can identify the prevalence of particular problems and the need for new or additional services to address these problems.
- Descriptive research may identify areas needing additional research and relationships between variables that require future study. Descriptive research is often referred to as "hypothesis generating research."
- Descriptive studies can generate rich datasets on large and diverse samples depending on the data collection method used.

Limitations:

- Descriptive studies cannot be used to establish cause-and-effect relationships.
- Respondents may not be truthful when answering survey questions or may give socially desirable responses.
- The choice and wording of questions on a questionnaire may influence the descriptive findings.
- Depending on the type and size of the sample, the findings may need to be more generalizable or produce an accurate description of the population of interest. (researchconnections.org, 2021).

3.3 Information Sources

Information Sources come in a three-level scale. These are documents for which informational data will be extracted to aid in answering the question presented in this work. The three-level scale is divided into primary, secondary, and tertiary sources.

Primary sources of information are the most reliable within the scale. They are original objects or documents with first-hand information or raw material (library.madonna.edu, 2022). Nicolas Hayen from the University of Utah (2020) states that primary sources are usually the first formal appearance of physical, print, or electronic results (Hayen, 2020). Examples of primary sources include books and interviews. This work will use classic books from the 1980s as important basic information critical in translation studies and processes. One such book is Peter Newmark's A Textbook of Translation. Secondary sources of information are sources that analyze, interpret, or draw conclusions from a primary source.

Furthermore, this is not evidence but a discussion or commentary on evidence (library.madonna.edu, 2022). Documents here include reviews, articles, and student thesis. One such document used in this work is Letizia Leonardi's *The Importance of accurate medical translation in the Context of the Covid-19 Pandemic* from the Granite Journal, Aberdeen University.

Finally, a tertiary information source is a source that creates an index, organizes, or compiles other sources (library.madonna.edu, 2022). Its goal is to digest and distill information from primary and secondary sources. For example, dictionaries and glossaries like The English-Spanish Managed Care Glossary of Terms from L.A Care Health Plan or The English-Spanish Dictionary of Health Terms from the University of Connecticut.

3.4 Analysis Categories

The analysis categories are variables within a qualitative research work such as the one presented here. The following are the categories for this investigation:

- Translation: the ability to transfer style, meaning, tone, and cultural elements accurately from one language to another.
- Translation procedures: methods applied by translators when they formulate an equivalence to transfer elements of meaning from the Source Text (ST) to the Target Text (TT).
- Medical Translation: It is a specialized translation in which documents related to the medical and pharmaceutical industries and all their components are transferred accurately from one language to another.
- Communicative Translation: a method that attempts to render the exact contextual meaning of the Source Text (ST) so that content and language are readily acceptable and comprehensible to the readership.
- Glossary: an alphabetical list, with meanings, of the words or phrases in a text that are difficult to understand (dictionary.cambridge.org, 2023).

3.5 Data Collection Instruments

The instruments implemented in this translation project aid in answering the research questions and completing the translation. The initial instrument is an analysis of the text with a chart. Upon undertaking a translation project, one must read the ST a few times. This is done to consider all the important elements the translator must know before starting the translation. Regarding the ST of this translation project, the text is completely definitive with a formal scale

of formality. The source texts are official documents used in the medical field daily, which could deal with a scale of generality that could include an educated, technical, or even opaquely technical difficulty level. To showcase the text analysis, the translator will create a three-column chart wherein the text analysis criteria will be found in the first column. The characteristics of the Spanish ST will be found in the second column, and in the third column, the characteristics of the English ST. The following represents the text chart to be used in the analysis:

Text Analysis Element	**Medical documents from private practices in Costa Rica**	**Medical documents from private practices in New York**
Text Style		
Stylistic Scale of Formality		
Stylistic Scale of Generality		
Stylistic Scale of Emotional Tone		
Text Function		
Type of Translation		

Table 2. Text analysis of the translated document
Source: Researcher's creation

In addition, a colored-coded chart will be implemented as a part of the previous instrument. This chart will further analyze the text regarding translation procedures applied to the ST to render the translation. Each translation procedure will be assigned a color to spotlight the

procedure within the text, allowing a greater understanding of trends and specific contextual situations. These instruments will be used in the fifth chapter; however, the chart below illustrates how the procedures will be categorized and analyzed:

Procedure	**Example**	**Explanation**
Transposition	Transposition	Highlighted in yellow
Modulation	Modulation	Highlighted in blue with white font
Omission	Omission	Underlined in the ST
Amplification	(Amplification)	Dark red font in parenthesis
Explicitation	Explicitation	Highlighted in teal with white font
Adaptation	Adaptation	Black double underline
Compensation	Compensation	Underlined in orange
Equivalence	Equivalence	Highlighted in bright green
Literal Translation	Literal Translation	Green font

Table 3. Color coding of the translation procedures found within the texts
Source: Researcher's creation

The last instrument of importance is the creation of a glossary. It will contain difficult words, terminology, and expressions used and translated within the texts. Equivalence is sometimes needed for concepts, medical terminology, and specialized terminology explained in

the glossary. The glossary creation will begin with informational sources to learn the style of theater scripts to solidify comprehension of terms. Then the process of classifying the data will be done by the researcher. Finally, there will be two main glossaries, one for each language, in this case, Spanish and English, and the design of each glossary will consist of a four-column table with a row of the term in one language, a row of the other language, grammatical category, and its definition. A minimum of 20 words will be added to the glossary. An example of the table is as follows:

English term	**Spanish term**	**Grammatical Category**	**Definition**

Table 4. A glossary that contains the most relevant terms found in the document
Source: Researcher's creation

3.6 Collection Data Process and Data Analysis

This work will begin after the initial reading of the text. Its first step is contacting medical practices in New York and Costa Rica to speak with the appropriate person to hash out details, ask questions about the procedure, and map a plan to accomplish the work. Then comes the initial reading of the texts, where the translator will mentally analyze and understand the context, terminology, and meaning. This step will be repeated at least twice to get the gist of the text and learn what the translator does not know about the text. This is anything from the intent of the text

to terminology (including neologisms, medical terms, institutional terms peculiar to the SL, technical terms, connotations, denotations, and untranslatable words) to cultural differences. Hence the translator will expand his knowledge base and apply it to the work. This includes readings and studies regarding medical translation. This will allow the translator to determine aspects of the text and the translator's tools to translate the text.

After the initial readings are done, the translation of the texts begins. There will be several revisions to ensure good quality in the translation when it has been done. Afterward, the researcher will select several snippets of the ST and TT, analyzing and comparing its procedures with the color-coded chart. This will be implemented within the target text itself. Additionally, the glossary will be created of the most important words and terminology where they will be added in their respective place within the table mentioned above. Following the glossary process, a chapter dedicated to conclusions and recommendations will be created. Here, findings of all the information attained, explained and explored will be showcased, concluding the investigation process.

The final step is taking the translation to each medical practice. After the investigation process is completed, the researcher will reach out to each person of contact and send over all the specifications given to make the translated work available for patients and medical staff alike. Making this work vital to visitors and medical providers in Costa Rica and the United States who might be going through a difficult medical emergency.

Chapter IV

Translation

4.1 Translation from Spanish to English: Documents from La Clínica Bama and El Centro Quirúrgico Ambulatorio QR

Medical Intake Form

Patient Information

Full name: ____ *ID No.:* ____

Medical Record No.:___________________ Date of Birth:______________________ Gender: _____________________________________

*Marital Status:*__________________________ *Telephone No.:* __________________________ ____

E-mail: ____ Province: ____

City: __________________________ *District:* __________________*Exact address:* _____________________________

Intake Information

Date of admission: ________________ *Time:* _________________ *Medica Record No.:* ___ ________________________________

Benefactor:____.Benefactor Code: _______.

*Admitting Diagnosis:*____ *Provider:* _______________ ____

Code:_________________________________ Specialty: ______________________________________Observations:

Emergency Contact/Chaperon Information

Full Name: ____ *ID No.:* ____

Relationship to the patient:______________ Telephone No.: ______________

*E-mail:*________________________________.

Province:______________________City:____________________________ District: ____

*Exact Address:*____ __________________________________

____

Outpatient Order Procedure

Please admit the patient:		**Gender: M** ☐ **F** ☐
Age:	**Medical Record No.:**	**ID No.:**
Date:		**Time:**

Diagnosis:
1.
2.
3.

Findings:
1.
2.
3.
4.
5.

Observations:

Kind Regards:

______________________________________ ______________________________________

Provider's full name. **Signature and Code.**

Informed Anesthesia Consent

DO NOT SIGN WITHOUT READING OR UNDERSTANDING THE CONTENT

Patient's Name:______________________________________.ID No.:____________.

Date:_________/________/_______.

PATIENT'S RIGHTS:

It is your right as a patient or responsible party to be informed of the procedure you will have done, so that after understanding the possible risks, complications, and side effects, you may decide whether to continue with the procedure and provide your consent.

ANESTHESIOLOGY:

How: "By practicing medicine focused on pain relief and the comprehensive care of surgery patients, before, during, and after surgery."

ANESTHESIA:

- A controlled medical procedure in which drugs are used to block a patient's tactile and pain sensitivity throughout the entire body or a part of it with or without affecting awareness by sedation and muscular relaxation, maintaining the body under a stable condition so that it may tolerate the procedure.

ANESTHESIOLOGIST:

- They are vital to the surgery team. The anesthesiologist has the responsibility to look after the well-being of the patient who is under the knife and anesthesia. They advocate for the patient in the surgery room.

- The anesthesia provider is in charge of performing and managing the entirety of the anesthetic procedure from start to finish. They also treat possible complications that may arise during the procedure.

BENEFITS:

- It prevents the patient from feeling pain or discomfort during the procedure by administering anesthetic drugs intravenously, through the airways, or in combination

with local anesthetics according to safety standards.

- Electronic monitoring and clinical observation are used to identify any complications that may arise regarding anesthesia, surgery, or due to the patient's own illnesses.

- Any possible complications and side effects from the surgical procedure or anesthesia will be treated by the anesthesiologist with technical procedures and medication.

RISKS AND SIDE EFFECTS:

Medical intervention carries a series of possible serious medical and surgical complications which may require complementary treatments.

All types of anesthesia carry some risk, although major side effects and complications are rare. However, the American Society of Anesthesiologists says that complications due to anesthesia have decreased significantly over the past 25 years due to improvements.

A. The administration of anesthetic drugs and serums may generate allergic reactions on rare occasions, which do not justify previous tests, the anesthesiologist and the clinic have the resources to counteract such reactions.

B. On some occasions, the insertion of an endotracheal tube or other devices to stabilize the airway may present difficulties due to particular anatomical conditions, which may result in broken teeth and mucosal lesions in the surrounding structures.

C. Patients undergoing emergency surgery may have non-preventable complications. They may also manifest complications of pre-existing illnesses that, due to the nature of the emergency, have not been properly examined.

D. After anesthesia and surgery, different disorders may arise such as low blood pressure, increased heart rate, coughing, respiratory distress, agitation, delayed recovery of administration of anesthetic drugs and serums may generate allergic reactions on rare occasions, which do not justify previous tests, the anesthesiologist and the clinic have the resources to counteract such reactions.

E. On some occasions, the insertion of an endotracheal tube or other devices to stabilize the airway may present difficulties due to particular anatomical conditions, which may result in broken teeth and mucosal lesions in the surrounding structures.

F. Patients with pre-existing illnesses such as cardiac, hepatic, renal, arterial hypertension, diabetes, bronchial asthma, significant obesity, or old age, have a higher risk of complications consciousness, dizziness, nausea, vomiting, hoarseness, and tremors.

ANESTHETIC PLANNING
INHALED___ SPINAL___ EPIDURAL___ INTRAVENOUS___ LOCAL__ REGIONAL__ COMBINED OTHER SPECIFY:
OBSERVATIONS:

IN AGREEMENT

1. I have been informed by the anesthesiologist of the benefits and risks of anesthesia.
2. I have understood the information written here, and I have had the opportunity to ask all my questions.
3. I have been informed of the possibility that unexpected situations may arise during the procedure that may require additional actions and treatments, in which case I authorize the medical team to take the appropriate action according to my case.

4. Consequently, I give my authorization to perform the planned anesthetic procedure.

BY SIGNING THIS FORM, I ACKNOWLEDGE THAT I HAVE READ AND UNDERSTOOD ALL ITS CONTENTS, AND HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS, WHICH HAVE BEEN ANSWERED TO MY SATISFACTION.

PATIENT'S OR LEGAL REPRESENTATIVE'S SIGNATURE:	**ID No.:**
IN CASE OF HAVING A REPRESENTATIVE, RELATIONSHIP TO THE PATIENT:	**DATE:**
PHYSICIAN'S NAME:	**CODE:** **SIGNATURE:**

<table>
<tr><th colspan="8">MEDICAL HISTORY</th></tr>
<tr><td colspan="3">ID No.:</td><td colspan="3">Date of Birth:</td><td colspan="2">Date:</td></tr>
<tr><td colspan="8">Patient’s Full Name:</td></tr>
<tr><td colspan="3">Specialty:</td><td colspan="5">Medical Record Number:</td></tr>
<tr><td colspan="8">Current Illness:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8">Reason for Admission/Consult:</td></tr>
<tr><td colspan="8">Pathological History:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8">Non-Pathological History:</td></tr>
<tr><td colspan="2">Allergies:</td><td>No</td><td>Yes</td><td colspan="4">Specify:</td></tr>
<tr><td colspan="3">Alcohol:</td><td colspan="3">Drugs:</td><td colspan="2">Tobacco:</td></tr>
<tr><td colspan="3">Vaccination:</td><td colspan="3">Yes:</td><td colspan="2">No:</td></tr>
<tr><td colspan="8">Surgical History:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8">OBGYN History:</td></tr>
<tr><td>Number of Pregnancies:</td><td>Births:</td><td>Abortions:</td><td>C-Sections:</td><td colspan="2">Date of last menstrual period:</td><td colspan="2">Date of last Pap Smear:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td>Physical Exam:</td><td>AP:</td><td>Heart Rate:</td><td>Rheumatoid Factor:</td><td>T°:</td><td>Sat O2:</td><td>WEIGHT:</td><td>Height:</td></tr>
<tr><td colspan="8">Appearance:</td></tr>
<tr><td colspan="8">Head:</td></tr>
<tr><td colspan="4">Eyes:</td><td colspan="4">Ears/Inner Ears:</td></tr>
<tr><td colspan="4">Nose:</td><td colspan="4">Throat:</td></tr>
<tr><td colspan="4">Pallett:</td><td colspan="4">Teeth:</td></tr>
<tr><td colspan="4">Lips:</td><td colspan="4">Neck:</td></tr>
<tr><td colspan="4">Thorax:</td><td colspan="4">Lungs:</td></tr>
<tr><td colspan="4">Heart:</td><td colspan="4">Pulses:</td></tr>
<tr><td colspan="8">Abdomen:</td></tr>
<tr><td colspan="4">Genitals:</td><td colspan="4">Extremities:</td></tr>
<tr><td colspan="8">Intake diagnosis: 1.</td></tr>
<tr><td colspan="8">2.</td></tr>
<tr><td colspan="8">3.</td></tr>
<tr><td colspan="4">DR:</td><td colspan="4">Code:</td></tr>
</table>

Prognosis and Planning

Patient's name:	
ID number:	**Date of Admission:**
Specialty:	

Date and Time	Medical Notes	Instructions

OP Note		
Patient's Name:		**Date:**
ID number:		
Pre-op Diagnosis:		
Post-op Diagnosis:		
Surgery Performed:		
Findings:		
Technique Applied:		
Observations:		
Medical assistant:		
Anesthesiologist:		
Surgical Nurse:		
Circulating Nurse:		
Physician's Name:	**Signature:**	**Code:**
Anesthesia Start Time:	**Surgery Start Time:**	**Patient's Position:**

<table>
<tr><th colspan="3">Epicrisis</th></tr>
<tr><td rowspan="2">Name:</td><td>Age:</td><td>Gender:</td></tr>
<tr><td>ID No.:</td><td></td></tr>
<tr><td>Admission Date:</td><td colspan="2">Discharge Date:</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>Admission Diagnosis:</td><td colspan="2">Discharge Diagnosis:</td></tr>
<tr><td></td><td colspan="2"></td></tr>
<tr><td></td><td colspan="2"></td></tr>
<tr><td></td><td colspan="2"></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">Test Results:</td></tr>
<tr><td colspan="3">Clinical Treatment:</td></tr>
<tr><td colspan="3">Discharge Instructions:</td></tr>
<tr><td colspan="3">Special Instructions:</td></tr>
<tr><td colspan="3">Subsequent Studies:</td></tr>
<tr><td colspan="3">Follow-up Clinic:</td></tr>
<tr><td colspan="3">Attending Physician’s Full Name:</td></tr>
<tr><td>Physician’s Signature:</td><td colspan="2">Code:</td></tr>
</table>

Pre-anesthetic Assessment

Full Name:		ID Number:
Age:	Gender:	Date:

Family History

Any history of family members with muscular or neuromuscular illnesses.	Yes ( ) No ( )
Any history of sudden deaths or anesthesia complications with any family members.	Yes ( ) No ( )
Any history of change in urine color after the use of anesthesia.	Yes ( ) No ( )
Any history of high fever after surgeries.	Yes ( ) No ( )

Non-Pathological Medical History.

Tobacco use: Yes ( ) No ( )	Alcoholism: Yes( ) No ( )	Other: Yes ( ) No ( ) Specify:

Pathological Medical History

Hypertensive Cardiomyopathy ( )	Lung Disease( )	Cerebrovascular Accident ( )
Ischemic Cardiomyopathy ( )	Diabetes ( )	Neuropathy ( )
Coagulopathy( )	Nephropathy ( )	Other ( )
Bronchial Asthma ( )	Liver Disease ( )	Disability/ Limitations ( )

Allergies:

Previous Allergies:

Blood Products Transfusion:

Physical Exam

AP:	Heart Rate:	Rheumatoid Factor:	Spo2:

Mallampati Score: I ( ) II ( ) III ( ) IV ( )
Mouth opening: normal ( ) abnormal ( )____.
Dental State: normal ( ) abnormal ( )____.
Incisors: normal ( ) abnormal ( )____.
Cervical Flexion-Extension: normal ( ) abnormal ( )____.
Thyromental Distance (TMD): normal ( ) abnormal ( )____.
Jaw: micrognathia ( ) retrognathia ( ) trismus ( ) significant poor occlusion ( ).
Other:____.

Labs and Scans:

Conclusions:

Anesthetic Planning.
General Anesthesia: balanced ( ) TIVA ( ) VIMA ( )______________________________.
Regional Anesthesia: neuraxial( )__________________ Truncal Brachial Plexus Block ( )__________.
Local Anesthesia: ( )
Sedation:____.
Anesthetic Tolerance: mild ( ) moderate ( ) severe ( )
Monitored ( )

Instructions:

Anesthesiologists Name:	Signature:	Code:

Anesthesia Equipment Check List

Patient's Name:____.

Date of Birth:___________________________. ID No.______________. Date_____.

	Yes	No
Anesthesia machine:		
Alarm system:		
Anesthesia Circuit:		
CO2 Absorption System:		
Mechanical Ventilation System:		
Mechanical Ventilator:		
Airway Equipment:		
Vital Sign Monitor:		
Capnography:		
Gases:		
• **Oxygen Supply:**		
• **Nitrous Oxide Supply:**		
• **Compressed Air Supply:**		
Available Crash Cart:		
Defibrillator:		
BIS Monitor:		
Other:		

Anesthetic Drugs:

Inhaled Anesthetics: ( ) ____________________________________.

Endovenous Anesthetics: ( ) ____________________________________.

Neuromuscular Blocking Agents: ( ) ____________________________________.

Emergency Medication: ( ) ____________________________________.

Equipment and Medication Present: Yes ( ) No ( ).

Physician's Name:	**Code:**	**Signature:**

Nursing Note

(To be completed by the Nurse)

Patient's Name:			Gender: M F	ID Number:
Age:		Date of Birth:	Specialty:	
Date	Time	Nursing care and observations		

Pre-op Nursing Assessment

To be completed by the Nurse

PREOP REQUIREMENT

Patient:			
Date of Birth:			
ID number:			
Hospitalized or Pre-anesthesia			
Pre-op Vital Signs		**Time:**	
Pulse	Breathing	Temperature	Blood Pressure / Sp02
Level of Awareness		**Level of Anxiety**	
( )Alert/Aware	( )Comatose	( )Calm/Mellow	
( )Alert/Disoriented	( )Responds	( )Agitated	
( )Sleepy	( )Comatose	( )Other	
Signed Informed Consent			
Surgery Consent		( )Yes ( )No	
Anesthesia Consent		( )Yes ( )No	

Preparation		**Observations**
Bath	( )Yes ( )No	
Makeup	( )Yes ( )No	
Hair Tied	( )Yes ( )No	
Cap and Gown	( )Yes ( )No	
No Nail polish	( )Yes ( )No	
Spiritual	( )Yes ( )No	
Urinary Catheter #:	( )Yes ( )No	Placed:
G-Tube #:	( )Yes ( )No	Placed:
Enema #1 Time:___	( )Yes ( )No	
Enema #2 Time:___	( )Yes ( )No	
Urination	( )Yes ( )No	Time:
Fasting	( )Yes ( )No	Time:
Prosthesis	( )Yes ( )No	Type:
Removable	( )Yes ( )No	
Personal Belongings	( )Yes ( )No	
Taken by:		

Weight:______Kg Size_________cm BMI___________

Surgery Site:_______________________________________

Reviewed by: ( )Physician ( )Nurse

Skin Condition

( )Hot ( )Hydrated ( )Cold ( )Wet

PAIN SCALE. Where 0 is no pain, and 10 is the most painful, what number is the pain:

Instrumento de medición de la intensidad del dolor

0 2 4 6 8 10

Antecedents ( )Smoking ( )Alcohol ( )Drugs

( )Others What?_______________________________

Surgical History	Yes( ) No( )
Specify:_____________________________	
Allergy History	Yes( ) No( )
Describe:_____________________________	

Pathological History		Treatment
	( )Yes ( )No	
	( )Yes ( )No	
	( )Yes ( )No	
	( )Yes ( )No	

Date:		Time of arrival:		
Age:		Gender:	F	M
Band:	White( )	Yellow( )	Green( )	Red( )

Hospitalized or Pre-anesthesia

Regular use medications

Time	Name	Dosage	Route

Labs:	( )Yes ( )No	EKG
Scans: RX:	( )Yes ( )No	( )Yes
US:	( )Yes ( )No	( )No
Blood Group		RH:
Transfusion:	( )Yes ( )No	

Instructed Premedication

Time	Name		Dose	Route

Verified by Doctor:

Observations:

Set up Nurse:______________________________Code:_______

Delivering Nurse:___________________________Code:_______

Receiving Nurse:____________________________Code:_______

Pre-anesthesia OR

Patient's ID, consents, and procedures on medical record are confirmed: __Yes __No.

Surgery Site marked by Provider: __Yes __No. __N/A.

Lateralization of extremities upper/lower: __Yes __No/_____N/A.

Anesthetic equipment, medication, and oximeter reviewed: __Yes __No. __N/A.

Temperature in OR confirmed: __Yes __No.

Time-out:	**Before Anesthetic Induction**
Correct Patient:__Yes__No.	Correct Time:__Yes__No.
Correct Surgeon:__Yes__No.	Correct Surgery Site:__Yes__No.
Correct Surgery:__Yes__No.	Risk of Bleeding:__Yes__No.
Allergies:__Yes__No.	

Before Skin incision

Team members identified by name:__Yes__No.

Antibiotic prophylaxis in the last 60 minutes:__Yes__No.

Supplies and equipment count: __Yes__No.

Sterility/temperature indicators in ˚C: __ Yes __No

Essential diagnostic images display:__Yes__No.

Before the patient leaves the OR

Nurse Confirms:

Name of the procedure, complete blood count:__Yes__No.

Sample Labels confirmed: ____Yes__No /__N/A

Surgeon, Anesthetist, and Nurse verify:

Critical Aspects and Treatment: Yes__No.

OR temperature is confirmed in ˚C: Yes __No.

Surgeon's signature:	Anesthesiologist signature:

Person of Time-out:

Perioperative Nursing Assessment

To be completed by the Nurse

P R E O P R E Q U I R E M E N T S

OR-TIMES Admission Time

Activity	Start	End	Min. Behind	Postponed	Observations
Anesthesia					
Surgery					

Surgical Equipment		Entry Time	Exit Time
Surgeon			
Sur. Assistant 1			
Sur. Assistant 2			
Anesthesia			
Surgical Nur. 1			
Surgical Nur. 2			
Circulating Nur 1			
Circulating Nur 2			
Assistant Pte 1			
Assistant Pte 2			

Type of Anesthesia

( )General_____________#_______( )Sedation ( )Local ( )Combined

( ) Spinal ( ) Epidural ( ) Block ( )Axillary( ) ( ) Other________________

SURGICAL PROCEDURE

Programmed Surgery:

Pre-op Diagnosis:

Surgical History:

Post Diagnosis:

PATIENT SAFETY

Position: ( ) Supine ( )Prone ( ) Lithotomy ( ) Simi Fowler ( ) Trendelenburg

Device: ( )Leg Brace ( )Doughnut ( )Pillow ( ) Trendelenburg ( )Other_________

Trans X-ray	Fluoroscopy ( )Yes ( )No	C-Arm: ( )Yes ( )No

Technician:

Electrocautery	( ) N/A	( ) Yes	( ) No
Bipolar	Coagulation	Monopolar	Coagulation
( ) Yes ( )No	Corta	( )Yes( ) No	Corta

Plate placed in: Glute ( ) R. ( ) L. Flanks ( ) R. ( )L.

Back ( ) R. ( ) L. Calf ( ) R. ( ) L. Hip ( ) R. ( )L.

Musio ( )R. ( ) L. Other Specify:_____________________________

Electrosurgery Plate placed by:____

Tourniquet	( )Yes( )No	N___*________Alarm check	( )Yes ( )No

Location:___________________________________Placed by _______________________

BloodPressure mmHg________Time of placement________Time of removal _______

Total Time:____________________Physician:__________________________________

Surgical Prep	( ) Dura Prep ( ) Kit ( ) Soap ( ) Iodine

( ) Other Specify: ____

Area:	( ) Lower extremity	( ) Perianal	( ) Abdomen	( ) Perineal
( ) Head	( ) Neck	( ) Thorax	( ) Back	( )L eye( ) R eye	( ) Nose

Checked by:__________________________________Code:______________________

Narcotics and Psychotropics Control / Anesthesiologist

Medication	Delivered Amount	Applied Amount	Discarded Amount	Return	Prescription #
Morphine					
Fentanyl					
Dormicum 5mg					
Dormicum 15mg					

Count	First Count	Second Count	Final Count	Instrument Name	Circulating Name
Gauze					
Compresses					
Cottonoid					
Plexus					
Needles					
Instruments					
Other					

X-Ray request in case of loss of materials (gauze, compresses, Cottonoids, plexus, needles, and instruments) ( )Yes ( ) No.

NG Tube #		( )Yes( ) No	Placed by _______________
Foley Cath #		( )Yes( ) No	Placed by _______________
Central Line		( )Yes( ) No	Placed by _______________

P R E O P R E Q U I R E M E N T S

Blood Products	Quantity	Time	Rev. By	Admin. By
Total Blood				
PRBC				
Platelets				
Plasma				
Other				
Other				

Sample ( )Yes( )No Culture( )Yes( )No Congelac. ( )Yes( )No

Pathological Pap		Sample #	
	A)		
	B)		
	C)		
	A)		
	B)		
	C)		

Sticker Implants

Note: Add sticker to logbook and medical record according to each area(Prosthetics, Implants, and Grafts).

Perioperative Medication

Time	Name, dose, and route			

Transfer to Recovery Status

Post-surgical vital signs Time:

A P	Heart Rate	T*	RF	SpO2

Level of awareness: ( )Unconscious ( )Semiconscious ( ) Awake

( ) Confused ( ) Uneasy ( ) Excited ( )other______________

Airway: ( ) Nasopharynx ( ) Orotracheal ( ) Nasotracheal

( ) Nasal Tracheostomy ( ) None ( )Other:________________

Endovenous Location Hand( ) R ( )L Wrist( )R ( )L

Forearm ( ) R ( )L Ankle ( ) R ( ) L Central Line( )Yes ( )No

Port-A-Cath ( ) Yes ( ) No Other:________________N°________

Incision Site:

Dressings:( ) Dry ( ) Clean ( ) None ( ) Dermabond ( ) Tegaderm

Gauze Compression Nasal Packaging Other___________________

Skin Condition ( ) Normal ( ) Hydrated ( ) Cyanotic

Drains: ( ) Yes ( ) No Size:_____________Location:_____________

Penrose ( ) Yes ( ) No Blake ( )Yes ( )No J-Vac ( )Yes ( )No

Hemovac( )Yes( )No Merocel( )Yes( )No Endo. tube ( )Si ( )No

Thora-seal ( )Yes( )No Pleurovac ( )Yes( )No catheters( )Yes( )No

Irrigation Continues ( )Yes( )No Other:_______________________

Bandages: ( )None ( )Sterile Trips ( )Gauze ( )Kling ( )Duoderm

( )Tegaderm ( )Dressing ( )Fiberglass ( )Strip ( ) Sling

( )Wadding ( )Other:________Location:________________

Immobilizers: ( )Yes ( )No Location:_____________________

Transfer Criteria: Patient responds to stimuli ( ) Yes ( )No

Anesthesiologist is with patient( ) Yes ( )No

Discharge Order by: Anesthesiologist:_______________________

Attending Surgeon:____

Patient delivered by:___________________________Code:_________

Date:_____________Time:______________

Patient received by:___________________________Code:_________

Date:_____________Time:______________

Post-Anesthetic Recovery

(To be completed by the Nurse)

Patient's Name:____. Date:__________________. Arrival Time:____________________.

Date of Birth:__________/___/____/ Age:_________. Gender: F_. M___. Specialty:_________________________.

ID Number:_____________________________________.

Cubicle Verification:_________Complete Monitor_____Nasal Canula_____Oximeter_____Thermal Blanket___Active Gasses Time:

Vital Signs During Observation

Time	
240	
230	
220	
210	
200	
190	
180	
170	
160	
150	
140	
130	
120	
110	
100	
90	
80	
70	
60	
50	
40	
30	
20	
10	
0	
Sat.	
Temp Cº	

Physical Assessment

Level of awareness: Unconscious Semi awake

Confused Uneasy Anxious Excited Other:

Skin Condition: Hydrated Pale Jaundice

IV Access location:___________________________. Nº:

Central IV access:________________________. Port-A-Cath:

Bandages and Dressing: Location:

___Clean ___Dry ___Spotting___Dressing-Packaging.

Immobilizers: ___No. Yes. Location:

Other:

Drains: ___No. Yes. Tipo:_____________. Size:

Location:________________________. Amount Drained:

Foley Catheter #:_____. Placed:_______________. Drained:

NG Tube#:_____. Placed:_________________. Drained:

Other Devices:

Blood Product Management

Blood Products	Amount	Time	Rev. By	Admin. By
Total Blood				
PRBC				
Platelets				
Plasma				
Other				
Other				
Other				

Aldrete Score

	Activity to evaluate	point	ing	egre
activity	Voluntary movement as instructed (4 extrem)	2		
	Voluntary movement as instructed (2 extrem)	1		
	Completely motionless	0		
breathing	Ample Breathing and able to cough	2		
	Limited Breathing	1		
	Apnea	0		
circulation	B.P 20% from pre-anesthetic level	2		
	B.P 20-50% from pre-anesthetic level	1		
	B-P 50% from pre-anesthetic level	0		
awareness	Completely awake	2		
	Responds when called	1		
	No response	0		
color	Pinkish mucous membrane	2		
	Pale, bruised, jaundice	1		
	Cyanotic	0		
Total				

Pain Assessment

Time				
Value				
Verifies				

PAIN SCALE. Where 0 is no pain, and 10 is the most painful, what number is the pain:____.

Instrumentos de medición de la intensidad del dolor

Wong-Baker FACES Pain Rating Scale

0 2 4 6 8 10

Pain relief measures:

Post-Anesthetic Recovery

PART ll (To be completed by the Nurse)

Nursing Note

Record of medications administered in recovery					
Time	Medication/Solution	Dose	Route	Signature	Code

Recovery Discharge Status
VS: AP________mmHg. HR_______. RF_______.
Temp______.
Reversing Agents:________No._____Yes
Ventilator:_____Room air._________Naso
Awareness:____Awake._______Sleepy.
IV access:______________________. Cat #:
____Port-A-Cath.____Central Catheter.____Other
Catheter:__Foley #____.______NG #_____. _____
Dressing:
Immobilizers:
Drain:

Intake and excretion control								
	Intake				Output			
Time								
Solution								
Blood								
Urine								
Gastric								
Other								
Subtotal								
Fluid Balance:								
____Positive								
____Negative								

Patient's Discharge	
Hospitalization	Enfermera (o) que lo entrega: ____________________________.
	Enfermera (o) que lo recibe: ____________________________.
	Attending Physician:
Transport	☐ Automobile
	☐ Ambulance
External	Minor accompanied by parents: _______Yes_______No._______N/A.
	Adult with a companion with transportation: —Yes— No.
	Instrucciones post procedimiento: ___Yes___No.____N/A.
	Delivery of epicrisis and other documents:______Yes____No.
	Delivering Nurse: ____________________________.
	Receiving Nurse:

Nurse monitoring	
Post-surgical Patient	
ID Number:	Date of Birth:
Patient's Name:	
Date of the Procedure:	Procedure:
Questionnaire:	
1) How do you feel after the surgery?	
◯ Excellent.	
◯ Very good.	
◯ Good.	
◯ Regular.	
◯ Bad.	
2) Have you had any adverse symptoms on the surgery site?	
◯ Yes. If yes, continue to question number 3	◯ No
3) Which adverse symptom do you notice at the surgery site or at surgery wound?	
◯ Redness.	
◯ Inflammation.	
◯ Stiffness.	
◯ Discharge.	
◯ Warm to the touch.	
◯ Disruption of sutures.	
4) Have you had any adverse physical symptom?	
◯ Strong Pain.	
◯ Fever.	
◯ Digestive issues.	
◯ General discomfort.	
◯ None.	
5) Did the medication treatment meet expectations?	
◯ Yes.	
◯ No. ¿Why?	
6) Do you have any questions about post-op care?	
◯ No.	
◯ Yes, what questions do you have?	
7) Do you have any suggestions, observations, or comments regarding the service received?	

Areas of Development

Motor, Speech, Cognitive, Socio-affective

Individuality is part of a child's unique and particular foundation that starts from birth to build relationships with others of their species. This innate predisposition is developed because of influencing factors during continuous changes in the development process. This refers to the fact that in development, levels of cognitive, affective, and motor functions require continuous participation in pleasurable and playful actions and interactions. Kids base their behavior on what is fun, exciting, and gratifying. Hence, children develop better psychologically by exploring what is new and unknown, which lets them form new and more complex patterns in real situations. They start to gain the necessary bases to develop and grow properly. To better the development of children and facilitate early intervention activities, it is necessary to consider four intertwined areas in which the integrity of the child depends on their interaction and progress.

Sensory Motor Skills Development

The development of motor skills references all the senses and movements of the child: hearing, vision, tact, taste, and smell. Likewise, it is through their interactions they come to know the color, shapes, textures, sounds, flavor, and smell of things. The reflexes that are generally integrated into more complex movement patterns between 4 and 6 months of age, upright reactions, and motor skills, are part of this area which must be stimulated at a comprehensive level to achieve harmonious and coordinated body function.

Reflex Movements

Although newborn babies appear helpless and extremely delicate, all healthy babies are born with extremely sophisticated reflexes that protect them from danger and help them promote their survival instinct. Reflexes are defined as automatic responses to external stimuli. Many reflexes in babies disappear as they grow, although many remain throughout their life. The presence of a reflex in a baby after the age at which it normally disappears, may be a sign of damage to the brain or the nervous system.

Such reflexes include:

Withdrawal Reflex: This is a defensive reflex, and it refers to all bending movements that are generated in the arm or leg by a direct stimulus in the hand or foot. It happens when a feather is brushed on the sole of a baby's foot.

Negative Supporting Reflex: such reflex is the result of supporting the weight by producing a rapid movement away from the support. It is closely linked to the withdrawal reflex, which leads to the negative support reflex preparing the feet and hands to free themselves from contact with the floor. This happens when the child can crawl, walk, or jump.

Extensor Reflex: A defensive reflex that consists of extension movements of the arms and legs to reach the extensor phase of kicking or walking.

Hold Reflex: Through this reflex, the child fixates their extremities in extension.

Automatic Step Reflex: Bend the child lightly forward and move a little in the same direction. The weight of the child will distribute in each direction, which will force the child to walk automatically.

Sucking Reflex: Place a finger or a pacifier in the child's mouth. The child should react with a vigorous sucking motion.

Ocular Reflex: Shine a bright light in the child's eyes to produce a defensive reaction. When the child turns his head, the eyes will turn to the opposite side.

Galant Reflex: Stimulate with touch any part of the child´s back between the glutes and the ribs as the child is on his stomach. The child will react with a lateral bending of the lumbar area toward the side where the stimulation took place.

Abdominal Reflex: Stimulate the child when he is on his back. The child will arch the lumbar area upward on the side where the stimulation took place.

Moro Reflex: Change the child's position abruptly, produce a sudden noise, or a painful sensation. This will produce a response characterized by the extension of the child's arms outward, open hands, and a successive flexion back to the initial position (moving as if the child wanted to embrace the mother).

Symmetric Tonic Neck Reflex: The upper extremities will flex, and the lower extremities will extend by bending the child's neck. If there is an extension of the neck, the arms will extend, and the legs will bend over the pelvis.

Asymmetric Tonic Neck Reflex: Turn the child´s head to the right, separate and extend the right arm while the left arm is held close to the body and bend it. The lower extremities may follow the movements of the corresponding upper limbs.

Grasp and Plantar Reflex: Apply light pressure with your finger or a pencil to the base of the child's fingers. The child will grab onto the object with increasing pressure. Likewise, stimulate the child's big toe, he will flex all five toes trying to apply pressure.

Babinski Reflex: Stimulate the child's instep. There will be a stretching and feet-turning reaction.

Landau Reflex: Place the child on his back. The torso will stretch, the head will rise, and the arms and legs will extend.

Parachute reflex: This is a protective reflex. It happens when you take the child by the belly and is brought abruptly to the ground (the floor), the child will immediately try to protect himself with his hands to avoid the collision.

Righting Reflex (RR)

They begin their development at birth, become more dominant at 10-12 months of age, and most remain active throughout life.

Labyrinthine Head Righting Reflex (LHRR): Hold the child with his eyes covered. Tilt the body toward any direction, the head will adopt a vertical position. The head guides the rest of the body which makes it possible to lift the head or stand.

Oculo-headrighting Reflex (OHRR): The previous reflex is done without covering the child's eyes. He will try to maintain his head up or bring it up vertically using visual information.

Body-righting reflexes acting on the head (BOH): The child lifts the head against gravity when on a surface.

Landau Righting Reflex: Hold the child in the air horizontally, on his stomach held between the nipple line and the belly button. The child's body will become stiff.

Equilibrium Reactions (ER)

They are automatic patterns of response to maintain balance, as a result of deviating the center of gravity and/or base of support through space, from lying down to standing up to run. It may be caused by: The internal loss of balance due to one's movement, for example, a weight change. The shift in the external support area, for example, sitting on a gym ball. The external forces that act upon the body, for example, being pushed.

ER of the Complacent Navel: The extremities contract at the level of the navel and sequentially the body relaxes as if being pulled to the ground by gravity.

ER of Protection: They are gravitationally oriented and are naturally protective. The arms and legs move toward the ground to break the fall.

ER of Spatial Exploration: they are oriented toward the movement of the torso, the arms, and legs exploring space so that there is a gravitational change in the body, keeping the base as support and avoiding the fall.

ER of Spatial Rotation: A response in which the head, the spine, and the extremities form a circle around the body's central axis so that it rotates through space.

ER of External Space: They are the distant responses of the head, buttocks, and hands according to what we do in a specific place in space.

GROSS MOTOR SKILLS

The development of gross motor skills aims to control general muscular movements of the body, also called mass movements. They range from absolute dependence to independent movement (head control, sitting, turning, crawling, maintaining a stand, walking, jumping, throwing a ball). Gross motor skills are an important factor in a baby's development which can refine random, involuntary, and uncontrolled movements as their neurological system matures.

FINE MOTOR SKILLS

The development of fine motor skills is focused on working with small muscle groups that perform specific and very controlled movements. For example, the fingers, palms of the hand, and the muscles around the mouth and eyes. These muscles allow lifting objects, perfect hand-eye coordination, speech, and eye movement. It also encompasses the ability to move and ambulate. Moreover, it allows the child to explore the world, and connect with it through the senses: sight, hearing, smell, taste, textures, and temperature. These fine movements require coordination between what is seen and what is touched, such as picking up objects with the fingers, painting, drawing, tying knots, etc. Gross movements refer to movements, changes of position, postural responses, and balance.

Cognitive Development

It consists of the stimulation of all aspects pertaining to what the mind needs to understand, associate, and adapt to new situations using thought and direct interaction with objects and the world around them. The child starts to build thinking through experiences with

objects and the environment where he grows conscious of himself and begins to organize reality through exploration, comparison, choice, questions, etc. The child gains this knowledge through three processing systems: Action, the ease with which they use their sensory-motor skills, the construction of mental images, that is, the ability to understand even though they do not see or feel an existing object, and language which allows them to express experiences with greater flexibility.

Linguistic Development

This area is basically the ability to recognize and express emotions and feelings. It aims to provide activities that allow the child to interact with people to be able to socialize, set emotional relationships, and express their emotions and feelings. It deals with a culmination of emotional and social experiences that allow the child to feel like a unique individual, different from everyone else but loved at the same time, safe, understood, and capable of relating with others under certain common norms. In this part of the development, parent participation is fundamental as they are the first to create emotional bonds due to the fact that the child has almost exclusive interaction with them.

Child Characteristics

From newborns to years of age

Activities and Recommendations

0–1 Month-old

Boy	**Girl**
Weight: 9lbs	Weight: 8lbs
Height: 1ft 8in	Height: 1ft 4in

During the first days of life, babies follow behavioral patterns that are different from the rest of their development because they experience everything for the first time and explore completely unknown sensations. They spend most of their time sleeping and eating, they are very dependent on their parents, and their actions consist of reflexes more than interaction. At this time, it is very important to provide a good amount of affection to create confidence and security.

Sensory-Motor Skills Development

- Leg, arm, and hand movements are still reflexes.
- They push their arms and legs outward.
- Mild lift of the head, they turn it laterally when on their back or their stomach, they squirm and wiggle.
- They can hold their head up aligned with their back.
- They observe an object but do not search for it.
- They coordinate lateral eye movements.
- More efficient reflexes
- They grab an object but quickly drop it.
- They respond to sounds and voices.
- They respond positively to comfort and satisfaction, but negatively to pain.
- They suck to feed.
- They stretch and contract their back and extremities when startled.
- They grab objects placed in their palms.

- At the end of the month, they move their feet to walk when held above the ground on a flat surface.
- They suck on objects close to their mouth and yawn.

Activities

- To facilitate sucking motion, touch the baby's lips and the area close to their mouth with different pacifiers, clean fingers, soft textured toys, and the tip of a diaper. Give them time to suck. This will allow the baby to repeat the motion when he is stimulated with the mom's nipple for a better lactation process.
- Brush the nipple to the baby's mouth in a circular motion, and lightly press the baby's cheeks.
- Touch the baby's lips with the nipple to open his lips.
- Place the baby in different positions, sideways, on his back, or on his stomach; and hold different colored toys some 8 to 12 inches high to increase the period of focus on them.
- Constantly caress the baby because it will benefit his physical, motor, and emotional development.
- From a lying down position, place your hands on the baby's back, and pick him up, letting him hold his head up for a few seconds. He will later be able to hold it for a longer time. Move him around in this position so that he can see his surroundings.
- Place the baby on his stomach and show him visuals and sounds, starting on one side, then on the other. This will encourage head movement.
- It is important to move the baby's arms and legs. Move the arms up and down and open and close them. Do this with his legs as well and complement the exercise with bending

and stretching them carefully. Do these 5 to 6 times. This exercise can be done along while playing the ***"Trompas de elefate"*** song.

- Move the baby's arms and legs backward while bathing and make circular motions carefully. It is important to have support points for the baby's safety. With one hand, hold the baby and perform the movements and rotations with the other, so you should first exercise one side and then the other. It would be ideal if the parents could do this activity together. The circular movements can be done with every joint, except the knee, and be sure to begin properly, that is, start with the shoulders, elbows, wrists, fingers, hip, ankles, and toes, going from the top down, or from the bottom up.
- Slowly open the baby's hands and separate each finger, place your index finger on each hand so that the baby may grab it. This exercise may be done along the songs **"Los deditos"** or **"Ton ton tin tin."**

RECOMMENDATIONS

The toys most recommended for this age are jingle bells, colored playpens, interesting shapes, music boxes, and baby gyms that stimulate the child's senses. When the parents are absent, leave the baby scented clothes to develop their sense of smell.

Linguistic Development

- They babble as an involuntary reflex.
- They cry to express hunger, sleepiness, discomfort, or pain.
- They get startled and cry when there is a sudden loud noise.

Activities

- Repeat every sound the baby makes, even if they are just babbling. The child will learn that that is a form of communication.
- Make gestures with your mouth, eyes, nose, or eyebrows in front of the baby, so that he begins to learn facial expressions. For example, opening and closing the mouth, sticking the tongue in and out, raising and lowering the eyebrows, puffing the cheeks, opening and closing the eyes, etc. This exercise can be done along the songs **"El sapito"** or **"Abro y cierro."**
- Select different types of music, classical, modern, relaxing, lullabies, etc., and observe the baby's reactions. This way, you will learn what type of music the baby likes.

RECOMMENDATIONS

Speak affectionately to the baby and show him situations that happen to him and in his environment. During the auditory stimulation, the volume must be enough so that the baby hears well, but not so loud as to cause hearing damage and avoid exposing the baby to excessive noise or to the complete absence of sound.

SOCIO-AFFECTIVE DEVELOPMENT

- Most reactions respond to internal stimuli, but others are a reaction to environmental stimuli.
- They distinguish human voices from other sounds (especially high pitch voices like the mother's).
- They calm down when there is someone close who speaks to them with a soft and rhythmic voice.

- They calm down when held.
- They occasionally lightly turn their head toward sources of sound.
- They focus their eyes on the mother's face in response to their smile if not too far away.
- They make eye contact.
- They gaze at people's faces, and they respond by staying calm and quiet.
- They adjust their position based on the body of who is holding them. They can grab onto that person.
- Daily patterns of eating, crying, and sleeping are very chaotic.

ACTIVITIES

- Take the baby in your arms and lull intermittently, caress them, rock them, sing, and converse with them because even though they don't understand verbal expressions yet, they perceive gestures, hands, and body language.
- The parent takes the baby, places them on their chest, and hugs them to cover their body. On the mat, the parent rolls to one side while hugging their child.
- Dance with your child and express your feelings. Look him in the eye, call their name, and smile.

RECOMMENDATIONS

Begin to use massages as a tool to strengthen your emotional bond. Everything done to the baby must be done from a place of love toward him, looking to provide security and confidence. Try to satisfy the baby's basic needs and provide quiet spaces and tranquility.

2–3 Months-old

At this stage, there are significant changes in the baby's brain development, the time spent sleeping and crying decreases, increasing periods of attention seeking, smiling voluntarily, and he recognizes through his actions a way to socialize.

Boy	**Girl**
Weight: 11-13lbs	Weight: 10-12lbs
Height: 1ft 9in-2ft	Height: 1ft 8in-1ft 9in

Sensory-Motor Skills Development

- Newborn reflexes begin to fade while righting reflexes become much more voluntary.
- They try to firmly hold their head up when picked up by the torso.
- They discover their hands and their movements. They grab objects for several seconds.
- They move their arms and legs vigorously. They may move both arms together, then their legs or one arm and one leg from the other side and vice versa.
- When held, you can tell how strong their bodies are.
- They lay on your abdomen with bending legs, and they try to support their elbow.
- They coordinate circular optical movement when observing a well-lit object.
- They get startled by certain sounds, or they gesture because of them.
- In response to internal stimuli, they can probably vocalize or gesture.
- Their eyes look for the source of sounds, turning their head and neck.

ACTIVITIES

- To benefit the baby's head control, and to strengthen his neck muscles, place the baby on a mat on his stomach and softly caress their back up and down from the neck to the waist so he can stretch their head.
- While in the previous position, show him objects to attract his attention, and move them from side to side to encourage head lifting and rotation. Take the baby by the chin, gently move it up and down, and then let go for a few seconds.
- Leave the baby nude somewhere appropriate on a very clean towel for a few moments.
- Caress the baby's arms and hands with a stuffed animal, toy, pieces of cloth, or different textures. Make sure to use objects of different sizes to stimulate the pressure reflex, hence let the baby grab the objects.
- Help the baby recognize his body with his hands. Use the baby's hands to clap and then place them on his face, feet, belly button, chest, etc.
- Just like last month, place the baby on his stomach. Move the objects back and forth but also include vertical and circular movements. While in this position, tickle his back until he retracts the shoulders and head.
- While standing, the parents hold the baby from the underarm and then place him on a smooth, hard surface. Pick him up slowly and lower him until he can touch the surface to bend his knees. This exercise can be done along with the song **"El buen duque Juan"** and follow along the movements of the song with the baby. This activity can also be done by placing the baby in front of a mirror.
- Help the child with different positions along rhythmic balance exercises from the song "**Un elefante se balanceaba."** Rock him horizontally, up and down, spin him separating him from you, between the legs, the sides, etc.

- Place your hands on the baby's underarms and help him to slowly turn from side to side to teach him to turn around.
- Place the baby on this back, place different objects on his chest, and place his hands on them with the intention of having him recognize and feel them.
- Let the baby grab onto small and light objects. Help him grab them. If he drops them, give them to him again.
- Stand in front of the baby and let him feel your face with his hand.
- Stimulate the baby's hands by tickling his palms and offer him your index finger to try and pick himself up.

RECOMMENDATIONS

Each time you do these exercises, pay close attention to the baby's reactions and make sure that he is nice and comfortable with the activity.

COGNITIVE DEVELOPMENT

- They get excited by the participation of objects.
- They react by moving the entire body, and they make an effort to get a particularly interesting object.
- They begin to show a preference for the right side or the left.
- They begin to analyze their hand movements.
- They begin to recognize familiar voices.
- They have better-coordinated senses.
- They begin to show evidence of long-term memory.

- They keep expecting gratification, such as feeds.
- They begin to recognize the voices of family members close to them.
- They explore their face, eyes, and mouth with their hands.
- They establish their first habits such as feeding and sleeping schedules.

ACTIVITIES

- Offer the baby object to place in his mouth to obtain information about them and tell him what they are and what they are for.
- When playing with the baby constantly mention that you are the father or the mother accordingly. Likewise, address him by his name when speaking to him.
- Self-awareness is very important so stimulate him every chance you can by naming body parts while he touches them but allow him to also touch and see them.

RECOMMENDATIONS

When giving objects to the baby, make sure they are completely clean and that they are big enough so that the baby does not choke or asphyxiate.

LINGUISTIC DEVELOPMENT

- They purr, babble, and chirp.
- They smile, scream, and make noises.
- They play with their tongues and throat.
- They use different cries.
- They begin to incorporate “e” and “o”, although not conscious.
- Their facial expressions are more complex and defined with specified stimuli.

- When they turn three months old, they start to “use” some consonant phonemes forming syllables they like to repeat.

ACTIVITIES

- Provide different daily sounds to the baby such as bells, animals, musical instruments, etc. Show him each sound on both ears. You can record a CD with several sounds and play it every chance you get.
- Speak to him up close and from far away, using a cardboard tube.
- Play songs and games for children.
- Repeat baby vocalizations so that the baby can repeat them back but leave intervals of silence so that he may respond.
- Place the baby in front of you, speak to him, and allow him to make a sound or gesture. Move with him in different directions while smiling and speaking the entire time.

RECOMMENDATIONS

While spending time with baby, try stimulating conversations, and when he responds with a sound, answer with a question and celebrate every achievement he makes.

SOCIO-AFFECTIVE DEVELOPMENT

- They are able to show anguish, excitement, and pleasure.
- They visually prefer a person to an object.
- They directly observe someone and follow them with their eyes as they move around.

- They respond positively and excitingly to the presence of someone by moving their arms and legs, panting, or gesticulating.
- They spend more time awake if people are interacting with them.
- They enjoy baths.
- They smile easily and spontaneously.
- They considerably decrease crying.
- Facial expressions, muscle tone, and vocalizations increase.
- They hum and lull in response to sounds.
- Their entire body responds to someone they know.
- They complain when left alone.

ACTIVITIES

- Constantly speak to the baby, call out to him, and let him see your image through a mirror.
- To facilitate the baby’s new relationships, introduced strangers by name.
- When the baby does something good or appropriate, reward him with an incentive, a warm hug, or a word of encouragement.

RECOMMENDATIONS

Watch closely the baby’s actions and reactions with each exercise because each baby grows and develops differently.

Try and notice alarming signs such as not being able to hold the head, slow sucking, or if the baby is not able to make sounds or smile, etc.

Positively reinforce physical contact with the baby by caressing him and smiling.

4–6 Months-old

At this stage, the baby has acquired greater strength and muscle tone, has adapted to new situations, and has strengthened his emotional ties with the people closest to it. The baby starts to get curious and experiment through touch with what is around them, and as they grow throughout these months, they express their emotions much more clearly.

Boy	**Girl**
Weight: 15-17lbs	Weight: 13-16lbs
Height: 2ft- 2ft 2in	Height: 2ft-2ft 1in

Sensory-Motor Skills Development

- They stretch on their abdomen with extended legs. The parachute reflex is present here.
- They turn.
- They move their head in all directions when laying down.
- When on their backs, they lift their head and shoulders correctly.
- They put their feet in their mouth, and they suck their toes.
- They move while balancing, rocking back and forth, or turning on their back by kicking a flat surface.
- When they sit, the head is firmed, and balanced and it is constantly erect.
- They can hold a bottle with one or two hands.
- They can hold small objects with their thumb and index finger.
- They grab hanging objects and put them in their mouth.

- They can distinguish different odors, and they show interest.
- They can reach objects with one or two hands, and they pass them from one hand to the other.
- They can control their balance when sitting, tilt forward or backward, and hold an adult's fingers.
- They turn their head slightly.
- The sway when sitting on a chair.
- They are preparing to crawl.
- They start to clap.
- If a toy falls they extend their hand to try and reach it.
- They use a toy to reach another one.

ACTIVITIES

- **Around the World**

Step 1: Place the baby over the parent's legs, the head must be supported on the knees.

Step 2: Take the baby by the torso.

Step 3: Turn his head without losing support and without dropping the baby's weight on the cervical area (mild support).

Step 4: Go back to the initial position (Step 1).

Step 5: Lift the child from underneath his arms and hug him.

Step 6: Take the child away from you and lift him over the parent's head.

Step 7: Go back to the initial position (Step 1).

- Stimulate the baby to strengthen the muscles on the baby's arms and take him by the arms and lift him several times to strengthen the abdominal muscles as well.
- Lay the baby on his back, grab his hands, and take him to a position where he can sit. Lay him down and hang toys over his feet so that he may kick them. If the baby does not, take his feet and take them toward the toy to motivate the kick. In this same position, softly move his legs, bend, and extend them for 30 seconds.
- Lay the baby down and offer him an interesting and colorful toy for him to reach. When he controls this action, moves on to the next activity.
- Offer the baby small objects he can manipulate easily and let him pass them from one hand to the other so that he can hit them and throw them. Offer him blocks so that he can build towers.
- Place throw pillows, rolled towels, and pillows as obstacles on a surface for him to overcome in order to reach a toy.
- Place the baby on his stomach and encourage him to crawl by pressing the sole of his feet. There is an initial automatic response, but later he will start to crawl voluntarily.
- Wheelbarrow work. Place the baby on his stomach and with a rolled-up cushion, roll the baby so that he may raise his head.
- Place the baby on a sheet on his stomach and back. Do forward and backward balance exercises, rolls up and down, and the earthquake.

RECOMMNEDATIONS

If the baby does not show any interest in games or people, it is important to ask your pediatrician.

When the baby loses interest after a few activities, he is probably tired so stop the activity.

COGNITIVE DEVELOPMENT

- They have a five to seven-second memory lapse.
- They recognize their mother and are occasionally uncomfortable with strangers.
- They discover the relationship between cause and effect.
- They search for quick moving objects with their eyes.
- They tilt their body to see an object fallen on the floor.
- They notice any weird situation.

Vasectomy Procedure Prep

1. Avoid taking aspirin and ibuprofen 2 weeks before the date of the procedure.

   These medications may cause hemorrhages after the procedure.
2. Take a shower and clean the scrotum on the day of surgery. Likewise, shave the scrotum.
3. Please let us know if you had any procedure done on the scrotum.
4. Have a family member or friend take you home after the surgery.
5. You must bring an intramuscular Enantyum shot which will be applied before the procedure.

During the Procedure

- The complete procedure usually takes less than 45 minutes.

- You will be asked to change into a gown and lay down on a table. The Enantyum will be administered before beginning the procedure.
- Please let us know if you feel tense or nervous, we can provide relaxing medication. This is to avoid any pain during surgery.
- After the surgery, we will prescribe medication and labs. which will be done two months after the procedure.

Home Recovery

- It is possible for the scrotum to have a bruised/purplish and mildly swollen appearance for about a week. There can also be a small amount of bloody discharge from the incision site. This is common.
- For a more comfortable recovery, follow the tips detailed below:
- Avoid walking or standing as much as possible for the first two days.
- Use a cold compress to decrease inflammation. To make a cold compress, place small cubes of ice in a plastic Ziplock bag and wrap a clean towel or a fine cloth around the plastic bag. Never apply ice or a cold compress directly on the skin.
- Take and use medication prescribed by the doctor to provide relief to mild pain. Do not take aspirin.
- Do not lift heavy objects nor exercise for at least seven days.

Intercourse after the Vasectomy

The vasectomy does not change sexual function. Hence, when engaging again in sexual relations, it will have the same feeling as it did before. Likewise, the vasectomy should not have any effect on the relationship with your partner, however, it is important to remember

that sterility is not immediate. It will take some time before you can have intercourse without the use of birth control.

When to Seek Medical Attention

Call the doctor if you notice any of the following symptoms after surgery:

1. Increased pain and inflammation of the scrotum
2. A big, bruised area or a lump that increases in size
3. Fever
4. Chills
5. Increased redness or drainage from the incision site
6. Difficulty urinating.

4.2 Translation from English to Spanish: Documents from The Office of Sara Edelberg (SLP) and New Hope Fertility Center

Clasificación de trastornos del lenguaje

Un trastorno puede involucrar tanto el entendimiento como la producción del lenguaje. La **comprensión** del lenguaje (el lenguaje receptivo) se refiere a la capacidad de obtener el significado de mensajes visuales y auditivos. La **producción** del lenguaje (el lenguaje expresivo) involucra la combinación de símbolos lingüísticos para formar mensajes con sentido. Los trastornos de lenguaje son clasificados, generalmente, de acuerdo con los componentes principales dentro de un sistema lingüístico: semántica, morfología, sintaxis, pragmática y fonología.

La semántica consiste en el sentido de palabras individuales y las reglas que gobiernan la combinación del sentido de las palabras para formar frases y oraciones con sentido. Las deficiencias en este subsistema pueden ser: un vocabulario reducido e insuficiencia de conocimiento profundo de palabras, categorías semánticas limitadas, insuficiencia de búsqueda de palabras, mala asociación de palabras, capacidad limitada para definir palabras y dificultad con lenguaje figurativo (que no es literal), por ejemplo, los modismos, las metáforas y el humor.

La morfología consiste en la estructura de las palabras y en la construcción de la forma de la palabra individual a partir de elementos básicos del sentido (por ejemplo, los morfemas). Insuficiencias con este componente son manifestadas como dificultades con marcadores de inflexión como las palabras en plural, el tiempo verbal en pasado, los verbos auxiliares, los posesivos, entre otros.

La sintaxis consiste en las reglas que gobiernan el orden y la combinación de las palabras al construir oraciones. La insuficiencia sintáctica se caracteriza por problemas con oraciones simples y complejas, por ejemplo, oraciones negativas, interrogativas, pasivas, las cláusulas relativas y dificultades ocasionales en el orden de las palabras.

La pragmática consiste en las reglas del lenguaje en un contexto social. Las insuficiencias pragmáticas pueden incluir un repositorio reducido de intenciones comunicativas, mala atención (compartida o unida), dificultades en tomar turnos en una conversación recíproca, una incapacidad de reparar mensajes que no fueron entendidos por el receptor y la dificultad con discursos narrativos, por ejemplo, con narrativas de cuentos o personal.

La fonología consiste en los sonidos particulares (por ejemplo, los fonemas) que constituyen el sistema sonoro de un idioma y las reglas que gobiernan la combinación de sonidos permitidos (para un análisis de insuficiencias fonológicas, ver el capítulo 3).

Los trastornos del lenguaje pueden afectar el desarrollo de habilidades del lenguaje básicas o conocimientos metalingüísticos superiores en cualquiera de los componentes mencionados. Adicionalmente a las insuficiencias del lenguaje, los niños también pueden demostrar ciertas características de comportamiento, las más comunes están definidas en la Tabla 1.

Tabla 1
Características de comportamiento asociadas con los trastornos del lenguaje

Comportamiento	**Definición**
Falta de atención	Es la falta de concentración caracterizada por la dificultad para terminar una tarea, la falta de atención a detalles; no sigue instrucciones y se distrae por estímulos que distraen.
Impulsividad	Es la ejecución repentina de una acción sin su debida deliberación o consideración de las consecuencias.
Hiperactividad	Es un nivel excesivamente alto de actividad acompañado de una capacidad reducida para inhibir dicha actividad de manera voluntaria.
Trastorno de déficit atencional	Es un trastorno constituido por una o más de las siguientes características: la falta de atención, la impulsividad o la hiperactividad.
Perseveración	Es el reflejo verbal o de motora fina que continua cuando ya no es necesario.
Ecolalia	Es la repetición excesiva y el desarrollo inapropiado del lenguaje de otras personas

	que, generalmente, tiene la misma entonación; puede ser inmediata o atrasada; puede ser comunicativa o no comunicativa.

La relación entre el lenguaje oral y el alfabetismo

Es actualmente reconocido que los terapeutas del lenguaje tienen un papel importante en la adquisición del alfabetismo. El alfabetismo consiste en el desarrollo de las habilidades para leer y escribir; asimismo, desde un punto de vista básico, la lectura consiste en los procesos de los siguientes dos componentes: el reconocimiento de palabras y la comprensión. El reconocimiento de palabras incluye la descodificación y la fluidez de lectura. La descodificación es la capacidad de asignar sonidos de letras correspondientes a símbolos impresos (el principio alfabético) y, por el contrario, la fluidez de lectura se refiere a la velocidad, la precisión y el automatismo de leer palabras dentro de un texto corrido. La comprensión consiste en la capacidad de obtener sentido de un texto impreso a un nivel de palabra, de oración y de texto. La escritura incluye la adquisición de deletrear y de la capacidad para componer un texto al nivel de oración y demás; el deletreo es la capacidad de construir palabras con ortografía convencional (por ejemplo, símbolos escritos) de un idioma determinado y la composición es la formulación de unidades de lenguaje corrido coherentes que incluyen textos narrativos y expositivos.

El lenguaje oral es la base para el desarrollo de habilidades de lectura y escritura, y comienza con el periodo conocido como alfabetización emergente, que se extiende desde el nacimiento hasta los años prescolares. **La alfabetización emergente** es el aumento de conciencia del mundo literario y el entendimiento de su función que un niño tiene. Durante el tiempo preescolar, los niños desarrollan las bases del conocimiento sobre la imprenta por medio de

experiencias que ocurren naturalmente en sus casas, en la preescuela o guardería. Estas experiencias los preparan para la educación literaria formal (aprender a leer y escribir) que empieza en los primeros grados escolares. Por ende, las habilidades de la alfabetización emergente se consideran precursoras del desarrollo para que los niños puedan lograr la lectura y la escritura.

De acuerdo con las habilidades estudiadas hasta el momento, la conciencia metalingüística es el área que ha sido más asociada con la adquisición literaria. **La conciencia metalingüística** es el conocimiento explícito y la capacidad de manipular aspectos del sistema lingüístico independientemente del significado que el mensaje contiene. La conciencia fonémica es la habilidad metalingüística que tienen que ver con la manipulación de la estructura del sonido por medio de ejercicios como la rima, la armonía y la división de palabras, por ejemplo, la división de sílabas o fonemas. En particular, el control de sonidos de un niño al nivel de los fonemas (la conciencia fonémica) es muy predictivo de la descodificación y del deletreo. De esta forma, un ejemplo común de la conciencia fonémica es hacer el ejercicio de pedirle al niño que diga palabras como feo y después hacerlo decir la palabra otra vez sin el fonema /f/. Asimismo, la adquisición de las habilidades de descodificación llega a mejorías subsecuentes en la conciencia fonémica (Nota: la fonética es la otra parte de esta habilidad del lenguaje escrito y se enfoca en correspondencias de sonidos con letras).

Los niños y adolescentes con impedimentos de aprendizaje y de lenguaje presentan gran dificultad con ejercicios de conciencia fonémica. Además, hay evidencia de que la educación directa de conciencia fonémica puede beneficiarlos (Malani, Barina, Kludjian y Perkowski, 2011; Torgesen, Wagner y Rashotte, 1994).

La intervención en esta área es más efectiva cuando se da en conjunto con el entrenamiento del principio alfabético que resulta en mejoras medibles dentro de la lectura y el deletreo (Torgesen y Davis, 1996). Ver la Tabla 2 para información del análisis y secuencia sobre la educación de la conciencia fonológica organizada de menor a mayor dificultad.

Otros aspectos del lenguaje oral que son asociados con el desarrollo literario son el conocimiento de vocabulario, la búsqueda de palabras y la conciencia morfológica. La cantidad de vocabulario que un niño presenta en sus años de infancia parece estar relacionada con su capacidad para descodificar precisamente palabras singulares en el primer y segundo grado escolar (Scarborough, 1998; Scarburough y Dobrich, 1990).

Tabla 2
Análisis y secuencia de la intervención de la conciencia fonológica

Habilidades de conciencia fonológica

1. Rima y aliteración
2. Armonía
3. Segmentación
   a. Categorización (por ejemplo, las que comienzan con un sonido diferente: feo, flaco, sopa, flor)
   b. Omisión (por ejemplo, decir tabla sin la /t/)
   c. Sustitución (por ejemplo, remplazar la /m/ en marina con /k/)
   d. Manipulación (por ejemplo, decir la palabra *salado*. A continuación, mover la /s/ al final de la palabra y decirla de nuevo)

Modo de ejercicio

1. Empatar (por ejemplo, enséñeme la que rima con *masa*)
2. Eliminación (por ejemplo, enséñeme la que no rima con ninguna de las otras dos)
3. Valoración (por ejemplo, ¿gato y pato riman?)
4. Producción (por ejemplo, dígame una palabra que rime con gato)

Niveles de estimulación para segmentación/armonía

1. De oraciones a palabras
2. De palabras a sílabas (las palabras compuestas como *rompecabezas* son más fáciles que las palabras no compuestas como *dedo*, ya que cada sílaba es una palabra común)
3. De sílabas a fonemas como "l-u-z" (las palabras polisilábicas o agrupaciones de consonantes aumentan la dificultad del ejercicio)

Clase de fonemas para segmentar/armonizar

Los sonidos continuos como los fricativos y los nasales son más fáciles que los no continuos como las pausas (los sonidos continuos duran más y son acústicamente más discretos, además, pueden ser pronunciados por sí solos y son enfatizados por la sobrearticulación).

Fuente: Adams, Foorman, Lundberg, and Beeler (1998); Blachman, Ball, Black, and Tangel (2000); Roth, Troia, Worthington, and Dow (2002); Roth, Troia, Worthington, and Handy (2006); Swank and Catts (1994); Troia, Roth, and Graham (1998); van Kleeck and Schuele (1987).

Una vez que el niño llegue a mediados de los años de estudios primarios, el enfoque de lectura se aparta de la descodificación o de la búsqueda de palabras y la cantidad de vocabulario se vuelve predictiva a la habilidad de la comprensión de lectura (Stanovich, 1986; Baker, Simmons y Kameenui, 1998). Con respecto a la búsqueda de palabras, la precisión de nombrar las cosas es predictiva de la habilidad de descodificación actual y futura, en cambio, la velocidad de nombrar

cosas se descubrió que es altamente relacionada con la comprensión de lectura (Scarborough, 1998; Wolf, 1984, 1991). La conciencia morfológica está enlazada tanto con la lectura de palabras como la comprensión de lectura, ya que muestra la familiaridad del niño con el sentido de las palabras y sus partes (por ejemplo, prefijos y sufijos), al igual que la habilidad de aplicar este conocimiento para descifrar el sentido de las palabras escritas y de un texto (Carlisle y Goodwin, 2014). Por lo tanto, es importante mencionar que el déficit de vocabulario y búsqueda de palabras son las características más comunes de impedimentos del lenguaje a través de la niñez y adolescencia.

El papel de la logopedia en la alfabetización

En los últimos años, la práctica tradicional de la logopedia ha evolucionado al incorporar más énfasis en problemas relacionados con la alfabetización. Asimismo, en el 2000, la Asociación del Lenguaje, Idioma y Audición Americana (ASHA) desarrolló una declaración de posición, guías y varios documentos adicionales sobre el papel y las responsabilidades que el terapeuta del lenguaje tiene para ayudar a niños y adolescentes con sus dificultades de lectura y escritura. Estos documentos dejan en claro que: “la logopedia tiene un papel crítico y directo en el desarrollo de la alfabetización en niños y adolescentes con trastornos comunicativos…” (p. 1) y se basan en las siguientes premisas:

- El lenguaje oral es la base para adquirir la lectura y la escritura.
- El lenguaje oral y el escrito tienen una relación recíproca donde una ayuda a la otra.
- A menudo, los niños y adolescentes con insuficiencias del lenguaje oral tienen dificultad en adquirir la habilidad para leer y escribir (y viceversa).

- Las insuficiencias de lectura y escritura pueden incluir cualquiera de los subsistemas del lenguaje: la fonología, la morfosintaxis y la pragmática.
- Los terapeutas del lenguaje poseen conocimiento de patrones típicos y atípicos del desarrollo del lenguaje y experiencia en la evaluación y la intervención de niños y adolescentes.
- El desarrollo de la alfabetización requiere un enfoque interdisciplinario donde el terapeuta participe y colabore con otros profesionales, familiares y estudiantes.

Las guías de ASHA también identifican los múltiples papeles y responsabilidades que la logopedia puede acatar para fomentar el desarrollo de la alfabetización. Dentro de estas, se citan, pero no son limitadas a las siguientes:

- *Prevención:* promover oportunidades para participar en experiencias orales y escritas que faciliten la alfabetización (por ejemplo, la lectura compartida de un libro, la exposición al alfabeto/letras y modelos de lectura y escritura para adultos).
- *Identificación:* ofrecer exámenes de detección temprana para niños con problemas de lectura y escritura debido a dificultades del lenguaje oral o en riesgo de tenerlos.
- *Evaluación:* evaluar las habilidades de lectura y escritura en relación con capacidades del lenguaje por medio del uso de varias medidas referentes a la norma, además de las descriptivas.
- *Intervención:* implementar instrucciones comprobadas para problemas de lectura y escritura que enfaticen la relación recíproca entre el lenguaje oral y la alfabetización y que utilice los temas del programa curricular.
- *Otros papeles:* colaborar y advocar para crear prácticas del lenguaje efectivas de alfabetización en programas generales y en la educación especial; promover la

participación de la familia en actividades de alfabetización y avanzar el conocimiento de la relación entre el lenguaje oral y la alfabetización por medio de investigaciones clínicas y la educación continua.

MODELOS TEÓRICOS DE INTERVENCIÓN

Existen diferentes orientaciones teóricas sobre la intervención en el lenguaje que, en parte, surgen de distintas filosofías sobre la naturaleza de la adquisición normal del lenguaje y de puntos de vista diferentes sobre la aplicación de la adquisición normal del lenguaje para niños con trastornos. Distintos modelos teóricos enfatizan la cognitiva primaria, la lingüística o las variantes de comportamiento (por ejemplo, Chomsky, 1965; Piaget, 1954; Pinker, 1989, 1996; Skinner, 1957; Vygotsky, 1962). En cambio, otros modelos proponen un enfoque integral/conectivo que incorpora elementos de varias filosofías (Bates y MacWhinney, 1987; Bruner, 1974, MacWhinney, 2001, 2202) y, aun así, otros usan análisis computarizados (probabilidades de estadística) para generar predicciones que cuantifiquen la facilidad de la adquisición de construcciones lingüísticas (Hsu, Chater y Viatnyi, 2011). Sin importar la perspectiva teórica, las prácticas de intervención deberían ser informadas por medio de evidencia. Los profesionales clínicos implementan estrategias efectivas y procedimientos, al igual que su juicio y conocimiento adquirido a través de su experiencia profesional.

Estos modelos indican diferentes estrategias para la intervención del lenguaje. La orientación de comportamiento en general resulta en un enfoque no-desarrollado de terapia. Sujetos del lenguaje pueden ser elegidos sin consideración de habilidades que se requieren previamente y, por el contrario, otros modelos son asociados con estrategias de desarrollo, cuyos sujetos son elegidos por medio de secuencias de adquisición; ya sean basadas en la cognición, la

lingüística o la pragmática (ver apéndice 4-A para los principales puntos clave del desarrollo del lenguaje). Generalmente, se usa una estrategia de desarrollo del lenguaje para la mayoría de los niños que presentan un perfil de lenguaje atrasado, no obstante, se puede adoptar por un enfoque de no-desarrollo para patrones de adquisición del lenguaje atípicos (por ejemplo, los niños con impedimentos intelectuales profundos y severos).

EFICACIA DEL TRATAMIENTO/PRÁCTICAS BASADAS EN EVIDENCIA

Dos revisiones completas han examinado estudios sometidos a revisión por colegas sobre las prácticas basadas en evidencia (EBP) en el lenguaje de niños. Law Garrett y Nye (2004) realizaron un metaanálisis de 13 estudios; asimismo, Cirrin y Gillam (2008) revisaron 21 artículos sistemáticamente. Todos los estudios eligieron criterios confiables y un diseño experimental válido (ver la Tabla 1-3 en el capítulo 1 sobre la jerarquía de la tasa de evidencia). Los resultados genéricos indican que la intervención del lenguaje es efectiva en niños de preescolar, kínder y primer grado, especialmente en áreas de fonología, vocabulario expresado, morfología/sintaxis simple y en la conciencia fonológica. Ninguna de estas revisiones consiguió estudios de alta calidad sobre la intervención del lenguaje para niños mayores y adolescentes.

Ambos investigadores identificaron huecos de información significativos en la literatura profesional. Los huecos incluyen lo siguiente:

- Estudios sobre el lenguaje receptivo.
- Estudios experimentales controlados.
- Estudios sobre la efectividad relativa en enfoques de tratamiento para los mismos sujetos terapéuticos.

- Estudios sobre habilidades del lenguaje de alta orden (por ejemplo, el lenguaje figurativo y el discurso narrativo).
- Estudios sobre la habilidad pragmática.
- Estudios sobre la intervención de características (por ejemplo, la duración, la dosis y la implementación del modelo).
- Investigaciones sobre los efectos de intervenciones del lenguaje con currículos generales y de educación especial.
- Estudios sobre los efectos de mantener el tratamiento.

El trabajo de Cirrin et al. (2010) se enfocó en el efecto de los diferentes modelos de servicio e implementación (por ejemplo, los niños sacados de clase, en clase y consultas indirectas) en los resultados de intervención del lenguaje e idioma de estudiantes de primaria. Estos autores hicieron una revisión sistemática de estudios basados en evidencia a lo largo de 30 años y encontraron que solo cinco estudios daban con el criterio y contenían información sobre la efectividad de los modelos de servicio e implementación. Aun con una muestra pequeña, los resultados son mixtos y revelan un hueco enorme en nuestro conocimiento de la eficacia relativa de los diferentes modelos de servicio e implementación.

De acuerdo con Kamhi (2004), a menudo, los resultados de investigación sobre la eficacia y la implementación de la práctica clínica difieren. Dos ejemplos son *la intensidad del tratamiento* y la *práctica distribuida.* La mayoría de los estudios sugieren que, cuanto más alta la dosis de instrucción (por ejemplo, cuatro sesiones por semana de 50 minutos), mejor serán los resultados en comparación con una dosis baja (por ejemplo, dos sesiones por semana de 30 minutos, Bellon-Harm, 2012). Sin embargo, la evidencia muestra que “más no siempre es mejor”, porque los estudios sugieren que muchos niños presentan periodos sin progreso y de efecto

umbral con intervenciones de lectura temprana (por ejemplo, Denton et al., 2011), expresión de intensión comunicativa (Fey Yoder, Warren y Bredin-Oja, 2013) e instrucciones de referencia de imprenta (Mc Ginty, Breit-Smith, Fan Justice y Kaderavek, 2011). Más allá de eso, la cantidad o cualidad de la intervención tiene poco efecto en resultados de lenguaje y alfabetización. Otro ejemplo tiene que ver con *prácticas masivas* versus *prácticas distribuidas*. Los resultados de investigaciones sobre *el efecto de memoria espaciada* (largos periodos entre sesiones de aprendizaje) muestran que el aprendizaje distribuido resultó en ganancias de corto plazo, al igual que en mejor retención de comportamientos recién aprendidos. De hecho, Yoder, Fey y Warren (2012) sugirieron que el espaciado y la distribución de sesiones de aprendizaje pueden tener mayor influencia en los resultados de aprendizaje en comparación con tratamientos de intensidad, es decir, todos estos resultados demuestran la necesidad de seguir estudiando los elementos educativos que impacten el aprendizaje de idioma y su desarrollo.

También hay varios estudios más pequeños que examinan el valor y el beneficio de protocolos específicos. Por ejemplo, un grupo que va aumentando de indicaciones literarias de la alfabetización emergente, la lectura compartida/interactiva de libros y la referencia a imprenta que son enfoques para niños preescolares en riesgo con o sin impedimentos del lenguaje que pueden ser usados exitosamente en programas en casa (por ejemplo, Justice, McGinty, Piasta, Kaderavek y Fan, 2010; Justice, Skibbe, McGinty, Piasta y Petrill, 2011; Pelatti, Justice, Pentimonti y Schmitt, 2013).

Finalmente, la eficacia del término “trastorno de procesamiento auditivo/trastorno del procesamiento auditivo central” (TPA/TPAC) ha sido cuestionada con respecto a si el TPA/TPAC puede ser diferenciado del impedimento (específico) del lenguaje. Desde un punto de vista clínico, el término TPA es usado indiscriminadamente por profesionales en distintos

contextos con diferentes significados. La etiqueta de TPA ha sido aplicada (a menudo incorrectamente) a una gran variedad de dificultades y trastornos y, como resultado, hay quienes cuestionan la existencia de TPA como una entidad diagnóstica propia y otros asumen que el término TPA se aplica a cualquier niño o adulto con dificultad para escuchar o entender el lenguaje hablado (ver, por ejemplo, www.asha.org/public/hearing/understanding-auditory-processing-disorders-in-children/). ASHA seleccionó un comité para examinar esta controversia (Richards, 2011) y los resultados fueron inconclusos en apoyo al TPA. Basados en estos resultados, Fey et al. (2011) concluyeron que las investigaciones actuales no dan guía adecuada para que los terapeutas del lenguaje den tratamiento de niños diagnosticados con TPA.

INTERVENCIÓN EN INFANTES (DE NACIMIENTO A LOS 3 AÑOS)

Guías de intervención temprana de ASHA

De acuerdo con la Asociación Americana del Habla, el Lenguaje y la Audición (ASHA por sus siglas en inglés, 2008), la intervención temprana (IT) se refiere a la amplia gama de servicios que incluyen:

- Prevención
- Examinación
- Evaluación y apreciación
- Planeamiento, implementación e intervención monitoreada
- Consulta y educación con miembros del equipo, familiares y otros profesionales
- Coordinación del servicio

- Planeamiento de transición
- Apoyo

La intervención temprana se caracteriza por un enfoque primario en la participación de la familia y en la educación (Ingber y Dromi, 2010; Wilcox yWoods, 2011). Un enfoque centrado en la familia se dirige en lo que el niño necesita dentro del único contexto relevante para él: la unidad familiar. Este modelo toma en cuenta lo cultural, lo social, lo económico y los valores o creencias que puedan afectar la dinámica familiar. Los servicios de intervención temprana promueven la participación de los niños en su entorno natural, lo que puede ser la casa o basado en un ambiente central (Caesar, 2013; Banerjee y Luckner, 2014). Aunque el término *entorno natural* se ha asumido como la casa del niño, en realidad, abarca todos los lugares y personas que tienen contacto regular con el niño. En cuanto a infantes, más que con cualquier otro grupo de edad, el médico clínico probablemente implementará un modelo interdisciplinario o transdiciplinario. En un modelo interdisciplinario, cada miembro del equipo trabaja dentro de su disciplina específica y comparte información con los otros miembros por medio de canales acordados, por ejemplo, *Team Meetings*. Por el contrario, los miembros de un equipo transdiciplinario cruzan esas barreras de ocupación tradicionales, ya que reciben entrenamiento en otras disciplinas e intercambian servicios conforme la familia o el niño los vaya necesitando. Dichos enfoques colaborativos a la intervención son enfatizados en la parte C de la Ley de Educación para Individuos con Discapacidades (IDEA por sus siglas en inglés) (IDEA, 2011, idea.ed.gov) y se enfoca en la necesidad de que un equipo profesional esté involucrado en el proceso del Plan de Servicios Individualizados para la Familia (IFSP por sus siglas en inglés) (Paul y Roth, 2011).

El objetivo de la intervención temprana es el desarrollo de habilidades básicas que se piensa son críticas para el éxito del habla, lenguaje y el aprendizaje comunicativo. La exposición

interactiva y repetitiva a **las auténticas experiencias de aprendizaje en entornos naturales** y **la estimulación y modelos** son las estrategias principales para infantes. (las estrategias adicionales relevantes a esta demografía son presentadas más adelante en el capítulo). Los objetivos principales de programas terapéuticos para la intervención de infantes consisten en las siguientes habilidades prelingüísticas y de lenguaje:

Ubicación. Los infantes están alertas a los sonidos en su entorno y lo demuestran al mover la cabeza y buscar visualmente de dónde proviene el sonido. Es una asociación auditiva y visual, donde el niño empieza a entender el concepto y la relación entre la causa y efecto. Un médico puede potenciar los comportamientos de ubicación de un bebé, al presentarle un estímulo sonoro (por ejemplo, un sonajero u otro objeto ruidoso) fuera del campo visual del bebé. Se necesitará que el bebé gire la cabeza para que localice la fuente de sonido. Si no se observa esta respuesta, el médico clínico puede girar suavemente la cabeza del bebé hacia el sonido para reforzar la asociación auditiva y visual. La siguiente secuencia de desarrollo puede servir de guía para determinar el nivel de respuesta adecuado de un infante.

De 3 a 4 meses:	Intento primitivo para girar la cabeza
De 4 a 7 meses:	Solo realiza la ubicación de los lados
De 7 a 13 meses:	Realiza la ubicación de los lados o inferior
De 13 a 21 meses:	Realiza la ubicación de los lados, inferior o superior
De 21 a 24 meses:	Realiza la ubicación de cualquier ángulo

Atención unida/compartida. La atención compartida enfatiza una comunicación exitosa. La atención unida entre un adulto y un infante enfatiza la relación entre los enunciados del adulto y

los objetos, acciones o conceptos que estos representan. Dentro de este contexto, el adulto y el infante se enfocan en el mismo punto de referencia en el entorno (por ejemplo, un sonajero). De acuerdo con Bruner (1977), la atención visual unida es prerrequisito para toda comunicación subsecuente. Un método efectivo para facilitar la atención unida o el punto de referencia compartido es poner un objeto ruidoso al frente del infante, verlo y comentar algo. El adulto puede señalar el objeto, moverlo o mover la cabeza del infante gentilmente para alentarlo a que haga contacto visual con el objeto. En ocasiones, puede ser necesario seguir la mirada del infante a algún objeto en particular y después señalarlo y decir lo que es para promover la visión unida de esta forma.

Mirada mutua. Este patrón ocular es característico del desarrollo comunicativo temprano cuando el infante y la persona que lo cuida se ven uno al otro durante interacciones sociales. Se piensa que forma las bases para el vínculo entre el infante y la persona que lo cuida (Lloyd y Masur, 2014; Rossetti, 2001) y sirve como un escalón básico para el desarrollo siguiente de la habilidad para conversar en turno (Owens, 2013). La respuesta inmediata de los padres cuando el bebé inicia el contacto visual aumenta su motivación para comunicarse y, en última instancia, da lugar a interacciones más frecuentes y variadas (Zero to Three, 2012). El establecimiento y el mantenimiento de la mirada mutua con los infantes puede mejorar cuando el contacto visual de los adultos va acompañado de sonrisas y otras expresiones faciales, caricias y vocalizaciones novedosas o divertidas.

Acciones y rutinas en conjunto. Las acciones en conjunto entre un adulto y un infante ocurren en secuencias de juego llamadas juegos o rutinas de sonidos y gestos; por ejemplo, juegos como cucú-tas, manitas o cosquillas. Una rutina es una preparación anticipada o un intercambio ritualizado entre un adulto y un infante. Posee una estructura definida marcada por un principio,

un medio y un final con posiciones claramente específicas de acuerdo con la vocalización o la verbalización. Dicha estructura permite la anticipación de eventos e incrementa el potencial de éxito de la interacción entre el adulto y el niño. De esta forma, se garantiza que cada uno de ellos sepa qué esperar del otro y así, hacer el orden de las acciones altamente predecible. Ratner y Bruner (1978) señalan que el contenido semántico del juego mutuo es altamente restringido y dentro de los conceptos que el niño conoce. En general, se cree que la regularidad y la invariabilidad de estas rutinas permiten al infante realizar sus primeros intentos de "descifrar el código lingüístico" y así adquirir las primeras palabras (Ferrier, 1978; Newson, 1979). Muchos investigadores creen también que estas rutinas facilitan el comportamiento de tomar turnos y el cambio de roles en el diálogo, dos elementos importantes de los intercambios conversacionales.

Los médicos clínicos pueden iniciar estas rutinas juguetonas en terapia y seleccionar la respuesta deseada del infante que se basa en la siguiente secuencia de adquisición típica para niños pequeños:

- Aproximadamente a los 6 meses, los infantes muestran diversión y placer (es decir, un cambio de expresión facial o de postura corporal) cuando un padre inicia una rutina de sonidos y gestos.
- Para los 7 meses, el infante anticipa el juego cuando el adulto produce solamente el componente verbal (sin ningún gesto).
- El bebé de 8 a 9 meses inicia y participa en el juego (por ejemplo, gatea detrás de la puerta y saca su cabeza sonriendo).

Para bebés un poco más grandes, los médicos clínicos usan “la rutina de leer un libro de imágenes” (Ninio y Bruner, 1978) con el bebé sentado a la par del adulto o en su regazo. Escoja un libro de imágenes divertido y siga la siguiente secuencia:

Adulto: diga “vea” (vocativo de atención) y señale al dibujo.

Niño: toca o mira las imágenes (respuesta).

A: diga “¿qué son estos?” (pregunta).

N: vocaliza, sonríe o nombra la imagen (respuesta).

A: diga “si, eso es un_____” o “no, eso no es un______. Es un ______” (retroalimentación).

Vocalizaciones. El primer año de vida es caracterizado, en parte, por el crecimiento acelerado de su físico y su maduración neuromuscular. Como resultado, el infante logra controlar cada vez más su mecanismo del habla y muestra gran expansión en la calidad y variedad de sus vocalizaciones. Dichas vocalizaciones proceden a través de una serie de etapas de desarrollo predecibles, como se presenta en la Tabla 4-1.

Tabla 4-1

Etapas de desarrollo vocal en infantes

Edad	**Comportamiento**	**Descripción**
0-2 meses	Reflexivo	Llanto homogéneo y sonidos vegetativos (por ejemplo, tos, eructos y suspiros)

2-4 meses	Arrulla	Vocalización de sonidos de placer, principalmente sonidos de vocales y parecidos
4-6 meses	Ríe Juego vocal Balbuceadas iniciales	Mantiene la combinación de arrullados y características de llanto para producir un sonido audible de “ja, ja, ja”. Exploración de la boca con la lengua y produce sonidos como chillidos, gruñidos, sonidos de labios, pedorretas y chasquidos. Juega haciendo sonidos solo, combina consonantes oclusivas con vocales para producir sílabas de CV o de VC (por ejemplo, /bo/ o /ok/).
6-8 meses	Copia balbuceos	Serie de sílabas CV o VC, cada una idéntica a la otra e iniciada frecuentemente con un /ə/ (por ejemplo, /ədadada/).
8-10 meses	Balbuceos sin copiar	Las consonantes y vocales pueden diferir de una sílaba a otra dentro de una sola secuencia (por ejemplo, /bawada/).
10-12 meses	Jerga Protopalabras	Contornos de entonación conversacional, se impone a secuencias más largas de combinaciones de sonidos y algunas palabras reales pueden ser intercaladas. Secuencias de sonidos inventadas que se usan consistentemente para referirse a un objeto o evento específico (por ejemplo, usa /na/ para decir “deme (objeto)”).

Fuente: adaptado de Oller, D. (1980). The emergence of the sounds of speech in infancy. In G. Yeni-Komshian, J. Cavanaugh, & C. Ferguson (Eds.), Child Phonology: Vol. 1. Production (pp. 93–112). New York, NY: Academic Press. Stark, R. (1980). Stages of speech development in the first year of life. In G. Yeni-Komshian, J. Cavanaugh, & C. Ferguson (Eds.), Child Phonology: Vol. 1. Production (pp. 73–92). New York, NY: Academic Press.

La expansión de la cantidad vocal de un infante se puede promover al incrementar la frecuencia, variedad o calidad de vocalizaciones que produce. El médico clínico puede estimular la vocalización hablando con el infante, cantando, tarareando, abrazándolo, haciéndole cosquillas o con juegos de sonidos y gestos como el cucú-tas. Los médicos clínicos también pueden imitar las vocalizaciones del infante de manera juguetona para iniciar un intercambio repetitivo de imitación. Las etiquetas de identificación de acciones son sonidos que disfrutan los infantes y que pueden tratar de copiar, por ejemplo, el sonido de un motor (“brum”), el sonido de una vaca (“muu”), un teléfono (daingalin), el ladrido de un perro (guao guao) o un pito de un carro (bip bip).

Intención comunicativa. Es el sentido de un mensaje que un orador desea compartir, se le conoce como la **intención comunicativa**. Como a los 9 meses de edad, los infantes descubren la intención comunicativa y comienzan a expresarla por medio de gestos y vocalizaciones (ver la Tabla 4-2). Las primeras intenciones comunicativas que desarrollan son las peticiones y las afirmaciones. En las peticiones, el infante usa al receptor intencionalmente como un agente o una herramienta para lograr algún objetivo (por ejemplo, algún objeto deseado). Las afirmaciones son cuando el infante trata de dirigir la atención del adulto hacia algún evento u objeto en el entorno. Conforme el niño empieza a adquirir vocabulario inicial, empieza a decir enunciados de una palabra para expresar su intención comunicativa (ver la Tabla 4-3).

Tabla 4-2
Intenciones comunicativas preverbales

Intención	Ejemplo descriptivo
1. Busca atención a. Hacia sí mismo b. Hacia eventos, objetos u otras personas	El niño jala los jeans del adulto para procurar atención. El niño señala al avión para dirigir la atención del adulto.
2. Peticiones a. Objetos b. Acciones c. Información	El niño señala un juguete que quiere. El niño le da al adulto un libro para que se lo lea. El niño señala la ubicación usual de la jarra de galletas (la cual no está ahí) y, a la vez, procura la mirada de la madre para determinar dónde está.
3. Saludos	El niño dice "hola" o "adiós" con la mano.
4. Transferencia	El niño le da el juguete con el que estaba jugando a la madre.
5. Protesta/Rechazo	El niño llora cuando la madre le quita el juguete. El niño aparta un plato de avena.
6. Respuesta/Aceptación	El niño responde apropiadamente a instrucciones simples. El niño sonríe cuando el padre inicia un juego favorito.
7. Información	El niño señala la rueda del carrito de juguete para mostrarle a la madre que está rota.

Fuente: Las categorías son en parte derivadas de Bates, E., Camaioni, L., & Volterra, V. (1975). The acquisition of performatives prior to speech. Merrill-Palmer Quarterly, 21, 205–224. Escalona, S. (1973). Basic modes of social interaction: Their emergence and patterning during the first two years of life. Merrill-Palmer Quarterly, 19, 205–232. Halliday, M. A. K. (1975). Learning how to mean: Explorations in the development of language. London: Edward Arnold. Wetherby, A., Cain, D., Yonclas, D., & Walker, V. (1988). Analysis of intentional communication of normal children from the prelinguistic to the multi-word stage. Journal of Speech and Hearing Research, 31, 240–252.

La evidencia sugiere que la tasa de comunicación preverbal en niños con atrasos en su desarrollo es un indicador del uso del vocabulario que vendrá después (Brady, Marquis, Fleming y McLean, 2004; Calandrella y Wilcox, 2000; McCathren, Yoder y Warren, 1999). La *frecuencia* de la intención comunicativa también es predecible, es decir, los altos niveles de intención

comunicativa no verbal durante la etapa preverbal son asociados con mejores resultados dentro de uno a dos años después (Paul y Roth, 2011; Watt, Wetherby y Shumway, 2006; Woynaroski, Yoder, Fey y Warren, 2012).

La intervención en el área de las intenciones comunicativas puede ser dirigida a (1) el incremento de los diferentes tipos de intenciones que un niño puede entender o expresar o (2) el incremento de la variedad de formas (es decir, de vocalizaciones, gestos y palabras) que entiende o usa para expresar alguna intención. Para obtener intenciones comunicativas específicas, el médico clínico debe facilitar entornos en los que las intenciones sean obligatorias o, al menos, altamente probables de que pasen (Paul, 2007; Roth, 1999; Spekman y Roth, 1984). A continuación, se presentan ejemplos de entornos que facilitan las siguientes intenciones:

Peticiones de acción:

Presente juguetes que no pueden ser operados sin asistencia del médico clínico, por ejemplo, un juguete de cuerda.

Coloque juguetes que le gusten mucho, donde el niño no pueda alcanzar sin ayuda del médico clínico.

Presente materiales incompletos o quebrados como rompecabezas sin algunas piezas o pinturas sin pinceles.

Peticiones de información:

Presente juguetes nuevos o atractivos que sea probable que el niño lo pida de nombre o pregunte información sobre su función, operación o construcción, por ejemplo, un *transformer*[1], un trompo o un libro que suene.

Búsqueda de atención:

Se finge que no se puede escuchar al niño para que tenga que decir el nombre del médico clínico, para que alce el tono vocal o la intensidad o para que se mueva más cerca al médico clínico.

Tabla 4-3
Intenciones comunicativas expresadas al nivel de una palabra

Intención	Definición
1. Nombrar	Los sustantivos comunes y propios que etiquetan a personas, objetos, eventos y ubicaciones.
2. Comentar	Las palabras que describen atributos físicos de objetos, eventos y personas que incluyen tamaño y ubicación. Movimientos observables y acciones de objetos y personas. Palabras referentes a atributos que no se observan inmediatamente como propiedad y la ubicación usual. Estas palabras no están condicionadas de enunciados anteriores.
4. Petición de acción	Las palabras que solicitan el comienzo o la continuación de alguna acción.

[1] Nota del traductor: Un *transformer* es un juguete de un robot que se transforma de un método de transporte o animal a un robot humanoide moviendo sus piezas. Viene de series de televisión, video juegos y películas del mismo nombre.

5. Petición de información	Las palabras que solicitan información sobre un objeto, acción, persona o ubicación. Se incluye un aumento en la entonación.
6. Respuesta	Las palabras que complementan directamente enunciados previos.
7. Protesta/Rechazo	Las palabras que expresan objeción de alguna acción o evento en curso o inminente.
8. Búsqueda de atención	Las palabras que solicitan la atención del niño o a aspectos del entorno.
9. Saludos	Las palabras que expresan saludos y otros rituales convencionales.

Fuente: Adaptado de Dale, P. S. (1980). Is early pragmatic development measurable? Journal of Child Language, 8, 1–12. Dore, J. (1974). A pragmatic description of early language development. Journal of Psycholinguistic Research, 3, 343–350. Halliday, M. A. K. (1975). Learning how to mean: Explorations in the development of language. London: Edward Arnold.

Juegos no simbólicos y simbólicos. Los niños aprenden al jugar y, a menudo, practican sus nuevas adquisiciones en los juegos. Infantes ganan experiencia en cómo reciben la función receptiva y expresiva del lenguaje al participar en secuencias de juegos. Además, jugar es el contexto más importante para el desarrollo de habilidades sociales de comunicación y para el contexto natural del aprendizaje temprano del lenguaje (Johnson, Christie y Yawkey, 1987; Katz, 2001; Norris y Hoffman, 1990; Rivkin, 1986; Rogers y Sawyers, 1988). En los primeros tipos de juego, los niños usan objetos con propósitos previstos (juego funcional) o participan en juegos exploratorios (por ejemplo, dejar caer o transferir objetos) y no requieren el uso de agentes simbólicos. Ejemplos adicionales de juegos funcionales incluyen actividades como correr, llenar y vaciar recipientes, conducir carritos de juguete y jugar con agua. Después surgen formas de jugar simbólicas donde el niño sustituye objetos o eventos por otros objetos/eventos. Por ejemplo, pretender hablar por teléfono o usar un palo como una espada. (Ver apéndice 4-D para

las etapas de desarrollo del juego). Las siguientes son algunas temáticas y actividades para facilitar los juegos ordenadas por desarrollo:

- La exploración de objetos comunes como bloques, sonajeros, cucharas, el golpe de ollas y sartenes, la articulación, la manipulación e inspección visual.
- El uso de juguetes apropiados, por ejemplo, un *busybox* o un juguete *See 'n Say de Fisher-Price*. [2]
- El acto de fingir acciones habituales simples como comer, dormir y beber.
- La manipulación de muñecos para actuar actividades habituales como dar un beso, bailar y decir adiós con la mano.
- El acto de fingir secuencias habituales como vaciar líquidos en una taza, tomar un sorbo y después vaciar el líquido al piso.
- El uso de plastilina o arcilla para crear "comida" como perros calientes o panqueques.
- El uso de personas en miniatura, carros o platos para actuar rutinas cotidianas, por ejemplo, tomar un baño, ir a la tienda o celebrar un cumpleaños.

Vocabulario inicial/Primer léxico. Los infantes comienzan a entender algunas palabras iniciales entre la edad de seis a ocho meses y la producción de las primeras palabras ocurren alrededor del primer cumpleaños. Asimismo, se puede estimular el desarrollo temprano del vocabulario al nivel receptivo o expresivo (Beck, McKeown y Kucan, 2013; Bloom, 2000; Tomasello, 2003; Whitehurst et al., 1991). La intervención con el objetivo de facilitar el vocabulario receptivo del niño generalmente consiste en repetir la palabra meta, usar gestos y patrones de entonación exagerados/variados para enfatizar aspectos sobresalientes de un objeto o evento. Los siguientes

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[2] N. del T.: *Busybox* es un juguete en forma de caja con múltiples actividades para niños. *See 'n Say* es un juguete de la marca Fisher-Price para niños con sonidos o frases que el niño puede aprender o repetir.

son dos ejemplos de actividades que estimulan comprensión de vocabulario temprano para un niño con impedimentos del lenguaje de 12 a 24 meses de edad:

- Juegue con el niño con una bola grande y liviana. Demuéstrele y dígale los siguiente: "*Tíreme* la bola. Alce las dos manos sobre la cabeza y tíreme la bola. Eso, suélela y *tíremela* aquí. Muy bien, así se hace".
  "Ahora *suelte* la bola. Primero yo la suelto y después usted la suelta otra vez. A ver, cómo *suelta* la bola. Bien hecho".
  "A ver cómo *patea* la bola. *Patee* la bola con el pie. *Patéela* lo más duro que pueda. Bien hecho, así se patea la bola".
- Juegue con el niño con una caja de sorpresas, por ejemplo, con un *Busy Poppin'Pals* de Playschool[3]. Dígale al niño:
  "¿Dónde está el banano del mono? Mirá, veo aquí el banano. ¿Puede ver el banano del mono? Ese no es el mono, es un panda. Señale el banano del mono".

El vocabulario expresivo temprano de los niños no es arbitrario y el léxico inicial es altamente selectivo, ya que la comunicación de los niños se basa en eventos sociales y físicos que están dentro de sus entornos inmediatos por medio de conceptos que entienden fácilmente. Se presenta una clasificación gramatical del léxico inicial típico en la Tabla 4-4 y el crecimiento del vocabulario expresivo se presenta en la Tabla 4-5.

Los investigadores también concuerdan que el vocabulario temprano de los niños expresa un conjunto básico de funciones o intenciones semánticas (Bloom, 1973; Brown, 1968; Nelson, 1973). Las estrategias para facilitar la adquisición de elementos léxicos tempranos son basadas en

[3] N. del T.: es un juego de niños de la marca Playskool que les permiten explorar colores y figuras por medio de criaturas que saltan al apretar ciertos botones, además, ayuda con la curiosidad.

la función semántica en lugar de la clasificación gramatical. Las tres consideraciones más importantes en la selección de vocabulario meta son: (1) las palabras que pueden ser usadas en diferentes contextos durante las actividades cotidianas del niño, (2) las palabras que son importantes para el niño, por ejemplo, nombres de personas queridas o tipos de comida o juguetes favoritos, y (3) las palabras que representan estados dinámicos en lugar de estáticos, en especial referentes que el niño pueda actuar o manipular directamente como una bola o una cuchara en lugar de un árbol o una pared.

Tabla 4-4
Clasificación gramatical de la producción de las primeras 50 palabras

Función gramatical	Porcentaje del vocabulario	Ejemplos
Nominales	50	Leche, perro, carro
Palabras de acción	11-14	Dar, hacer, arriba, adiós
Calificantes	14-19	Mío, limpio
Personal/social	10	No, por favor
Funcionales	4	Esto, para

Fuente: basado en Benedict, H. (1979). Early lexical development: Comprehen-sion and production. Journal of Child Language, 6, 183–200. Nelson, K. (1973). Structure and strategy in learning to talk. Society for Research in Child Development Monographs, 38, (1–2 Serial No. 149). (Reimprimido en parte en Mussen, Conger, & Kagan, Readings in child development and personality, (3rd. ed.). Harper & Row, 1975.

Tabla 4-5
Crecimiento del vocabulario expresivo

Edad	Cantidad de palabras
15 meses	4-6
18 meses	20-50

24 meses	200-300
3 años	900-1000
4 años	1500-1600
5 años	2100-2200

Fuente: adaptado de Bates, E., Marchman, V., Thal, D., Fenson, L., Dale, P., (1994). Developmental and stylistic variation in the composition of early vo-cabulary. Journal of Child Language, 21, 85–123.

Los siguientes son sugerencias de contextos y actividades que se pueden usar para estimular los diferentes tipos de intenciones semánticas al nivel de palabras individuales.

Existentes/nombramiento: presente un recipiente lleno de objetos interesantes y muéstreselos al niño uno a la vez.

No-existentes: preséntele al niño un objeto interesante y después escóndalo.

Recurrentes: comience una actividad deseable y después pare.

Acción: desarrolle una actividad con el niño como la mezcla de un pastel o pudín. De esta forma, el niño podrá hacer diferentes acciones (por ejemplo, abrir, vaciar, remover y mezclar).

Pertenencia: ponga una mezcla de las pertenencias del médico clínico y del niño en una caja, sáquelas una a la vez y sepárelas en grupos diferentes.

Locativo: desarrolle un juego con camiones o carros con el uso de utilería, por ejemplo, un *Garage* de Fisher-Price o un *Little Peoples Wheelies Race Track* [4]que motive cambios de ubicación.

[4] N. del T.: es un juguete de carritos de varios niveles para niños de la marca Fisher-Price. Hay de diferentes tipos.

Rechazo: ofrezca objetos o actividades que se sepa que no le llaman la atención al niño.

Negación: juagando, cámbieles el nombre a objetos o a partes del cuerpo que el niño sepa a propósito.

La lectura de libros en conjunto es una estrategia basada en evidencia para promover el desarrollo simultáneo del vocabulario receptivo y expresivo. Los médicos clínicos deberían realizar esta práctica con sus clientes pequeños y motivar a los padres a que lean libros a sus hijos (para más información, ver la sección de la alfabetización emergente más adelante en este capítulo).

Durante este periodo de desarrollo, los niños adquieren la mayor parte del sistema lingüístico y este se caracteriza por un rápido crecimiento del vocabulario. A partir de los 18 meses, los niños añaden aproximadamente de 9 a 10 palabras nuevas a su léxico cada día, es decir, 3.000 palabras al año (Graves, 1986). El promedio del grado de los enunciados sigue aumentando y los niños adquieren la sintaxis cuando empiezan a imponer el orden de las palabras en sus combinaciones de dos palabras. Las formas morfológicas surgen y se consolidan, aunque el dominio completo no se alcanza hasta los primeros años de la escuela primaria. Este periodo de desarrollo también se caracteriza por la capacidad de los niños para comprender y producir una variedad de formas oracionales simples y complejas. Además, los niños de esta edad muestran un desarrollo sustancial en el área de la alfabetización emergente a través de la exposición y la interacción con la letra impresa. En las Tablas 4-6 a 4-14, se revisan las etapas de la longitud promedio del enunciado (MLU por sus siglas en inglés), las intenciones semánticas de dos palabras, la adquisición de morfemas gramaticales, el desarrollo de los verbos auxiliares, el desarrollo de la

negación, el desarrollo de las preguntas, el progreso de comprensión de tipos de oración, los rasgos distintivos del desarrollo de la lectoescritura y los estadios de desarrollo de la escritura temprana.

Durante este periodo, se producen varios avances en el lenguaje oral. El vocabulario de los niños aumenta en tamaño y en profundidad de conocimiento de las palabras (por ejemplo, matices de significado: rojo frente a carmesí; correr frente a *sprint*). La longitud de los enunciados aumenta aproximadamente una palabra al año hasta los 9 años, cuando la longitud de los enunciados del lenguaje oral empieza a disminuir. El crecimiento sintáctico se caracteriza por un mayor uso de estructuras de baja frecuencia (por ejemplo, oraciones pasivas) y un mayor uso de oraciones complejas (por ejemplo, construcciones de cláusulas relativas).

Otro avance importante en el desarrollo del lenguaje oral durante este periodo se produce en el área de la *conciencia metalingüística*. Conviene subrayar que la conciencia metalingüística implica el conocimiento explícito y la capacidad de manipular los aspectos estructurales del lenguaje independientemente del significado que transmite el mensaje. Muchas actividades lingüísticas requieren esta capacidad de centrarse en el lenguaje como una entidad en sí misma, incluyendo tareas de conciencia fonológica para segmentar y combinar sonidos del habla o sílabas (metafonología); la aportación de definiciones formales; la apreciación del humor, las metáforas, las expresiones idiomáticas y otras formas figuradas del lenguaje (metasemántica); y la capacidad de tomar decisiones gramaticales (metasintaxis).

Es especialmente importante que los niños perfeccionen sus conocimientos fonológicos hasta el nivel de la conciencia fonémica (es decir, la capacidad de segmentar y combinar los sonidos individuales de las palabras). Se ha determinado que la conciencia fonémica y, específicamente, la capacidad de segmentar las palabras en fonemas son los factores que mejor

predicen las habilidades tempranas de lectura y escritura (Torgesen, Wagner y Rashotte, 1994; Wagner y Torgesen, 1987; Wagner, Torgesen y Rashotte, 1994). Así pues, existe una relación de desarrollo entre las destrezas del lenguaje oral y la alfabetización; además, esta relación es recíproca. Es decir, las destrezas de conciencia fonémica promueven la capacidad lectora temprana y la destreza lectora temprana fomenta el desarrollo de la conciencia fonémica (ver el capítulo 4 para obtener información adicional sobre la conciencia fonológica y su desarrollo).

Además de progresar en el lenguaje oral, los niños adquieren habilidades básicas de lectoescritura durante primaria, cuando empiezan a recibir instrucción formal en lectura y escritura. En lectura, aprenden primero a *descodificar* palabras impresas (y no palabras) al producir correspondencia de sonidos con letras (es decir, al utilizar el principio alfabético). A medida que los niños adquieren precisión en el reconocimiento de palabras, mejora su *fluidez lectora* y empiezan a leer textos fluidos con mayor facilidad y automaticidad. En la escuela primaria media, la lectura y su enseñanza pasa a centrarse en la *comprensión lectora*, es decir, en la lectura con sentido. Por lo tanto, el paso de tercero a cuarto grado representa una transición crítica porque "aprender a leer" se convierte en "leer para aprender". Ver la Tabla 5-1 para las definiciones y etapas del desarrollo de la lectura.

De tercero a cuarto grado, también es el momento en el que el desarrollo de la escritura progresa tanto en *ortografía* como en *composición escrita* (escritura a nivel de texto). Para mediados o a finales de primaria, los niños alcanzan la etapa de ortografía convencional y pueden deletrear correctamente un gran número de palabras de forma automática (véanse las etapas de desarrollo de la ortografía en el capítulo 4) y pueden deletrear con suficiente fluidez para componer textos con frases largas. Así pues, muestran avances tanto en los procesos como en los productos de la escritura. Según Hayes y Flower (1987), los *procesos de escritura* incluyen:

- Planificación (preescritura)-generación y organización de ideas sobre el tema, teniendo en cuenta tanto el objetivo como el público destinatario.
- Redactar/componer: plasmar las ideas en palabras y texto.
- Revisar-revisar y evaluar el contenido para reorganizar, consolidar y desarrollar nuevas ideas.
- Editar el texto escrito: pulir la fluidez y el formato de la composición.

Para los escritores expertos, estos procesos se solapan y son continuos hasta que se genera la composición final. Los siguientes *productos de la escritura*, que son el resultado de los procesos de escritura, se producen a nivel de palabra, frase y texto (Dockrell, 2014; Nelson, 2014):

- Selección de palabras y ortografía (nivel de palabras).
- Complejidad gramatical y formas morfológicas (nivel de la frase).
- Dispositivos de cohesión que unen las frases (nivel del texto).
- Tipo de discurso, como el ensayo persuasivo frente a la composición de comparación y contraste (nivel del texto).
- Mayúsculas y puntuación (en todos los niveles).

El desarrollo de las estructuras del texto escrito va de la forma narrativa a los distintos tipos de escritura expositiva. Asimismo, el discurso narrativo incluye relatos o formas similares en los que los acontecimientos suceden en orden cronológico. Los textos expositivos presentan acontecimientos no secuenciados cronológicamente y suelen transmitir información novedosa para el lector. Algunos ejemplos de diferentes tipos de estructuras de textos expositivos son la descripción, la comparación/contraste y la persuasión/argumentación. Ver en la Tabla 5-2 las diferencias entre textos narrativos y expositivos y en la Tabla 5-3, los distintos tipos de

estructuras textuales y sus características. Además de los textos narrativos y expositivos, existen los ensayos persuasivos. La diferencia principal entre ellos es que un ensayo expositivo explica y proporciona información clarificadora, mientras que las piezas persuasivas argumentan a favor de un punto de vista particular sobre un tema discutible.

Tabla 5-1
Definiciones del proceso de lectura y las etapas del desarrollo de la lectura

Terminología	**Definición/Descripción**
Descodificación	Conocimiento de la correspondencia entre letra y sonido (el principio alfabético) para convertir la imprenta en palabras.
Identificación de palabras y fluidez	Identificación rápida y automática de las palabras escritas.
Comprensión	Proceso que permite entender e interpretar el lenguaje impreso.
Etapas del desarrollo *Lectura a nivel de palabra*	
Logográfico/Prealfabético	La asociación entre palabras habladas con el entorno impreso sin el conocimiento de la correspondencia entre letra y sonido (el principio alfabético), por ejemplo, logotipos, nombres de marca y señalación de calle.
Transición	Conocimiento parcial de la correspondencia entre letra y sonido, por ejemplo, el uso de la letra inicial o final para adivinar la palabra, vocabulario a primera vista para palabras muy familiares.
Alfabético	Conocimiento completo del principio alfabético, es decir, la capacidad para

	descodificar palabras familiares y desconocidas.
Ortográfico	El uso de patrones ortográficos para identificar y pronunciar patrones de letras comúnmente recurrentes como unidades (por ejemplo, palabras base, prefijos, sufijos y sílabas); acumula una gran cantidad de vocabulario.
Identificación automática de palabras	Lectura experta y fluida de la mayoría de las palabras a vista.
Lectura a nivel de texto	
Etapa 1 4°- 6° grado	Puede leer contenido familiar (por ejemplo, narrativas), concreta la fluidez y velocidad lectora, no lee para obtener nueva información, entonces, se puede concentrar en la imprenta.
Etapa 2 7° - 8° grado	Lee textos para aprender información nueva (la lectura se vuelve la fuente de ideas), lee materiales con un punto de vista para obtener hechos, conceptos y cómo hacer cosas en lugar de leer para obtener matices. Comienza a aplicar conocimientos y experiencia previa en su escritura y crece la importancia del sentido de palabras y de vocabulario.
Etapa 3 9° - 12° grado	Lee múltiples puntos de vista, lee más de una agrupación de hechos y adquiere conceptos y puntos de vista de textos (libros, obras de referencia, ficción para adolescentes, periódicos y revistas).
Etapa 4 12° grado en adelante	Etapa de lectura madura, lee para obtener más detalles e información completa, la lectura es más cualitativa, ya que el elector acumula conocimiento por medio del análisis, síntesis y evaluación de información de fuentes

	diferentes. Lee a diferentes niveles para obtener el grado de detalle deseado, por ejemplo, lee por encima frente al estudio de un texto.

Tabla 5-2
Diferencias entre los textos narrativos y los expositivos

Narrativos	**Expositivos**
Tienen el objetivo de entretener.	Tienen el objetivo de informar.
Tienen un esquema de contenido familiar.	Tienen un esquema de contenido no familiar.
Tienen una estructura de texto consistente.	Sus estructuras varían.
Se enfocan en las motivaciones, intenciones y metas de los personajes.	Se enfocan en información de hechos y en ideas abstractas.
A menudo requiere perspectivas múltiples y entender los diferentes puntos de vista de otros personajes.	Se espera que se tome el punto de vista del escritor.
Pueden usar inferencias pragmáticas, es decir, infiere de experiencias similares.	Debe usar inferencias basadas en la lógica y la deducción.
Las palabras conectoras no son críticas, en especial, después y entonces.	Las palabras conectoras son críticas con una gran variedad, por ejemplo, porque, antes, después, si-entonces y, por ende.
Cada texto es autónomo.	Se espera integrar información de diferentes textos.
Se puede usar el proceso de información de arriba hacia abajo.	Se apoya del proceso de información de abajo para arriba.

Fuente: adaptado de Westby, C. E. (2012). Assessing and remediating text comprehension problems. In A. G. Kamhi & H. W. Catts (Eds.) &, Language and reading disabilities (3rd Ed (pp. 154–223). Boston, MA: Pearson.

Tabla 5-2
Diferencias entre los textos narrativos y los expositivos

Tipo de texto	Función	Palabras clave
Descriptivo	¿El texto me dice lo que es algo?	*No hay*
Secuencia/orden	¿El texto me dice cómo hacer algo?	*Primero…a continuación…después; segundo…tercero…seguidamente, finalmente*
Causa y efecto	¿El texto da razones de por qué o cómo es algo?	*Porque, desde, después, por ende, por este motivo, resultados, efectos, consecuentemente, entonces, para, ya que*
Problema y solución	¿El texto presenta un problema y ofrece soluciones al mismo?	*Un problema es; una solución es*
Comparación y contraste	¿El texto muestra similitudes o diferencias entre dos cosas?	*Diferente, igual, similar, parecido, aunque, sin embargo, por lo contrario, aunque, igualmente, en lugar de*

Fuente: adaptado de Westby, C. E. (2012). Assessing and remediating text comprehension problems. In A. G. Kamhi & H. W. Catts (Eds.) &, Language and reading disabilities (3rd Ed) (pp. 154–223). Boston, MA: Pearson.

La adolescencia es el periodo de desarrollo durante el cual los jóvenes (1) desarrollan una identidad estable, (2) adquieren independencia familiar, (3) desarrollan planes profesionales y (4) desarrollan valores morales y éticos coherentes con los de la sociedad (Erikson, 1968). Hay tres etapas principales de la adolescencia y los objetivos de intervención para cada etapa difieren ligeramente. En la adolescencia temprana (de los 10 a los 14 años), el objetivo principal es desarrollar habilidades de comunicación con fines académicos, personales y sociales. Los objetivos para la adolescencia media (de los 14 a 16 años) implican la facilidad de habilidades

comunicativas para objetivos académicos, personales-sociales y vocacionales. Al final de la adolescencia (de los 16 a 20 años), la intervención lingüística se concentra en el desarrollo de habilidades comunicativas con fines personales, sociales y profesionales.

En la adolescencia, las habilidades comunicativas se perfeccionan y las capacidades lingüísticas de orden superior se desarrollan significativamente a medida que el sistema lingüístico del niño alcanza la clase adulta. Asimismo, se produce un crecimiento significativo en el área metalingüística de los usos no literales o figurativos del lenguaje que incluyen los modismos, las metáforas, los proverbios y el humor. Las mismas se consideran formas lingüísticas de orden superior porque requieren la capacidad de ir más allá del significado convencional del lenguaje para su correcta interpretación o uso. Las formas de lenguaje figurativo aparecen cada vez más en materiales lingüísticos orales y escritos a partir de los años de primaria. De hecho, en octavo grado, al menos el 20% de las conversaciones de los profesores y de los textos escritos consisten en usos no literales del lenguaje (Nippold, 1998; Nippold, Hesketh, Duthie y Mansfield, 2005).

Durante la adolescencia, también se produce un desarrollo continuo de la madurez conversacional, la longitud de los enunciados, la comprensión/producción de oraciones complejas, los dispositivos de cohesión lingüística (véanse los tipos en el Apéndice 5-A) y las estructuras sintácticas de baja frecuencia (formas lingüísticas que aparecen con mayor frecuencia en los textos escritos y hablados que en las conversaciones orales, como las frases sustantivas y verbales expandidas). El conocimiento semántico también tuvo un gran aumento con respecto al tamaño del vocabulario y a la profundidad del conocimiento de palabras. El conocimiento de palabras refleja una mayor comprensión de las palabras con múltiples significados (por ejemplo,

bloque, frío) y del léxico literario (palabras que suelen aparecer en contextos académicos como libros de texto, conferencias y seminarios).

Además del lenguaje oral, los alumnos demuestran avances en el ámbito del lenguaje escrito, a medida que se convierten en lectores maduros y escritores hábiles al final de este periodo de desarrollo. Los alumnos leen textos más largos y complicados (ver las etapas del desarrollo de la lectura en la Tabla 5-1) y pueden concentrarse cada vez más en obtener y sintetizar información nueva a partir de diversos materiales impresos (por ejemplo, libros de texto, ensayos, poemas, fuentes de referencia, etc.). Tanto en la lectura como en la escritura, la atención se desplaza de los hechos de contenido (proposiciones simples transmitidas por un texto como información sobre un personaje de una historia o datos sobre mamíferos) a esquemas de contenido (macroestructuras que representan la organización de un texto como una historia o un ensayo de comparación y contraste). El conocimiento de los esquemas proporciona estructura que permite al lector hacer lo siguiente:

- Organizar conjuntos de hechos (conocimiento del contenido).
- Asimilar nueva información del texto (por ejemplo, nuevos hechos).
- Realizar las inferencias necesarias para una comprensión precisa y completa (por ejemplo, predecir lo que viene, a continuación; comprender lo que no se dice explícitamente).
- Buscar información en la memoria de forma ordenada.
- Mejorar en la reconstrucción y el resumen de textos.

La expresión escrita de los adolescentes muestra mejoras constantes en el uso de estrategias de planificación y organización, en la capacidad de reflexionar y revisar/editar los

borradores iniciales en cuanto a gramática, puntuación y elección de palabras y en la capacidad de satisfacer las exigencias organizativas y estructurales de distintos géneros discursivos. Ver en la Tabla 5-3 los distintos tipos de estructura textual y sus características.

Los alumnos mayores con **dificultades de aprendizaje del lenguaje (DAL)** suelen presentar dificultades significativas tanto con los procesos como con los productos de la escritura. Las principales características del proceso de los alumnos con DAL son las siguientes:

- Falta de planificación
- Uso reducido de conocimientos previos
- Falta de revisión y edición
- La composición no se ajusta al género
- Sentido reducido de la audiencia (comprensión de la percepción de la audiencia)

Las principales características de los productos escritos de los alumnos con DAL son las siguientes:

- Textos más cortos
- Menor complejidad en las frases (tanto semántica como sintáctica)
- Menor número de lazos cohesivos y uso menos preciso de la cohesión
- Mayor cantidad de errores gramaticales
- Mayor cantidad de errores de puntuación

Una última área de importancia durante este periodo de desarrollo son **las funciones metacognitiva y ejecutiva.** Las habilidades metacognitivas implican una conciencia de las propias capacidades para resolver problemas e incluyen conductas de autorregulación que se utilizan para guiar, supervisar y evaluar el éxito propio (Baddeley, 2007; Barkley, 1996, 1997).

De esta manera, se incluyen la planificación, la atención selectiva a determinados aspectos de una situación, el desplazamiento de la atención según sea necesario, la inhibición de los impulsos conductuales, el establecimiento de objetivos y la organización/modificación de conducta y de trabajo. La función metacognitiva/ejecutiva se ha descrito acertadamente como "el sistema de control del tráfico aéreo del cerebro" (ver, por ejemplo, www.developingchild.harvard.edu).

Los estudiantes muestran notables avances en el funcionamiento metacognitivo a partir del cuarto grado, aproximadamente, y, como resultado, se convierten gradualmente en aprendices más estratégicos. La metacognición se considera un área de capacidad de orden superior porque estas "meta" estrategias deben invocarse desde el principio de una tarea; además, requieren un análisis de esta y una gran planificación. La metacognición también requiere "conciencia plena", las cuales son las habilidades que permiten un aprendizaje intencional, adaptativo y flexible. Los alumnos con estas dificultades de orden superior suelen tener dificultades con la organización general, para establecer y alcanzar objetivos, planificar de acuerdo con las exigencias de la tarea, identificar errores en su propio trabajo e iniciar enfoques alternativos a una tarea (realizar ajustes de conducta). El conocimiento del desarrollo metacognitivo y sus déficits son necesarios para los terapeutas del lenguaje porque estas habilidades y estrategias están mediadas por el lenguaje y, por lo general, no se enseñan explícitamente en el aula. En los entornos educativos tradicionales, se anima y espera implícitamente que los alumnos hablen de sí mismos a lo largo de la jornada escolar sobre la naturaleza de una tarea, cómo y por qué la están haciendo, la eficacia de sus estrategias y las formas de cambiar sus comportamientos y estrategias.

Los alumnos con dificultades de lenguaje y aprendizaje, a menudo, buscan oportunidades de educación postsecundaria, es decir, en el empleo o en la carrera profesional. Muchas de estas personas siguen necesitando adaptaciones para funcionar eficazmente en estos entornos

avanzados (Association on Higher Education and Disability [AHEAD], 2008). Es necesario documentar una discapacidad durante la transición para poder beneficiarse de estas ayudas. Por desgracia, no hay uniformidad entre los entornos en cuanto al tipo o el rigor de la documentación necesaria. Por ejemplo, en algunos entornos se enfoca en la "historia" de la discapacidad y sus limitaciones funcionales, más que en el diagnóstico actual de la discapacidad. En otros casos, como en la mayoría de las instituciones académicas de 2 y 4 años, se requiere un diagnóstico "reciente", donde "reciente" se define como no más de los 3 años. Los terapeutas del lenguaje, profesionales adicionales y las familias deben ser conscientes de que la documentación es necesaria, de que puede resultar onerosa y que requiere planificación y preparación. Por ejemplo, si una institución, un programa de formación o un lugar de trabajo exigen documentación reciente de un diagnóstico, el terapeuta del lenguaje puede planificar una evaluación de salida en consecuencia.

PAQUETE DE PRECIOS PARA EL CONGELAMIENTO DE ÓVULOS DE NHFC

New Hope se complace en ofrecer 2 opciones para el congelamiento de óvulos:

(A) Congelamiento de óvulos por ciclo ($4 950) con complementos opcionales.

(B) Paquete de congelamiento de 3 ciclos ($11 000) con complementos opcionales.

	(A)Congelamiento de óvulos por ciclo	**(B)Paquete de congelamiento de 3 ciclos**
Monitoreo (Examen de sangre y ultrasonido)	$1000 por mes	3 meses de extracción de óvulos previas más el monitoreo
Extracción de óvulo (ovocito)	$1700 (anestesia local)	Incluye 3 procedimientos de extracción de óvulos (anestesia local)
Congelamiento de óvulo (ovocito)	$1750 (cobro suplementario de $700 si se congelan más de 10 óvulos)	Incluye 3 procedimientos de congelamiento de óvulos (criopreservación) (cobro suplementario de $700 si se congelan más de 10 óvulos en cada extracción)
Reuniones/charlas/consultas de telemedicina	$450 por cada mes	Extracción de óvulos previas, incluidas en el paquete
Total	**$4950**	**$11000 (se ahorra $4850)**

Notas:

1. Todos los ciclos incluyen anestesia local y gestión de los ciclos, además de seis (6) meses de almacenamiento complementario y empieza el primer día del congelamiento de óvulo.
2. El paquete de congelamiento de 3 ciclos debe ser completado dentro de 6 meses a partir de la primera cita de monitoreo.
3. El cobro para cada opción se paga en la primera cita de monitoreo y no son rembolsables.

COBROS ADICIONALES:

1. Preevaluaciones: son requeridas antes de comenzar el ciclo de congelamiento del óvulo.

   Si no tiene seguro médico, el costo aproximado es de $800 a $1200.

2. Evaluación de portador ampliada: $349

3. Medicamentos (por ciclo): $1500-$2000

4. Anestesia intravenosa (si es necesario): $750
5. Almacenamiento anual de ovocito: $1200 (después del periodo de almacenamiento complementario) [ALMACENAMIENTO A LARGO PLAZO: 3 años ($2400), 5 años ($3600)]

Selección de paquete/ciclo de congelamiento de óvulo

____ (A) Congelamiento de óvulos por ciclo

____ (B) Paquete de congelamiento de 3 ciclos

Afirmo que me han dado la oportunidad de hacer cualquier pregunta que yo pueda tener. He leído, entendido y aceptado los términos y condiciones de este acuerdo. Al firmar en las siguientes líneas, doy mi consentimiento para participar del paquete/ciclo de congelamiento de óvulo indicado en la parte superior.

________________	________________	________________
Nombre del paciente	Firma del paciente	Fecha
________________	________________	________________
Nombre del testigo	Iniciales del testigo	Fecha

Paquetedecongelamientodeóvulo. 01.01.2023. V2

Chapter V

Data Analysis

After the translation work is done, the analysis becomes a pivotal pillar in the investigator's research. The following chapter will discuss the data analysis of the work done above. In this section, a follow-up is explored on what the investigator has been working on the last few months, checking back, and exploring data about the translated text. Here, one will find a detailed analysis of the source text regarding text type and other categories. One will also find the implementation of the instruments mentioned in chapter three, meaning the color-coding analysis and the glossary.

5.1 Analysis and interpretation of the results

The results presented in this section of the work include the color-coding of the text, which highlights the different translation procedures; the text analysis proposed by Peter Newmark; and the glossary of pertinent words and phrases within the text.

5.1.1 Text Analysis

Text Analysis Element	**Medical documents from Clínica Bama and Centro Quirúrgico Ambulatorio QR**	**Medical documents from The Office of Sara Edelberg (SLP) and New Hope Fertility Clinic**
Text style	Descriptive	Descriptive
Stylistic Scale of Formality	Formal/Neutral	Formal/Neutral
Stylistic Scale of Generality	Technical/Educated	Technical/Educated

Stylistic Scale of Emotional Tone	Factual	Factual
Text Function	Informative	Informative
Type of Translation	Communicative/Semantic	Communicative/Semantic

Table 5. Text analysis of the translated document
Source: Researcher's own creation

5.1.2 Color Coding

Procedure	Example	Explanation
Transposition	Transposition	Highlighted in yellow
Modulation	Modulation	Highlighted in blue with white font
Omission	Omission	Underlined in the ST
Amplification	(Amplification)	Dark red font in parenthesis
Explicitation	Explicitation	Highlighted in teal with white font
Adaptation	Adaptation	Black double underline
Compensation	Compensation	Underlined in orange
Equivalence	Equivalence	Highlighted in bright green

Literal Translation	Literal Translation	Green font

Table 6. Illustrates the color used during the color coding
Source: Researcher's own creation

5.1.2.1 Documents from La Clínica Bama and El Centro Quirúrgico Ambulatorio QR

Color coding

Spanish to English

Paragraph 1

Entiendo y acepto que no existe garantía que los procedimientos que se me realicen resuelvan definitivamente mi padecimiento y/o alcancen los fines deseados y estoy consciente de los riesgos y daños que podrían resultar de la realización de tales procedimientos médicos y/o quirúrgicos. Por lo anterior, eximo de toda responsabilidad al Centro Quirúrgico Ambulatorio RQ por cualquier eventualidad o complicación que pudiera derivarse de los procedimientos médicos y/o quirúrgicos a los cuales me someteré. Asimismo, hago constar que estoy enterado (a) del contenido del "Contrato de prestación de servicios médicos", el cual he firmado de conformidad

I understand and accept that (there) is no guarantee that (any) procedure done (will) completely resolve my condition and/or meet the desired outcome, and I am aware of possible risks and injuries resulting from such medical and/or surgical procedures. Consequently, I exempt Centro Quirúrgico Ambulatorio RQ from all liability regarding any eventuality or complication that could arise from the medical and/or surgical

procedures I (will) have done. I (also) certify that I am aware (of the) contents (of the) "Medical Services Agreement," which I have signed in accordance with its terms and conditions.

Paragraph 2

DERECHOS DEL CLIENTE: Es su derecho como cliente o responsable a ser informado del procedimiento que se le va a realizar, de manera tal que después de conocer los posibles riesgos, posibles complicaciones y secuelas usted pueda tomar una decisión para continuar con el procedimiento a realizar y brindarnos su consentimiento.

ANESTESIOLOGIA: Como: "la práctica de la medicina dedicada al alivio del dolor y al cuidado completo e integral del usuario quirúrgico, antes durante y después de la cirugía". ANESTESIA:

• Acto médico controlado en el que se usan fármacos para bloquear la sensibilidad táctil y dolorosa de un usuario, sea en todo o en una parte de su cuerpo con o sin compromiso de la conciencia, con analgesia y relajación muscular manteniendo el organismo en condiciones estables y que pueda tolerar en procedimiento.

PATIENT'S RIGHTS:

It is your right as (a) patient or responsible party to be informed (of the) procedure you will have done, so that after understanding the possible risks, complications, and side effects, you may decide (whether) to continue with the procedure and provide your consent.

ANESTHESIOLOGY:

How: "By practicing medicine focused on pain relief and the comprehensive care of surgery

patients, before, during, and after surgery."

ANESTHESIA:

- (A) controlled medical procedure in which drugs are used to block a patient's tactile and pain sensitivity throughout the entire body or a part (of it) with or without affecting awareness by sedation and muscular relaxation, maintaining the body under (a) stable condition so that it may tolerate the procedure.

Paragraph 3

RIESGOS Y CONSECUENCIAS:

El acto médico lleva implícito una serie de complicaciones tanto médicas como quirúrgicas potencialmente serias, que podrían requerir tratamientos complementarios.

Todos los tipos de anestesia acarrean algo de riesgo, aunque los efectos secundarios mayores y complicaciones son infrecuentes. Sin embargo, la American Society of Anesthesiologists (Asociación Estadounidenses de Anestesiólogos) dice que las complicaciones debido a la anestesia han disminuido significativamente en los últimos 25 años, lo cual se debe a mejoras.

A. La administración de drogas anestésicas y sueros excepcionalmente pueden generar reacciones alérgicas, que no justifican pruebas previas, el anestesiólogo y la Clínica cuentan con los recursos para contrarrestar dichas reacciones.

RISKS AND SIDE EFFECTS:

Medical intervention carries a series of potentially serious medical and surgical complications that may require complementary treatments.

All types of anesthesia carry some risk, although major side effects and complications are rare. However, the American Society of Anesthesiologists says that complications due to anesthesia have decreased significantly over the past 25 years due to improvements.

G. The administration of anesthetic drugs and serums may generate allergic reactions on rare occasions, which (do) not justify previous tests, the anesthesiologist and the clinic have the resources to counteract such reactions.

Paragraph 4

Preparación para la Realización de vasectomía

1. Evitar tomar aspirina, ibuprofeno durante dos semanas antes de la cirugía. Estos medicamentos pueden provocar hemorragias luego del procedimiento.

2. Ducharse y limpiarse el escroto el día de la operación. También aféitese el escroto.

3. Comuníquenos si le hicieron alguna cirugía de escroto.

4. Pedir a un familiar adulto o a un amigo que lo lleve a casa después de la cirugía

5. Deberá traer una Enantyum Intramuscular, que será aplicada antes del procedimiento.

Vasectomy Procedure Prep

6. Avoid taking aspirin (and) ibuprofen two weeks before the date (of the) procedure. These medications may cause hemorrhages after the procedure.

7. Take a shower and clean the scrotum (on) the day of the surgery. Likewise, shave the scrotum.

8. (Please) let us know if you had any procedure done on (the) scrotum.

9. Have an adult family member or friend take you home after the surgery.

10. You must bring an intramuscular Enantyum shot which will be applied before the procedure.

Paragraph 5

Las relaciones sexuales después de la vasectomía

La vasectomía no cambia la función sexual. Por esto, cuando reanude sus relaciones sexuales, la sensación será la misma que antes. La vasectomía tampoco debería afectar la relación que tiene con su pareja. Sin embargo, es importante recordar que la esterilidad no es inmediata. Pasará tiempo antes de que pueda tener relaciones sexuales sin anticonceptivos.

Cuando debe recibir atención médica

Llame al Doctor si nota cualquiera de estos síntomas después de la cirugía:

1. Más dolor o hinchazón en el escroto

2. Una zona amoratada grande o un bulto que aumenta de tamaño

3. Fiebre

4. Escalofríos

5. Mayor enrojecimiento o secreción en los sitios de la incisión;

6. Dificultades para orinar.

Intercourse after the Vasectomy

The vasectomy (does) not change sexual function. Hence, when engaging again (in) sexual relations, (it will have) the same feeling as (it did) before. (Likewise), the vasectomy should not have any effect (on) the relationship with your partner, however, (it) is important (to) remember that sterility is not immediate. (It) will take (some) time before (you) can have intercourse without (the use of) birth control.

When (to) Seek Medical Attention

Call the doctor if you notice any of (the) following symptoms after surgery:

1. Increased pain or inflammation of the scrotum.
2. A big, bruised area or a lump that increases in size.
3. Fever
4. Chills
5. Increased redness or drainage from the incision site.
6. Difficulty urinating

Paragraph 6

Reacciones De Enderezamiento (RR)

Comienzan su desarrollo al nacer, se hacen más dominantes a los 10-12 meses de edad, y la mayoría permanecen activos durante toda la vida.

Reacción de Enderezamiento laberíntico de la cabeza (RELC): Sostenga al niño con los ojos cubiertos, se ladea el cuerpo en cualquier dirección la cabeza adoptara una posición vertical. La cabeza orienta el movimiento del resto del cuerpo, lo que propicia poder levantar la cabeza o ponerse de pie.

Reacción de Enderezamiento Óptico (REO): Se adapta a la acción anterior pero sin cubrir los ojos del niño, este intentará mantener o llevar la cabeza en forma vertical utilizando la información visual.

Righting Reflex (RR)

They begin their development at birth, become more dominant at 10-12 months of age, and most remain active throughout life.

Labyrinthine Head Righting Reflex (LHRR): Hold the child with his eyes covered. Tilt the body toward any direction, the head will adopt a vertical position. The head guides the rest of the body which makes it possible (to) lift the head or stand.

Oculo-headrighting Reflex (OHRR): The previous reflex is done without covering the child's eyes. He will try (to) maintain his head up or bring (it) up vertically using visual information.

Paragraph 7

MOTRICIDAD FINA

El desarrollo de la motricidad fina va direccionado al trabajo con el grupo de pequeños músculos que realizan movimientos específicos y muy controlados: las palmas de las manos y los dedos, y

los músculos que rodean la boca y los ojos. Estos músculos permiten levantar objetos, lograr una perfecta coordinación óculo manual, hablar y mover los ojos, abarca además la habilidad para moverse y desplazarse, y permite al niño conocer el mundo, tomar contacto con él, donde se abarcan los sentidos como poder ver, oír, oler, percibir sabores, texturas y temperaturas.

FINE MOTOR (SKILLS)

The development of fine motor (skills) is focused on working with small muscle groups that perform specific and very controlled movements. (For example), the fingers, palms of the hand, and the muscles around the mouth and eyes. These muscles allow (for) lifting objects, perfect hand-eye coordination, speech, and eye movement. (It) also encompasses the ability to move and ambulate, (it) allows the child (to) explore the world, (and) connect with it through the senses: sight, hearing, smell, taste, textures, and temperature.

Paragraph 8

Desarrollo Cognitivo

Consiste en estimular en el niño todos los aspectos relacionados con lo que necesita la mente para comprender, relacionar y adaptarse a nuevas situaciones mediante el uso del pensamiento y la interacción directa con los objetos y el mundo que lo rodea. El niño comienza a construir su pensamiento a partir de las experiencias con los objetos y el entorno, donde toma conciencia de si mismo para comenzar a ordenar la realidad, donde se permite explorar, comparar, elegir, indagar etc. Para lograr este conocimiento el niño utiliza tres sistemas de procesamiento: la acción, facilidad por su dimensión sensorio motriz; la construcción de imágenes mentales, o sea, la capacidad de entender que aunque no vea o toque un objeto este igual existe; y el

lenguaje, que le permite representar las experiencias con mayor flexibilidad.

Cognitive Development

(It) consists of (the) stimulation (of) all aspects pertaining to what the mind needs to understand, associate, and adapt to new situations using thought and direct interaction with objects and the world around them. The child starts to build thinking through experiences with objects and the environment where (he) grows conscious of himself and begins to organize reality (through) exploration, comparison, choice, questions, etc. The child gains this knowledge through three processing systems: action, (the) ease with which they use their sensory-motor (skills), the construction of mental images, that is, the ability to understand even though (they do) not see or feel an existing object, and language which allows them (to) express experiences with greater flexibility.

Paragraph 9

Desarrollo socio-afectivo

Esta área es básicamente la habilidad de reconocer y expresar emociones y sentimientos, en ella se busca proporcionar actividades que le permitan al niño la interacción con las personas que lo rodean para que pueda socializar, establecer vínculos afectivos, expresar sus emociones y sentimientos. Involucra un cúmulo de experiencias afectivas y de socialización que permite al niño sentirse un individuo único, diferente de los demás, pero a la vez querido, seguro y comprendido, capaz de relacionarse con otros bajo ciertas normas comunes. En este aspecto del desarrollo es fundamental la participación de los adultos como primeros generadores de vínculos afectivos, pues hasta los dos años el niño interactúa casi de forma exclusiva con ellos.

Socio-affective Development

This area is basically the ability to recognize and express emotions and feelings. It aims (to) provide activities that allow the child to interact with people to be able (to) socialize, set emotional relationships, (and) express their emotions and feelings. (It) deals (with) a culmination of emotional and social experiences that allow the child (to) feel like a unique individual, different from everyone else but loved at the same time, safe, understood, (and) capable of relating with others under certain common norms. In this part of the development, parent participation is fundamental as (they are the) first (to) create emotional bonds due to the fact (that), up to two years of age, the child (has) almost exclusive interaction with them.

Paragraph 10

Niño Niña: Peso: 4.0 kg Peso: 3.5 kg Talla: 55 cm Talla: 45 cm

En los primeros días de vida los bebés siguen patrones de comportamiento, diferentes a los del resto de su desarrollo ya que se enfrentan a todo por primera vez y experimentan sensaciones completamente desconocidas; dedican la mayoría del tiempo a dormir y a alimentarse, se convierten en seres muy dependientes de sus padres; sus acciones corresponden a actos reflejos más que a una intención, en este momento es muy importante brindarles mucho afecto para generarles confianza y seguridad.

Boy	**Girl**
Weight: 9lbs	Weight: 8lbs
Height: 1ft 8in	Height: 1ft 4in

During the first days of life, babies follow behavioral patterns (that are) different from the rest of their development because (they) experience everything for the first time and explore completely unknown sensations. (They) spend most of their time sleeping and eating, (they) are very dependent on their parents, (and) their actions consist of reflexes more than interaction. At this time, (it) is very important (to) provide a good amount (of) affection to create confidence and security.

Paragraph 11

Mientras se baña al bebé, mover sus pies y manos hacia atrás, hacer rotaciones de manera cuidadosa. Es importante tener los puntos de apoyo para mayor seguridad del bebé, con una mano lo sostiene y con la otra realiza los movimientos y las rotaciones, por lo que deberá primero ejercitar un lado y luego el otro, lo ideal sería que padre y madre pudieran realizar juntos esta actividad. El movimiento rotatorio se puede hacer en todas las articulaciones, a excepción de la rodilla y comenzar en un orden adecuado, es decir comenzar por hombros, codos, muñecas, dedos de las manos, cadera, tobillos y dedos de los pies, de arriba hacia abajo, o de abajo hacia arriba.

- Move the baby's feet and hands backward while bathing (and) make circular motions carefully. (It) is important (to) focus on support areas for the baby's safety. With one hand, hold (the) baby and perform the movements and rotations with the other, so you should first exercise one side and then the other. It would (be) ideal (if the) parents could do this activity together. The circular movements can be done with every joint, except the knee, and be sure (to) begin properly, that is, start with (the) shoulders, elbows, wrists, fingers, hip, ankles, and toes, going from (the) top down, or from (the) bottom up.

Paragraph 12

ACTIVIDADES

Para favorecer el control de la cabeza del bebé y el fortalecimiento de los músculos del cuello, coloque el bebé boca abajo sobre una colchoneta, y acaricie suavemente su espalda desde el cuello hasta la cintura y al contrario para que pueda enderezar su cabeza.

En la misma posición anterior mostrarle objetos para llamar su atención, moverlos de un lado a otro para incentivarlo a levantar y girar la cabeza. Tome por la barbilla al bebé levántelo y afirme suavemente su cabeza, y luego suéltela por algunos segundos.

Disponga un lugar donde pueda dejar sin ropa al bebé por unos momentos, sobre una toalla la cual debe de estar muy limpia.

ACTIVITIES

To benefit the baby's head control, and (to) strengthen his neck muscles, place the baby on a mat on his stomach and softly caress his back up and down from the neck to the waist so (he) can straighten his head.

- (While) in the previous position, show him objects to attract his attention, (and) move them from side to side to encourage head lifting and rotation. Take the baby by the chin, gently hold his head firmly, and then let go for (a) few seconds.
- Leave the baby nude somewhere (appropriate) on a very clean towel for a few moments.

Paragraph 13

ACTIVIDADES

Proporcionarle al bebé diferentes sonidos de la vida cotidiana como el de las campanas, animales, instrumentos musicales etc. Mostrarle cada uno de los diferentes sonidos por ambos oídos. Para esto puede grabar un CD con diversos sonidos y colocarlo cada vez que pueda.

Hablarle cerca y lejos, pudiendo utilizar un tubo de cartón.

Colocarles canciones y rondas infantiles.

Repita las vocalizaciones de bebé para que él intente volver a emitirlas, pero dejando intervalos de silencio para que él pueda responder.

Coloque el bebé de frente suyo, háblele, sonríale permitiendo que él pueda realizar algún sonido o gesto, muévase junto con él en diferentes direcciones siempre con la sonrisa y hablándole todo el tiempo.

RECOMENDACIONES:

Mientras esté con el bebé intente simular conversaciones con él, cuando el emita un sonido respóndale con una pregunta, y celebre cada logro que éste adquiera.

ACTIVITIES

- Provide different daily sounds (to) the baby such as bells, animals, musical instruments, etc. Show him each sound on both ears. You can record a CD with several sounds and play (it) every chance you get.
- Speak to him (up) close and from far away, using a cardboard tube.
- Play songs and games (for) children.

- Repeat baby vocalizations so that (the) baby can repeat them back but leave intervals of silence so that he may respond.
- Place the baby in front (of) you, speak (to) him, (and) allow him (to) make a sound or gesture. Move with him in different directions while smiling and speaking (the) entire time.

RECOMMENDATIONS

While spending time with the baby, try stimulating conversations, (and) when he responds (with) a sound, answer with a question, and celebrate every achievement he makes.

Paragraph 14

ACTIVIDADES

Hable constantemente con el bebé y llame su atención, y permítale poder observar su imagen a través de un espejo

Para posibilitar relaciones nuevas para el bebé, cuando hayan personas extrañas cerca de él preséntheselas diciéndole su nombre.

Motivar al bebé por medio un incentivo, un abrazo cálido, una palabra de aliento cuando obtenga logros o realice algo apropiado.

RECOMENDACIONES

Observar atentamente las acciones y reacciones del bebé con cada ejercicio, ya que todos crecen y se desarrollan de manera diferente. Intente detectar señales de alerta como por ejemplo el no mover ni sostener la cabeza, succión lenta, o si no emite sonidos ni sonrisas etc. Refuerce positivamente el contacto físico con el bebé acarícielo con frecuencia, y sonríale.

ACTIVITIES

- Constantly speak to the baby, call out (to) him, and let him see your image through a mirror.
- To facilitate the baby's new relationships, introduce strangers by name.
- When the baby does something (good) or appropriate, reward him with an incentive, a warm hug, (or) a word of encouragement.

RECOMMENDATIONS

Watch closely the baby's actions and reactions with each exercise because each baby grows and develops differently.

Try (and) notice alarming signs such as not being able (to) hold the head, slow sucking, or if the baby is not (able to) make sounds or (a) smile, etc. Positively reinforce physical contact with the baby (by) caressing (him) and smiling.

Paragraph 15

Estimule al bebé para que fortalezca los músculos de sus brazos, tómelo de los dos brazos y

levántelo varias veces para que vaya fortaleciendo los músculos abdominales y los de sus brazos.

Coloque al bebé acostado boca arriba, tómelo de las manos y llévelo hasta la posición donde el pueda sentarse. Acuéstelo y póngale sobre sus pies juguetes u objetos que cuelguen desde arriba para que él pueda patearlos. Si no lo realiza motívelo a que lo haga tomando sus pies y llevándolo a que patee el juguete o le dé algunos golpes. En esta misma posición muévale suavemente las piernas, flexiónelas y extiéndales durante 30 segundos.

Acueste al bebé y ofrézcale un juguete llamativo y colorido para que él se interese por alcanzarlo. Cuando ya domine esta acción se puede pasar a realizar la siguiente actividad.

- Stimulate the baby to strengthen the muscles on (the baby's) arms (and) take him (by) the arms and lift him several times to strengthen the abdominal muscles as well.
- Lay the baby on (his) back, grab his hands, and take him (to) a position where he can sit. Lay him (down) and hang toys or objects over (him) so that he may kick them. If the baby does not, take his feet and take them toward the toy (to) motivate (the) kick or a few blows. In this same position, softly move his legs, bend, and extend them for 30 seconds.
- Lay the baby (down) and offer him an interesting and colorful toy for him to reach. When he controls this action, move on (to) the next activity.

5.1.2.2 Documents from The Office of Sara Edelberg (SLP) and New Hope Fertility Center

Paragraph 1

CLASSIFICATION OF LANGUAGE DISORDERS

A disorder can involve both the comprehension and production of language. Language comprehension (receptive language) refers to the ability to derive meaning from incoming auditory or visual messages. Language production (expressive language) involves the combination of linguistic symbols to form meaningful messages. Language disorders are generally classified according to the major components of the linguistic system: semantics, morphology, syntax, pragmatics, and phonology.

Clasificación de trastornos (del) lenguaje

Un trastorno puede involucrar tanto el entendimiento como la producción del lenguaje. La **comprensión** (del) lenguaje ((el) leguaje receptivo) (se) refiere a la capacidad de obtener el significado de mensajes visuales y auditivos. ((La) **producción** (del) lenguaje ((el) lenguaje expresivo) involucra la combinación de símbolos lingüísticos para formar mensajes con sentido. (Los) trastornos (del) lenguaje son clasificados generalmente ((de) acuerdo con los componentes principales dentro de un sistema lingüístico: semántica, morfología, sintaxis, pragmática y fonología.

Paragraph 2

Semantics involves the meaning of individual words and the rules that govern the combinations of word meanings to form meaningful phrases and sentences. Impairments in this subsystem can take the form of reduced vocabulary and depth of word knowledge, restricted semantic categories, word-retrieval deficits, poor word-association skills, limited word-definition skills, and difficulty with figurative (nonliteral) language forms such as idioms, metaphors, and humor.

(La) semántica consiste (en) el sentido de palabras individuales y las reglas que gobiernan la combinación del sentido (de) (las) palabras para formar frases y oraciones (con) sentido. (Las) deficiencias en este subsistema pueden ser: (un) vocabulario reducido e insuficiencia de conocimiento profundo de palabras, categorías semánticas limitadas, insuficiencia de búsqueda de palabras, mala asociación (de) palabras, capacidad limitada (para) definir palabras y dificultad con lenguaje figurativo ((que) no (es) literal) (como), por ejemplo, (los) modismos, (las) metáforas y (el) humor.

Paragraph 3

Pragmatics involves the rules governing the use of language in a social context. Pragmatic impairments can include a reduced repertoire of communicative intentions, poor shared/joint attention, reciprocal turn-taking difficulties in conversation, an inability to repair messages that are not understood by the listener, and difficulty with narrative discourse such as storytelling and personal narratives.

Phonology involves the particular sounds (i.e., phonemes) that make up the sound system of a language and the rules that govern permissible sound combinations. (For a discussion of phonological impairments, see Chapter 3.)

Language disorders can affect the development of basic language skills and/or higher-order metalinguistic knowledge in any of the previously mentioned components.

(La) pragmática consiste (en) las reglas del leguaje en un contexto social. (Las) insuficiencias pragmáticas pueden incluir un repositorio reducido de intenciones comunicativas, mala atención (compartida (o) unida), dificultades en tomar turnos en (una) conversación reciproca, una

incapacidad de reparar mensajes que no fueron entendidos por el receptor y (la) dificultad con discursos narrativos, (como), por ejemplo, (con) narrativas (de cuentos) o personal.

(La) fonología consiste (en) los sonidos particulares (por ejemplo, (los) fonemas) que constituyen el sistema sonoro de un idioma y las reglas que gobiernan (la) combinación (de) sonidos permitidos. (Para un análisis (de) insuficiencias fonológicas ver (el) capítulo 3).

(Los) trastornos (del) lenguaje pueden afectar el desarrollo de habilidades (del) lenguaje básicas y/o conocimientos metalingüísticos superiores en cualquiera de los componentes mencionados.

Paragraph 4

Phonology involves the particular sounds (i.e., phonemes) that make up the sound system of a language and the rules that govern permissible sound combinations. (For a discussion of phonological impairments, see Chapter 3.) Language disorders can affect the development of basic language skills and/or higher-order metalinguistic knowledge in any of the previously mentioned components. In addition to language deficits, children may demonstrate certain associated behavioral characteristics, the most common of which are defined in Table 1.

(La) fonología consiste (en) los sonidos particulares (por ejemplo, (los) fonemas) que constituyen el sistema sonoro de un idioma y las reglas que gobiernan (la) combinación (de) sonidos permitidos. (para un análisis de insuficiencias fonológicas ver (el) capítulo 3). (Los) trastornos (del) lenguaje pueden afectar el desarrollo de habilidades (del) lenguaje básicas y/o conocimientos metalingüísticos superiores en cualquiera de los componentes mencionados. Adicionalmente a (las)

insuficiencias (del) lenguaje, (los) niños (también) pueden demostrar ciertas características (de) comportamiento, las más comunes están definidas en (la) tabla 1.

Paragraph 5

Oral language serves as the basis for the development of reading and writing skills, beginning with the period known as emergent literacy, which extends from birth through the preschool years. Emergent literacy is a child's increasing awareness of the world of print and an understanding of the functions of literacy. During the preschool period, children develop foundational knowledge about print through every day, naturally occurring experiences in their home and preschool/daycare environments. These experiences prepare them for the formal literacy instruction (learning to read and write) that begins in the early elementary school grades. For this reason, emergent literacy skills are considered the developmental precursors to children's achievement of skilled reading and writing.

(El) lenguaje oral es la base para el desarrollo de habilidades de lectura y escritura (y) comienza con el periodo conocido como alfabetización emergente, que (se) extiende desde (el) nacimiento hasta los años prescolares. **(La) alfabetización emergente** es (el) aumento (de) conciencia del mundo literario y el entendimiento de su función (que tiene) un niño. Durante el ciclo preescolar, (los) niños desarrollan (las) bases (del) conocimiento sobre (la) imprenta por medio (de) experiencias (que) ocurren naturalmente en sus casas, en (la) (escuela) preescolar (o) guardería. Estas experiencias los preparan para la educación literaria formal (aprender a leer y escribir) que empieza en los primeros grados escolares. Por ende, (las) habilidades (de) (la) alfabetización emergente se consideran precursoras (del) desarrollo para (que) (los) niños (puedan) lograr (la) lectura y (la) escritura.

Paragraph 6

The ASHA guidelines also identify the various roles and responsibilities that SLPs may undertake to foster literacy development. These include, but are not limited to:

■ Prevention: Promote opportunities to participate in oral and written language experiences that facilitate literacy (e.g., shared book reading, alphabet/letter exposure, adult modeling of reading and writing).

■ Identification: Provide screening/early detection of children with or at risk for reading and writing problems as a result of oral language difficulties.

Las guías (de) ASHA también identifican los múltiples papeles y responsabilidades que (la) logopedia puede acatar para fomentar (el) desarrollo (de) (la) alfabetización. (Dentro) (de) estas (se) citan, pero no son limitadas a (las siguientes):

- *Prevención:* promover oportunidades para participar en experiencias orales y escritas que facilite (la) alfabetización (por ejemplo, (la) lectura compartida (de) (un) libro, (la) exposición (al) alfabeto/letras (y) modelos de lectura y escritura (para) adultos).
- *Identificación:* ofrecer exámenes (de) detección temprana para niños con problemas de lectura y escritura debido a dificultades (del) lenguaje oral o en riesgo de tenerlos.

Paragraph 7

The goal of EI is the development of basic skills thought to be critical to successful speech, language, and communication learning. Repeated, interactive exposure to authentic learning experiences in natural environments and modeling/stimulation are the primary therapy strategies

for infants. (Additional strategies relevant to this population are presented later in this chapter.) The main therapy targets for infant intervention programs comprise the following prelinguistic and early language skills.

El objetivo de (la) intervención temprana es el desarrollo de habilidades básicas (que) (se) piensan que son criticas para (el) éxito (del) habla, lenguaje y (el) aprendizaje comunicativo. (La) exposición interactiva (y) repetitiva a **(las) auténticas experiencias (de) aprendizaje en entornos naturales** y **(la) estimulación (y) modelos** son las estrategias principales para infantes. ((Las) estrategias adicionales relevantes a esta demográfica son presentadas (más) adelante en el capítulo). Los objetivos principales (de) programas terapéuticos para (la) intervención (de) infantes consisten (en) las siguientes habilidades prelingüísticas y (de) lenguaje.

Paragraph 8

Other aspects of oral language that are associated with literacy development are vocabulary knowledge, word retrieval, and morphological awareness. Vocabulary size during the toddler years appears to be related to a child's ability to accurately decode single words in the first and second grades (Scarborough, 1998; Scarborough & Dobrich, 1990).

Table 2

Scope and Sequence for Phonological Awareness Intervention

Phonological awareness skills

1. Rhyming/alliteration

2. Blending

3. Segmenting

a. Categorization (e.g., Which one begins with a different sound: feet, five, soup, fat?)

b. Deletion (e.g., Say trip without the /t/.)

c. Substitution (e.g., Replace the /m/ in man with /f/.)

d. Manipulation (e.g., Say the word stop. Now move the /s/ to the end of the word and say it again.)

Otros aspectos del lenguaje oral que son asociados con (el) desarrollo literario son (el) conocimiento (de) vocabulario, (la) búsqueda (de) palabras y (la) conciencia morfológica. (La) cantidad (de) vocabulario que un niño presenta en sus años (de) infancia parece ser relacionado con su capacidad para descodificar precisamente palabras singulares en el primer y segundo grado escolar (Scarborough, 1998; Scarburough & Dobrich, 1990).

Tabla 2

Análisis y secuencia de (la) intervención (de) (la) conciencia fonológica

Habilidades (de) conciencia fonológica

4. Rima y aliteración
5. Armonía
6. Segmentación
   e. Categorización (por ejemplo, las que comienzan con un sonido diferente: feo, flaco, sopa, flor)
   f. Omisión (por ejemplo, decir tabla sin la /t/)
   g. Sustitución (por ejemplo, reemplazar la /m/ en marina con /k/)
   h. Manipulación (por ejemplo, decir la palabra salado. (A) continuación, mover la /s/ al final de la palabra y decirla (de) nuevo)

Paragraph 9

Vocabulary/First Lexicon. Infants begin to understand a few familiar words between 6 and 8 months of age. Production of first true words occurs around the first birthday. Early vocabulary development can be stimulated at the receptive and/or expressive level (Beck, McKeown, & Kucan, 2013; Bloom, 2000; Tomasello, 2003; Whitehurst et al., 1991). Intervention aimed at the facilitation of a child's receptive vocabulary generally consists of repeated presentation of a target word as well as the use of gestures and exaggerated/varied vocal intonation patterns to highlight salient aspects of an object or event. Following are two sample activities that can be used to stimulate comprehension of early vocabulary for a 12- to 24-month-old child with a language impairment:

Vocabulario inicial/Primer léxico. (Los) infantes comienzan a entender algunas palabras iniciales entre (la) edad de seis a ocho meses (y) (la) producción de (las) primeras palabras ocurren alrededor del primer cumpleaños. (Asimismo), se puede estimular (el) desarrollo temprano (del) vocabulario al nivel receptivo y/o expresivo (Beck, McKeown, & Kucan, 2013; Bloom, 2000; Tomasello, 2003; Whitehurst et al., 1991). (La) intervención (con) (el) objetivo de facilitar (el) vocabulario receptivo del niño generalmente consiste en repetir la palabra meta, usar gestos y patrones (de) entonación exagerados/variados para enfatizar aspectos sobresalientes de un objeto o evento. (Las) siguientes son dos ejemplos (de) actividades que estimulan comprensión de vocabulario temprano para un niño con impedimentos (del) lenguaje (de) 12 a 24 meses (de) edad:

Paragraph 10

The early expressive vocabularies of young children are not arbitrary. Initial lexicons are highly selective because children communicate about the social and physical events that are within their

conceptual grasp and immediate environment. A grammatical classification of a typical initial lexicon is presented in Table 4-4. Expressive vocabulary growth is charted in Table 4-5. Researchers also agree that children's early vocabularies express a basic set of semantic functions or intentions (Bloom, 1973; Brown, 1968; Nelson, 1973). Strategies for facilitating the acquisition of early lexical items are frequently based on semantic function rather than grammatical classification. Three main considerations in the selection are:

El vocabulario expresivo temprano de (los) niños no es arbitrario (y el) léxico inicial es altamente selectivo ya (que la) comunicación (de los) niños (se) basa en eventos sociales y físicos que están dentro (de) sus entornos inmediatos (por medio de) conceptos (que) entienden fácilmente. Se presenta una clasificación gramatical del léxico inicial típico en (la) tabla 4-4 (y el) crecimiento (del) vocabulario expresivo se presenta en (la) tabla 4-5.

(Los) investigadores también concuerdan que (el) vocabulario temprano (de los) niños expresa un conjunto básico de funciones o intenciones semánticas (Bloom, 1973; Brown, 1968; Nelson, 1973). (Las) estrategias para facilitar la adquisición de elementos léxicos tempranos son basadas en (la) función semántica en lugar de (la) clasificación gramatical. (Las) tres consideraciones más importantes en la selección (de vocabulario meta) son:

Paragraph 11

I N T E R V E N T I O N W I T H C H I L D R E N

(3 TO 5 YEARS)

During this developmental period, children acquire the major portion of the linguistic system. This period is characterized by rapid growth in vocabulary. After the age of 18 months, children add approximately 9 to 10 new words to their lexicons each day, or 3,000 words per year (Graves, 1986). Average utterance length continues to increase, and the acquisition of syntax has its onset as children begin to impose word order on their two-word combinations. Morphological forms emerge and become solidified, although complete mastery is not attained until the early elementary school years.

Intervención infantil

((De) 3 a 5 años)

Durante este periodo (de) desarrollo, (los) niños adquieren la mayor parte del sistema lingüístico (y) este se caracteriza por (un) rápido crecimiento del vocabulario. A partir de los 18 meses, (los) niños añaden aproximadamente (de) 9 a 10 palabras nuevas a su léxico cada día, (es decir), 3.000 palabras al año (Graves, 1986). (El) promedio (del) grado (de los) enunciados sigue aumentando, y (los) niños adquieren (la) sintaxis cuando (los) niños empiezan a imponer (el) orden (de las) palabras en sus combinaciones (de dos) palabras. (Las) formas morfológicas surgen y se consolidan, aunque (el) dominio completo no (se) alcanza hasta los primeros años (de la) escuela primaria.

Paragraph 12

C H A R A C T E R I S T I C S O F S T U D E N T S

A G E S 5 – 1 0 Y E A R S

Several advancements in oral language occur during this period. Children's vocabularies increase in size and in depth of word knowledge (e.g., shades of meaning: red versus crimson; run versus sprint). Utterance length increases by an average of one word per year until about 9 years of age,

when the length of oral language utterances begins to taper off. Syntactic growth is marked by the increased use of low-frequency structures (e.g., passive sentences) and an increased use of complex sentences (e.g., relative clause constructions).

CARACTERISTICAS DEL ESTUDIANTE

(De 5 (a) 10 años)

Durante este periodo (se) producen varios avances en (el) lenguaje oral. (El) vocabulario (de los) niños aumenta en tamaño y en profundidad de conocimiento (de las) palabras (por ejemplo, matices de significado: rojo frente (a) carmesí; correr frente (a) pegar carrera). (La) longitud (de) (los) enunciados aumenta aproximadamente una palabra al año hasta los 9 años, cuando la longitud de (los) enunciados del lenguaje oral empieza a disminuir. (El) crecimiento sintáctico se caracteriza por un mayor uso de estructuras (de) baja frecuencia (por ejemplo, oraciones pasivas) y un mayor uso de oraciones complejas (por ejemplo, construcciones (de) cláusulas relativas).

Paragraph 13

The development of written text structures proceeds from the narrative form to various types of expository writing. Narrative discourse involves story or story-like forms in which the events occur in a chronological order. Expository texts present nonchronologically sequenced events and generally convey information that is novel to the reader. Examples of different types of expository text structures are description, comparison/ contrast, and persuasion/argumentation. See Table 5-2 for the differences between narrative and expository texts and see Table 5-3 for different types of text structures and their characteristics.

El desarrollo de (las) estructuras (del) texto escrito va de la forma narrativa a (los) distintos tipos de escritura expositiva. (Asimismo), (el) discurso narrativo incluye relatos o formas similares en (los) que los acontecimientos suceden en orden cronológica. (Los) textos expositivos presentan acontecimientos no secuenciados cronológicamente y suelen transmitir información novedosa para el lector. (Algunos) ejemplos de diferentes tipos de estructuras (de) textos expositivos son (la) descripción, (la) comparación/contraste y (la) persuasión/argumentación. Ver (en la) tabla 5-2 las diferencias entre textos narrativos y expositivos, y (en la) tabla 5-3 los distintos tipos de estructuras textuales y sus características.

Paragraph 14

C H A R A C T E R I S T I C S O F ADOLESCENTS

10–18 YEARS

Adolescence is the developmental period during which youngsters (1) develop a stable identity, (2) acquire independence from family, (3) develop career plans, and (4) develop moral and ethical values consistent with those of society (Erikson, 1968). There are three main stages of adolescence, and the intervention goals for each stage differ slightly. In early adolescence (10 to 14), the primary focus is on developing communication skills for academic and personal-social purposes. The goals for mid-adolescence (14 to 16) involve facilitation of communication skills for academic, personal-social, and vocational aims.

CARACTERISTICAS DE (LOS) ADOLECENTES

(DE) 10 (A) 18 AÑOS

(La) adolescencia es el periodo (de) desarrollo durante (el) cual (los) jóvenes (1) desarrollan una identidad estable, (2) adquieren independencia familiar, (3) desarrollan planes profesionales y (4)

desarrollan valores morales y éticos coherentes con los de (la) sociedad (Erikson, 1968). Hay tres etapas principales de (la) adolescencia y los objetivos (de) intervención para cada etapa difieren ligeramente. En (la) adolescencia temprana ((de los) 10 a (los) 14 años), el objetivo principal es desarrollar habilidades (de) comunicación con fines académicos, personales y sociales. Los objetivos para (la) adolescencia media ((de los) 14 a 16 (los) años) implican (la) facilidad de habilidades comunicativas para objetivos académicos, personales-sociales y vocacionales.

Paragraph 15

In the adolescent period, communication skills are refined and higher-order language abilities undergo significant development as the child's linguistic system reaches the adult form. Significant growth occurs in the metalinguistic area of nonliteral or figurative uses of language, including idioms, metaphors, proverbs, and humor. These are considered higher-order language forms because they require the ability to go beyond the conventional meaning of language for correct interpretation or use.

En la adolescencia, (las) habilidades comunicativas se perfeccionan y (las) capacidades lingüísticas (de) orden superior (se) desarrollan significativamente a medida (que el) sistema lingüístico del niño alcanza la clase adulta. (Asimismo), (se) produce (un) crecimiento significativo en el área metalingüística de (los) usos no literales o figurativos del lenguaje (que) incluyen (los) modismos, (las) metáforas, (los) proverbios y (el) humor. Las mismas se consideran formas lingüísticas (de) orden superior porque requieren la capacidad de ir más allá del significado convencional del lenguaje para (su) interpretación o uso correcto.

5.1.3 Glossary

The glossary is an essential part of any translation. A medical translation is difficult enough and must not be done without one, this would only create additional complications, misunderstandings, inconsistency, and overall, a slower turnover. The glossary aids in technical terminology and should be referenced frequently and accurately to ensure that the quality of the translation remains consistent throughout its entirety. In a technical translation, it is a keystone that the translator will go back to again and again, and in order to keep consistency in the work, the investigator has done a single glossary with vital terminology present in both Spanish and English translations. This will guarantee improved quality and harmony in the work.

English term	**Spanish term**	**Grammatical Category**	**Definition**
Admitting diagnosis	Diagnóstico de ingreso	Noun	The diagnosis provided by the physician at the time of admission which describes the patient's condition upon admission to the hospital
Aldrete Score	Escala de Aldrete	Noun	Commonly used scale for determining when postsurgical patients can be safely discharged from the post-anesthesia care unit (PACU), generally to a second stage (phase II) recovery area, hospital ward, or home.
Automatic Step Reflex	Reflejo espontáneo de marcha	Noun	A reflex is also called the walking or dance reflex because a baby appears to take steps or dance when held upright with his or her

			feet touching a solid surface
Benefactor	Financiador	Noun	A person who gives money or other help to a person or cause
Bispectral Index Monitor	Monitor BISS	Noun	A monitor that processes electroencephalographic signals to obtain a value, which reflects the level of consciousness of the patient.
Blood pressure	Presión arterial	Noun	It is the pressure of blood pushing against the walls of your arteries.
Blood Products	Hemocomponentes	Noun	The transfusable components that can be derived from donated blood are red cells, platelets, plasma, cryoprecipitated AHF (cryo), and granulocytes.
Bruise	Lívido	Noun	A bruise, also called a contusion, happens when a part of the body is injured and blood from the damaged capillaries (small blood vessels) leaks out. With no place to go, the blood gets trapped under the skin, forming a red or purplish mark that's tender when you touch it.
Bruised/Purplish	Amoratado	Adjective	Somewhat purple
Central Line	Vía central	Noun	A central line (or central venous catheter) is like an intravenous (IV) line. But it is much longer than a regular IV and goes all the way up to a vein near the

			heart or just inside the heart.
Condition/Illness	Padecimiento	Noun	A disease or period of sickness affecting the body or mind.
Coo	Arrulla	Verb	It refers to single-vowel sounds, such as “ooh” and “aah.”
Date of last menstrual period	FUM	Noun	Last date menstruated
Date of last pap smear	FUPAP	Noun	Last date of having a pap smear done
Diagnosis (Dx)	Diagnóstico (Dx)	Noun	The identification of the nature of an illness or other problem by examination of the symptoms.
Disorder	Trastorno	Noun	An illness that disrupts normal physical or mental functions
Fracture	Fx	Noun	It is a partial or complete break of the bone.
Gallbladder	Vesícula biliar	Noun	It is a small, pear-shaped organ on the right side of your abdomen, just beneath your liver.
Graft	Injerto	Noun	Transplant of living tissue
Healthcare	Atención médica	noun	It is the improvement of health via the prevention, diagnosis, treatment, amelioration or cure of disease, illness, injury, and other physical and mental impairments in people.
Heart Rate	Frecuencia cardíaca (FC)	Noun	It is the number of times each minute that your heart beats, which is normally

			between 60 and 100 times per minute for adults.
Hemorrhage	Hemorragia	Noun	An escape of blood from a ruptured blood vessel, especially when profuse
Hypertensive Cardiomyopathy	Cardiopatía hipertensiva	Noun	It refers to a constellation of changes in the left ventricle, left atrium, and coronary arteries as a result of chronic blood pressure elevation. Hypertension increases the workload on the heart inducing structural and functional changes in the myocardium.
Iodine	Yodo	Noun	It is the chemical element of atomic number 53, a nonmetallic element forming black crystals and a violet vapor. A solution of iodine in alcohol is used as a mild antiseptic.
Ischemic Cardiomyopathy	Cardiopatía isquémica	Noun	It refers to the heart's decreased ability to pump blood properly, due to myocardial damage brought upon by ischemia.
IV (Intravenous)	Intravenosa	Adjective	Existing or taking place within, or administered into, a vein or veins
Labyrinthine Head Righting Reflex	Reacción de enderezamiento laberíntico de la cabeza	Noun	It is a reflex that corrects the orientation of the body when it is taken out of its normal upright position.
Liver Disease	Hepatopatía	Noun	It refers to any of several conditions that can affect and damage your liver.
Lung Disease	Neumopatía	Noun	It is any problem in the lungs that prevents the

			lungs from working properly.
Marital status	Estado civil	Noun	It is a person's state of being single, married, separated, divorced, or widowed.
Medical education	Información médica	Noun	It is the process of influencing patient behavior and producing the changes in knowledge, attitudes, and skills necessary to maintain or improve health
Medical record number (MRN)	Expediente	Noun	It is the unique identifier assigned by the provider to reference a single patient.
Number of pregnancies	Gesta	Noun	The number of pregnancies a woman has had.
Oocyte	Ovocito	Noun	A cell in an ovary which may undergo meiotic division to form an ovum
OP Note	Nota operatoria	Noun	It is a vital document that records exactly what operation a patient had, what was found during surgery, and what the post-operative instructions from the surgeon are.
Packed Red blood Cells (PRBC)	Glóbulos rojos empacados (GRE)	Noun	They are red blood cells that have been separated for blood transfusion.
Patient's caregiver	Persona responsible del usuario	Noun	It is a person who tends to the needs or concerns of a person with short- or long-term limitations due to illness, injury, or disability.
Perioperative	Transoperatorio	Adjective	It is the practice of patient-centered, multidisciplinary, and integrated medical care of patients from the

			moment of contemplation of surgery until full recovery.
Prognosis (Px)	Evolución	Noun	It is a forecast of the likely course of a disease or ailment
Rattle	Sonajero	Noun	A toy that makes short, sharp sounds like rattling.
Retrognathism	Retrognatía	Noun	It is a condition where the lower jaw is set back further compared to the upper jaw.
(RF) Rheumatoid factor	FR	Noun	Any of a group of autoantibodies that are present in the blood of many people with rheumatoid arthritis.
Scans	Exámenes de gabinete	Noun	It is when a surface, object, or part of the body is traversed by a detector or an electromagnetic beam.
Scrotum	Escroto	Noun	The bag of skin that holds and helps to protect the testicles.
Side effect	Secuela	Noun	A secondary, typically undesirable effect of a drug or medical treatment.
Speech Language Pathologist (SLP)	Logopedia/Terapeuta del lenguaje	Noun	They are medical professionals who work to prevent, assess, diagnose, and treat speech, language, social communication, cognitive-communication, and swallowing disorders in children and adults.
Staff	Personal	Noun	It is all the people employed by a particular organization.

Surgical Nurse	Enfermera instrumentalista	Noun	Also known as perioperative nurses, and work in the OR and with surgery patients before, during, and after their surgery.
Thyroid	Tiroides	Noun	It is a small, butterfly-shaped gland located at the front of your neck under your skin.
Thyromental Distance (TMD)	Distancia tiromentonianal	Noun	It is measured along a straight line from the thyroid cartilage prominence to the lower border of the mandibular mentum with full head extension and is a common method to predict difficult airways.
Treatment	Tx	Noun	Medical care given to a patient for an illness or injury.
Truncal Injection Brachial Plexus Block	Troncular o plexo nervioso	Noun	It is a procedure commonly performed to provide anesthesia for upper limb surgery.
Uterus	Útero	Noun	A hollow muscular organ located in the female pelvis between the bladder and rectum.
Wadding	Huata/Guata	Noun	A soft, thick material used to line garments or pack fragile items, especially absorbent cotton.

Table 7. Glossary that contains the most relevant terms found in the documents.
Source: Researcher's own creation

Chapter VI

Conclusions and Recommendations

6.1 Purpose of the Conclusion

The conclusion aims to re-evaluate the investigator's objectives and how each objective was achieved. Further assessment will occur in this chapter to highlight the complex process in which the investigator took part to convey meaning, tone, terminology, and cultural elements accurately from the SL to the TL. Furthermore, in this section, one will find a restatement of the research question provided in the very first chapter, an analysis of unexpected results found while engaging in this research and work, as well as recommendations the investigator will provide to help the process and realization of future works similar to this one.

6.2 Conclusions

6.2.1 To translate medical documents from Spanish into English for private medical clinics in Costa Rica and medical documents from English into Spanish for private medical practices in New York.

One of the many objectives of this work is the translation of several medical documents and the analysis of mentioned documents required to create a good quality translation. Several techniques and systematic processes were applied to the texts for analytical purposes. In addition to the analysis of translation procedures and the color-coded chart used to achieve it, it is important to accentuate the initial analysis of the many ST. However, careful reading of the texts is a step to be taken before. Three separate readings will solidify a general understanding of each text, the author’s intent, and any special requirements the translator may need to increase

accuracy, clarity, and style. It is the most crucial part of the process, as there are specific aspects one has to be familiar with to avoid mistakes in style, intent, grammar structures, and worst of all, translation errors that emerge from a lack of any of the translation competencies. Like with anything in the medical field, careful understanding of the texts is congenital in translation as well. It is what the one attempting said translation has to understand to be able to do work appropriately and completely. Understanding and basic knowledge can be further upgraded by reading several medical books, magazines, journals, and forms that are typically used in the medical field as one would have a harder time with medical situations or terminology if one were not a physician, so as students, we have to prepare completely.

The investigator paid close attention to text-type theory in the informative function as denotation took center stage in most cases rather than connotation. Daniel Gile's sequential translation model was also used to accomplish this objective. As mentioned before, the various readings of different medical texts and forms supported and expanded the investigator's knowledge base before tackling the task of translating. Adhering to a systematic approach begins with a meaning hypothesis of a translation unit, followed by a plausibility test to make sure there is sense in the translation attempt. Continuing with target language reformulation, this leads to a faithfulness or acceptability test, which comprises the accurate transfer of the text and the natural or idiomatic aspect of said transfer. The process is repeated until finally arriving at an aggregate faithfulness/acceptability test, a full-text application of the previous step, resulting in a translation from one language to another.

6.2.2 To apply various translation techniques to the documents to achieve accurate, cohesive, and precise target texts.

Many of the available techniques were applied to the technical texts to produce the translations. Unlike the translation methods for the entirety of a text, translation techniques refer to the individual techniques the translator uses for isolated words, phrases, or segments within the text. When used in combination, it provides a more conversational tone and prevents the text from sounding awkward or stilted. In an inverse translation, omission plays an important role, like in the case of prepositions and the cultural clash between the SL and the TL. An omission is when the translator leaves elements of a sentence out of the TT from the ST. This procedure correlates with how English is more concise and straightforward than Spanish. This, in turn, makes the translated version shorter than the Spanish ST as several elements were left out and in keeping with the principle of language economy. While the use of omission is noted throughout the text, it is in subtitling more so than in literary translation where this particular procedure reaches its peak. Another technique is equivalence where the message or idea is linked to the situation and formulates naturalness otherwise lost if not used when appropriate. This technique aims to transmit the same situation through different stylistic elements and structures from the different texts, some phrases and ideas had to be changed from the original text's forms simply because this technique allows the translator to keep the meaning of the ST in the TT.

Transposition was heavily used in the translations. This was mainly because of several terms where the word order changed due to the nature of the language and the change in grammatical structure with several words in the texts. Incidentally, this technique happens when there is a change in the grammatical category from one language to the other. It is called for based on how the languages function. An example from the text includes a change from indefinite articles in Spanish to pronouns in English.

On the other hand, modulation deals with a change in perspective or a variation of the message from one language to another without changing grammatical categories. In non-specialists' terms, this technique allowed the investigator to say the same thing in a different way while preserving comprehension and accuracy. This technique was also consistently present throughout the text and allowed the translator to express the same idea while preserving meaning. The TT now presents natural patterns with the help of this technique to convey said translation units from the ST while mixed with its overwhelming terminology.

Amplification was also prevalent in the translated text. This technique can be quickly identified in the color-coding section of the work, and it is used when there is an addition not found in the ST. For example, in the case of an inverted translation, Spanish uses morphemes in verbs that are added to the lexemes and are not used in the TL, English. Therefore, due to the nature of the TL, amplification was used to provide the explicit subject of sentences at times when there was needed for the text to have an accurate transfer of meaning from the ST. If this is left out of the TT, there would be missing parts of the ST message, resulting in another grave translation sin. This technique was also used to put in additional words like pronouns and conjunctions needed to achieve naturalness.

Another good tool to use is the explicitation procedure. It entails expressing what is implicit from the SL into the TL. This should be reserved for additions that cannot be explained by structural, stylistic, or rhetorical differences between the two languages. It can be seen throughout the color-coding process fairly easily and was greatly used in the different texts both in English and Spanish. When there was a subject or pronoun that in Spanish forms part of another word, the translator must be sure to express it fully in English so that the texts do not

lose meaning. The same can be said of translation from English into Spanish due to grammatical rules that require the translator to place different articles before nouns or add any missing part of the sense from one language to the other. basically, it is writing the implicit within the ST and making it explicit in the TT.

Adaptation was rarely used in the translations. This was due to the nature of the texts. These technical texts require very little adapting, moreover, the texts were filled with straightforward technical terminology and concepts where this technique was not needed. This technique is mainly used when the situation referenced by the message does not exist in the TL, so there is a need for a different yet similar situation that works in the culture and language of the TT. Some authors have called this technique a “recreation” of sorts.

Regarding compensation, this is a technique that is not present that much in technical texts. A translator may use this technique when there is difficulty finding accurate and natural equivalence and there is a possible loss of semantics, content, nuance, metaphor, or pragmatic effect in one part of a sentence which is compensated in another part of a continuous sentence. Non-technical texts deal more with this technique, and it is quite useful when applied well. In these cases, there is a reformulation of the order of segments from one language to another. There is a playful game of reduction and expansion that compensates for a part of a sentence in another place. This technique can be seen throughout the work, yet it was used only when it was absolutely necessary.

Lastly, literal translation was another of the main techniques used throughout the text. This technique was used to reflect similar grammatical structures of the ST into the TT. Even though it did not apply to entire sentences or paragraphs, it was heavily used in the process of

translation. Its application was used to translate each word directly corresponding with one in the TL while maintaining idiomatic sense. As Spanish and English are somewhat close in terms of language structures, the use of this technique was possible. Moreover, this was not the only technique used, of course, as this technique tends to lose some nuances and may result in awkward and unnatural language.

6.2.3 To evaluate the effect of the translation techniques applied to the documents.

The aforementioned translation techniques were more than helpful in achieving a good quality translation. Nevertheless, the appropriate combination and use of said techniques create accuracy and naturalness. The translator must have a complete understanding of translation techniques and all the translator competencies and mastery of both languages to avoid linguistic transference and translation errors. In this work, several challenges and linguistic issues were successfully resolved by using translation techniques. The translation of technical documentation is by no means an easy task, and the knowledge, understanding, and application of these techniques will greatly improve quality in any work.

Most medical settings deal with unending forms and consents where inscribed is sensitive information, one that could even affect someone's life. The use of the aforementioned translation techniques made possible the accurate and idiomatic texts that culminated from the processes described in this work, and it is imperative that any translator use all and every tool at his disposal.

The investigator of this work thoroughly studied and practiced each technique and decided which technique to use as he kept in mind which set from the toolbox he would use next.

The task proved to be incredibly useful to guarantee further faithfulness, naturalness, and a cohesive result as it added an extra layer of review. Overall, translation techniques had a positive effect on the translated text. It allowed the investigator to identify weak points in his work, create an idiomatic text, and stay accurate to the source material to provide work that seems made in each respective region.

6.2.4 To create a glossary with the most relevant terminology found in both texts.

Glossaries play an important part in a translation because they provide exact definitions of words and concepts one will find in a text. The glossary made for this work contains some of the most interesting, important, and technical terminology within the ST, which are pivotal in the result of the translation and its goals. For the glossary, the investigator searched several online resources like dictionaries, medical texts, medical dictionaries, and medical forms to aid with complex communicative situations. A couple of such documents are Merriam-Webster dictionary and the "Catálogo de Siglas y Abreviaturas Estandarizadas del Instituto de Salud del Niño de San Borja". This objective helped guarantee an accurate translation of difficult terms. It hastened the process, making it easier for the investigator to go back and look at those terms when needed. The creation of a glossary will also help in future translations where medical and technical terminology is used.

6.3 Restatement of the Research Question

At the beginning of this work, an important question was presented as the kernel for the entirety of the investigation. What is the effect of the procedures and methods used to translate medical documents from Spanish into English for private medical practices in Costa Rica and medical documents from English into Spanish for private medical practices in New York during

the second quarter of 2023? Thus, after going through the investigation, one may conclude that several procedures and two methods were used to acquire a good quality literary translation that is accurate, natural, and cohesive.

The translation procedures that are most needed to translate technical documents such as medical texts include transposition, literal translation, omission, amplification, explicitation, modulation, compensation, and equivalence. They all played an important part in the process and helped the investigator produce a technical translation worthy of the lofty task. Transposition allowed a grammatical transfer of morphemes and correct word order for technical terminology and concepts that absolutely needed this technique to produce a faithful translation. Modulation allowed changes in semantics and points of view to convey the same idea or concept, omission assisted in leaving behind segments or words not needed, and amplification restored clarity to segments in the TT that were needed and that would otherwise be lost resulting in mistranslations at best and in a loss of sense at worst. Explicitation helped in much the same way as it brought to the TT elements otherwise lost from the ST, and at the same time, it briefly helped explain certain understood concepts not readily comprehensible in the TL. Equivalence provided substitutes to TL words for SL words or phrases which exist even without semantic or formal correspondence, and literal translation gave a way to remain faithful to the SL because the two languages are not too different in structures.

A translation is a series of decisions taken by the translator. Throughout the text, these procedures or techniques were used to amplify quality, reflect faithfulness, and accuracy, and guarantee coherence and naturalness in the translated text. They were used when the investigator saw fit and corresponded to what the literature and theory suggested and explained.

Consequently, the time and place these procedures are used greatly depends on the translator's communicative situation.

Likewise, the methods used were chosen by the type of text, language function, and stylistic idiosyncrasies of the original text. The communicative translation method was mainly used in the text. Nevertheless, the semantic translation method was also somewhat applied due to the nature of the technical text and terminology of higher register. The investigator used these methods in the translation to take into account the aesthetic value the text demanded while considering contextual meaning (the real meaning), and format, creating a higher level of translation and precision.

To conclude, these private medical practices are waiting for the translation to better assist their patients both in Costa Rica and in the United States. Email communication has been made with each party, and, in some cases, personal visits were made. It is the hope of the investigator that this work truly provides foreign patients with additional ease in a time of need when they are in another country away from what they know and their family members. As mentioned before, there is nothing worse than being ill in a strange environment without the means to communicate well.

6.4 Unexpected Results

Translation studies have undergone many phases, which include interdisciplinary changes and skills needed to continue to render good, accurate translations. Therefore, the use of the available theory is a must, however, it takes great courage to dive into the practical use of said theory and take on new difficult and foreign tasks such as a technical translation. The work certainly proved arduous, and through much studying and researching, the investigator managed

to slog away to produce the quality of translation that the texts deserved. Incidentally, there were struggles unknown prior to commencing work on the texts.

Among the main issues that surprised the translator were the amount of grammatical and structural errors found within a great portion of the different ST. This made the process egregiously harder than expected as it mucked meaning which could result in major translation errors in the TT. This resulted in stilted sentences and syntax even within the ST. The investigator had to rely on self-expertise to steer him in the right direction, asking the clients appropriate questions when confronted with an unusual, mistaken, or colloquial use of language that should not be in a medical text.

There were several official medical forms that need to be formatted and displayed in the original structure as in the ST. Formatting is one of the investigator's bane of existence. This is due not only to the difficult task of perfectly creating charts and tables but also due to the necessary adjustment in syntax and sentence structure within the medical forms to adapt the brevity of the questions present on said forms. This creates setbacks in timelines and time management which is crucial in thesis work. Furthermore, each practice uses its own abbreviations making it difficult to first figure out each one in the ST and then transfer a consistent translation among the texts.

In this work, the use of the translation technique of adaptation was rarely used as it deals with a technical translation, however, the text for the speech language pathologist proved complex as it dealt with phonemes in the SL which then had to be transferred to the TL. These segments of the work covered phonetic exercises that parents and other SLP use to help their children and patients. It was hard to come up with these adaptations because the investigator had

to come up with similar exercises that worked on the same phonological issue of the SL. Similarly, another tool that was used was borrowing, which is used when there is a lexical void between languages and so the translator grabs the same word from the ST and uses it in the TT. This can be seen in technical translations more so than any other type of translation because certain words are so technical that there is no equivalence in other languages, for example, eponyms.

Finally, another important struggle to chart was the acquisition of English medical texts. This was extremely difficult to obtain as medical documentation is highly private and is protected under HIPAA law in the United States. For a student to ask for such personal texts is burdensome, to say the least. This made the investigation suffer as time is essential to a translator and is directly correlated to quality.

6.5 Recommendations

The following are some recommendations to provide aid and suggestions for future translation projects of this kind. This is done with the idea that future generations understand certain aspects and concepts pertinent to technical and medical translations.

Firstly, a complete understanding of the basic literature of translation studies is required. The ability to discern, compare and decide what to utilize and when is pivotal to the process. Make a summary of each procedure and its literature so that the investigator does not have to backtrack. This will also help not to lose focus or a train of thought, not to mention it will aid in landing comprehension of complicated concepts. Thorough text analysis is necessary to plan ahead of the actual translation and what will be required. Likewise, if the translator is not familiar with the kind of text they will deal with, they need to read as much of that kind of text to familiarize

themselves with the style, structures, and overall feel that particular text has. Incidentally, reading all kinds of texts is crucial to the skillset of a translator.

Secondly, while one does not need to be a physician to translate medical documents, one must be familiarized with medical situations and the appropriate terminology and have the ability to know how to discern or understand terminology not seen before, one example of how to do this is the study of Latin and Greek prefixes and suffixes. Moreover, understanding how these types of texts and their communicative situations will greatly increase the quality of the work. Medical texts deal with an overwhelming amount of terminology, specialized guild vocabulary, and an incredible number of abbreviations, it is not our job to know them all, but it is our job to study as much as we can for as long as we can so that we are prepared in any situation in the future.

Finally, it is never a bad thing to ask for help. Suppose one is not completely sure about the idiomatic expression of a certain phrase, the semantic characteristic of a certain word, or an idiom that comes from the investigator's native language. In that case, it is more than licit to ask for a second opinion from a reputable source. This could be a professor, a classmate, a doctor, your tutor, the internet, a book, or any other information form. This is to ensure the best work possible using all the knowledge available. As an additional recommendation, the continued practice, study, and reading of translation studies are extremely important to further one's skills and prospects. There is always something one can improve.

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Annexes

Annex 1.

Hoja de ingreso.

Datos del Usuario.

Nombre completo: ___________________________________ No. de Identificación: ___________________

No. de expediente: _________________ Fecha de nacimiento: _____________ Sexo: _____________

Estado civil: _______________________ No. de teléfono: ______________________________

Correo electrónico: _______________________________________Provinvicia:________________________

Cantón: __________________ Distrito: _______________ Dirección exacta: ________________________

____

Datos de Ingreso.

Fecha de ingreso: ____________ Hora: _______________ No. de expediente: ____________________

Financiador: ____________________________________.

Código de financiador: _____________.

Diagnóstico de ingreso: ______________________________ Médico tratante: ________________________

Código:____________________________ Especialidad: ________________________________

Observaciones:

Datos del responsable o acompañante.

Nombre completo: ____No. De identificacion: _________________

Parentesco con el Usuario: ______________ No. de teléfono: ______________

Correo electrónico: _______________________.

Provincia: ______________________Cantón: _________________________ Distrito: _____________________

Dirección exacta: ____

____

Orden de internamiento ambulatorio.

Favor admitir al usuario:		Sexo: M ☐ F ☐
Edad:	No. de expediente:	No. de identificación:
Fecha:		Hora:

Diagnostico:
1.
2.
3.

Indicaciones:
1.
2.
3.
4.
5.

Observaciones:

Atentamente:

______________________________ ______________________________

Nombre completo del médico. Firma y código.

AUTORIZACIÓN DE TRATAMIENTO MÉDICO Y/O INTERVENCIÓN QUIRÚRGICA.

Yo____

No. de identificación: ______________________________________.

Manifiesto expresamente que lo médicos responsables del tratamiento y/o intervención quirúrgica correspondiente han sido elegidos por mi persona en forma voluntaria, consciente he independiente.

Otorgo autorización al Centro Quirúrgico Ambulatorio RQ para la prestación y/o la práctica de los servicios médicos, tratamientos terapéuticos, curaciones, exámenes, administración y suministro de materiales y medicamentos ordenados por los médicos responsables; necesarios a raíz de mi padecimiento.

Otorgo autorización al Centro Quirúrgico Ambulatorio RQ para tomar fotografías y videos durante el procedimiento:

Si / no

Entiendo y acepto que durante los procedimientos médicos y/o quirúrgicos que me serán practicados podrían descubrirse otros padecimientos y requerir intervenciones y/o procedimientos adicionales no planeados, por lo que autorizo al médico tratante para que se me efectúen los procedimientos necesarios según su juicio y criterio profesional.

Entiendo y acepto que no existe garantía que los procedimientos que se me realicen resuelvan definitivamente mi padecimiento y/o alcancen los fines deseados y estoy consciente de los riesgos y daños que podrían resultar de la realización de tales procedimientos médicos y/o quirúrgicos. Por lo anterior, eximo de toda responsabilidad al Centro Quirúrgico Ambulatorio RQ por cualquier eventualidad o complicación que pudiera derivarse de los procedimientos médicos y/o quirúrgicos a los cuales me someteré.

Asimismo, hago constar que estoy enterado (a) del contenido del "Contrato de prestación de servicios médicos", el cual he firmado de conformidad.

Nombre Completo del Usuario: ____.

Firma del Usuario: ____.

Nombre Completo del responsable del Usuario____.

Firma del responsable del Usuario: ____.

Fecha: _______ / _______ / _______.

Consentimiento Informado General.

Yo (nombre completo del usuario) ____, con el número de cédula o pasaporte____________________________. He sido informado acerca de mi padecimiento por el Dr. (a) _________________________________; como parte de mi tratamiento he sido informado/notificado que seré sometido (a) a los siguientes exámenes, estudios, procedimientos, cirugía:

1. se practica por parte del personal autorizado del Centro Quirúrgico Ambulatorio RQ, los procedimientos o programas que a continuación se detallan:

1.1 ______________________________________ 1.2 ______________________________________

1.3 ______________________________________ 1.4 ______________________________________

1.5 ______________________________________ 1.6 ______________________________________

1.7 ______________________________________ 1.8 ______________________________________

1.9 ______________________________________ 1.10 _____________________________________

Los beneficios que voy a recibir por el procedimiento a realizar:

____

____.

Estos estudios y procedimientos pueden conllevar riesgos que comprendo y acepto.

Algunos de estos posibles riesgos pueden ser:

____

____.

También he sido informado que se pueden requerir otros estudios y/o procedimientos, los que también comprendo y acepto.

Adicionalmente se pone a mi disposición información médica sobre mi padecimiento, sobre el no recibir tratamiento adecuado para mi padecimiento y las consecuencias que esto conlleva, también he sido informado.

Al firmar este formulario reconozco que he leído y entiendo todo su contenido, que he tenido el tiempo para hacer preguntas y que estas han sido respondidas satisfactoriamente.

Nombre completo del usuario o representante legal:	Firma del usuario o representante legal:
En caso de representante; relación o parentesco con el usuario:	Fecha:
Nombre completo del médico:	Firma del médico:
Especialidad:	Código del médico:

Consentimiento informado para la aplicación de la anestesia.

NO FIRME SIN LEER Y ENTENDER EL CONTENIDO.

Nombre del usuario: ____.

No. de identificación: ______________________________.

Fecha: _______ / _______ /_______.

DERECHOS DEL CLIENTE:

Es su derecho como cliente o responsable a ser informado del procedimiento que se le va a realizar, de manera tal que después de conocer los posibles riesgos, posibles complicaciones y secuelas usted pueda tomar una decisión para continuar con el procedimiento a realizar y brindarnos su consentimiento.

ANESTESIOLOGIA:

Como: "la práctica de la medicina dedicada al alivio del dolor y al cuidado completo e integral del usuario quirúrgico, antes durante y después de la cirugía".

ANESTESIA:

- Acto médico controlado en el que se usan fármacos para bloquear la sensibilidad táctil y dolorosa de un usuario, sea en todo o en una parte de su cuerpo con o sin compromiso de la conciencia, con analgesia y relajación muscular manteniendo el organismo en condiciones estables y que pueda tolerar en procedimiento.

ANESTESIOLOGO:

- Es vital dentro del equipo operatorio, el anestesiólogo tiene la responsabilidad del bienestar del usuario que se encuentra baja el bisturí y anestesia, él es quien aboga por el usuario en la sala de operaciones.

- El médico anestesista es el encargado de realizar y controlar todo el proceso de la anestesia de principio a fin. Así como de tratar las posibles complicaciones que pudieran surgir.

BENEFICIOS:

- Evitar que durante el procedimiento que se le realiza al cliente, perciba dolor o molestias, mediante la administración de fármacos anestésicos por vía venosa, aérea o combinada con anestesia regional según estándares de seguridad.

- Mediante el monitoreo electrónico y la vigilancia clínica se logra identificar las alteraciones que pudieran surgir por la anestesia, la cirugía o por enfermedades del usuario.

- Con el uso de procedimientos técnicos u medicamentos el anestesiólogo contrarrestara las posibles complicaciones y consecuencias derivadas del procedimiento quirúrgico y anestésico.

RIESGOS Y CONSECUENCIAS:

El acto médico lleva implícito una serie de complicaciones tanto médicas como quirúrgicas potencialmente serias, que podrían requerir tratamientos complementarios.

Todos los tipos de anestesia acarrean algo de riesgo, aunque los efectos secundarios mayores y complicaciones son infrecuentes. Sin embargo, la American Society of Anesthesiologists (Asociación Estadounidenses de Anestesiólogos) dice que las complicaciones debido a la anestesia han disminuido significativamente en los últimos 25 años, lo cual se debe a mejoras.

A. La administración de drogas anestésicas y sueros excepcionalmente pueden generar reacciones alérgicas, que no justifican pruebas previas, el anestesiólogo y la Clínica cuentan con los recursos para contrarrestar dichas reacciones.

B. En algunas ocasiones, la introducción de un tubo endotraqueal u otro dispositivo para la estabilidad de la vía aérea puede realizarse con dificultad por condiciones anatómicas particulares, por lo que puede dar lugar a ruptura de piezas dentales y a lesiones en las mucosas de las zonas.

C. Los usuarios con enfermedades preexistentes cardiacas, hepáticas, renales, hipertensión arterial, diabetes, asma bronquial, obesidad importante o ancianidad, tiene un riesgo mayor de complicaciones durante o después de la cirugía y anestesia.

D. Los usuarios sometidos a cirugía de emergencia pueden tener complicaciones no prevenibles. También se pueden manifestar y complicar enfermedades preexistentes que por la condición de emergencia no han sido estudiadas adecuadamente.

E. Después de la anestesia y cirugía, pueden aparecer diferentes trastornos como el descenso de la presión arterial, aumento de las pulsaciones cardiacas, tos, dificultad respiratoria, agitación, retardo en la recuperación de la conciencia, mareos, náuseas, vómitos, ronquera, temblores.

PLANEAMIENTO ANESTÉSICO
INHALADA __ ESPINAL __ EPIDURAL __ INTRAVENOSA __ LOCAL__ REGIONAL__ COMBINADA __ OTRAS __ ESPECIFIQUE:
OBSERVACIONES:

DE CONFORMIDAD

1. He sido informado (a) por el medico anestesiólogo de las ventajas e inconvenientes de la anestesia.
2. He comprendido la información aquí escrita y evacue todas mis preguntas.
3. He sido informado (a) de la posibilidad que surja alguna situación inesperada durante el procedimiento que puede requerir acciones y tratamientos adicionales, en cuyo caso autorizo al equipo médico a realizar lo conveniente según mi caso.
4. En consecuencia, doy mi autorización para que se realice el procedimiento anestésico planeado.

AL FIRMAR ESTA FROMA RECONOZCO QUE HE LEIDO Y ENTIENDO TODO SU CONTENIDO, QUE HE TENIDO TIEMPO DE HACER PREGUNTAS Y QUE ESTAS HAN SIDO RESPONDIDAS SATISFACTORIAMENTE.

FIRMA DEL CLIENTE O REPRESENTANTE LEGAL:	IDENTIFICACIÓN:	
EN CASO DE REPRESENTATE/ PARENTESCO:	FECHA	
NOMBRE DEL MÉDICO	CÓDIGO	FIRMA

<table>
<tr><th colspan="8">HISTORIA CLÍNICA</th></tr>
<tr><td colspan="3">N° de identificación:</td><td colspan="3">Fecha de nacimiento:</td><td colspan="2">Fecha:</td></tr>
<tr><td colspan="8">Nombre completo del usuario:</td></tr>
<tr><td colspan="3">Especialidad:</td><td colspan="5">N° de expediente:</td></tr>
<tr><td colspan="8">Padecimiento actual:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8">Motivo de ingreso/consulta:</td></tr>
<tr><td colspan="8">Antecedentes patológicos:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8">Antecedentes no patológicos:</td></tr>
<tr><td colspan="2">Alergias:</td><td>No</td><td>Si</td><td colspan="4">Especifique:</td></tr>
<tr><td colspan="3">Alcohol:</td><td colspan="3">Drogas:</td><td colspan="2">Tabaco:</td></tr>
<tr><td colspan="3">Vacunación:</td><td colspan="3">Si:</td><td colspan="2">No:</td></tr>
<tr><td colspan="8">Antecedentes quirúrgicos:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="8">Antecedentes gineco-obstetricos:</td></tr>
<tr><td>Gestas:</td><td>Partos:</td><td colspan="2">Abortos:</td><td colspan="2">Cesáreas:</td><td>FUM:</td><td>FUPAP:</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td>Examen físico:</td><td>PA:</td><td>FC:</td><td>FR:</td><td>T°:</td><td>Sat O2:</td><td>PESO:</td><td>TALLA:</td></tr>
<tr><td colspan="8">Aspecto:</td></tr>
<tr><td colspan="8">Cabeza:</td></tr>
<tr><td colspan="4">Ojos:</td><td colspan="4">Orejas/Oidos:</td></tr>
<tr><td colspan="4">Nariz:</td><td colspan="4">Garganta:</td></tr>
<tr><td colspan="4">Paladar:</td><td colspan="4">Dentadura:</td></tr>
<tr><td colspan="4">Labios:</td><td colspan="4">Cuello:</td></tr>
<tr><td colspan="4">Tórax:</td><td colspan="4">Pulmones:</td></tr>
<tr><td colspan="4">Corazón:</td><td colspan="4">Pulsos:</td></tr>
<tr><td colspan="8">Abdomen:</td></tr>
<tr><td colspan="4">Genitales:</td><td colspan="4">Extremidades:</td></tr>
<tr><td colspan="8">Dx de ingreso: 1.</td></tr>
<tr><td colspan="8">2.</td></tr>
<tr><td colspan="8">3.</td></tr>
<tr><td colspan="4">DR/DRA:</td><td colspan="4">Código:</td></tr>
</table>

Evolución y planes.

Nombre del usuario:	
Número de identificación:	**Fecha de ingreso:**
Especialidad:	

Fecha y hora	Notas médicas	indicaciones

Nota operatoria.		
Nombre del usuario:		Fecha:
Número de identificación:		
Diagnostico pre-operatorio:		
Diagnostico post-operatorio:		
Cirugía realizada:		
Hallazgos:		
Técnica empleada:		
Observaciones:		
Médico asistente:		
Médico anestesiólogo:		
Enfermera instrumentista:		
Enfermera circulante:		
Nombre del médico:	Firma:	Código:
Hora de inicio de la anestesia:	Hora de inicio de la cirugía:	Posición del usuario:

Epicrisis.		
Nombre:	Edad:	Sexo:
	Cédula :	
Fecha de ingreso:	Fecha de egreso:	
Diagnóstico de ingreso:	Diagnóstico de egreso:	
Resultado de exámenes:		
Tratamiento en la clínica:		
Tratamiento de egreso:		
Cuidados especiales:		
Estudios posteriores:		
Lugar donde seguirá el control:		
Nombre completo del médico responsable:		
Firma del médico:	Código:	

Valoración pre-anestésica.

Nombre completo:			Número de identificación:
Edad:	Sexo:		Fecha:

Antecedentes Heredofamiliares.

Hay en su familia personas con enfermedades musculares o neuromusculares.	Sí ( )	No ( )
Hay muertes inesperadas o complicaciones anestésicas en algún miembro de su familia.	Sí ( )	No ( )
Historia de cambio de color de la orina post procedimiento anestésico.	Sí ( )	No ( )
Historia de fiebre alta post-quirúrgica.	Sí ( )	No ( )

Antecedentes Personales No Patológicos.

Tabaquismo: Sí ( ) No ( )	Alcoholismo: Sí( ) No ( )	Otros: Sí ( ) No ( ) especificar:

Antecedentes personales patológicos.

Cardiopatía hipertensiva ( )	Neumopatía( )	AVC ( )
Cardiopatía isquémica ( )	Diabetes ( )	Neuropatía ( )
Cuagulopatía( )	Nefropatía ( )	Otros ( )
Asma bronquial ( )	Hepatopatía ( )	Incapacidad/ limitaciones ( )

Alergias:

Alergias anteriores:

Transfusión de hemocomponentes:

Examen Físico.

PA:	FC:	FR:	Spo2:

Mallampati: I ( ) II ( ) III ( ) IV ( )
Apertura bucal: normal ( ) anormal ( ) ______________________.
Estado dental: normal ( ) anormal ( ) ______________________.
Incisivos: normal ( ) anormal ( ) ______________________.
Flexion-extensión cervical: normal ( ) anormal ( ) ______________________.
Distancia Triomentoniana: normal ( ) anormal ( ) ______________________.
Mandíbula: micrognatia( ) retrognatia ( ) trismus ( ) significante mala oclusión ( ).
Otro: ______________________.

Exámenes de laboratorio/ gabinete:

Conclusiones:

Plan anestésico.
Anestesia general: balanceada ( ) TIVA ( ) VIMA ( ) ______________________.
Anestesia locorregional: neuroaxial( ) ____________ troncular o plexo nervioso ( ) ____________.
Anestesia local: ( )
Sedación/analgesia: ______________________.
Tolerancia anestésica: leve ( ) moderada ( ) profunda ( )
Monitorizada ( )

Indicaciones:

Nombre del Médico anestesiólogo:	Firma:	Código:

Verificación del equipo de anestesia.

Nombre del usuario: ____.

Fecha de nacimiento: ________________. **No. identificación:** ________________. **Fecha:** ______________.

	Si.	No.
Máquina de anestesia:		
Sistema de alarmas:		
Circuitos anestésicos:		
Sistema de absorción de CO2:		
Sistema de ventilación mecánica:		
Ventilador mecánico:		
Equipo De vía aérea:		
Monitor de signos vitales:		
Capnografía:		
Gases:		
• **Fuente de oxígeno:**		
• **Fuente de óxido nitroso**		
• **Fuente de aire comprimido:**		
Carro de paro disponible:		
Desfibrilador:		
Monitor Biss:		
Otros:		

Fármacos Anestésicos:

Anestésicos inhalados: ( ) ______________________________.

Anestésicos endovenosos: ( ) ______________________________.

Bloqueadores neuromusculares: ( ) ______________________________.

Medicamentos para emergencias: ( ) ______________________________.

Equipos y medicamentos presentes: Si ( ) No ( ).

Nombre del médico:	Código:	Firma:

<table>
<tr><th colspan="5">Notas de enfermería.</th></tr>
<tr><td colspan="5">(favor ser completado por él o la enfermera (O))</td></tr>
<tr><td colspan="3">Nombre del usuario:</td><td>Género:
☐ M F ☐</td><td>Número de identificación:</td></tr>
<tr><td colspan="2">Edad:</td><td>Fecha de nacimiento:</td><td colspan="2">Especialidad:</td></tr>
<tr><td>Fecha</td><td>Hora</td><td colspan="3">Observaciones y cuidados de enfermería.</td></tr>
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</table>

Valoración preoperatoria de enfermería

Favor ser completada por la enfermera(o).

Paciente:				
Fecha de nacimiento:				
Identificación #:				
En Hospitalización O Preanestesia				
Signos Vitales Preoperatorios			**Hora:**	
Pluso	Respiración	Temperatura	Presión Arter.	Sp02
Nivel de conciencia			**Nivel de ansiedad**	
( )Alerta/Orientación	( )Comatoso		( )Apacible/calmado	
( )Alerta/Desorientado	( )Responde		( )Agitado	
( )Somnoliento	( )Comatoso		( )Otros	

REQUISITOS PREOPERATORIOS

Consentimiento informado firmado		
Consentimiento de cirugía	( )Si	( )No
Consentimiento de anestesia	( )Si	( )No

Preparación		**Observaciones**
Baño	( )Si ( )No	
Maquillaje	( )Si ( )No	
Cabello recogido	( )Si ( )No	
Gorro y bata	( )Si ( )No	
Uñas sin esmalte	( )Si ( )No	
Espiritual	( )Si ( )No	
Sonda Vesical #:	( )Si ( )No	Coloca:
Sonda Gastrica #:	( )Si ( )No	Coloca:
Enema #1 Hora:___	( )Si ( )No	
Enema #2 Hora:___	( )Si ( )No	
Micción	( )Si ( )No	Hora:
Ayuno	( )Si ( )No	Hora:
Prótesis	( )Si ( )No	Tipo:
Se remueven	( )Si ( )No	
Pertenencias	( )Si ( )No	
Entregadas a:		

Peso:________Kg talla________ cm IMC__________

Área operatoria:________________________________

Revisado por: ( )Médico ( )Enfermero(a)

Condición de la piel

( )Caliente ( )Hidratada ( )Fría ( )Húmeda

ESCALA DEL DOLOR. Donde 0 es ausencia de dolor y 10 lo más doloroso, determine el nivel de dolor:

Instrumentos de medición de la intensidad del dolor

Wong-Baker FACES Pain Rating Scale

0 2 4 6 8 10

Antecedentes: ( )Fuma ( )Alcohol ( )Drogas

( )Otros Indique______________________________

Antecedentes Quirúrgicos Si( ) No( )

Indique:________________________________

Antecedentes Alergicos Si( ) No( )

Describa:________________________________

Antecedentes Patológicos		Tratamiento
	( )Si ( )No	
	( )Si ( )No	
	( )Si ( )No	
	( )Si ( )No	

Fecha:		Hora de llegada:		
Edad:		Sexo:	F	M
Brazalete:	Blanco( )	Amarillo( )	Verde( )	Rojo( )

REQUISITOS PREOPERATORIO

En Hospitalización O Preanestesia			
Medicamentos de uso habitual			
Hora	Nombre	Dosis	Vía

Examen de laboratorio:	( )Si ( )No	EKG
Imágenes:	RX: ( )Si ( )No	( )Si
	US: ( )Si ( )No	( )No
Grupo sanguíneo	RH:	
Transfusión:	( )Si ( )No	

Premedicación indicada				
Hora	Nombre		Dosis	Vía

Verificado por doctor(a):

Observaciones:

Enfermero que prepara:______________________ Código:______

Enfermero que entrega:______________________ Código:______

Enfermero que recibe:_______________________ Código:______

En preanestesia quirofano

Se confirma identificación de usuario, consentimientos, procedimientos en el expediente y con el pte: __Si. __No.

Sitio Qx marcados por el cirujano: __Si. __No. __N/A.

Se confirma lateralidad de miembros sup/inf: __Si. __No/__N/A.

Revisión de equipos anestésicos, medicamentos y oxímetro: __Si. __No. __N/A.

Se confirma temperatura de quirófano: __Si. __No.

Tiempo fuera:	**Antes de induccion anestesica**
Usuario correcto:__Si.__No.	Hora correcto:__Si.__No.
Cirujano correcto:__Si.__No.	Sitio QX correcto:__Si.__No.
Cirugía correcto:__Si.__No.	Riesgo de Sangrado:__Si.__No.
Alergias:__Si.__No.	

Antes de incisión cutánea

Miembros del equipo identificados por nombre: __Si. __No.

Profilaxia antibiótica en los últimos 60 minutos: __Si. __No.

Conteo de insumos y equipo: __Si. __No.

Indicadores de esterilidad/temperatura en °C: __Si. __No

Visualización de las imágenes diagnósticas esenciales: __Si. __No.

Antes que el usuario salga de quirófano

Enfermero confirma:

Nombre del procedimiento, recuentos completos: __Si. __No.

Se confirma etiquetado de muestras: __Si. __No/__N/A

Cirujano, anestesista y enfermero(a) verifican:

Aspectos criticos y tx: __Si. __No.

Se confirma temperatura de Qx en °C: __Si. __No.

Firma del cirujano:	Firma del anestesiólogo:

Persona que realiza el tiempo fuera:

Valoración perioperatoria de enfermería

Favor completar por la enfermera(o).

REQUISITOS PREOPERATORIOS

EN QUIRÓFANO-TIEMPOS Hora Ingreso a SOP					
Actividad	Inicio	Final	Min. Atrás	Suspención	Observaciones
Anestesia					
Cirugía					

Equipo Quirúrgico	Hr Entrada	Hr Salida
Cirujano		
Cr. Asistente 1		
Cr. Asistente 2		
Anestesia		
Instrumentista 1		
Instrumentista 2		
Circulante 1		
Circulante 2		
Asistente Pte 1		
Asistente Pte 2		

Tipo de Asistencia

( )General ____________ # ______ ( )Sedación ( )Local ( )Combinada

( ) Espinal ( ) Epidural ( ) Bloqueo ( )Axilar ( )( ) Otros ____________

PROCEDIMIENTO QUIRÚRGICO

Cirugía Programada

Diagnóstico Preoperatorio:

Cirugía(s) realizada(s):

Diagnóstico Post:

SEGURIDAD DEL PACIENTE

Posición: ( ) Supina ( )Prona ( ) Litotomía ( ) Simifowler ( ) Trendelemburg

Dispositivo: ( )Piemeras ( )Dona ( )Almohada ( ) Trendelemburg ( )Otro ______

Rx Trans	Fluroscopia ( )Si ( )No			Arco C: ( )Si ( )No	
Técnico:					
Electrocauterio	( ) N/A			( ) Si	( ) No
Bipolar	Coagulación		Monopolar	Coagulación	
( ) Si ( )No	Corta		( ) Si ( ) No	Corta	

Placa colocada en: Glúteo ( ) Der. ( ) Izq. Flancos ( ) Der. ( )Izq.

Espalda ( ) Der. ( ) Izq. Pantorilla ( ) Der. ( ) Izq. Cadera ( ) Der. ( )Izq.

Muslo ( )Der. ( ) Izq. Otros Indique: ____________________

Placa Electrocirugía colocada por: ____________________

Torniquete ( ) Si ( )N N ___ * ________ Revisión de Alarma ( ) Si ( )No

Ubicación: ____________________ Colocada por ____________

Presión ______ mmHg ________ Hora colocación __________ Hora retiro __________

Total tiempo: ______________ Médico: ____________________

Preparación Quirúrgica ( ) Dura Prep ( ) Kit ( ) Jabón ( ) Yodo

( ) Otro Indique: ____________________

Área:	( ) Extremidad Inf.		( ) Perianal	( ) Abdomen	( ) Perineal
( ) Cabeza	( ) Cuello	( ) Tórax	( ) Espaldas	( )Ojo I ( ) Ojo D	( ) Nariz

Revisado por: ____________________ Código: ____________

Control Psicotrópicos y Estupefacientes				Anestesiólogo	
Medicamento	Cant. Entregada	Cant. Aplicada	Cant. Descartada	Devolución	Receta #
Morfina					
Fentanyl					
Dormicum 5mg					
Dormicum 15mg					

Recuento	Primer conteo	Segundo Conteo	Final Conteo	Nombre Instrumento	Nombre Circulante
Gasas					
Compresas					
Cottonoides					
Plexos					
Agujas					
Instrumental					
Otros					

Solicitud de Rx en caso de pérdida de materiales (gasas, compresas, cottonoides, plexos agujas e instrumental). ( )Si ( ) No.

SNG #		( )Si ( ) No	Colocada por ________
S. Foley #		( )Si ( ) No	Colocada por ________
Vís Central		( )Si ( ) No	Colocada por ________

Hemoderivados	Cantidad	Hora	Rev. Por	Adminis.por
Sangre Total				
GRE				
Plaquetas				
Plasma				
Otros				
Otros				
Espécimen	( )Si ( )No	Cultivo ( )Si ( )No	Congelac. ( )Si ( )No	

Citología Patología		# Muestra		
	A)			
	B)			
	C)			
	A)			
	B)			
	C)			

Calcomanía Implantes

Nota pegar stiker en bitácora y expediente clínico correspondiente a cada área (Prótesis, implantes e injertos).

Medicación Transoperatoria				
Hora	Nombre, dosis y vía			

Condición de traslado a recuperación

Signos Vitales Pos operatorios Hora:

PA	FC	T°	FR	SpO2

Nivel de conciencia: ( )Inconciente ( )Semi consiente ( ) Despierto

( ) Confuso ( ) Inquieto ( ) Excitado ( )otro ____________

Vía respiratoria: ( ) Nasofaringea ( ) Orotraqueal ( ) Nasotraqueal

( ) Traqueostomía Nasal ( ) Ninguna ( )Otros: ____________

Ubicación de la vía endovenosa Mano ( ) D ( ) I Muñeca ( )D ( )I

Antebrazo ( ) D ( ) I Tobillo ( ) D ( ) I Vía Central ( )Si ( ) No

Port-A-Cart ( ) Si ( ) No Otros: ____________ N° ______

Sitio de insición:

Apósitos: ( ) Seco ( ) Limpio ( ) Ninguno ( ) Dermabon ( ) Tegaderm

Gasa Compresión Taponamiento nasal Otro ____________

Condición Piel ( ) Normal ( ) Hidratada ( ) Cianótica

Drenajes: ( ) Si ( ) No Tamaño: __________ Localización: __________

Penrose ( ) Si ( ) No Blake ( )Si ( )No J-Vac ( )Si ( )No

Hemovac ( )Si ( )No Merocel ( )Si ( )No Tubo Endotraq. ( )Si ( )No

Sello Tórax ( )Si ( )No Pleurovac ( )Si ( )No Sondas ( )Si ( )No

Irrigación continua ( )Si ( )No Otros: ____________

Vendajes: ( )Ninguno ( )Steri Trips ( )Gasa ( )Kling ( )Duoderm

( )Tegaderm ( )Apósito ( )Fibra/Vidrio ( )Faja ( ) Cabestrillo

( )Huata ( )Otros: __________ Localización: __________

Inmovilizadores: ( )Si ( )No Localización: __________

Criterios de traslado: Paciente reacciona a estímulos ( ) Si ( )No

Anestesiólogo lo acompaña ( ) Si ( )No

Orden de salida por: Anestesiólogo: ____________

Cirujano Encargado: ____________________

Paciente entregado por: ____________________ Código: ______

Fecha: __________ Hora: __________

Paciente recibido por: ____________________ Código: ______

Fecha: __________ Hora: __________

Recuperación Post Anestésica de Enfermería.

(Favor ser completada por él o la enfermera (o)).

Nombre del usuario: ____________ Fecha: ________ Hora de llegada: ________

Fecha de nacimiento: __/__/__/ Edad: ____ Sexo: F__ M__ Especialidad: ____________

Número de identificación: ____________

Verificación de cubículo: __Monitor completo. __Cánula Nasal. __Oxímetro. __Manta térmica. __Gases activos. Hora:

Signos Vitales Durante la observación.

Hora
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Sat.
Temp C°

Valoración física.

Nivel de conciencia: __Inconsciente. __Semi despierto. __Confuso. __Inquieto. __Ansioso. __Excitado. __Otro:

Condición de piel: __Hidratada. __Pálida. __Ictérica. __

Ubicación de acceso IV: ____________ Nº:

Acceso Venoso Central: ____________ Porta Cath:

Vendajes y apósitos: localización:

__Limpio. __Seco. __Manchado. __Sobre-apósito. __

Inmovilizadores: __No. __Si. Localización:

Otros:

Drenajes: __No. __Si. Tipo: ________ Tamaño:

Localización: ____________ Cantidad drenada:

S. Foley #: ______ Colocada: ______ Drenada:

SNG #: ______ Colocada: ______ Drenado:

Otros dispositivos:

Administración de Hemoderivados.

Hemoderivado	Cantidad	Hora	Rev. Por	Admins. por
Sangre total				
GRE				
Plaquetas				
Plasma				
Otros				
Otros				
Otros				

Escala de Aldrete.

	Actividad a evaluar.	punt	ing	egre
actividad	Mov. Voluntario al ordenárselo (4 extrem)	2		
	Mov. Voluntario al ordenárselo (2 extrem)	1		
	Completamente inmóvil	0		
Respiración	Resp. Amplias y capacidad de toser	2		
	Respiraciones limitadas	1		
	Apnea	0		
circulación	T.A 20% del nivel preanestésico.	2		
	T.A 20-50% del nivel preanestésico.	1		
	T.A 50% del nivel preanestésico.	0		
conciencia	Completamente despierto	2		
	Responde a l ser llamado.	1		
	No responde.	0		
color	Mucosas sonrosadas	2		
	Palidez, lívido, ictérico	1		
	Cianótico	0		
Total				

Valoración del dolor.

Hora.				
Valor.				
Verifica.				

Escala del dolor: donde 0 es ausencia de dolor y 10 es lo más doloroso, determine el nivel del dolor: ____.

Instrumentos de medición de la intensidad del dolor

0 2 4 6 8 10

Medidas para el alivio del dolor:

Recupertación Post Anestésica de enfermería

PARTE II (Favor ser completada por él o la enfermera (o)).

Nota de enfermería.

Registro de medicamentos administrados en recuperación.

Hora.	Medicamento/ solución.	Dosis.	Vía.	Firma.	Código.

Condición de alta de recuperación.

SV: PA ______ mmHg. FC ______. FR ______.
Temp ______.
Agentes de reversión: ___ No. ___ SI.
Ventilando: ___ Aire ambiente. ___ Naso
Conciencia: ___ Despierto. ___ Somnoliento.
Acceso Venoso: ______________. Cat #:
___ Port-A-Cart. ___ Catéter Central. ___ Otro.
Sonda: ___ Foley # ___. ___ NG # ___. ___
Apósito:
Inmovilizador:
Dreno:

Control de ingestas y excretas.

	Ingresos				Egresos.			
Hora								
Solución								
Sangre								
Orina								
Gástrico								
Otros								
Subtotal								

Balance de líquidos:
___ positivo.
___ negativo.

Egreso del usuario.

hospitalización	Enfermera (o) que lo entrega: ______________.
	Enfermera (o) que lo recibe: ______________.
	Médico responsable:
Traslado	☐ Automóvil.
	☐ Ambulancia.
Externo	Menor de edad acompañado de padres: ___ Si. ___ No. ___ N/A.
	Adulto con acompañante que brinda transporte: __ Si. __ No.
	Instrucciones post procedimiento: ___ Si. ___ No. ___ N/A.
	Entrega de epicrisis y otros documentos: ___ SI. ___ No.
	Enfermera que lo entrega: ______________.
	Enfermera que lo recibe:

Seguimiento de enfermería	
Usuario postquirúrgico	
Número de identificación:	Fecha de nacimiento:
Nombre del usuario:	
Fecha del procedimiento:	Procedimiento:
Cuestionario:	
1) ¿Cómo se siente posterior a la cirugía?	
◯ Excelente.	
◯ Muy bien.	
◯ Bien.	
◯ Regular.	
◯ Mal.	
2) ¿Ha presentado algún signo desfavorable en la herida quirúrgica?	
◯ Si, si la respuesta es sí, continuar con la pregunta número 3	◯ No
3) ¿Cuál signo desfavorable presenta en la herida quirúrgica o el área de la cirugia?	
◯ Enrojecimiento.	
◯ Inflamación.	
◯ Endurecimiento.	
◯ Salida de secreciones.	
◯ Zona caliente.	
◯ Alteración de la continuación de la sutura.	
4) ¿Ha presentado algún signo desfavorable en su estado físico?	
◯ Dolor fuerte.	
◯ Fiebre.	
◯ Problemas digestivo.	
◯ Malestar general.	
◯ Ninguno.	
5) ¿El tratamiento farmacológico cumplió con sus expectativas?	
◯ Si.	
◯ No. ¿Por qué?	
6) ¿Tiene alguna duda acerca de los cuidados postoperatorios?	
◯ No.	
◯ Si, ¿Cuáles?	
7) ¿Tiene alguna sugerencia, observación o comentario referente a la atención recibida?	

Preparación para la Realización de vasectomía

1. Evitar tomar aspirina, ibuprofeno durante dos semanas antes de la cirugía. Estos medicamentos pueden provocar hemorragias luego del procedimiento.
2. Ducharse y limpiarse el escroto el día de la operación. También aféitese el escroto.
3. Comuníquenos si le hicieron alguna cirugía de escroto.
4. Pedir a un familiar adulto o a un amigo que lo lleve a casa después de la cirugía
5. Deberá traer una Enantyum Intramuscular, que será aplicada antes del procedimiento.

Durante la cirugía

- El procedimiento completo suele durar menos de 45 minutos.
- Le pedirán que se cambie la ropa y se acueste en una camilla. Se le aplicara la Enantyun antes de dar inicio al procedimiento.
- Si se siente muy tenso o nervioso comuníquelo, es posible que le den medicamentos para ayudarlo a relajarse. Para prevenir el dolor durante la cirugía.
- Al terminar la cirugía se le dará la receta de los medicamentos que debe comprar y los exámenes de laboratorio que deberá realizarse 2 meses después de su cirugía.

Recuperación en su casa

- Durante alrededor de una semana, es posible que el escroto tenga un aspecto amoratado y ligeramente hinchado. También puede haber una cantidad pequeña de secreción sanguinolenta procedente de la incisión. Esto es normal.
- Para que su recuperación sea más cómoda, siga los consejos detallados a continuación:
- Durante los dos primeros días, evite caminar o estar de pie hasta donde le sea posible.
- Use una compresa de hielo para disminuir la hinchazón. Para hacer una compresa de hielo, coloque cubitos de hielo en una bolsa plástica que pueda cerrarse. Envuelva la bolsa en una toalla o un paño limpio y fino. Nunca aplique hielo o una compresa de hielo directamente sobre la piel.
- Tome y aplique medicamentos recetados por el Doctor para aliviar cualquier dolor leve. No tome aspirina.
- No levante objetos pesados ni haga ejercicio durante, al menos, siete días.

Las relaciones sexuales después de la vasectomía

La vasectomía no cambia la función sexual. Por esto, cuando reanude sus relaciones sexuales, la sensación será la misma que antes. La vasectomía tampoco debería afectar la relación que tiene con su pareja. Sin embargo, es importante recordar que la esterilidad no es inmediata. Pasará tiempo antes de que pueda tener relaciones sexuales sin anticonceptivos.

Cuando debe recibir atención médica

Llame al Doctor si nota cualquiera de estos síntomas después de la cirugía:

1. Más dolor o hinchazón en el escroto
2. Una zona amoratada grande o un bulto que aumenta de tamaño
3. Fiebre
4. Escalofríos
5. Mayor enrojecimiento o secreción en los sitios de la incisión;
6. Dificultades para orinar.

Annex 2.

AREAS DEL DESARROLLO

MOTRIZ, LENGÜAJE, COGNITIVA, SOCIO AFECTIVA

La individualidad del niño, hace parte de una constitución única y particular desde que nace para relacionarse con otros de su misma especie. Esa predisposición innata se desarrolla como resultado de los factores influyentes durante los cambios continuos del proceso evolutivo. Esto hace referencia a que en el área del desarrollo se establecen niveles de funcionamiento cognoscitivo, afectivo, motriz que requieren de una participación continua en acciones e interacciones placenteras y lúdicas. Los niños basan su conducta en lo que es divertido, emocionante y gratificante.

El niño entonces, se desarrolla mejor psicológicamente por su exploración de lo nuevo y lo desconocido que le permiten formar nuevos y más complejos patrones en situaciones reales, comienza a adquirir las bases necesarias para su adecuado desarrollo y crecimiento.

Para favorecer el desarrollo evolutivo de los niños y facilitar las actividades de estimulación es necesario considerar cuatro áreas muy relacionadas entre sí, de cuya interacción y progreso depende la integridad del niño.

DESARROLLO SENSORIO MOTRIZ

El desarrollo evolutivo del área motriz hace referencia a todos los sentidos y movimientos del niño, el oído, la visión, el tacto, el gusto y el olfato; a través de su interacción en el medio conoce el color, las formas, las texturas, los sonidos, el sabor y el olor de las cosas. Los movimientos reflejos que generalmente se integran a los patrones de movimiento más complejos entre los 4 y 6 meses de edad, las reacciones de enderezamiento, y las conductas motrices hacen parte de esta área que debe ser estimulada a nivel integral para lograr un funcionamiento corporal armónico y coordinado.

Movimientos Reflejos

A pesar de que los bebés recién nacidos parecen indefensos y sumamente delicados, todos los bebés saludables nacen con reflejos extremadamente sofisticados que los protegen del peligro y los ayudan a promover su instinto de supervivencia. Los reflejos son definidos como respuestas automáticas a los estímulos exteriores, muchos reflejos en los bebés desaparecen a medida que éste crece, aunque algunos permanecen a lo largo de la vida adulta. La presencia de un reflejo en un bebé después de la edad en la que normalmente desaparece puede ser un signo de daño cerebral o daño al sistema nervioso.

Tales reflejos son:

Reflejo de Retirada Flexora: Este es un reflejo de defensa, hace alusión a todos los movimientos de flexión que se generan en el brazo o la pierna por un estimulo directo en la mano o el pie. Se puede evidenciar cuando rosamos con una pluma la planta del pie del bebé.

Reflejo de soporte negativo: Es el reflejo dado del resultado de apoyar el peso produciendo un rápido alejamiento del apoyo, va muy ligado al de retirada Flexora el cual conduce al de soporte negativo a preparar los pies y las manos a liberarse del contacto del piso; esto sucede cuando el niño pueda gatear, caminar o saltar.

Reflejo de Empuje Extensor: Reflejo defensivo que abarca los movimientos de extensión de los brazos y las piernas, para llegar a una fase extensora del patear o caminar.

Reflejo de Sostén: Por medio de este reflejo el niño fija sus extremidades en extensión.

Reflejo Espontáneo de Marcha: Incline al niño ligeramente hacia adelante y se mueve un poco en la misma dirección, el peso del niño se desplazará en dicha dirección lo que obligará al niño a realizar una caminata automática.

Reflejo de Succión: Introduzca en la boca del niño un dedo o un chupete; a esta acción debe corresponder la succión vigorosa.

Reflejo Ocular: Preséntele al niño un luz fuerte sobre los ojos la reacción será de defensa, y cuando el niño gira su cabeza los ojos se quedan en el sentido contrario.

Reflejo de Galant: Estimule al niño con un toque en cualquier lado de la columna entre los glúteos y las costillas en posición boca abajo, éste reaccionará con una flexión lateral de la zona lumbar hacia el lado donde se le realizó el estimulo.

Reflejo Abdominal: Realice un estimulo al niño cuando este en posición boca arriba, este arqueará hacia arriba la zona lumbar del lado que fue estimulado.

Reflejo de Moro: Genere en el niño un cambio brusco de posición, o preséntele un ruido imprevisto o una sensación dolorosa, provocan una reacción caracterizada por extender hacia afuera los brazos, abrir las manos y la sucesiva vuelta en flexión a la posición inicial (un movimiento como si el niño quisiera abrazar a la madre).

Reflejo Tónico Simétrico del Cuello: Doblando el cuello del niño se producirá una flexión de los miembros superiores y una extensión de los inferiores, si se le extiende el cuello se extenderán los brazos y se doblarán las piernas sobre la pelvis.

Reflejo Tónico Asimétrico del Cuello: Haga girar la cabeza del niño hacia el lado derecho, el brazo derecho debe separarse y extenderse mientras el izquierdo se mantiene junto al cuerpo y se dobla, los miembros inferiores pueden seguir los movimientos de los correspondientes miembros superiores.

Reflejo de prensión palmar y plantar: Ejerza una ligera presión con el dedo o un lápiz en la base de los dedos de la mano del niño, este sujeta el objeto con una presión cada vez más fuerte. De igual manera estimule al niño en el dedo pulgar del pie, él flexionará los cinco dedos intentando presionar.

Reflejo de Babinsky: Estimule el empeine del niño, la reacción será un estiramiento y tendencia a girar los pies.

Reflejo de Landáu: Coloque al niño boca arriba, el tronco se endereza, la cabeza se eleva y los brazos y piernas se extienden.

Reflejo de Paracaídas: Este es un reflejo de protección, se manifiesta cuando se toma al niño por el vientre y se lleva bruscamente contra la superficie (el piso), él de inmediato tratará de protegerse con sus manos para no golpearse.

Reacciones De Enderezamiento (RR)

Comienzan su desarrollo al nacer, se hacen más dominantes a los 10-12 meses de edad, y la mayoría permanecen activos durante toda la vida.

Reacción de Enderezamiento laberíntico de la cabeza (RELC): Sostenga al niño con los ojos cubiertos, se ladea el cuerpo en cualquier dirección la cabeza adoptara una posición

vertical. La cabeza orienta el movimiento del resto del cuerpo, lo que propicia poder levantar la cabeza o ponerse de pie.

Reacción de Enderezamiento Óptico (REO): Se adapta a la acción anterior pero sin cubrir los ojos del niño, este intentará mantener o llevar la cabeza en forma vertical utilizando la información visual.

Reacción de Enderezamiento de la Cabeza sobre el Cuerpo (RECC): El niño levanta la cabeza venciendo la gravedad cuando está en contacto con una superficie.

Reacción de Enderezamiento de Landáu (REL): Suspenda al niño horizontalmente en el aire, boca abajo sostenido entre la línea del pezón y el ombligo, el mantendrá su cuerpo rígido.

Respuestas de Equilibrio (Re)

Son patrones automáticos de respuesta para conservar el equilibrio, como resultado de la desviación del centro de gravedad y/o de la base de soporte a través del espacio, desde estar acostado o ponerse de pie para correr. Pueden ser originadas por:

La pérdida interna del equilibrio debido al propio movimiento, por ejemplo la alteración del peso. El movimiento de la superficie externa de soporte, por ejemplo sentarse sobre un balón de gimnasia, las fuerzas externas que actúan directamente sobre el cuerpo, por ejemplo ser empujado. Las Respuestas de equilibrio se dividen en cinco categorías:

RE del Ombligo Complaciente: En ellas se recoge las extremidades a nivel del ombligo y secuencialmente se relaja el cuerpo en la gravedad como si se tuviera contacto con la tierra

RE de Protección: Son orientadas gravitacionalmente y son de protección por naturaleza, los brazos y las piernas se mueven hacia el suelo para amortiguar el peso del cuerpo que cae.

RE de la Búsqueda Espacial: Están orientadas al movimiento del torso, los brazos y las piernas buscando en el espacio, para que así cambie el centro de gravedad del cuerpo, manteniendo la base de apoyo y evitando que el cuerpo caiga.

RE de Rotación Espacial: Respuestas en que la cabeza, la columna y las extremidades conforman un círculo alrededor del eje central del cuerpo de manera que éste rote en el espacio.

RE del Espacio Exterior: Son las respuestas distantes de la cabeza, glúteos y manos de acuerdo a lo que hacemos en un lugar específico en el espacio.

MOTRICIDAD GRUESA

El desarrollo de la motricidad gruesa va direccionado al control de los movimientos musculares generales del cuerpo o también llamados en masa, éstas llevan al niño desde la dependencia absoluta hasta llegar a desplazarse solos. (Control de cabeza, sentarse, girar sobre sí mismo, gatear, mantenerse de pie, caminar, saltar, lanzar una pelota). El control motor grueso es un factor importante en el desarrollo de un bebé, el cual puede refinar los movimientos descontrolados, aleatorios e involuntarios a medida que su sistema neurológico madura.

MOTRICIDAD FINA

El desarrollo de la motricidad fina va direccionado al trabajo con el grupo de pequeños músculos que realizan movimientos específicos y muy controlados: las palmas de las manos y los dedos, y los músculos que rodean la boca y los ojos. Estos músculos permiten levantar objetos, lograr una perfecta coordinación óculo manual, hablar y mover los ojos, abarca además la habilidad para moverse y desplazarse, y permite al niño conocer el mundo, tomar contacto con él, donde se abarcan los sentidos como poder ver, oír, oler, percibir sabores, texturas y temperaturas.

Todos estos movimientos finos requieren de la coordinación entre lo que se ve y se toca, como tomar objetos con los dedos, pintar, dibujar, hacer nudos, etc.., y movimientos gruesos, referidos a desplazamientos, cambios de posición, reacciones posturales y de equilibrio.

DESARROLLO COGNITIVO

Consiste en estimular en el niño todos los aspectos relacionados con lo que necesita la mente para comprender, relacionar y adaptarse a nuevas situaciones mediante el uso del pensamiento y la interacción directa con los objetos y el mundo que lo rodea. El niño

comienza a construir su pensamiento a partir de las experiencias con los objetos y el entorno, donde toma conciencia de si mismo para comenzar a ordenar la realidad, donde se permite explorar, comparar, elegir, indagar etc. Para lograr este conocimiento el niño utiliza tres sistemas de procesamiento: la acción, facilidad por su dimensión sensorio motriz; la construcción de imágenes mentales, o sea, la capacidad de entender que aunque no vea o toque un objeto este igual existe; y el lenguaje, que le permite representar las experiencias con mayor flexibilidad.

DESARROLLO LINGUISTICO

El área lingüística está relacionada con la capacidad del ser humano para comunicarse por medio de sonidos y símbolos; en un proceso que comienza a través del llanto, luego de quejidos, balbuceos, gestos o movimientos y en última instancia las palabras. El lenguaje es el principal medio de comunicación de los seres humanos, a través de él podemos intercambiar información, mensajes, ideas y sentimientos. Es una destreza que se aprende de manera natural en los primeros años de vida, pues el niño empieza a hablar en interacción con su madre y con los adultos, por eso es importante hablarle constantemente bien articulado sin diminutivos ni nombres representativos, y con palabras cariñosas, cantarle y designar cada actividad que realice u objeto que manipule pues solo de esta forma el pequeño irá reconociendo los sonidos del habla del adulto, para luego imitarlos, otorgarles un significado y hacer uso de ellos como medio de comunicación.

DESARROLLO SOCIO-AFECTIVO

Esta área es básicamente la habilidad de reconocer y expresar emociones y sentimientos, en ella se busca proporcionar actividades que le permitan al niño la interacción con las personas que lo rodean para que pueda socializar, establecer vínculos afectivos, expresar sus emociones y sentimientos. Involucra un cúmulo de experiencias afectivas y de socialización que permite al niño sentirse un individuo único, diferente de los demás, pero a la vez querido, seguro y comprendido, capaz de relacionarse con otros bajo ciertas normas comunes. En este aspecto del desarrollo es fundamental la participación de los adultos como primeros generadores de vínculos afectivos, pues hasta los dos años el niño interactúa casi de forma exclusiva con ellos.

Recién Nacido hasta los años

Actividades y Recomendaciones

Niño	Niña:
Peso: 4.0 kg	Peso: 3.5 kg
Talla: 55 cm	Talla: 45 cm

En los primeros días de vida los bebés siguen patrones de comportamiento, diferentes a los del resto de su desarrollo ya que se enfrentan a todo por primera vez y experimentan sensaciones completamente desconocidas; dedican la mayoría del tiempo a dormir y a alimentarse, se convierten en seres muy dependientes de sus padres; sus acciones corresponden a actos reflejos más que a una intención, en este momento es muy importante brindarles mucho afecto para generarles confianza y seguridad.

DESARROLLO SENSORIO MOTRIZ

- Los movimientos de las piernas, los brazos y las manos todavía son reflejos
- Empuja hacia afuera brazos y piernas
- Levanta la cabeza levemente, la gira hacia los lados cuando esta boca arriba o boca abajo, se retuerce y hace contoneos
- Puede sostener la cabeza en línea con la espalda
- Se queda observando un objeto pero no lo busca
- Coordina el movimiento de los ojos hacia los

lados

- Reflejos más eficientes
- Agarra un objeto pero lo deja caer rápidamente
- Responde a sonidos y voces de personas
- Responde de manera positiva a la comodidad y satisfacción, pero de manera negativa al dolor.
- Succiona para obtener su alimento
- Extiende y encoge su espalda y extremidades ante un sobresalto
- Agarra objetos que se pongan en la palma de su mano
- Al final del mes intenta realizar movimientos de marcha cuando se le sostiene con los pies en una superficie plana
- Chupa objetos que estén cerca de su boca y bosteza.

ACTIVIDADES

- Para facilitar la succión tocar los labios del bebé y la zona cercana a su boca con diferentes objetos chupas, dedos limpios, juguetes de texturas suaves, la punta de un pañal y dele un tiempo para que intente chuparlo. De esta forma se logrará que el bebé repita el movimiento cuando se le estimule con el pezón de la mamá mejorando el proceso de lactancia.

- Rose con el pezón la boca del bebé en círculos y presione suavemente las mejillas del bebé.

- Con los pezones toque los labios del bebé motivándolo a que abra la boca.

- Coloque al bebé en diferentes posiciones de lado, boca arriba, boca abajo o hacia arriba, a unos 20 o 30 cms muéstrele juguetes de diferentes colores; buscando que aumente sus periodos de concentración en ellos.

- Acaricie constantemente el bebé ya que esto favorece su desarrollo físico, motriz, afectivo e inmunológico

- Desde la posición acostado, coloque sus manos detrás de la espalda del bebé y levántelo, permitiéndole sostener su cabeza por pocos segundos, posteriormente el podrá sostenerla durante un tiempo más prolongado, y paséelo en esa posición para que pueda observar su entorno.

- Coloque el bebé boca abajo, y muéstrele objetos vistosos y sonoros, por un lado y luego por el otro, motivándolo a que levante la cabeza.

- Es importante realizar movimientos en los brazos y piernas del bebé, moverlos hacia arriba y hacia abajo, abrirlos y cerrarlos, de igual manera hacerlo con sus piernas y complementar el ejercicio doblándolas y estirándolas con cuidado. Realizarlo de 5 a 6 veces. Este ejercicio se puede realizar con la canción ***"dos trompas de elefante."***

- Mientras se baña al bebé, mover sus pies y manos hacia atrás, hacer rotaciones de manera cuidadosa. Es importante tener los puntos de apoyo para mayor seguridad del bebé, con una mano lo sostiene y con la otra realiza los movimientos y las rotaciones, por lo que deberá primero ejercitar un lado y luego el otro, lo ideal sería que padre y madre pudieran realizar juntos esta actividad. El movimiento rotatorio se puede hacer en todas las articulaciones, a excepción de la rodilla y comenzar en un orden adecuado, es decir comenzar por hombros, codos, muñecas, dedos de las manos, cadera, tobillos y dedos de los pies, de arriba hacia abajo, o de abajo hacia arriba.

- Abra lentamente las manos del bebé y separe cada uno de sus dedos, coloque en la planta de ellas su dedo índice para que el bebé lo agarre, este ejercicio se puede acompañar con la canción ***"los deditos" o "ton ton tin tin"***

RECOMENDACIONES

Los juguetes más adecuados para esta edad son los cascabeles, y móviles de colores y formas llamativas, cajas musicales y gimnasios de actividades que estimule los sentidos del bebé.

Para el desarrollo olfativo, cuando los padres se encuentren ausentes se recomienda dejarle al bebé alguna prenda con el perfume que ellos usan.

DESARROLLO COGNITIVO

- Mirada y expresiones vagas e indirectas durante las horas que se encuentra despierto
- Recuerda los objetos que reaparecen en dos y medio segundos
- Espera la alimentación cada cierto intervalo
- Llora deliberadamente para pedir ayuda
- Se calla cuando lo alzan o ve rostros

ACTIVIDADES

- Acueste al bebé sobre una superficie adecuada, muéstrele móviles que emitan algún sonido, cascabeles de colores llamativos y contrastantes de diferentes formas.
- Trate de permanecer en frente del bebé para que él lo pueda observar, haga movimientos con su cabeza de un lado a otro, cántele una canción para contribuir a la permanencia de sus periodos de concentración.
- Lleve al bebé a un lugar oscuro por unos cuantos segundos, y regréselo a un lugar con luz, y háblele de las dos existencias. Esta actividad también podrá realizarse de forma inversa o apangando y encendiendo la luz.
- Desde diferentes posiciones y alturas realice sonidos con instrumentos musicales cerca de los oídos del bebé.
- Cuéntele pequeñas narraciones con distintos tonos y volúmenes de voz. Utilice la música para relajar el bebé.
- Utilice el mismo perfume siempre para que el bebé pueda identificarlo fácilmente.
- Prolongue los momentos de contacto con el bebé para que él reconozca su olor.

DESARROLLO LINGUISTICO

- Emite vocalizaciones reflejas sin intención
- Hace uso del llanto para expresar hambre, sueño, incomodidad o dolor
- Se sobresalta y rompe en llanto al sentir un ruido repentino y fuerte

ACTIVIDADES

- Repita cada sonido que realice el bebé, aunque solo sean ruidos vocálicos. Así irá comprendiendo que esa es una forma de comunicarse.

- En frente del bebé realice gestos con la boca, los ojos, la nariz o las cejas, para que vaya conociendo las expresiones del rostro, por ejemplo abrir y cerrar la boca, sacar y entrar la lengua, subir y bajar las cejas, inflar las mejillas, abrir y cerrar los ojos etc. Este ejercicio puede ser acompañado de la canción ***"el sapito" o "abro y cierro"***

- Seleccionar diferentes tipos de música, clásica, moderna, de relajación, canciones de cuna etc. Y observe las reacciones del bebé, esto permitirá conocer la clase de música que más le gusta.

RECOMENDACIONES

Háblele cariñosamente al bebé y exprésele las situaciones que suceden con él y en su entorno.

En la estimulación auditiva el volumen debe ser suficiente para que el bebé lo escuche, pero no muy fuerte que ocasione daños auditivos y no someterlo a ruidos excesivos ni a la ausencia total de sonidos.

DESARROLLO SOCIO AFECTIVO

- La mayoría de las reacciones responden a estímulos internos, pero otras son reacción a estímulos que le proporciona el medio
- Diferencia la voz humana de otros sonidos (en especial voces agudas como la de la madre)
- Se tranquiliza cuando hay alguien cerca que le habla con voz suave y rítmica.
- Se calma cuando lo toman en brazos.
- En ocasiones gira levemente la cabeza en dirección a la fuente sonora
- Fija los ojos en el rostro de la madre en respuesta a su sonrisa si no está muy lejos
- Establece contacto de ojos a ojos
- Se queda observando las caras y responde quedándose callado y quieto
- Ajusta su postura al cuerpo de la persona que lo está cargando, puede agarrarse a esa persona
- Los patrones diarios de comer, llorar y dormir son muy desorganizados

ACTIVIDADES

- Tomar al bebé en brazos y arrullarlo por breves momentos, acariciándolo, meciéndolo, cantando y conversando con él, ya que aunque no comprende las

expresiones verbales aún, el percibe las gesticulaciones y el lenguaje del cuerpo y de las manos

- Los papás toman el bebé contra su pecho y lo abrazan de manera que puedan cubrir su cuerpo, en la colchoneta los papás comienzan a rodar de lado abrazando a su hijo.

- Baile con su hijo y exprésele sus sentimientos hacia él, mírelo a los ojos, llámelo por su nombre y sonríale.

RECOMENDACIONES

Comience a utilizar los masajes como una herramienta para fortalecer el vínculo afectivo.

Todo que se haga con el bebé debe ser dirigido por el amor que siente hacia él, buscando proporcionarle seguridad y confianza.

Intente satisfacer las necesidades básicas del bebé y bríndele espacios de silencio y tranquilidad.

2-3 MESES

En esta etapa aparecen cambios significativos en el desarrollo cerebral del bebé, disminuye el tiempo que dedica a dormir y a llorar, aumentando los periodos en que busca llamar la atención, sonríe de manera voluntaria y reconoce en sus acciones una forma de socializar.

Niño	**Niña:**
Peso: 5.2 kg- 6.0 kg	Peso: 4.7 kg-5.4 kg
Talla: 58 cm- 61 cm	Talla: 55 cm-59 cm

DESARROLLO SENSORIO MOTRIZ

- Los controles reflejos comienzan a desaparecer mientras las reacciones de enderezamiento se hacen mucho más voluntarias
- Trata de mantener la cabeza erguida y firme cuando se le levanta por el tronco.
- Descubre sus manos y el movimiento que se genera en ellas, agarra objetos por varios segundos.
- Mueve los brazos y las piernas de manera vigorosa, puede llegar a mover los brazos juntos, luego las piernas o el brazo y la pierna de un lado y luego los del otro.
- Cuando lo cargan se puede percibir la fortaleza de su cuerpo
- Se recuesta contra su abdomen con las piernas flexionadas e intenta apoyar sus codos
- Coordina el movimiento circular de los ojos cuando observa un objeto a plena luz
- Se sobresalta ante ciertos ruidos o se manifiesta ante estos con un gesto.
- En respuesta a estímulos interiores, probablemente puede llegar a vocalizar o a gesticular.
- Con la mirada busca de donde salen los sonidos, volteando la cabeza y el cuello.

ACTIVIDADES

- Para favorecer el control de la cabeza del bebé y el fortalecimiento de los músculos del cuello, coloque el bebé boca abajo sobre una colchoneta, y acaricie suavemente su espalda desde el cuello hasta la cintura y al contrario para que pueda enderezar su cabeza.

- En la misma posición anterior mostrarle objetos para llamar su atención, moverlos de un lado a otro para incentivarlo a levantar y girar la cabeza. Tome por la barbilla al bebé levántelo y afirme suavemente su cabeza, y luego suéltela por algunos segundos

- Disponga un lugar donde pueda dejar sin ropa al bebé por unos momentos, sobre una toalla la cual debe de estar muy limpia.

- Acaricie al bebé por los brazos y manos con un muñeco de peluche, juguetes y trozos de tela, o diferentes texturas. Ojalá que los objetos que utilice sean de diferentes tamaños para estimular el reflejo de prensión por lo tanto deberá permitirle que el los agarre.

- Ayude al bebé a reconocer a través de sus manos las distintas partes de su cuerpo. Con sus manos realice palmoteos y luego dirijalas a su rostro, pies, ombligo, pecho etc.

- Al igual que en el mes anterior acueste boca abajo al bebé, realice los movimientos de objetos de un lado a otro pero incluyendo movimientos verticales y circulares. También en esta misma posición hágale cosquillas en la espalda hasta que él recoja sus hombros y cabeza.

- Los papas en posición de pie sostienen al bebe por debajo de sus brazos, ubicándolo en una superficie plana y dura, suavemente levántelo y bájelo hasta que toque la superficie para que el pueda flexionar sus rodillas, con este ejercicio se puede emplear la canción ***"el buen duque Juan"*** y se realizan con el bebé los movimientos que indica la canción, esta actividad también puede realizarse poniendo el bebe en frente de un espejo.

- Se toma al niño en diferentes posiciones realizando balanceos al ritmo de la canción ***"un elefante se balanceaba"*** balanceos meciendo horizontalmente, arriba y abajo, darle vueltas separado del cuerpo del papa, entre las piernas, a los lados. Etc.

- Ponga las manos debajo de los hombros del bebé y ayúdelo a girar lentamente de lado a lado, para enseñarle a darse vuelta.

- Acueste al bebé boca arriba, coloque sobre su pecho diferentes objetos y acerque sus manos a ellos con la firme intención de que él pueda reconocerlos y tocarlos.

- Permítale agarrar objetos pequeños y livianos, ayúdelo a que él los tome, si se le caen vuelva a pasárselos.

- Ubíquese frente al bebé, y permítale que el palpe con sus manos su rostro.

- Estimule las manos del bebé por medio de cosquillas en las plantas de sus manos, colóquele el dedo índice para que él intente levantarse.

RECOMENDACIONES

Cada vez que realice estos ejercicios, observe con mucha atención las reacciones del bebé, y asegúrese de que él esté cómodo y se sienta a gusto con la actividad.

DESARROLLO COGNITIVO

- Se excita ante la participación de los objetos
- Reacciona con movimientos de todo su cuerpo y hace esfuerzos para tomar un objeto que le atrae particularmente.
- Comienza a tener preferencias por el lado izquierdo o el lado derecho
- Comienza a analizar el movimiento de sus propias manos
- Reconocer las voces más allegadas
- Sus sentidos son más coordinados
- Comienza a mostrar evidencia de memoria a más largo plazo
- Se mantiene expectante de gratificaciones, como la alimentación
- Comienza a reconocer los rostros y las voces de los miembros de la familia que están cerca de él.
- Explora su rostro, ojos y boca con sus manos.
- Establece sus primeros hábitos como los horarios de comida y sueño.

ACTIVIDADES

- Ofrecerle al bebé objetos que pueda meterse a la boca para obtener información de ellos, y cuéntele que son y para qué sirven

- Cuando se esté jugando con el bebé menciónele constantemente que usted es el papá o la mamá según sea el caso, de igual manera cuando le hable llámelo por su nombre.

- El reconocimiento de si mismo es muy importante, por eso puede estimularlo cada vez que pueda, nombrándole al bebé las partes gruesas de su cuerpo al mismo tiempo que las toca, pero permítale que él también las pueda tocar y observar.

RECOMENDACIONES

Cuando se le entreguen objetos al bebé asegúrese de que estén completamente limpios, y que sean de un tamaño tal que él no pueda atorarse ni sufrir asfixia.

DESARROLLO LINGUISTICO

- Ronronea, balbucea y gorjea
- Emite sonrisas, gritos y sonidos
- Juega con su lengua y garganta
- Utiliza diferentes llantos
- Comienza a incorporar la "e" y la "o" aunque no tenga conciencia de ello
- Su expresión facial se hace mas compleja y definida ante determinados estímulos
- Al cumplir los tres meses comienza "utilizar" fonemas de algunas consonantes formando sílabas que le gusta repetir

ACTIVIDADES

- Proporcionarle al bebé diferentes sonidos de la vida cotidiana como el de las campanas, animales, instrumentos musicales etc. Mostrarle cada uno de los diferentes sonidos por ambos oídos. Para esto puede grabar un CD con diversos sonidos y colocarlo cada vez que pueda.

- Hablarle cerca y lejos, pudiendo utilizar un tubo de cartón.

- Colocarles canciones y rondas infantiles.

- Repita las vocalizaciones de bebé para que él intente volver a emitirlas, pero dejando intervalos de silencio para que él pueda responder.

- Coloque el bebé de frente suyo, háblele, sonríale permitiendo que él pueda realizar algún sonido o gesto, muévase junto con él en diferentes direcciones siempre con la sonrisa y hablándole todo el tiempo.

RECOMENDACIONES:

Mientras esté con el bebé intente simular conversaciones con él, cuando el emita un sonido respóndale con una pregunta, y celebre cada logro que éste adquiera.

DESARROLLO SOCIO AFECTIVO

- Es capaz de manifestar angustia, excitación y placer
- Visualmente prefiere a una persona que a un objeto
- Observa directamente con atención a una persona y la sigue con los ojos si ella se está moviendo,
- Responde positivamente ante la presencia de alguna persona con excitación y moviendo brazos y piernas jadeando o haciendo gesticulaciones
- Permanece más tiempo despierto si las personas interactúan con él
- Disfruta cuando lo bañan
- Sonríe fácilmente y de manera espontánea
- El llanto disminuye considerablemente
- Las expresiones faciales, su tonicidad muscular y su "vocalización" aumentan
- Tararea y arrulla dando respuesta a sonidos
- Responde con todo su cuerpo a la cara que reconoce
- Protesta cuando se le deja solo.

ACTIVIDADES

- Hable constantemente con el bebé y llame su atención, y permítale poder observar su imagen a través de un espejo
- Para posibilitar relaciones nuevas para el bebé, cuando hayan personas extrañas cerca de él presénteselas diciéndole su nombre.
- Motivar al bebé por medio un incentivo, un abrazo cálido, una palabra de aliento cuando obtenga logros o realice algo apropiado.

RECOMENDACIONES

Observar atentamente las acciones y reacciones del bebé con cada ejercicio, ya que todos crecen y se desarrollan de manera diferente.

Intente detectar señales de alerta como por ejemplo el no mover ni sostener la cabeza, succión lenta, o si no emite sonidos ni sonrisas etc.

Refuerce positivamente el contacto físico con el bebé acarícielo con frecuencia, y sonríale.

En esta etapa el bebé ha adquirido mayor fuerza y tonicidad muscular, se ha adaptado a nuevas situaciones y ha fortalecido con mayor fuerza los lazos afectivos con las personas más cercanas a él. Comienza generarse en él la curiosidad de conocer y experimentar mediante el tacto todo lo que esté a su alcance. A medida que avanza en estos meses todas sus emociones se manifiestan de manera mucho más clara.

Niño
Peso: 6.7 kg-7.9 kg
Talla: 64 cm- 68.5 cm

Niña:
Peso: 6.0 kg-7.1 kg
Talla: 61 cm- 65.0 cm

DESARROLLO SENSORIO MOTRIZ

- Se extiende sobre su abdomen con las piernas extendidas. Aquí se manifiesta el reflejo de paracaídas
- Da vueltas sobre su cuerpo
- Cuando esta acostado mueve su cabeza en todas las direcciones
- Cuando esta sobre su espalda levanta la cabeza y los hombros correctamente
- Se lleva los pies a la boca y chupa sus dedos
- Se desplaza balanceándose, meciéndose o girando sobre la espalda, lo hace pateando sobre una superficie plana.

- Cuando se le sienta, la cabeza esta firmemente balanceada y la mantiene constantemente erguida
- Puede sostener el tetero con una o dos manos
- Puede agarrar objetos pequeños entre sus dedos índice y pulgar
- Coge los objetos colgantes y se los lleva a su boca
- Cuando percibe diferentes olores los distingue y muestra interés
- Alcanza objetos con una o con ambas manos, y se los pasa de una mano a otra
- Cuando esta sentado puede llegar a controlar su equilibrio, puede inclinarse hacia adelante y hacia atrás, sostenido de los dedos de un adulto.
- Gira libremente su cabeza
- Si se le sienta en una silla se tambalea
- Se prepara para gatear
- Comienza a palmotear
- Si se le cae un juguete extiende la mano para alcanzarlo
- Utiliza un juguete para alcanzar otro.

ACTIVIDADES

- **Vuelta al mundo**

Para este ejercicio los papás deben estar sentados en una silla.

Paso 1: Se acuesta al bebé de frente sobre las piernas del papá, la cabeza debe estar apoyada en las rodillas.
Paso 2: Se toma al bebé por el tronco
Paso 3: Se hace girar sobre la cabeza sin perder el apoyo y sin dejar descargar el peso del bebé sobre la parte cervical (leve apoyo)
Paso 4: Se devuelve a la posición inicial (paso 1)
Paso 5: Se levanta al niño por debajo de sus brazos y lo abraza
Paso 6: Se desprende al niño y se eleva por encima de la cabeza del papá
Paso 7: Se regresa la posición inicial (paso 1)

- Estimule al bebé para que fortalezca los músculos de sus brazos, tómelo de los dos brazos y levántelo varias veces para que vaya fortaleciendo los músculos abdominales y los de sus brazos.

- Coloque al bebé acostado boca arriba, tómelo de las manos y llévelo hasta la posición donde el pueda sentarse. Acuéstelo y póngale sobre sus pies juguetes u objetos que cuelguen desde arriba para que el pueda patearlos. Si no lo realiza motívelo a que lo haga tomando sus pies y llevándolo a que patee el juguete o le

dé algunos golpes. En esta misma posición muévale suavemente las piernas, flexiónelas y extiéndales durante 30 segundos.

- Acueste al bebé y ofrézcale un juguete llamativo y colorido para que él se interese por alcanzarlo. Cuando ya domine esta acción se puede pasar a realizar la siguiente actividad.
- Ofrézcale objetos pequeños que pueda manipular con facilidad, y que le permitan pasarlos de una mano a la otra, pueda golpear, pueda lanzarlos y ofrecerle cubos para que pueda construir torres con ellos.
- Sobre una superficie coloque cojines, toallas enrolladas, almohadas en forma de obstáculos, para que intente pasar sobre ellos para alcanzar su juguete.
- Coloque el bebé boca abajo motivándolo a que se arrastre cuando se le presione la planta de los pies. Primero aparece un movimiento automático pero posteriormente comenzará a arrastrase de manera voluntaria.
- Trabajo de carretilla. Con un cojín en rollo se acuesta al bebe en posición boca abajo y se hace rodar con la intencionalidad de que pueda levantar la cabeza.
- Se coloca al bebé sobre la sábana boca arriba y boca abajo, se realizan balanceos adelante y atrás, rodamientos, arriba y abajo, y el terremoto.

RECOMENDACIONES

Si el bebé no demuestra ningún interés por los juegos o las personas, es importante que consulte a su pediatra.

Cuando el bebé pierda el interés después de realizar algunas actividades, es probable que esté cansado, así que detenga la actividad.

DESARROLLO COGNITIVO

- Tiene lapsos de memoria de cinco a siete segundos
- Reconoce a su madre y en ocasiones se incomoda con extraños
- Descubre la relación causa- efecto
- Busca con los ojos objetos que se mueven con rapidez
- Inclina su cuerpo para observar un objeto que se ha caído al piso
- Se da cuenta de cualquier situación extraña

Annex 3.

Chapters 4 and 5 focus on the treatment of childhood language disorders. Childhood language disorders affect a diverse group of children who present with differing profiles of language impairment. Intervention with this population is the subject of an enormous amount of literature that covers the age span from infancy through adolescence. To organize this body of information in a manner that is clinically useful for the reader, this section of the book begins with overview material that is germane to the entire range of child language disorders. Chapter 4 then presents specific intervention information for children from birth through the preschool years. Intervention information for school-age children and adolescents is the subject of Chapter 5.

The information in these chapters is provided as general guidelines regarding language acquisition and treatment. The relative applicability of this material will depend on a host of factors, including the sociocultural background of any particular client and family.

A **language disorder** can be defined as the abnormal acquisition, comprehension, or use of spoken or written language. This includes all receptive and expressive language skills. The disorder may involve any aspect of the form, content, or use components of the linguistic system. Children with language disorders are a heterogeneous population in several respects, including the following:

- *Primary versus secondary disorder:* For some children, the reduced ability to acquire language is their primary deficit in the relative absence of impairment in other developmental areas. For other children, the language deficit occurs in association with other impairments (e.g., intellectual disabilities).
- *Developmental versus acquired:* Developmental language disorders are present from birth or occur prior to the onset of typical language acquisition. Acquired disorders involve the loss or interruption of language function due to illness or trauma.
- *Delayed versus aberrant/unusual acquisition:* Children with delayed language proceed through the same sequence of acquisition as typically developing children but at a substantially slower rate. In contrast, children with aberrant language development demonstrate acquisition patterns that are deviant and differ significantly from the normal developmental sequence.
- *Range of severity:* The severity of language deficits can range along a continuum of mild to profound impairment.

CLASSIFICATION OF LANGUAGE DISORDERS

A disorder can involve both the comprehension and production of language. Language **comprehension** (receptive language) refers to the ability to derive meaning from incoming auditory or visual messages. Language **production** (expressive language) involves the combination of linguistic symbols to form meaningful messages. Language disorders are generally classified according to the major components of the linguistic system: semantics, morphology, syntax, pragmatics, and phonology.

Semantics involves the meaning of individual words and the rules that govern the combinations of word meanings to form meaningful phrases and sentences. Impairments in this subsystem can take the form of reduced vocabulary and depth of word knowledge,

restricted semantic categories, word-retrieval deficits, poor word-association skills, limited word-definition skills, and difficulty with figurative (nonliteral) language forms such as idioms, metaphors, and humor.

Morphology involves the structure of words and the construction of individual word forms from the basic elements of meaning (i.e., morphemes). Deficits in this component are manifested as difficulties with inflectional markers such as plurals, past tense, auxiliary verbs, possessives, and so on.

Syntax involves the rules governing the order and combination of words in the construction of well-formed sentences. Syntactic deficits are characterized by problems with simple and complex sentence types such as negatives, interrogatives, passives, and relative clauses, as well as occasional word-order difficulties.

Pragmatics involves the rules governing the use of language in a social context. Pragmatic impairments can include a reduced repertoire of communicative intentions, poor shared/joint attention, reciprocal turn-taking difficulties in conversation, an inability to repair messages that are not understood by the listener, and difficulty with narrative discourse such as storytelling and personal narratives.

Phonology involves the particular sounds (i.e., phonemes) that make up the sound system of a language and the rules that govern permissible sound combinations. (For a discussion of phonological impairments, see Chapter 3.)

Language disorders can affect the development of basic language skills and/or higher-order *meta*linguistic knowledge in any of the previously mentioned components. In addition to language deficits, children may demonstrate certain associated behavioral characteristics, the most common of which are defined in Table 1.

TABLE 1
Behavioral Characteristics Associated with Language Disorders

Behavior	Definition
Inattention	Impairment of concentration characterized by difficulty with completing tasks, attending to details, following through on instructions, and tuning out distracting stimuli
Impulsivity	The abrupt performance of actions without sufficient deliberation or consideration of the consequences
Hyperactivity	An excessively high level of activity accompanied by a reduced ability to inhibit the activity volitionally
Attention deficit disorder (ADD)	Disorder characterized by one or more of the above features: inattention, impulsivity, or hyperactivity
Perseveration	Inappropriate and often involuntary continuation of a motor or verbal response when it is no longer relevant
Echolalia	Excessive and developmentally inappropriate repetition of the speech of others, generally with the same intonation; may be immediate or delayed; may be communicative or noncommunicative

RELATIONSHIP BETWEEN ORAL LANGUAGE AND LITERACY

It is now recognized that speech-language pathologists (SLPs) play a significant role in the acquisition of literacy. Literacy involves the development of reading and writing skills. From a basic perspective, reading consists of two component processes: word recognition and comprehension. Word recognition includes decoding and reading fluency. Decoding is the ability to assign sound–letter correspondences to printed symbols (the alphabetic principle), whereas reading fluency refers to the speed, accuracy, and automaticity of reading words and connected text. Comprehension involves the ability to derive meaning from printed text at the word, phrase, sentence, or text level. Writing involves the acquisition of spelling and the ability to compose text at the sentence level and beyond. Spelling is the ability to construct words using the conventional orthography (i.e., written symbols) of a given language, and composition is the formulation of coherent units of connected language, including narrative and expository texts.

Oral language serves as the basis for the development of reading and writing skills, beginning with the period known as *emergent literacy*, which extends from birth through the preschool years. **Emergent literacy** is a child's increasing awareness of the world of print and an understanding of the functions of literacy. During the preschool period, children develop foundational knowledge about print through everyday, naturally occurring experiences in their home and preschool/daycare environments. These experiences prepare them for the formal literacy instruction (learning to read and write) that begins in the early elementary school grades. For this reason, emergent literacy skills are considered the developmental precursors to children's achievement of skilled reading and writing.

Of the oral language skills studied thus far, metalinguistic awareness is the area that has been most closely linked to literacy acquisition. **Metalinguistic awareness** is the explicit knowledge of and ability to manipulate aspects of the linguistic system independently of the meaning conveyed by the message. Phonological awareness is a metalinguistic skill that involves manipulation of the sound structure of language through tasks such as rhyming, blending, and segmenting of words, syllables, or phonemes. In particular, a child's control of sounds at the phoneme level (*phonemic awareness*) is highly predictive of decoding and spelling skills. A common example of a phonemic awareness task is asking a child to say a word such as *fat* and then to say it again without the /f/. In turn, acquisition of decoding skill leads to subsequent improvement of phonemic awareness ability. (Note: *Phonics* is the written language counterpart to this ability and focuses on sound–letter correspondences.)

Children and adolescents with language and learning impairments demonstrate considerable difficulty with phonemic awareness tasks. There is evidence that these children can benefit from direct phonological awareness instruction (Malani, Barina, Kludjian, & Perkowski, 2011; Torgesen, Wagner, & Rashotte, 1994).

Intervention in this skill area is most effective when delivered in conjunction with training on the alphabetic principle and results in measurable gains in reading and spelling (Torgesen & Davis, 1996). See Table 2 for scope and sequence information on phonological awareness instruction, organized in a progression from least to most difficult.

Other aspects of oral language that are associated with literacy development are vocabulary knowledge, word retrieval, and morphological awareness. Vocabulary size during the toddler years appears to be related to a child's ability to accurately decode single words in the first and second grades (Scarborough, 1998; Scarborough & Dobrich, 1990).

TABLE 2
Scope and Sequence for Phonological Awareness Intervention

Phonological awareness skills
1. Rhyming/alliteration
2. Blending
3. Segmenting
a. Categorization (e.g., Which one begins with a different sound: *feet*, *five*, *soup*, *fat*?)
b. Deletion (e.g., Say *trip* without the /t/.)
c. Substitution (e.g., Replace the /m/ in *man* with /f/.)
d. Manipulation (e.g., Say the word *stop*. Now move the /s/ to the end of the word and say it again.)
Task mode
1. Matching (e.g., Show me the one that rhymes with *hat*.)
2. Elimination (e.g., Show me the one that doesn't rhyme with the other two words.)
3. Judgment (e.g., Do *hat* and *bat* rhyme?)
4. Production (e.g., Tell me a word that rhymes with *hat*.)
Stimuli level for segmenting/blending
1. Sentences into words
2. Words into syllables (Compound words such as *blackboard* are easier than noncompound words such as *finger*, because each syllable is a common word.)
3. Syllables into phonemes such as "c-a-t" (Polysyllabic words and/or consonant clusters increase task difficulty.)
Phoneme class for segmenting/blending
Continuant sounds such as fricatives and nasals are easier than noncontinuant sounds such as stops. (Continuants are longer in duration and acoustically more discrete; they can be produced in isolation and emphasized by overarticulation.)

SOURCE: Adams, Foorman, Lundberg, and Beeler (1998); Blachman, Ball, Black, and Tangel (2000); Roth, Troia, Worthington, and Dow (2002); Roth, Troia, Worthington, and Handy (2006); Swank and Catts (1994); Troia, Roth, and Graham (1998); van Kleeck and Schuele (1987).

Once a child reaches the middle elementary school years, the focus of reading shifts away from decoding or word recognition, and vocabulary size becomes predictive of reading comprehension skill (Stanovich, 1986; Baker, Simmons, & Kameenui, 1998). With regard to word retrieval, naming accuracy is predictive of current and future decoding skill, whereas naming speed has been found to be strongly related to reading comprehension (Scarborough, 1998; Wolf, 1984, 1991). Morphological awareness is linked to both word reading and reading comprehension, as it reflects a child's familiarity with the meanings of words and their parts (e.g., prefixes, suffixes) as well as the ability to apply this knowledge to decipher the meaning of written words and text (Carlisle & Goodwin, 2014). Importantly, deficits in vocabulary and word retrieval are among the most common characteristics of language impairment throughout childhood and adolescence.

Role of the Speech-Language Pathologist in Literacy

The traditional scope of practice for SLPs has evolved over the past several years to incorporate more emphasis on literacy-related issues. Accordingly, in 2000, the American Speech-Language-Hearing Association (ASHA) developed a position statement, guidelines, and several other documents to address the roles and responsibilities of SLPs in serving children and adolescents with reading and writing difficulties. These documents clearly indicate that "SLPs play a critical and direct role in the development of literacy for children and adolescents with communication disorders . . . " (p. 1) and are based on the following premises:

- Oral language is the basis for the acquisition of reading and writing.
- There is a reciprocal relationship between oral and written language in that each builds on the other.
- Children and adolescents with oral language deficits often have difficulty acquiring the ability to read and write (and vice versa).
- Reading and writing deficits can involve any of the subsystems of language: phonology, morpho-syntax, semantics, and pragmatics.
- SLPs have knowledge of typical and atypical patterns of language development, as well as experience in assessment and intervention for children and adolescents.
- Literacy development requires an interdisciplinary approach in which SLPs participate collaboratively with other professionals, families, and students.

The ASHA guidelines also identify the various roles and responsibilities that SLPs may undertake to foster literacy development. These include, but are not limited to:

- *Prevention:* Promote opportunities to participate in oral and written language experiences that facilitate literacy (e.g., shared book reading, alphabet/letter exposure, adult modeling of reading and writing).
- *Identification:* Provide screening/early detection of children with or at risk for reading and writing problems as a result of oral language difficulties.
- *Assessment:* Evaluate reading and writing abilities in relation to oral language skills, using a comprehensive battery of norm-referenced and descriptive measures.
- *Intervention:* Implement evidence-based instruction for reading and writing problems, which emphasizes the reciprocal relationships between oral language and literacy and utilizes curricular subject matter.
- *Other roles:* Collaborate/advocate for effective language-based literacy practices in general and special education settings, promote family involvement in literacy activities, and advance the knowledge base regarding the relationship between oral language and literacy through clinical research and continuing education.

THEORETICAL MODELS OF INTERVENTION

There are different theoretical orientations to language intervention. These arise, in part, from different philosophies about the nature of normal language acquisition and differing viewpoints regarding the application of normal language acquisition to children with language disorders. Theoretical models differentially stress the primacy of cognitive,

linguistic, or behavioral variables (e.g., Chomsky, 1965; Piaget, 1954; Pinker, 1989, 1996; Skinner, 1957; Vygotsky, 1962). Other models propose an integrative/connectionist approach and incorporate elements of several philosophies (Bates & MacWhinney, 1987; Bruner, 1974; MacWhinney, 2001, 2002). Still others use computational analyses (statistical probabilities) to make predictions that quantify the ease of acquisition of linguistic constructions (Hsu, Chater, & Vitanyi, 2011). Regardless of theoretical perspective, intervention practices should be informed by evidence. Clinicians implement effective strategies and procedures in conjunction with their own judgment and knowledge acquired through professional experience.

These models lead to different strategies of language intervention. In general, a behavioral orientation results in a nondevelopmental approach to therapy. Language targets may be selected without consideration of prerequisite skills, and behaviors are taught solely through the use of stimulus-response-consequence procedures. In contrast, other models are associated with developmental strategies in which target selection is determined by known sequences of acquisition, whether cognitively, linguistically, or pragmatically based. (See Appendix 4-A for major developmental language milestones.) For most children who present with a profile of delayed language, a developmental treatment strategy is generally utilized. A nondevelopmental approach may be adopted for atypical patterns of language acquisition (e.g., children with severe-profound intellectual impairment).

TREATMENT EFFICACY/EVIDENCE-BASED PRACTICE

Two comprehensive reviews have examined peer-reviewed studies on evidence-based practice (EBP) in the area of child language. Law, Garrett, and Nye (2004) conducted a meta-analysis of 13 studies, and Cirrin and Gillam (2008) systematically reviewed 21 articles. All studies selected met criteria for reliable and valid experimental design (see Table 1-3 in Chapter 1 for an evidence rating hierarchy). The overall findings indicate that language intervention is effective for preschool, kindergarten, and first-grade children, especially in the areas of phonology, expressive vocabulary, simple syntax/morphology, and phonological awareness. Neither of these reviews located high-quality studies of language intervention for older children and adolescents.

Significant gaps in the professional literature were identified by both investigations; the gaps include the following:

- studies on receptive language
- experimentally controlled studies
- studies of relative effectiveness of different treatment approaches for the same therapeutic targets
- studies on higher-order language skills (e.g., figurative language, narrative discourse)
- studies on pragmatic language skills
- studies examining intervention characteristics (e.g., duration, dosage, delivery model)
- investigations of the effects of language intervention with general/special education curriculum
- studies of maintenance of treatment effects

Cirrin et al.'s (2010) work focused on the effect of different service-delivery models (e.g., pullout, classroom-based, indirect consultation) on speech-language intervention outcomes for students of elementary school age. These authors conducted a systematic review of evidence-based studies published during the past 30 years and found that only five studies met the review criteria and addressed the effectiveness of service-delivery models. Even within this small sample, results were mixed, revealing large gaps in our knowledge of the relative effectiveness of different service-delivery models.

Kamhi (2014) argues there often is a disconnect between the findings of efficacy research and clinical practice implementation. Two examples are *treatment intensity* and *distributed practice*. Most efficacy studies suggest that that a higher dose of instruction (e.g., four 50-minute sessions/week) will result in better learning outcomes than a lower dose (e.g., two 30-minute sessions/week; Bellon-Harn, 2012). Yet, evidence shows that "more is not always better." Studies suggest that many children show learning plateaus and threshold effects for early reading intervention (e.g., Denton et al., 2011), expression of communicative intentions (Fey, Yoder, Warren, & Bredin-Oja, 2013), and print referencing instruction (McGinty, Breit-Smith, Fan, Justice, & Kaderavek, 2011). Beyond a point, the quantity or quality of the intervention has little effect on language and literacy outcomes. Another example involves *massed practice* versus *distributed practice*. Research findings on *spacing effects* (long intervals between learning episodes) show that distributed learning resulted not only in in short-term gains but also in better retention of newly learned behaviors. In fact, Yoder, Fey, and Warren (2012) suggested that the spacing and distribution of teaching episodes may have a greater influence on learning outcomes than treatment intensity. Taken together, these findings demonstrate the need for further study of the instructional elements that impact language learning and development.

There also are a number of smaller studies that examine the value and benefits of specific treatment protocols. For example, a growing body of emergent literacy literature indicates that read-alouds, shared/interactive book reading, and print referring are efficacious approaches for at-risk preschool children with and without language impairments and can be used successfully in home-based programs (e.g., Justice, McGinty, Piasta, Kaderavek, & Fan, 2010; Justice, Skibbe, McGinty, Piasta, & Petrill, 2011; Pelatti, Justice, Pentimonti, & Schmitt, 2013).

Finally, the efficacy of the term "auditory processing disorder/central auditory processing disorder" (APD/CAPD) has been questioned with respect to whether APD/CAPD can be differentiated from (specific) language impairment. From a clinical perspective, the term *APD* frequently is used indiscriminately by professionals in different contexts to mean different things. The label APD has been applied (often incorrectly) to a wide variety of difficulties and disorders. As a result, there are some who question the existence of APD as a distinct diagnostic entity and others who assume that the term *APD* is applicable to any child or adult who has difficulty listening to or understanding spoken language (see, e.g., www.asha.org/public/hearing/Understanding-Auditory-Processing-Disorders-in-Children/). ASHA convened an ad hoc committee to examine this controversial issue (Richards, 2011). The results provided inconclusive support for APD. Based on these findings, Fey et al. (2011) concluded that current research does not provide the SLP with adequate guidance for treating children diagnosed with APD.

INTERVENTION WITH INFANTS (BIRTH TO 3 YEARS)

During this early developmental period, the infant masters the cognitive, social, motor, and communicative behaviors that underlie the acquisition of the linguistic system. (See Appendix 4-A for major developmental language milestones, Appendix 4-B for gross and fine motor skills milestones, and Appendix 4-C for stages of cognitive development.) In this view, language is one aspect of the baby's developing system and requires the clinician to look across developmental systems when planning and implementing language interventions. This perspective also promotes a team-based, coordinated approach rather than a series of fractured interventions by the speech-language pathologist (SLP), occupational therapist (OT), physical therapist (PT), and other professionals.

It is generally agreed that early intervention is crucial for infants who do not demonstrate these prerequisite skills within the typically expected time frame. Early intervention also is critical for children who are considered at risk for developing language difficulties due to factors such as prematurity, low birth weight, family history, medical complications, and so on (e.g., Dawson & Bernier, 2013; Diamond, Justice, Siegler, & Snyder, 2013; Guralnick, 1997, 2011, 2012, 2013; Paul & Roth, 2011). For at-risk children, intervention can be provided indirectly through monitoring of developmental progress or directly through infant stimulation and family enrichment programs. Some programs extend this focus to the concept of prevention, in which attempts are made to reduce or eliminate the risks and conditions that ultimately may result in communication disorders. Intervention provided during the first 2 years of life is thought to be extremely productive because it capitalizes on the rapid neural growth and learning potential of the young brain.

ASHA Early Intervention Guidelines

According to the American Speech-Language-Hearing Association (ASHA, 2008), **early intervention (EI)** refers to a broad range of services, including the following:

- Prevention
- Screening
- Evaluation and assessment
- Planning, implementing, and monitoring intervention
- Consultation with and education for team members, including families and other professionals
- Service coordination
- Transition planning
- Advocacy

EI is characterized by a primary emphasis on family involvement and education Ingber & Dromi, 2010; Wilcox & Woods, 2011). A family-centered approach addresses the child's needs within the sole relevant context for the child—the family unit. This model acknowledges the cultural, social, economic, and values or belief factors that may affect family dynamics. EI services promote children's participation in their natural environments, which can include home- or center-based settings (Caesar, 2013; Banerjee & Luckner, 2014). Although the term *natural environment* has often been assumed to refer

to a child's home, it actually encompasses all settings and individuals with whom the child has regular contact. With infants and toddlers, more than with any other single age group, the clinician will likely work in an interdisciplinary or transdisciplinary model of service delivery. In an interdisciplinary model, each team member functions within his or her specific discipline and shares information with other team members through established channels such as team meetings. In contrast, members of a transdisciplinary team cross traditional professional boundaries. They receive training in other disciplines and interchangeably provide services as needed by the child and family. These collaborative approaches to intervention are highlighted in Part C of the Individuals with Disabilities Education Act (IDEA.2011, idea.ed.gov) and emphasize the need for a team of professionals to be involved in the Individualized Family Service Plan (IFSP) process (Paul & Roth, 2011).

The goal of EI is the development of basic skills thought to be critical to successful speech, language, and communication learning. Repeated, interactive exposure to **authentic learning experiences in natural environments** and **modeling/stimulation** are the primary therapy strategies for infants. (Additional strategies relevant to this population are presented later in this chapter.) The main therapy targets for infant intervention programs comprise the following prelinguistic and early language skills.

Localization. Infants demonstrate awareness of sounds in their environment by turning toward and visually searching for the source of a sound. This auditory–visual association marks the beginning of an infant's conceptual grasp of cause–effect relations.

A clinician can enhance the localization behaviors of an infant by presenting a sound stimulus (e.g., rattle or other noisy object) outside the baby's visual field. This will require an observable head turn for the baby to locate the sound source. If this response is not observed, the clinician can gently turn the infant's head toward the sound to reinforce the auditory–visual association. The following developmental sequence can be used as a guideline for the appropriate response level for a given infant.

3 to 4 months:	Primitive attempt to turn head
4 to 7 months:	Localization to side only
7 to 13 months:	Localization to side or below
13 to 21 months:	Localization to side, below, or above
21 to 24 months:	Direct localization to any angle

Joint/Shared Attention. A shared focus underlies successful communication. Joint attention between an adult and infant highlights the relationship between the adult's utterances and the objects, actions, or concepts they represent. In this context, the adult and infant are focused on the same referent in the environment (e.g., a rattle). According to Bruner (1977), joint visual attention is the prerequisite for all subsequent communication. One effective method for facilitating joint attention or shared reference is to place an attractive or noisy object in front of the infant, look at it, and comment on it. The adult may point to the object, shake it, or gently turn the infant's head to encourage eye contact with the object. Sometimes, it may be necessary to follow the infant's gaze to a particular object and then point to and label it to promote joint visual regard.

Mutual Gaze. This eye gaze pattern is a characteristic of early communicative development in which the infant and caregiver look at each other during social interactions. It is thought to form the basis for attachment/bonding between infant and caregiver

(Lloyd, & Masur, 2014; Rossetti, 2001) and serves as a basic building block for later development of the important skill of turn-taking in conversation (Owens, 2013). Immediate parental response to the infant's initiation of eye contact increases the baby's motivation to communicate and ultimately results in more frequent and varied interactions (Zero to Three, 2012). Establishment and maintenance of mutual gaze with infants can be enhanced when adult eye contact is accompanied by smiling and other facial expressions, touching, and novel or entertaining vocalizations.

Joint Action and Routines. Joint action between an adult and infant occurs in play sequences known as sound–gesture games or routines such as peekaboo, patty-cake, or "I'm gonna get you." A **routine** is a prepackaged or ritualized exchange between an adult and infant. It has a definite structure with a clearly marked beginning, middle, and end, with clearly specified positions for appropriate vocalization or verbalization. This structure allows for the anticipation of events and increases the potential for successful adult–child interaction. It ensures that each partner knows what to expect from the other, thus making the order of events highly predictable. Ratner and Bruner (1978) point out that the semantic content of the mutual play is highly restricted and within the conceptual repertoire of the child. It is generally believed that the regularity and invariance of these routines allow the infant to make his or her first attempts at "cracking the linguistic code" and acquiring the first words (Ferrier, 1978; Newson, 1979). Many investigators also believe that these routines facilitate turn-taking behavior and role shifting in dialogue, both important building blocks of conversational exchanges.

Clinicians can initiate these playful routines in therapy and select the target response for an infant based on the following typical acquisition sequence for young children:

- At approximately 6 months, infants show enjoyment and pleasure (i.e., change in facial expression or body posture) when a parent initiates a sound–gesture routine.
- By 7 months, the infant anticipates the game when the adult produces the verbal component alone (independent of any gesture).
- The 8- to 9-month-old baby initiates as well as participates in the game (e.g., crawls behind the door and peeks his head out while smiling).

For slightly older babies, the clinician can utilize the "Picture-Book-Reading Routine" (Ninio & Bruner, 1978) with the baby seated next to or on the adult's lap. Select an enjoyable picture book and follow this sequence:

Adult: Say "Look" (attentional vocative) and point to picture
Child: Touches or looks at the picture (response)
A: Say "What are these?" (query)
C: Vocalizes, smiles, or names the picture (response)
A: Say "Yes, that is a ___" or "No, that's not a ___, it's a ___" (feedback)

Vocalizations. The first year of life is characterized, in part, by rapid physical growth and neuromuscular maturation. As a result, the infant gains increasing control over the speech mechanism and exhibits significant expansion in the quality and variety of vocalizations. Infant vocalizations proceed through a series of predictable developmental stages, as outlined in Table 4-1.

TABLE 4–1
Stages of Vocal Development in Infancy

Age	Behavior	Description
0–2 months	Reflexive	Undifferentiated crying and vegetative sounds (e.g., coughing, burping, sighing)
2–4 months	Cooing	Vocal signs of pleasure, primarily vowel and vowel-like sounds
4–6 months	Laughter	Sustained combination of cooing and crying features to produce audible "ha ha ha"
	Vocal play	Exploration of mouth with tongue, producing sounds such as squeals, growls, lip smacking, raspberries, and clicks
	Early babbling	Self-initiated sound play; combines stop consonants with vowels to produce isolated CV or VC syllables (e.g., /bo/ or /ok/)
6–8 months	Reduplicative babbling	Series of CV or VC syllables each identical to the other and frequently initiated with a /ə/ (e.g., /ədadada/)
8–10 months	Nonreduplicative babbling	Consonants and vowels may differ from one syllable to the next within a single string (e.g., /bawada/)
10–12 months	Jargon	Conversational intonation contours are imposed on longer strings of sound combinations; real words may be interspersed
	Protowords	Invented sound sequences that are used consistently to refer to a specific item or event (e.g., /na/ used to mean "Give [object] to me")

SOURCE: Adapted from Oller, D. (1980). The emergence of the sounds of speech in infancy. In G. Yeni-Komshian, J. Cavanaugh, & C. Ferguson (Eds.), Child Phonology: Vol. 1. Production (pp. 93–112). New York, NY: Academic Press. Stark, R. (1980). Stages of speech development in the first year of life. In G. Yeni-Komshian, J. Cavanaugh, & C. Ferguson (Eds.), Child Phonology: Vol. 1. Production (pp. 73–92). New York, NY: Academic Press.

Expansion of an infant's vocal repertoire can be promoted by increasing the frequency, variety, or quality of the vocalizations produced by the infant. The clinician can stimulate vocalization by talking to the infant, singing, humming, cuddling, tickling, or playing sound–gesture games such as peekaboo. Clinicians may also imitate the infant's vocalization in a playful manner to initiate a repetitive imitative exchange. Action-identification tags are playful sounds that infants enjoy listening to and may attempt to reproduce, such as the motor sound ("vroom"), cow sound ("moo"), telephone ("dingaling"), dog barking ("ruff ruff"), or car horn ("beep beep").

Communicative Intentions. The meaning that a speaker wishes a message to convey is known as a **communicative intention.** At about 9 months of age, infants discover intentional communication and begin to express their communicative intentions through gesture and vocalization (see Table 4-2). Requests and statements are among the earliest communicative intentions to emerge. Requests represent the infant's intentional use of a listener as an agent or tool in achieving some end (e.g., a desired object). Statements are the infant's attempts to direct an adult's attention to some event or object in the environment. As children begin to acquire an initial vocabulary, they express communicative intentions

TABLE 4–2
Preverbal Communicative Intentions

Intention	Descriptive Example
1. Attention-seeking	
a. To self	Child tugs on adult's jeans to secure attention.
b. To events, objects, or other people	Child points to airplane to draw adult's attention to it.
2. Requesting	
a. Objects	Child points to toy animal that he wants.
b. Action	Child hands book to adult to have story read.
c. Information	Child points to usual location of cookie jar (which is not there) and simultaneously secures eye contact with mother to determine its whereabouts.
3. Greetings	Child waves "hi" or "bye."
4. Transferring	Child gives mother the toy that he was playing with.
5. Protesting/ rejecting	Child cries when mother takes away toy. Child pushes away a dish of oatmeal.
6. Responding/ acknowledging	Child responds appropriately to simple directions. Child smiles when parent initiates a favorite game.
7. Informing	Child points to wheel on his toy truck to show mother that it is broken.

Source: Categories are derived, in part, from: Bates, E., Camaioni, L., & Volterra, V. (1975). The acquisition of performatives prior to speech. Merrill-Palmer Quarterly, 21, 205–224. Escalona, S. (1973). Basic modes of social interaction: Their emergence and patterning during the first two years of life. Merrill-Palmer Quarterly, 19, 205–232. Halliday, M. A. K. (1975). Learning how to mean: Explorations in the development of language. London: Edward Arnold. Wetherby, A., Cain, D., Yonclas, D., & Walker, V. (1988). Analysis of intentional communication of normal children from the prelinguistic to the multi-word stage. Journal of Speech and Hearing Research, 31, 240–252.

through single-word utterances (see Table 4-3). Evidence suggests that the *rate* of preverbal communication in young children with developmental delays is a strong predictor of later vocabulary usage (Brady, Marquis, Fleming, & McLean, 2004; Calandrella & Wilcox, 2000; McCathren, Yoder, & Warren, 1999). The *frequency* of intentional communication is also predictive: Higher rates of nonverbal intentional communication during the preverbal stage are associated with better language outcomes 1 to 2 years later (Paul & Roth, 2011; Watt, Wetherby, & Shumway, 2006; Woynaroski, Yoder, Fey, & Warren, 2012).

Intervention in the area of communicative intentions may be aimed at (1) increasing the number of different types of intentions a child can understand or express and/or (2) increasing the variety of forms (e.g., vocalization, gesture, word) understood or used to express a given intention. To elicit specific communicative intentions, the clinician should provide facilitating environments in which the intentions are obligatory or at least highly likely to occur (Paul, 2007; Roth, 1999; Spekman & Roth, 1984). Following are examples of facilitating environments for selected intentions:

Requests for action:

Introduce toys that cannot be operated without assistance from the clinician, such as a windup toy.

Place highly desirable toys where child cannot gain access to them without assistance from the clinician.

Present incomplete or broken materials such as puzzles with missing pieces or paints without brushes.

TABLE 4–3
Communicative Intentions Expressed at the Single-Word Level

Intention	Definition
1. Naming	Common and proper nouns that label people, objects, events, and locations.
2. Commenting	Words that describe physical attributes of objects, events, and people, including size, shape, and location; observable movements and actions of objects and people; and words that refer to attributes that are not immediately observable such as possession and usual location. These words are not contingent on prior utterances.
3. Requesting object	
a. Present	Words that solicit an object that is present in the environment.
b. Absent	Words that solicit an absent object.
4. Requesting action	Words that solicit that an action to be initiated or continued.
5. Requesting information	Words that solicit information about an object, action, person, or location. Rising intonation is also included.
6. Responding	Words that directly complement preceding utterances.
7. Protesting/rejecting	Words that express objection to ongoing or impending action/event.
8. Attention-seeking	Words that solicit attention to the child or to aspects of the environment.
9. Greetings	Words that express salutations and other conventionalized rituals.

Source: Adapted from Dale, P. S. (1980). Is early pragmatic development measurable? Journal of Child Language, 8, 1–12. Dore, J. (1974). A pragmatic description of early language development. Journal of Psycholinguistic Research, 1, 343–350. Halliday, M. A. K. (1975). Learning how to mean: Explorations in the development of language. London: Edward Arnold.

Requests for information:	Introduce novel or enticing toys for which the child is likely to request a label or information regarding its function, operation, or construction, such as a transformer, spinning top, or a talking book.
Attention-seeking:	Pretend not to hear the child so that he or she must use the clinician's name, raise vocal pitch or intensity, or move closer to the clinician.

Nonsymbolic Play and Symbolic Play. Children learn through play and often practice their new acquisitions in play. Infants gain experience in how both receptive and expressive language function by participating in play sequences. In addition, play is the most important context for the development of social communication skills and the natural context for early language learning (Johnson, Christie, & Yawkey, 1987; Katz, 2001; Norris & Hoffman, 1990; Rivkin, 1986; Rogers & Sawyers, 1988). In early types of play, children use objects for their intended purposes (functional play) or engage in exploratory play such as dropping, mouthing, or transferring objects) and do not require the use of symbolic agents. Additional examples of functional play include activities such as running, filling and emptying receptacles, driving toy cars, and water play. Later, symbolic forms of play emerge, where, the child substitutes objects or events for other objects/events. Examples include pretending to talk on the telephone or using a stick as a sword. (See Appendix 4-D for stages of play development.)

Following are some suggested themes and activities for facilitating play, arranged developmentally:

- Exploring common objects such as blocks, rattles, spoons, pots, and pans, through banging, mouthing, manipulating, and visual inspection
- Using toys appropriately, such as a busy box or Fisher-Price See 'n Say®
- Pretending to act out familiar single actions such as eating, sleeping, and drinking
- Manipulating a doll to perform familiar activities such as kissing, dancing, and waving bye-bye
- Pretending to act out sequences of familiar actions such as pouring liquid into a cup, taking a sip, and then spilling the liquid onto the floor
- Using dough or clay to create "pretend" food such as hot dogs or pancakes
- Using miniature people, cars, or dishes to act out daily routines such as taking a bath, going to the store, or having a birthday party

Initial Vocabulary/First Lexicon. Infants begin to understand a few familiar words between 6 and 8 months of age. Production of first true words occurs around the first birthday. Early vocabulary development can be stimulated at the receptive and/or expressive level (Beck, McKeown, & Kucan, 2013; Bloom, 2000; Tomasello, 2003; Whitehurst et al., 1991). Intervention aimed at the facilitation of a child's *receptive* vocabulary generally consists of repeated presentation of a target word as well as the use of gestures and exaggerated/varied vocal intonation patterns to highlight salient aspects of an object or event. Following are two sample activities that can be used to stimulate comprehension of early vocabulary for a 12- to 24-month-old child with a language impairment:

- Engage the child in play with a large, lightweight ball. Demonstrate and say the following to the child:

  "Can you *throw* the ball to me? Put two hands over your head and throw it to me. That's right, let go and *throw* it over here. Great, you did it."

  "Now can you *drop* the ball? I'll drop it first and then you drop it again. Let me see you *drop* the ball. Good job."

  "Let me see you *kick* the ball. *Kick* the ball with your foot. *Kick* the ball as hard as you can. Good for you, you kicked the ball."

- Engage the child in play using a surprise box such as Playskool's Busy Poppin' Pals. Say to the child:

  "Can you find Monkey's *banana*? Guess what? I see a *banana* right here. Do you see Monkey's *banana*? That's not Monkey, that's Panda. Point to Monkey's *banana*."

The early *expressive* vocabularies of young children are not arbitrary. Initial lexicons are highly selective because children communicate about the social and physical events that are within their conceptual grasp and immediate environment. A grammatical classification of a typical initial lexicon is presented in Table 4-4. Expressive vocabulary growth is charted in Table 4-5.

Researchers also agree that children's early vocabularies express a basic set of semantic functions or intentions (Bloom, 1973; Brown, 1968; Nelson, 1973). Strategies for facilitating the acquisition of early lexical items are frequently based on semantic function rather than grammatical classification. Three main considerations in the selection of

TABLE 4–4
Grammatical Classification of the First 50 Words Produced

Grammatical Function	Percentage of Vocabulary	Examples
Nominals	50	*milk, dog, car*
Action words	11–14	*give, do, up, bye-bye*
Modifiers	14–19	*mine, no dirty*
Personal/social	10	*no, please*
Functional	4	*this, for*

SOURCE: Based on Benedict, H. (1979). Early lexical development: Comprehen-sion and production. Journal of Child Language, 6, 183–200. Nelson, K. (1973). Structure and strategy in learning to talk. Society for Research in Child Development Monographs, 38, (1–2 Serial No. 149). (Reprinted in part in Mussen, Conger, & Kagan, Readings in child development and personality, (3rd. ed.), Harper & Row, 1975.)

TABLE 4–5
Expressive Vocabulary Growth

Age	Number of Words
15 months	4–6
18 months	20–50
24 months	200–300
3 years	900–1,000
4 years	1,500–1,600
5 years	2,100–2,200

SOURCE: Adapted from Bates, E., Marchman, V., Thal, D., Fenson, L., Dale, P. (1994). Developmental and stylistic variation in the composition of early vo-cabulary. Journal of Child Language, 21, 85–123.

target vocabulary are: (1) words that can be used in many different contexts during the child's daily activities; (2) words that are important to the child, such as names of significant others or types of favorite foods or toys; and (3) words that represent dynamic rather than static states, especially referents that can be acted on or manipulated directly by the child such as a ball or a spoon, rather than a tree or a wall. Following are suggested contexts/activities that can be used to stimulate different types of semantic intentions at the single-word level.

Existence/naming: Introduce a container filled with interesting objects and reveal them to the child one at a time.
Nonexistence: Expose an attractive object to the child and then hide it from view.
Recurrence: Initiate a desirable activity and then stop.
Action: Engage the child in an activity such as making pudding that will elicit a number of different actions (e.g., open, pour, stir, mix).
Possession: Place a combination of the child's and clinician's belongings in a box, pull them out one at a time, and sort into separate piles.
Locative: Engage the child in play with trucks or cars using props such as a Fisher-Price Garage or Little Peoples Wheelies Race Track that encourage changes in location.
Rejection: Offer objects or activities that are known to be unappealing to the child.
Denial: In a playful manner, intentionally misname objects or body parts that the child already knows.

One evidence-based strategy to promote simultaneous development of receptive and expressive vocabulary is reading books together. Clinicians should regularly engage in shared book reading with their young clients and encourage parents to read books to their children. (See the section on emergent literacy later in this chapter for more information.) Ideal books for infants include things to touch, language that repeats over and over again, and colorful pictures of objects and words to match.

The following case example illustrates several of the main principles of EI for infants and toddlers.

CASE EXAMPLE FOR EI

Mina is an 18-month-old girl from a bilingual family (Spanish is her first language [L1]). Mina has a complex medical history of prematurity and seizures, and is at significant risk for delayed language. In addition to SLP services, Mina is receiving PT, OT, and physician care through the county health department. The parents have a relatively good grasp of English, their second language (L2), but a language barrier remains. For example, they have difficulty understanding the specific nature of her language delay and the likelihood that Mina will continue to have language-learning problems. Their English language comprehension also interferes with their ability to understand the SLP's initial suggestions for stimulating language and communication at home and in daily activities. Both parents work outside the home and Mina is cared for by her grandmother (who only speaks L1) during the day. The family wants to know how to interact more effectively with their daughter in everyday situations and provide Mina with opportunities to interact more frequently with other children. They are also interested in learning more about the development of language/communication and reasonable expectations for their daughter at different stages of development.

Clinical strategy. As part of the EI team, the SLP initiated a family-centered approach that includes several areas of focus:

- The clinician refers Mina to an infant–toddler social interaction group at the county health department that is staffed by members of the EI team.
- The clinician also makes biweekly home visits with Mina's family to demonstrate behaviors for encouraging adult–child interactions (e.g., modeling, expansions) and directly engages Mina's family in the planning and implementation of these activities. The clinician consults with the family to select recommended developmentally supportive play activities and routines, toys, and books that Mina would likely enjoy that are consistent with the family's culture and interests to increase family–child engagement and build Mina's communication skills.
- The clinician recommends that the family participate in an ongoing support group for families of children with significant handicaps, which are coordinated by EI professionals at the county health center. These sessions provide information on early development, stress the importance of adult–child interactions in facilitating language learning, and offer ways to increase positive and relaxed adult–child engagement, because several of the family members expressed difficulties relating to their children with delays.

To ensure coordination of services across disciplines, the EI team meets regularly with one another and with the family. The SLP's main role is to provide information about

INTERVENTION WITH CHILDREN (3 TO 5 YEARS)

During this developmental period, children acquire the major portion of the linguistic system. This period is characterized by rapid growth in vocabulary. After the age of 18 months, children add approximately 9 to 10 new words to their lexicons each day, or 3,000 words per year (Graves, 1986). Average utterance length continues to increase, and the acquisition of syntax has its onset as children begin to impose word order on their two-word combinations. Morphological forms emerge and become solidified, although complete mastery is not attained until the early elementary school years. This developmental period also is marked by children's ability to understand and produce a variety of simple and complex sentence forms. In addition, children in this age range demonstrate substantial development in the area of emergent literacy through exposure and interaction with print. See Tables 4-6 through 4-14 for a review of mean length of utterance (MLU) stages, two-word semantic intentions, acquisition of grammatical morphemes, auxiliary verb development, negation development, question development, sentence-type comprehension progression, hallmarks of literacy development, and the developmental stages of early writing.

TABLE 4–6
Stages of Mean Length of Utterance Development

Stage	MLU (morphemes)	Approximate Age
I	1.0–2.0	18–24 months
II	2.0–2.5	2–2½ years
III	2.5–3.0	2½–3 years
IV	3.0–3.5	3–3½ years
V	3.5–4.0	3½–4 years

SOURCE: Adapted from Brown, R. (1973). A first language. Cambridge, MA: Harvard University Press.

TABLE 4–7
Two-Word Semantic Relations

Relation	Examples
Agent + action	Daddy eat, mommy drive
Action + object	Eat cookie, throw ball
Agent + object	Daddy shoe, grandma hat
Attribute + entity	Big doggie, pretty lady
Possessor + possession	Daddy car, baby bottle
Recurrence	More juice, more cookie
Nonexistence	No bed, allgone milk
Demonstrative + entity	This cup, that doggie
Entity + location	Daddy chair, toy floor
Action + location	Go home, sit horsie

SOURCE: Adapted from Bloom, L. (1973). One word at a time: The use of single-word utterances before syntax. New York, NY: The Hague Mouton. Brown, R. (1973). A first language. Cambridge, MA: Harvard University Press. Schlesinger, I. (1971). Production of utterances and language acquisition. In D. Slobin (Ed.), The ontogenesis of grammar (pp. 63–101). New York, NY: Academic Press.

The initial portion of this chapter provides a description of the developmental language characteristics of two major age groups: 5- to 10-year-olds and 10- to 18-year-olds. These sections are followed by a discussion of several treatment approaches that can be appropriately used across both age ranges. Example profiles and sample activities are then presented for each age group. *The reader is encouraged to review the joint introduction to Chapters 4 and 5 for important information on the following:*

- *Definition of a language disorder*
- *Classification of language disorders*
- *Behavioral characteristics associated with language disorders*
- *Relationship between oral language and literacy*
- *Role of a speech-language pathologist (SLP) in literacy*
- *Theoretical models of intervention*
- *Treatment efficacy/evidence-based practice*

CHARACTERISTICS OF STUDENTS AGES 5–10 YEARS

Several advancements in oral language occur during this period. Children's vocabularies increase in size and in depth of word knowledge (e.g., shades of meaning: *red* versus *crimson*; *run* versus *sprint*). Utterance length increases by an average of one word per year until about 9 years of age, when the length of oral language utterances begins to taper off. Syntactic growth is marked by the increased use of low-frequency structures (e.g., passive sentences) and an increased use of complex sentences (e.g., relative clause constructions).

Another important advance in oral language development during this period occurs in the area of *metalinguistic awareness*. Metalinguistic awareness involves explicit knowledge and the ability to manipulate the structural aspects of language independently from the meaning conveyed by the message. Many language activities require this ability to focus on language as an entity unto itself, including the phonological awareness tasks of segmenting and blending speech sounds or syllables (metaphonology); provision of formal definitions; appreciation of humor, metaphors, idioms, and other figurative language forms (metasemantics); and the ability to make grammatical judgments (metasyntax).

Of particular significance is the refinement of children's phonological awareness knowledge to the level of phonemic awareness (i.e., the ability to segment and blend *individual* speech sounds in words). It has been determined that phonemic awareness, and specifically the ability to segment words into phonemes, is the strongest predictor of early reading and writing skills (Torgesen, Wagner, & Rashotte, 1994; Wagner & Torgesen, 1987; Wagner, Torgesen, & Rashotte, 1994). Thus, there is a developmental relationship between oral language skills and literacy, and further, this relationship is reciprocal. That is, phonemic awareness skills promote early reading ability, and early reading skill furthers the development of phonemic awareness (see Chapter 4 for additional information regarding phonological awareness and its development).

In addition to progress in oral language, children acquire basic literacy skills during the elementary school years as they begin to receive formal instruction in reading and writing. In reading, they first learn to *decode* printed words (and nonwords) by making sound–letter correspondences (i.e., use the alphabetic principle). As children gain word-recognition accuracy, their reading *fluency* improves and they begin to read connected text with greater ease and automaticity. By middle elementary school, the focus of reading and reading instruction shifts to *reading comprehension*, or reading for meaning. Thus, third to fourth grade represents a critical transition because "learning to read" becomes "reading to learn." See Table 5-1 for definitions and stages of reading development.

Third to fourth grade is also the point at which children's writing development progresses in both *spelling* and written *composition* (writing at the text level). By mid to late elementary school, children reach the stage of conventional spelling and can correctly spell a large number of words automatically (see Chapter 4 for the developmental stages of spelling) and can spell with enough fluency to compose sentence-length text. Thus, they display advances in both the processes and products of writing. According to Hayes and Flower (1987), *writing processes* include:

- Planning (prewriting)—generating and organizing ideas about the topic, taking into account both the goal and target audience
- Drafting/composing—putting ideas into words and text
- Revising—reviewing and evaluating content to reorganize, consolidate, and develop new ideas
- Editing written text—polishing the flow and format of the composition

For skilled writers, these process are overlapping and continuous until the final composition is generated. The following *writing products*, the output of writing processes, occur at the word, sentence, and text levels (Dockrell, 2014; Nelson, 2014):

- Word selection and spelling (word level)
- Grammatical complexity and morphological forms (sentence level)
- Cohesion devices that link sentences together (text level)
- Discourse type such as persuasive essay vs. compare-and-contrast composition (text level)
- Capitalization and punctuation (across all levels)

The development of written text structures proceeds from the narrative form to various types of expository writing. Narrative discourse involves story or story-like forms in which the events occur in a chronological order. Expository texts present nonchronologically sequenced events and generally convey information that is novel to the reader. Examples of different types of expository text structures are description, comparison/contrast, and persuasion/argumentation. See Table 5-2 for the differences between narrative and expository texts and see Table 5-3 for different types of text structures and their characteristics. In addition to narrative and expository texts, there are persuasive essays. The main difference between them is that an expository essay explains and provides clarifying information, while persuasive pieces argue for a particular point of view on a debatable topic.

TABLE 5–1
Definitions of Reading Processes and Stages of Reading Development

Terms	Definition/Description
Decoding	Knowledge of letter-sound correspondences (alphabetic principle) to convert print into words
Word recognition and fluency	Rapid and automatic identification of written words
Comprehension	Processes by which printed language is understood and interpreted
Stages of Development	
Word-Level Reading	
Logographic/ Pre-alphabetic	Association of spoken words with environmental print without knowledge of letter-sound correspondences (alphabetic principle); for example, logos, brand names, street signs
Transitional	Partial knowledge of sound-letter correspondences; for example, use of initial or final letter to guess the word; sight-word vocabulary for highly familiar words
Alphabetic	Full knowledge of alphabetic principle; that is, ability to decode both familiar and unfamiliar words
Orthographic	Use of spelling patterns to recognize and pronounce commonly recurring letter patterns as units (e.g., root words, prefixes, suffixes, syllables); builds large reading vocabulary
Automatic word recognition	Proficient and fluent reading of most words by sight
Text-Level Reading	
Phase 1, 4th–6th grade	Can read familiar content (i.e., narratives); consolidates reading fluency and speed; not reading to gain new information so can concentrate on the print
Phase 2, 7th–8th grade	Reads text to learn new information (reading becomes a source of ideas); reads materials that contain one point of view to obtain facts, concepts, how to do things, rather than for nuance; begins to bring prior knowledge and experience to written text; growing importance of vocabulary/word meanings
Phase 3, 9th–12th grade	Can read multiple points of view, can read more than one set of facts, and can acquire new concepts and viewpoints from text (textbooks, reference works, mature fiction, newspapers, magazines)
Phase 4, 12th+ grade	Mature reading stage; reads for greater detail and completeness; reading becomes more qualitative, as reader constructs own knowledge using analysis, synthesis, and evaluation of information from different sources; reads at different levels to obtain desired level of detail, such as skimming versus studying text

TABLE 5–2
Narrative and Expository Text Difference

Narrative	Expository
Purpose to entertain	Purpose to inform
Familiar schema content	Unfamiliar schema content
Consistent text structure	Variable text structures
Focus on character motivations, intentions, goals	Focus on factual information and abstract ideas
Often requires taking multiple perspectives, understanding the points of view of different characters	Expected to take the perspective of the writer of the text
Can use pragmatic inferences, that is, inference from similar experiences	Must use logical-deductive inferences
Connective words not critical—primarily *and, then, so*	Connective words critical—wide variety of connectives, for example, *because, before, after, if-then, therefore*
Each text can stand alone	Expected to integrate information across texts
Can use top-down processing	Relies on bottom-up processing

Source: Adapted from Westby, C. E. (2012). Assessing and remediating text comprehension problems. In A. G. Kamhi & H. W. Catts (Eds.) &. Language and reading disabilities (3rd Ed) (pp. 154–223). Boston, MA: Pearson.

TABLE 5–3
Expository Text Types and Characteristics

Text Type	Function	Key Words
Descriptive	Does the text tell me what something is?	none
Sequence/procedural	Does the text tell me how to do or make something?	*first . . . next . . . then; second . . . third . . .; following this step; finally*
Cause/effect	Does the text give reasons for why something is or happens?	*because, since, then, therefore, for this reason, results, effects, consequently, so, in order, thus, then*
Problem/solution	Does the text state a problem and offer solutions to the problem?	*one problem is; a solution is*
Comparison/contrast	Does the text show how two things are the same or different?	*different, same, alike, similar, although, however, on the other hand, but, yet, still, rather than*

Source: Adapted from Westby, C. E. (2012). Assessing and remediating text comprehension problems. In A. G. Kamhi & H. W. Catts (Eds.) &. Language and reading disabilities (3rd Ed) (pp. 154–223). Boston, MA: Pearson.

CHARACTERISTICS OF ADOLESCENTS 10–18 YEARS

Adolescence is the developmental period during which youngsters (1) develop a stable identity, (2) acquire independence from family, (3) develop career plans, and (4) develop moral and ethical values consistent with those of society (Erikson, 1968). There are three main stages of adolescence, and the intervention goals for each stage differ slightly. In early adolescence (10 to 14), the primary focus is on developing communication skills for academic and personal-social purposes. The goals for mid-adolescence (14 to 16) involve facilitation of communication skills for academic, personal-social, and vocational aims. By late adolescence (16 to 20), language intervention is concentrated on developing communication skills for personal-social and career purposes.

In the adolescent period, communication skills are refined and higher-order language abilities undergo significant development as the child's linguistic system reaches the adult form. Significant growth occurs in the metalinguistic area of nonliteral or figurative uses of language, including idioms, metaphors, proverbs, and humor. These are considered higher-order language forms because they require the ability to go beyond the conventional meaning of language for correct interpretation or use. Figurative language forms increasingly appear in both oral and written language materials beginning in middle and upper elementary school years. In fact, by eighth grade at least 20% of teacher talk and written text consist of nonliteral uses of language (Nippold, 1998; Nippold, Hesketh, Duthie, & Mansfield, 2005).

During adolescence, continued development also occurs in conversational maturity, utterance length, the comprehension/production of complex sentences and linguistic cohesion devices (see Appendix 5-A for types), and low-frequency syntactic structures (language forms that occur in literate texts, spoken and written, with greater frequency than in oral conversational speech, such as expanded noun phrases and expanded verb phrases). Semantic knowledge also undergoes further growth with respect to both vocabulary size and depth of word knowledge. Word knowledge reflects an increased understanding of multiple meaning words (e.g., block, cold) and the literate lexicon (words that commonly occur in scholarly contexts such as textbooks, lectures, and seminars).

In addition to oral language, students demonstrate advances in the written language domain as they become mature readers and skilled writers by the end of this developmental period. Students are reading longer and more complicated texts (see Table 5-1 for stages of reading development) and can increasingly concentrate on obtaining and synthesizing new information from a variety of print materials (i.e., textbooks, essays, poems, reference sources). In both reading and writing, there is a shift in focus from content facts (simple propositions conveyed by a text, such as information about a character in a story or facts about mammals) to content schema (macrostructures that represent the organization of a text structure, such as a story or a compare/contrast essay). Schema knowledge provides structure that allows the reader to do the following:

- Organize sets of facts (content knowledge)
- Assimilate new text information (e.g., new facts)
- Make inferences necessary for accurate and full comprehension (e.g., predict what's coming next; understand what is not explicitly stated)
- Search for information from memory in an orderly fashion
- Improve in the reconstruction and summarization of text

Adolescents' written expression shows steady gains in the use of planning and organizational strategies; the ability to reflect on and revise/edit initial drafts for grammar, punctuation, and word choice; and the ability to meet the organizational and structural demands of different discourse genres. See Table 5-3 for different types of text structure and their characteristics.

Older students with **language learning disabilities (LLD)** frequently demonstrate significant difficulties with both the processes and products of writing. The primary process characteristics of students with LLD are as follows:

- Lack of planning
- Reduced use of background knowledge
- Lack of revision and editing
- Composition does not align with genre
- Reduced sense of audience (understanding audience perception)

Primary characteristics of the writing products of students with LLD are the following:

- Shorter texts
- Reduced sentence complexity (both semantic and syntactic)
- Fewer cohesive ties and less accurate use of cohesion
- Higher proportion of grammatical errors
- Higher proportion of punctuation errors

A final area of importance during this developmental period is **metacognitive/executive functioning.** Metacognitive abilities involve an awareness of one's own problem-solving abilities and include self-regulation behaviors that are used to guide, monitor, and evaluate the success of one's performance (Baddeley, 2007; Barkley, 1996, 1997). They include planning, attending selectively to certain aspects of a situation, shifting attention as necessary, inhibition of behavioral impulses, setting goals, and organizing/modifying one's behavior and work. Metacognition/executive functioning has been aptly described as "the brain's air traffic control system" (see, e.g., www.developingchild.harvard.edu). Students show marked advances in metacognitive functioning beginning at about fourth grade, and as a result, they gradually become more strategic learners. Metacognition is considered a higher-order ability area because these "meta" strategies must be invoked from the outset of a task and require task analysis and a great deal of planning. Metacognition also requires "mindfulness": skills that allow for intentional, adaptive, and flexible learning. Students with these higher-order difficulties often have difficulty with overall organization, in setting and attaining goals, planning according to the task demands, identifying errors in their own work, and initiating alternative approaches to a task (making behavioral adjustments). Knowledge of metacognitive development and deficits is necessary for SLPs because these skills and strategies are largely mediated through language, and they are not generally taught explicitly in the classroom. In traditional educational settings, students implicitly are encouraged/expected to engage in "self-talk" throughout the school day about the nature of a task/assignment, how and why they are doing it, the effectiveness of their strategies, and ways to change their behaviors and strategies.

Students with language and learning disabilities often seek postsecondary education, employment or career opportunities. Many of these individuals continue to need

accommodations to function effectively in these advanced settings (Association on Higher Education and Disability [AHEAD], 2008). Qualifying for these supports requires transition documentation of a disability. Unfortunately, there is no uniformity across settings as to the type or rigor of documentation needed. For example, in some environments, the emphasis is on the "history" of disability and its functional limitations rather than a current diagnosis of the disability. In other cases, such as most 2- and 4-year academic institutions, a "recent" diagnosis is required, where "recent" is defined as not longer than the prior 3 years. SLPs, other professionals, and families need to be aware that documentation is required, that it can be burdensome, and that it takes planning and preparation. For example, if an institution, training program, or job site requires recent documentation of a diagnosis, then the SLP can plan to complete an exit evaluation accordingly.

INTERVENTION CONSIDERATIONS FOR SCHOOL-AGE CHILDREN AND ADOLESCENTS

Intervention for school-age students revolves, in large part, around the relationship between oral language and literacy. Language therapy goals are programmed to address the demands and expectations of the educational curriculum. Therefore, service delivery is often accomplished through a variety of models, including classroom consultation and collaboration in addition to more traditional individual therapy sessions. Cirrin et al. (2010) focused on the effect of different service-delivery models (e.g., pullout, classroom-based, indirect consultation) on speech-language intervention outcomes for elementary-school-age students. These authors conducted a systematic review of evidence-based studies published during the past 30 years and found that only five studies met the review criteria and addressed the effectiveness of service-delivery models. Even within this small sample, results were mixed, revealing large gaps in our knowledge of the relative effectiveness of difference service delivery models.

Approaches to goal selection still may include a developmental focus, especially for younger school-age children. However, strategies designed to facilitate *functional* performance are used increasingly with preteens and adolescents. Many approaches to language therapy have been designed for the wide variety of communication deficits exhibited by this population. Regardless of theoretical orientation, all intervention goals should be guided by well-designed studies that demonstrate their instructional effectiveness. See Stone, Silliman, Ehren, and Wallach (2014) for a compendium of research-based practices in language instruction/intervention. Clinicians should remain sensitive to the cultural and linguistic background of each student throughout all stages of the intervention process.

For intervention to be successful with the adolescent, the teen has to be a fully cooperative partner in the therapy program. The teen should be consulted regarding the selection of specific therapy objectives, and the clinician must clearly explain the rationale for each target behavior. This allows the student to take ownership of the problem, take primary responsibility for achieving the goals, and recognize that he or she is the one who will lose out if follow-through does not occur. At least two potential problems may be encountered when working with adolescents: (1) resistance to dependent relationships with adults because they are striving to achieve and demonstrate their own independence and (2) rejection of the idea of being flawed or different in any way from their peer group.

Annex 3.

NHFC EGG FREEZING PACKAGE PRICING

New Hope is pleased to offer 2 options for Egg Freezing:

(A) Per Cycle Egg Freezing ($4,950) with optional add-ons
(B) 3 Cycle Egg Freezing Package ($11,000) with optional add-ons

	(A) Per Cycle Egg Freezing	(B) 3-Cycle Egg Freezing Package
Monitoring (Bloodwork & Ultrasound)	$1000 for 1 month	3 months of pre-egg retrieval monitoring included
Egg (Oocyte) Retrieval	$1,750(local anesthesia)	3 egg retrieval procedures included (local anesthesia)
Egg (Oocyte) Freezing	$1,750 *(supplemental charge of $700 if more than 10 eggs frozen)*	3 egg freezing procedures (cryopreservation) included, *(supplemental charge of $700 if more than 10 eggs frozen at each egg retrieval)*
MD Talks/Chat/telehealth consultations	$450 each for 1 month	Pre-egg retrieval, Included in package
Total	**$4,950**	**$11,000(savings of $4,850)**

NOTES:
1. All cycles include local sedation and cycle management. Six (6) months of complimentary storage is included and begins on the date of initial egg freezing
2. 3 Cycle Egg Freezing Package must be completed within 6 months of the start of the first monitoring visit.
3. The fee for each option is due at the first monitoring visit and are non-refundable

ADDITIONAL FEES:

1. Pre-screenings- These are mandatory prior to starting an egg freezing cycle. If you do not have insurance coverage, the approximate cost is $800-1200.
2. Expanded Carrier Screening: $349
3. Medications (per cycle): $1500-$2000
4. IV Sedation (if needed): $750
5. Annual Oocyte Storage: $1200 (after the complimentary storage period)
[LONG TERM STORAGE: 3 Years ($2400), 5 Years ($3600)]

Egg Freezing Cycle/Package Selection

_____ (A) Per Cycle Egg Freezing

_____ (B) 3-Cycle Package Egg Freezing

I have been given an opportunity to ask any questions I may have. I have read, understood, and accept the terms and conditions of this Agreement. By signing below, I consent to the participation in the Egg Freezing Cycle/Package selection indicated above.

____________________	____________________	____________________
Patient Name	Patient Signature	Date
____________________	____________________	____________________
Witness Name	Witness Initial	Date

EggFreezingPackage. 01.01.2023. V2