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The Role of Short-Term Memory in Understanding Spoken Language: A Study Inspired by Finding Dory

Martizha Fauzyah[1], Toneng Listiani[2], Cipto Wardoyo[3]
[1,2,3] English Literature, UIN Sunan Gunung Djati, Bandung, Indonesia

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Corresponding Author
Martizha Fauzyah
martizhachoi@gmail.com

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Abstract
This research investigates the role of short-term memory (STM) in the comprehension of spoken language from a psycholinguistic perspective. Anchored in the theoretical frameworks of Alvarez & Cavanagh (2004), Norris (2017), and Jonides et al. (2008), the study explores how impairments in STM disrupt verbal processing, including the ability to retain, decode, and respond to linguistic input in real time. The analysis centers on Dory, a fictional character in Pixar's Finding Dory (2016), who is depicted as experiencing persistent short-term memory loss. Employing a qualitative descriptive approach and narrative analysis, twenty scenes were selected to examine manifestations of memory-related language breakdowns in naturalistic conversational contexts. The findings reveal consistent disruptions in Dory's verbal interactions, particularly in turn-taking, following instructions, and interpreting social cues—phenomena that align with contemporary models of STM as a distinct cognitive system from long-term memory. While emotionally salient information is occasionally retained, the character's inability to maintain immediate verbal context leads to confusion and emotional distress. These results underscore both the linguistic and psychosocial consequences of STM deficits. By integrating psycholinguistic theory with narrative media, the study provides accessible insight into cognitive-linguistic disorders. Future research should explore real-world populations to substantiate these findings and inform educational or clinical interventions.

Keywords
short-term memory, psycholinguistics, Finding Dory, memory impairment, language processing

INTRODUCTION

Short-term memory (STM) plays a vital role in real-time spoken language processing by temporarily holding auditory-verbal information for decoding and integration (Jonides et al., 2008). STM limitations are especially detrimental when individuals must interpret fast-paced or complex verbal inputs. Majerus (2013) suggests that STM provides a critical platform for retaining syntactic and phonological information, making it fundamental for coherent language use. Similarly, Archibald and Gathercole (2012) found that children with specific language impairments often exhibit deficits in STM, leading to persistent challenges in language comprehension. These findings align with Baddeley's (2003) model, which differentiates STM as a more passive component compared to the active, dynamic role of working memory.

Further emphasizing the importance of distinguishing memory systems, Norris (2017) argues that STM and long-term memory (LTM) are functionally distinct, rejecting models that merge them. This position is supported by Oberauer et al. (2018), who stress that STM operates independently and should not be considered merely as activated LTM. Moreover, Nation & Snowling (2004) suggest that memory impairments are common in developmental language disorders, making STM a key area of investigation in psycholinguistics. These theoretical frameworks provide the foundation for understanding the character of Dory, whose linguistic difficulties reflect core symptoms of STM dysfunction.

The study of psycholinguistics looks at the complex interactions between language and the mental processes that underpin its learning, understanding, and use. Short-term memory (STM), which enables people to briefly retain and modify auditory information during real-time language processing, is a crucial cognitive function in this domain. Because it allows listeners to retain incoming verbal material long enough to decode, analyze, and integrate it effectively, STM is crucial for comprehending spoken language (Jonides et al., 2008). People who have STM impairments may find it difficult to understand or react to language appropriately, which can cause communication problems and learning challenges.

While STM often functions in tandem with long-term memory (LTM), their roles in language processing are fundamentally distinct. Norris (2017) argues that STM and LTM represent separate memory systems, challenging hybrid models that conflate STM with activated LTM. This distinction is especially pertinent in psycholinguistics, where STM limitations—rather than broader cognitive deficits—can uniquely hinder language comprehension and usage.

Another important factor in STM's operation is its capacity. Visual short-term memory (VSTM) is limited by the quantity of visual information that each item contains, in addition to the quantity of things it can store, as Alvarez & Cavanagh (2004) showed. Applying this idea to auditory-verbal STM implies that those with memory deficits may find it more difficult to comprehend because of the additional strain that complicated language input can place on memory resources. Building on these theoretical underpinnings, the current study uses a qualitative story technique to examine how short-term memory functions in spoken language comprehension. The study looks at how Dory, the primary character of the 2016 animated movie Finding Dory, has trouble processing and remembering spoken information in normal conversations because she has STM loss. Despite being a work of fiction, Dory's experiences provide a sympathetic

and instructive illustration of how STM impairments appear in authentic communication situations.

By analyzing selected scenes from the film through the lens of established psycholinguistics theories, this study aims to deepen our understanding of the cognitive mechanisms underlying language comprehension. Moreover, it seeks to raise awareness of memory-related language challenges in both academic and public spheres.

RESEARCH METHOD

Using Dory from the 2016 animated film *Finding Dory* as a case study, this research employed a qualitative descriptive design to explore how short-term memory impairment affects spoken language comprehension. Selected scenes depicting Dory's struggles—such as forgetting directions or losing track of conversations—were closely viewed, transcribed, and analyzed through psycholinguistic frameworks on working memory, auditory processing, and language production. The analysis revealed recurring patterns like loss of verbal context and disrupted conversational turn-taking, offering insight into real-time comprehension breakdowns. Rather than generalizing findings, the study aimed to develop a nuanced, theory-informed understanding of memory-related communication challenges, using the film's accessible narrative to bridge academic concepts and public awareness.

The analysis of Dory's memory failures provided insight into how short-term memory (STM) impairment affected not only comprehension but also the emotional and social dimensions of communication. As Acheson et al. (2010) argued, verbal working memory and language production shared a common neural substrate, indicating that disruption in one system affected the other. Zacks (2020) elaborated that disrupted event perception due to STM failure contributed to fragmented narrative identity—consistent with Dory's repeated disorientation in recalling her personal story.

Beyond theoretical implications, *Finding Dory* also offered a platform for public engagement and educational awareness. According to Lenhart & Richter (2024), media representations could shape public understanding of cognitive development, particularly in children. The film's accessible portrayal of memory-related language issues fostered empathy and reflection, reinforcing the value of fictional narratives in cognitive education. This aligned with the study's goal to bridge psycholinguistics and mainstream media as a means of demystifying language and memory impairments for general audiences.

Dory's repetition of phrases and frequent forgetting of immediate context illustrated the fragile nature of STM in live interaction. Her looping speech behavior under stress—such as repeatedly asking the same question—mirrored computational models in which memory overload led to recursive outputs (Van Houdt et al., 2020). This was further supported by Graves (2012), who explained that breakdowns in short-term retention could interrupt language sequence processing, especially under emotional strain. Dory's scenes showed how her verbal planning collapsed in moments of cognitive overload, reflecting what Cheng et al. (2016) identified in artificial memory networks when confronted with unstructured input.

Interestingly, certain emotionally anchored or long-term semantic memories appeared to survive Dory's STM lapses. For example, she recalled "P. Sherman, 42 Wallaby Way" but forgot the conversation she was having. This dissociation highlighted Norris's (2017) argument that STM and long-term memory (LTM) functioned separately. Cogan & Poeppel (2011) further supported this distinction, demonstrating that neural processing of speech and music relied on distinct timing mechanisms—a finding relevant to how Dory's brain might have processed rhythmic or repeated language differently from new verbal input.

In scenes where Dory was overwhelmed by layered verbal cues, her memory failed to retain the beginning of an instruction before it concluded. This effect supported Alvarez & Cavanagh's (2004) theory that memory capacity was limited not only by quantity but also by complexity. Logie (2016) critiqued the traditional central executive model of working memory, suggesting that moment-to-moment disruptions like those seen in Dory required updated explanations of cognitive control.

RESULTS AND DISCUSSION

This study is grounded in three core theoretical perspectives from psycholinguistics related to short-term memory (STM) and spoken language comprehension:

1. Jonides et al. (2008) emphasize that STM is a cognitive mechanism for temporarily holding and processing auditory-verbal input. STM enables real-time language comprehension by allowing individuals to retain spoken sequences long enough to decode and interpret them.
2. Norris (2017) argues that STM and long-term memory (LTM) are functionally distinct systems. He critiques hybrid models that conflate STM with activated LTM, asserting that STM has an independent role in language processing, particularly in moment-to-moment understanding.
3. Alvarez & Cavanagh (2004) propose that memory capacity is influenced not just by the number of items but also by their complexity. While this model focuses on visual STM (VSTM), its application to auditory-verbal memory highlights how complex language input can overwhelm individuals with STM impairments.

The selection of the three core linguistic aspects: interpersonal communication, verbal processing, and verbal planning is grounded in their conceptual alignment with the primary theoretical frameworks employed in this study: Jonides et al. (2008), Norris (2017), and Alvarez & Cavanagh (2004). The category of verbal processing reflects the role of short-term memory (STM) as described by Jonides et al., who emphasize STM's function in temporarily storing and manipulating verbal input to enable real-time comprehension and response. Interpersonal communication is closely associated with Norris's (2017) argument that STM and long-term memory (LTM) operate as distinct systems, with STM playing a crucial role in maintaining coherence during moment-to-moment social interactions, turn-taking, and context-sensitive dialogue. Meanwhile, verbal planning corresponds to the framework proposed by Alvarez & Cavanagh (2004), which highlights the limitations of memory capacity based not only on quantity but also on the complexity of information. This aspect is particularly relevant in instances requiring the integration of sequential verbal information, goal maintenance, or narrative structuring. By consolidating the original linguistic observations into these three categories, the analysis remains theoretically coherent while offering a

focused interpretation of how STM deficits impact language comprehension across functional domains.

Data Analysis of Short-Term Memory in Finding Dory

The table below presents 21 selected scenes from the film *Finding Dory* that illustrate the linguistic and cognitive impacts of short-term memory impairment. Each data point includes the timestamp, situation, observed STM-related behavior, the relevant psycholinguistics theory, and the affected linguistic aspect, based on the framework from Jonides et al. (2008), Norris (2017), and Alvarez & Cavanagh (2004).

Table 1. Short-term Memory in Finding Dory

No.	Linguistic Aspects	Frequency
1.	Verbal Processing	7
2.	Interpersonal Communication	8
3.	Verbal Planning	6

Verbal Processing

Data 1
Scene Timestamp: 00:48–02:35
Dialog:
Dory: "One, two, three… um, four… um… I like sand. Sand is squishy."
Charlie: "Now count to ten!"
Jenny & Charlie: "We see the undertow and we say…"
Dory: "Let's go!"

Dory struggles to complete a simple counting sequence and forgets a safety rhyme immediately after hearing it. Her inability to retain brief verbal instructions, even when guided, exemplifies a failure in auditory short-term memory. According to Jonides et al. (2008), STM is crucial for holding verbal input long enough to allow real-time comprehension and response. Dory's performance in this scene illustrates how limitations in STM can impair both instructional understanding and short verbal processing.
This instance falls under the category of Verbal Processing, as it involves the immediate decoding and short retention of spoken material.

Data 2
Scene Timestamp: 03:40–04:25
Dialog:
Dory: "Hi, I'm Dory. Can you please help me?"
(Seconds later)
Dory: "Hi, I'm Dory. Can you please help me?"
Fish: "You just said that."
Dory: "I did?"

Here, Dory repeats a request for help within seconds, unaware that she has just spoken it. This scene showcases a real-time failure of short-term conversational memory. Jonides et al. (2008) explain that STM temporarily stores verbal input to support ongoing interaction. Dory's behavior highlights a disruption in that mechanism, where she cannot hold previous utterances long enough to avoid immediate repetition. This instance falls under the category of Verbal Processing, as it reflects her inability to retain and regulate immediate spoken interaction.

Data 3
Scene Timestamp: 24:05–24:22
Dialog:
Hank: "How could you forget you have a tag on your fin?"
Dory: "Oh, no. I'm sorry. I—I suffer from short-term memory loss."

In this interaction, Dory fails to remember an important detail just discussed—her identification tag. Her confusion disrupts the conversation and decision-making process. This kind of immediate forgetting reflects the breakdown of working memory in real-time tasks. As Jonides et al. (2008) explain, STM is essential for managing information within an ongoing interaction. Dory's inability to track what was just said illustrates how compromised STM hinders even simple negotiations.
This instance falls under the category of Verbal Processing, as it shows difficulty in maintaining short-term verbal information during task execution.

Data 4
Scene Timestamp: 45:00–46:15
Dialog:
Dory: "Just keep swimming, just keep swimming…"

While distracted and under pressure, Dory turns to a repeated phrase for comfort. Though her verbal goal is momentarily forgotten, this learned mantra resurfaces automatically. Jonides et al. (2008) explain that STM functions not only in decoding language but also in maintaining attentional focus. Here, Dory's memory lapse causes her to default to repetition, a coping strategy signaling diversion of STM resources away from the task at hand.
This instance falls under the category of Verbal Processing, as it reflects STM failure in sustaining focus on a verbal task.

Data 5
Scene Timestamp: 49:50–51:00
Dialog:
Dory: "Have we met before?"

Dory asks the same fish a question moments after interacting with them, unaware she has already done so. This illustrates a failure to update short-term conversational memory. Jonides et al. (2008) identify STM as the mechanism that enables us to track ongoing interactions in real time. Dory's repeated questioning underscores how fragile that system is in her case, resulting in disjointed communication.
This instance falls under the category of Verbal Processing and Interpersonal Communication as it shows failure in short-term retention and conversational continuity.

Data 6
Scene Timestamp: 55:22–56:30
Dialog:
Dory: "I suffer from short-term memory loss. I suffer from short-term memory loss…"

Dory repeatedly states her condition, demonstrating metacognitive awareness but also helplessness in managing it. The phrase becomes a kind of self-soothing script, lacking integration with immediate context. Norris (2017) explains that while metacognitive language may still be retrieved from long-term memory, STM impairments hinder control and functional use of that information in live dialogue.
This instance falls under the category of Verbal Processing, as it reflects disruption in internal regulation of verbal information.

Data 7
Scene Timestamp: 58:40–59:55

Dialog:
Dory: "Hank! Where are you? Hank! Oh! Can you please help me? I'm looking for...Please help me. I've lost my friend frank. I'm sorry, not frank."

Dory misnames her friend, calling him "Frank" instead of "Hank." This breakdown in proper noun retrieval reflects lexical access difficulties common in individuals with STM impairments. According to Norris (2017), STM plays a role in real-time lexical selection, and such naming errors illustrate its failure in short-term word retrieval under pressure.
This instance falls under the category of Verbal Processing, since it involves short-term lexical access failure during immediate verbal recall.

Interpersonal Communication

Data 1
Scene Timestamp: 07:15–07:47
Dialog:
Fish: "Do you wanna come swim with us?"
Dory: "That is the nicest offer I've gotten all day. I think. Uh, I can't remember."

Although Dory appreciates the social gesture, she quickly loses grasp of the compliment she just acknowledged. This inability to retain socially relevant information points to a disruption in verbal STM, as theorized by Jonides et al. (2008). Their framework suggests that STM allows for the processing of brief, socially embedded utterances. Dory's fleeting recognition of the offer, followed by doubt, exemplifies this limitation. This instance falls under the category of Interpersonal Communication, as it involves real-time comprehension and response in a social exchange.

Data 2
Scene Timestamp: 09:23–10:51
Dialog:
Dory: "Of course, I don't really remember yesterday all that well."

In this moment, Dory's reflection about not remembering "yesterday" reflects her fragmented temporal memory. Her statement illustrates a breakdown in the episodic continuity of thought, which is closely tied to short-term memory's role in bridging moments. Norris (2017) argues that STM and long-term memory operate as distinct systems. Dory's difficulty in forming coherent temporal references aligns with this view and illustrates the cognitive gap between episodic sequencing and semantic retention.
This instance falls under the category of Verbal Planning, as it involves temporal structuring and coherence in narrative reflection.

Data 3
Scene Timestamp: 22:33–24:05
Dialog:
Dory: "You're right. I don't know what I thought I could do this. Find my family. I can't do it."

After being scolded by Marlin, Dory expresses emotional defeat and self-doubt. Her inability to recall her role in the situation or how she got there leads to internal collapse. This moment reflects more than momentary confusion; it reveals how her short-term memory issues affect her identity and confidence. According to Norris (2017), STM plays a distinct role in maintaining continuity of self across time. Dory's breakdown shows that without STM, one's sense of narrative identity becomes fragmented.
This instance falls under the category of Interpersonal Communication, as it affects her ability to respond appropriately and emotionally within a social situation.

Data 4
Scene Timestamp: 27:38–27:46
Dialog:
Hank: "You're gonna read that map and figure out where your parents live. Got it?"
Dory: "Got it. What was the first part again?"

Dory forgets the beginning of Hank's instruction immediately after affirming she understood. This short delay between hearing and forgetting exemplifies a core STM failure. Jonides et al. (2008) emphasize that STM holds verbal material long enough for it to be used in action or comprehension. Dory's behavior here underscores how fragile that retention is in her case, impairing her ability to follow through with basic verbal tasks.
This instance falls under the category of Interpersonal Communication, since the failure disrupts back-and-forth verbal coordination with Hank.

Data 5
Scene Timestamp: 41:40–42:35
Dialog:
Dory: "What's echolocation? Why do I know that?"

Dory suddenly recalls a concept—echolocation—yet struggles to understand how or why she knows it. The complexity of Hank's prior dialogue and the information overload disrupt her ability to link the concept meaningfully to context. According to Alvarez & Cavanagh (2004), memory performance is not only limited by quantity but also by the complexity of items processed. Dory's STM is overwhelmed by layered input, demonstrating how abstract or technical language strains cognitive capacity when short-term memory is limited.
This instance falls under the category of Interpersonal Communication, as it reflects difficulty in handling complex back-and-forth verbal input within social interaction.

Data 6
Scene Timestamp: 49:50–51:00
Dialog:
Dory: "You know me?"

Dory asks the same fish a question moments after interacting with them, unaware she has already done so. This illustrates a failure to update short-term conversational memory. Jonides et al. (2008) identify STM as the mechanism that enables us to track ongoing interactions in real time. Dory's repeated questioning underscores how fragile that system is in her case, resulting in disjointed communication.
This instance falls under the category of Verbal Processing and Interpersonal Communication as it shows failure in short-term retention and conversational continuity.

Data 7
Scene Timestamp: 01:08:00–01:09:10
Dialog:
Dory: "Just keep swimming. Just keep swimming."

Dory repeats this phrase to calm herself during uncertainty. Although her STM is weak, emotionally anchored verbal routines like this persist and become tools for emotional self-regulation. Jonides et al. (2008) suggest that STM is also involved in the connection between language and emotion.

This moment shows how verbal memory patterns can serve affective functions even when comprehension or planning fails.
This instance falls under the category of Interpersonal Communication, as the repetition is tied to emotional regulation within an uncertain social context.

Data 8
Scene Timestamp: 01:13:30–01:14:45
Dialog:
Dory: "My parents! I remember them!"
Analysis:
Dory shows a burst of emotional recall when she recognizes her parents, yet she quickly loses the clarity of that recognition. The scene illustrates the fragility of episodic memory when STM is compromised. As Norris (2017) explains, STM is essential for encoding emotionally significant events. Dory's fleeting awareness, followed by confusion, highlights how such encoding fails without sustained STM.
This instance falls under the category of Interpersonal Communication, due to the emotional-social nature of the recognition breakdown.

Verbal Planning

Data 1
Scene Timestamp: 19:50–20:20
Dialog:
Dory: "I may not remember their names and what they look like… What were we talkin' about?"

While engaging in a class discussion about origins, Dory momentarily reflects on having a family, but soon loses the thread of the conversation. This disruption in maintaining thematic focus exemplifies how STM impairment hinders narrative continuity. Drawing on Norris (2017), this breakdown illustrates the functional limitations of STM in retaining and integrating ongoing narrative information, even when it relates to emotionally salient topics.
This instance falls under the category of Verbal Planning, as it deals with maintaining and developing narrative content in dialogue.

Data 2
Scene Timestamp: 32:15–33:40
Dialog:
Dory: "Where was I going? What was I doing?"

While attempting to navigate, Dory abruptly forgets her purpose, asking aloud what she was doing. Her internal goal structure collapses mid-action, showing a failure in short-term task management. According to Jonides et al. (2008), STM supports the planning and execution of verbal tasks by maintaining information sequences. Dory's sudden disorientation reflects how her STM impairment disrupts these sequences, making even simple missions difficult to complete.
This instance falls under the category of Verbal Planning, as it highlights her inability to sustain verbal intentions over a short span of time.

Data 3
Scene Timestamp: 37:05–38:00
Dialog:
Dory: "I remember my family! They're out there somewhere!"

In contrast to many other scenes, Dory here recalls a deep semantic truth—she has a family. While she doesn't recall where or how, she retains this core belief. This illustrates the separation between short-term and long-term memory. As Norris (2017) argues, STM and LTM are independent systems. Dory's access to long-term semantic memory (the idea of having a family) persists even though her STM cannot support contextual or episodic details.
This instance falls under the category of Verbal Planning, as it demonstrates difficulty in integrating semantic memory with present contextual understanding.

Data 4
Scene Timestamp: 01:01:20–01:02:10
Dialog:
Dory: "Dory: Wow! Where are they? Where are they? Where are they? Okay. Okay. Pardon me. Oh. Hi. Hello. Have you seen a mom and a dad without me? Excuse me. Have you seen a couple? They're old like you. Not old like you, but older than you even. Okay. Bye. Hi. Do you know anyone who lost a kid a long time ago that would be me? I don't know how long ago exact...Okay. You're in a hurry."

Dory panics and repeatedly asks the same question. Her recursive speech reflects an acute disorientation caused by short-term memory overload. In the absence of clear recall, she defaults to repetition as a coping mechanism. Jonides et al. (2008) describe this pattern as a linguistic response to cognitive breakdowns, where STM fails to maintain orientation during stress, leading to looping, non-productive utterances.
This instance falls under the category of Verbal Planning, as it reveals breakdowns in maintaining internal verbal goals and actions.

Data 5
Scene Timestamp: 01:05:30–01:06:45
Dialog:
Dory: "I'm sorry, Hank. I can't remember right."

Dory acknowledges her inability to remember her own thoughts or purpose mid-task. This reflects a collapse in internal self-monitoring, where she cannot track even her own verbal plans. Norris (2017) highlights STM's unique role in internal language and self-regulation. Without functional STM, Dory cannot hold onto her own intentions, leading to breakdowns not only in interaction but in inner speech.
This instance falls under the category of Verbal Planning, since it involves monitoring and sustaining inner language to guide behavior.

Data 6
Scene Timestamp: 01:17:20–01:18:45
Dialog:
Dory: "Home."

In one of the few successful memory integration, Dory follows a trail of clams that leads her back to her family. The combination of spatial cues and emotional familiarity helps her access long-term episodic memory. Norris (2017) argues that while STM and LTM are separate, STM can help trigger retrieval under the right conditions. This moment represents a rare synergy between memory systems, leading to successful language and action.
This instance falls under the category of Verbal Planning, as it involves linking episodic memory with current verbal reasoning and action.

Discussion

Based on the 21 data entries analyzed from *Finding Dory*, it is evident that Dory's behavior illustrates multiple forms of short-term memory (STM) breakdown that significantly affect her linguistic abilities. The most frequent issues relate to her inability to retain verbal input long enough to complete a conversation or process instructions, which aligns with the theory of Jonides et al. (2008). His model emphasizes STM's essential role in holding verbal information briefly for real-time comprehension. Scenes such as Dory forgetting Hank's instructions or repeatedly asking the same question exemplify this clearly.

The second most prominent pattern found in the data is Dory's retention of emotionally significant or long-term semantic information, despite her inability to hold onto moment-to-moment conversation flow. This distinction supports Norris (2017), who posits that STM and LTM are functionally separate systems. Dory's ability to recall facts like "P. Sherman, 42 Wallaby Way" while forgetting the current goal or conversation shows that her LTM can operate without effective STM.

Meanwhile, only a few scenes reflected the challenges described by Alvarez & Cavanagh (2004), who argued that memory performance is not only limited by quantity but also by the complexity of information. These cases involved situations where Dory struggled to process layered instructions or abstract questions.

Importantly, Dory's condition impacts not only her comprehension but also her emotional state. Scene 6 depicts her breaking down emotionally after failing to remember her role in a situation. This suggests that STM loss may lead to psychological consequences, such as anxiety, guilt, or social withdrawal—an insight often overlooked in purely cognitive models of memory.

Reflections and Implications

Although Dory is a fictional character, her experiences reflect real challenges faced by individuals with short-term memory impairments in daily life. Watching her struggle—even in animated form—evokes empathy and invites viewers to consider how frustrating and isolating communication can become when memory consistently fails. For the researcher, engaging with Dory's story has deepened the understanding that language is not merely about grammar or vocabulary, but about retaining meaning over time, no matter how short that time span may be.

Academically, this study reinforces the importance of distinguishing between STM and LTM in psycholinguistic research, especially when designing educational or therapeutic interventions for language learners with memory limitations. Practically, the findings suggest that caregivers, educators, and communication partners of people with STM deficits should:

1. Use simplified instructions with frequent repetition,
2. Offer visual or contextual cues to reinforce memory,
3. Be patient with conversational breakdowns, and
4. Avoid assuming forgetfulness as a lack of intelligence or attention.

Furthermore, using popular media like Finding Dory can be a powerful tool in language education and cognitive awareness campaigns. It humanizes abstract concepts, making them accessible to the general public, including children, teachers, and families affected by memory-related conditions.

Verbal Processing

Dory's behavior often reveals her inability to retain verbal information in real time. She frequently forgets short instructions, repeats the same questions, or fails to follow through with verbal cues. This shows a breakdown in short-term memory (STM), particularly in decoding and processing spoken input moment-to-moment. According to Jonides et al. (2008), STM temporarily holds verbal input to support immediate understanding and response. Scenes such as Dory failing to complete a counting sequence or forgetting her dialogue seconds after speaking highlight this impairment in verbal processing.

Interpersonal Communication

Dory also struggles in social conversations due to STM failure. She cannot sustain the context of interpersonal exchanges, often repeating herself or forgetting whom she is speaking to. These breakdowns disrupt conversational flow and emotional expression. Norris (2017) supports the view that STM plays a vital role in social communication by maintaining coherence and context across turns in dialogue. Examples include Dory forgetting an offer moments after hearing it or misrecognizing friends in mid-conversation.

Verbal Planning

Verbal planning refers to Dory's difficulty in maintaining internal verbal goals and sequences. Her STM limitations prevent her from recalling directions, following plans, or executing verbal intentions. This aligns with Alvarez & Cavanagh's (2004) theory that memory limitations depend not only on capacity but also on complexity. Scenes where Dory forgets her task mid-action or becomes lost during simple navigation illustrate how impaired STM affects planning and verbal continuity.

CONCLUSION

This study shows that spoken language comprehension is significantly influenced by short-term memory (STM). The study illustrates how STM impairments can result in serious linguistic issues, such as trouble remembering spoken instructions, keeping up conversational flow, and perceiving social or emotional cues, by examining the character of Dory in Finding Dory (2016). The results support theoretical viewpoints by Norris (2017), who argues for the functional separation of STM from long-term memory, and Jonides et al. (2008), who highlight the significance of STM in moment-to-moment language processing.Furthermore, the framework developed by Alvarez & Cavanagh (2004) lends credence to the idea that people with memory impairments are further burdened by the complexity of information. The study shows that STM deficiencies have emotional and psychological repercussions in addition to cognitive ones, such as worry, frustration, and disturbances in self-identity.

The study offers scholarly understanding and an approachable depiction of cognitive-linguistic deficits by using a qualitative storytelling approach with a well-known animated movie. In addition to supporting important psycholinguistics ideas, this method promotes sympathetic viewpoints in therapeutic intervention, education, and communication techniques. In the end, fictional stories such as Finding Dory can be effective teaching and comprehension aids for the lived reality of memory-related language

difficulties, increasing the impact and relatability of psycholinguistics principles for both general and specialized audiences.

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