Vocabulary Development in Toddlers:

Book illustrations and Their Effects on Vocabulary Building

Honors Thesis

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Abstract

Vocabulary building (generalization, retention, learning) is vital to a toddler's development, and it occurs through copious strategies. In the current study, we explore the strategies of shared storybooks, repetition, reduction of visual ambiguity, and association, with the primary focus on illustration style. More specifically, we work to determine if a context-rich style or an isolated style, in terms of book illustration, is most effective for vocabulary building. We hypothesize that an isolated illustration style will be most effective for vocabulary building in toddlers compared to a context-rich illustration style. Thirty-seven toddlers, ranging from 19 to 23 months, were recruited for this study (M=20.5, SD=1.9). The results demonstrated that there was not a significant difference between the context-rich and isolated style, meaning that neither condition was most effective. However, vocabulary building still occurred over time.

Introduction

The buildings of our communication systems are languages, and every building has building blocks. When it comes to language, one of the first blocks placed is vocabulary (Karaman & Hay, 2018). Vocabulary development helps our comprehension, communication, and overall self-expression. In truth, vocabulary development is the foundation of language comprehension (Maurulis & Neuman, 2010). As it is in every building, a strong foundation is critical.

Of course, every foundation has a genesis; it starts with the placement of the first brick. When it comes to constructing the foundation of a building, we usually expect skilled adults to complete the task. However, when it comes to language development and vocabulary building, we begin as soon as we are exposed to language; we begin as newborn infants. As we reach our toddler years, 12 to 36 months, we put into practice what we have learned (Murkoff, Eisenburg & Hathaway, 2009). On average, from the age of one, we have already begun to speak words and sporadic sentence fragments, but by the age of two, we are uttering multi-word phrases (Gurteen, Horne, & Erjavec, 2011). In the Latino culture, the toddler to preschool years, one to five years of age, are known as the *sponge years*. Children, like sponges, try to absorb everything around them, what they see, smell, touch, and hear. They possess learning skills which they use to pick up words in daily speech (Karaman & Hay, 2018). A toddler's ability to pick up speech is extraordinary, making them highly receptive to vocabulary acquisition. For this reason, toddler years are the perfect age to start vocabulary building.

Despite a toddler's extraordinary abilities to develop language skills, vocabulary building is not a simple task. As we grow, we establish our native language and fortify our language comprehension. When people are presented with the opportunity to learn a new language, it is

difficult as any other language that is not their native tongue is foreign. For a toddler who is still navigating language in general, everything is unfamiliar. Someone with a more advanced vocabulary who communicates effectively through complex and full sentences can discriminate between real words versus nonsense sounds when words are being spoken. As for a child to whom even sound is foreign, they must first learn to distinguish between nonsense sounds and actual words (Golinkoff, Can, Soderstrom, & Hirsh-Pasek, 2015). Once they have discovered to discriminate, vocabulary building begins.

Language learning is, of course, challenging. As we are first presented with a word, we are confronted with endless possibilities for what it can mean (Smith & Yu, 2007). For example, if someone shows us the nonexistent word *qeh,* we can endlessly speculate its meaning. It can mean a green ball, a fuzzy sweater, loud TV static so on. However, if we are presented the nonexistent word *qeh,* and shown an open green binder full of paper, we can speculate that *qeh* means *open, green, binder, full,* or *paper.* There are still various possibilities to the meaning, but we have narrowed them down. The example of presenting a word with a physical item is a strategy for vocabulary acquisition; this strategy is association. There are many vocabulary development strategies, and the strategies we use invoke vocabulary building (Taylor & Gelman, 1988).

There are several vocabulary building strategies available to children. Another strategy that can work in conjunction with association is reading through shared storybooks (Horst, 2013). It is such a familiar and beloved strategy that 80% of children are read to daily before the age of six (Rideout, Vandewater, & Wartella, 2003). Daily shared reading may be a tedious task for some, but it is necessary for a toddler's vocabulary building. As Nyhout and O'Neill state, vocabulary development is not an instant but rather a gradual process that occurs through various

instances (2013). Toddler vocabulary building is complex, no matter what strategy is used, it is a step-by-step process, and the support that toddlers are offered as they embark on this task play an important role. In this study, we look specifically at how different types of word book illustrations may support vocabulary building.

Hypothesis

Past studies show that there are several strategies for effective vocabulary building in toddlers. Our focus is on comparing a context-rich and isolated style storybook in terms of illustrations. We want to determine if one is most effective for vocabulary building. We hypothesize that an isolated illustration style book will be most effective for vocabulary building compared to a context-rich illustration one. An isolated style reduces visual ambiguity allowing the participant to associate the target word with a single illustration. Thus, leading to robust vocabulary building.

H: An isolated illustration condition will be most effective for vocabulary building in toddlers compared to a context-rich illustration style.

Background

As previously mentioned, vocabulary building is critical to a toddler. Vocabulary building leads to language composition, and ultimately to effective communication. The perfect years to begin vocabulary building are toddler years, but in truth, they toddlers are strangers to our communication ways (Smith & Yu, 2007). How then do we get these tiny strangers to familiarize themselves with our languages? The answer, an effective vocabulary learning strategy. Strategies can either be techniques used to vocabulary present by a third party or strategies that toddlers themselves use to surmise the meaning of a word. An effective strategy

leads to vocabulary learning, retention, and generalization. Which strategy is most effective? The answer is still unclear.

Although unclear, vocabulary building occurs through the work of copious strategies. Word-referents through cross-situations is one of these strategies. Smith and Yu implement this technique and show that 12 through 14-month-olds figure out what a word means by seeing the word across various situations or scenes (2007). This task is meant to mimic the way a toddler might experience the same word across different situations in which, over time, the referent of the word becomes clear. For example, if the target word is *cup*, you can show the child the word *cup* alongside the image of a cup and a plate. Initially, the child might not refer to the *cup*, but if you show them the target word again, this time with images of a cup and a fork, next time, say, a cup and a dog, and so on, they will be able to make the connection. The word was novel initially, preventing them from defining what it was. However, when presented the word a second time, they became familiar with the image of the cup as it co-occurs with the word *cup*. They could infer that *cup* was indeed the cup and not the plate or fork. These repeated exposures allow the formation of associations across situations. As more similar situations ensue, we can solidify the association, thus leading to vocabulary building.

Medina, Snedeker, Trueswell, and Glietman, on the other hand, counter the effectiveness of cross-situational acquisition (2011). In their first experiment, adults were shown video vignettes where parents uttered target words in one single instance; the video was silent, and a nonsense sound was heard when the parent uttered the target words. The participants were asked to identify the target words. The results showed that 90% of the vignettes were uninformative while seven percent were highly informative, and when preschoolers were tested, they provided similar results (Medina. Snedeker, Trueswell & Gleitman, 2011). In a second experiment, the

highly informative vignettes' ordering was manipulated to test the effectiveness of cross-situations. The results showed that one meaning is hypothesized and retained throughout the vignettes, and other meanings and learning situations go out the window (Medina. Snedeker, Trueswell & Gleitman, 2011). The results were similar among adults and preschoolers. This study indicates that vocabulary building occurs through a single instance *fast-mapping* strategy, challenging the effectiveness we assume cross-situations have. Medina, Snedeker, Trueswell, and Glietman speculate that the reason for this is the contextual uncertainty or visual ambiguity that cross-situations present (2011).

The utterance of a word in co-occurrence with a visual representation is not enough. Another technique is to reduce visual ambiguity. For this to work, there must be an emphasis on the referent or a reduction of visual uncertainty. Here is an example: If the word in question was *caboose*, you could give a child a batch of toys with various train freights, rectangular objects, and a toy caboose. You can point to the caboose and utter the word, but because of the visual ambiguity, the child is less likely to learn the word. Now, if you gave them a batch of toys with different vehicles and their pulleys, such as cars and boats, they are more likely to learn and know which one is the caboose because it is salient from the rest (Yu & Smith, 2012).

Conversely, Gurteen, Horne, and Erjavec suggest that looking at the referent of a word and uttering is enough (2010). In their study, they perform two experiments with 13 and 17-month-olds. Both experiments were composed of two measures: looking and reaching. For both looking and reaching there was a comprehension task in which the participant was asked to identify where the child was looking and then asked to put the label in a basket, reaching (Gurteen, Horne & Erjavec, 2007). The results showed that in both experiments, word learning was present, but only on the looking measure.

Toddlers are extraordinary learners. They pick up vocabulary very quickly, and therefore children are uttering words by the time they turn one and speaking multi-word phrases by two (Gurteen, Horne, & Erjavec, 2011). In a study conducted by Woodward, Markman, and Fitzsimmons, groups of 13- and 18-month-old toddlers heard a novel word nine times in five minutes (1994). They were tested 24 hours later, and toddlers in both age groups showed comprehension of the word, supporting the theory that a toddler's vocabulary builds quickly.

Another strategy that we consider is the style in which the novel words are presented. Is the word presented in an isolated style, meaning the only word is uttered, or is it presented in a context-rich style, meaning is the word said within a sentence? The difference between these styles was studied by Karaman and Hay (2018). In the study, eight-month old english speaking children were taught sentences in Italian that included specific target words. The target words either had high internal transitional probability or low internal transitional probability. Transitional probability is the likelihood a syllable will occur given the previous syllable. The target words used were *bici, casa, fuga,* and *melo*. *Fuga* and *Melo* have high transitional probability (HTP) because the syllables *fu* and *ga* only appear in *fuga,* and the syllables *me* and *lo* only appear in *melo* (Karaman & Hay, 2018).

Meanwhile, the syllables *bi* and *ca* appear in several words making *bici* and *casa* words with a low transitional probability (LTP) (Karaman & Hay, 2018). The children were tested 10 minutes after being familiarized with the sentences, but they failed to discriminate the HTP words from the LTP words. This implies that memory for statistical information likely decays over short delays (Karaman & Hay, 2018). However, when the experiment was repeated with isolated HTP and LTP words, meaning the word was presented alone not in a sentence, they were able to discriminate between the two. This suggests that isolated words reinforce statistical

vocabulary acquisition because they allow the child to create more robust memories (Karaman & Hay, 2018).

Two styles other than the ones mentioned previously are didactic and narrative. These styles are important, especially when using shared storybooks. A didactic style is designed to teach, so the way something is presented is in a teaching style. In contrast, a narrative style is intended to tell a story. Nyhout and O'Neill study both styles through shared storybooks (2013). Mothers read either a didactic or a narrative book to their child. The toddlers ranged from the ages of 18 to 25 months. Previous studies showed that didactic style books provide the opportunity for more complex maternal talk, and thus a greater opportunity for vocabulary building (Nyhout & O'Neill, 2013). However, this study found the opposite among their sample. The narrative style elicited more complex talk from caregivers than the didactic style (Nyhout & O'Neill, 2013). In short, it is essential to consider the style in which a word is presented, as different styles offer the learner with different information to learn from.

The final strategy for vocabulary presentation that we will explore is repetition. The number of times a word is repeated is important for word-naming and lexical decisions, but the word frequency is confounded with contextual diversity (Adelman, Brown, & Quesada, 2006). This brings us back to visual ambiguity and the way a word is presented. Word repetition, then, is not enough for word building. However, you can combine word repetition with contextual repetition. When a child is shown the same word with the same illustration, they are presented the opportunity for a more solid vocabulary learning as contextual diversity is minimized (Horst, 2013). If this is the case, then repetition is an effective strategy for vocabulary building. Sénéchal conducts a study where repetition is the focus (1997). The study included three conditions: single-reading, repeated-reading, and questioning. In the repeated-reading and questioning

condition, the book was read three times. In the questioning condition, the participants, who were three and four years old, were asked to label the target items with the novel words after each reading. The results showed that repetition leads to higher expressive and receptive vocabulary acquisition, and questioning leads to better acquisition of expressive vocabulary than receptive (Sénéchal, 1997). Sénéchal's study does not only show that repetition is effective, but active learning with repetition is effective as well.

As mentioned previously, Toddlers use many strategies to vocabulary build themselves. One of the strategies is linguistic form class in which the child identifies parts of speech, such as if the word is a noun or adjective; however, this is not done explicitly. Another strategy is when a child identifies that two words do not have the same meaning, known as lexical contrast. Taylor and Gelman conducted a study in which 2-year old toddlers were taught a new word that was the name of a stuffed animal in either a common noun form or adjective form (1988). The results showed that the toddlers who learned the word as a noun more often interpreted the word as a category noun than an adjective, meaning they used linguistic form to interpret the word. To add on, toddlers that learned the new word were able to distinguish it from an already known label, which means they used lexical contrast to interpret the word. This indicates that toddlers use both lexical contrast and linguistic form to interpret a word (Taylor & Gelman, 1988).

The vocabulary learning strategies of association, cross-situation, reducing visual ambiguity, word looking and utterance, linguistic form class, lexical context, style types, and repetition all have their pros and cons. The truth is the downfall of one is the strength of the other.

Present Study

For this study, we explore strategies used for vocabulary presentation rather than strategies used by toddlers to speculate the meaning of a word. We combine shared storybooks, repetition, reduction of visual ambiguity, association, and style types. However, our primary focus was the style used to present the illustrations in books. Karaman and Hay studied the difference of a context-rich and isolated style in terms of an isolated word or a full sentence (2018). Our study's uniqueness comes in the fact that we study the difference of context-rich and isolated style in terms of the book illustrations. We contrast two types of illustrations while keeping the text of the book identical across conditions, context-rich and isolated. In the isolated condition, the illustrations show the named object in a blank background. In the context-rich condition, the same objects appear in a real-life setting.

Method

Participants

We recruited toddlers to begin our study between 19 to 23 months (M=20.5, SD= 1.9). We initially recruited 37 participants, and 23 of the participants were females, while 14 were males. At visit two, the mean age was 22.5 months (SD=1.17, range= 20.9-25.2) at visit three, the mean age was 24.4 months (SD=1.25, range= 22.8-27.4). The data of three toddlers were not taken into account as they began the study but did not come back for visits two or three. The data of six participants was also dropped as they were part of a control condition that was not used in this study.

Participants were recruited from the Boulder area using our lab's child database, and parents gave consent for participation.

A $5 compensation for travel expenses and a small gift for the child were provided after each visit.

Design

The participants were randomly assigned to one of the two conditions: context-rich or isolated, 14 in each condition. The current project was a longitudinal study. Each family participated for about 16 weeks. There were three visits in total, each about eight weeks apart. Our books were read at home between the first and second visits. Visit three served as a follow-up.

Materials

Target Words

We used 32 target words in this study. Each lab-created book contained eight target words sixteen were food related and sixteen were vehicle related as shown in Table 1.

Table 1

Thirty Target Words

Food Related Words	Vehicle Related Words
Lollipop	Sled
Nuts	Tricycle
Popcorn	Rocket
Pretzel	Taxi
Pumpkin	Crane
Mushroom	Lawnmower
Celery	Forklift
Meatball	Rowboat
Sausage	Sailboat

Eggplant	Skateboard
Cherry	Parachute
Kiwi	Hot Air Balloon
Coconut	Ambulance
Cupcake	Kayak
Biscuit	Golf Cart
Popsicle	Caboose

Note. The 32 target words were shown in both the context-rich and isolated conditions. The participants that were assigned to either the context-rich or isolated condition were exposed to the target words via the lab-created books.

Stimuli

Two sets of four books were made at our lab for this study, four for each condition. In each set, two books contained food words, while the other two contained vehicle words. One of the books in each theme was a counting book, and the other one was a color book. The same goes for the vehicle-related books. The text in the color books included the target word accompanied by a color, e.g. *Blue popsicle*, and the counting books would contain the target word accompanied by a number, e.g., *1 tricycle.* Participants in the context-rich condition were given books with context-rich illustrations, and those in the isolated condition were given books with isolated illustrations. The text remained the same throughout the books; only the illustrations were changed. For example, when using the target word *tricycle*, in the context-rich style book, a boy riding a tricycle through the neighborhood would be displayed. In the isolated style, only the tricycle would be shown, as seen in Figure 1. The phrase *1 tricycle* would remain in both books.

Figure 1

1 Tricycle

Note. The left illustration is in a context-rich style. The right illustration is in an isolated style.

Comprehension Task

The comprehension task consisted of 10 trials at the first visit and 42 trials at visits two and three. Each trial consisted of presenting the child with four illustrations, and asking them to point to the target word, “show me the” or “point to the.” Three of the four illustrations were distractors, while one was the correct labeled object as shown in Figure 2. The Task was modeled after the Peabody Picture Vocabulary Test (Dunn & Dunn, 2007).

Figure 2

Comprehension Task Example

Note: The target word here was popcorn (top left corner). The carrots, mushroom, and mac’n’cheese were distractors.

Procedure

Prior to coming to the lab where the experiment would take place, parents were asked to fill out the MacArthur Communicative Development Inventory (MCDI) (Fenson et al., 1993, 1994). The MCDI is a list of over 700 words, including nouns, verbs, and adjectives, that at least 50% of children know by 30 months of age. The MCDI was filled out through an online form we emailed before every visit. The instructions were to check every word on the MCDI the participant could produce. Once at the lab, if they had not filled the MCDI, we would provide a physical copy for them to fill out. Parents were also asked to complete an extended checklist consisting of 100 more food and 100 more vehicle words. Parents were instructed to check each word that their participating child could produce.

At the first visit, once we had assured both the MCDI and extended checklist were completed, we started the comprehension task. The parent was instructed to sit the participant on their lap facing the binder used for the task. The researcher would then begin the task. The researcher would name either a target word or related word, and the participant was asked to point out the named object on the page presented. There were four photo illustrations on each page. A trial was considered complete once the participant pointed to an illustration regardless if it was correct or incorrect; participants were not given feedback, only encouragement for choosing an answer. If five trials were incorrect in a row, the participant refused to point or pointed to all illustrations, the task was stopped.

Once the comprehension task was complete, the parent and participant were given a lab-created book, context-rich or isolated—the book they got depended on which condition they were assigned too. The parent was instructed to read the book with the participant as they would at home. The comprehension task and reading task made up one visit.

An eight-week interval separated each visit. During those eight weeks, the participant's parent was instructed to read the books to the participant. They were also instructed to log when they read each book and how many times in a chart provided on the back cover of all the books.

Results

Vocabulary learning was measured using the results of the comprehension task and the parent's MCDI reports. Multiple measures are often used because children's performance differs across different tasks. However, in this case, the comprehension task results and the parent's MCDI reports were similar. Independent T-Tests were utilized for both measures.

A Mixed Factorial ANOVA was used to calculate a main effect of visit for the parent's MCDI reports.

Comprehension Task

At visit one, the 14 participants in the context-rich condition (M=47.9, SD=16.3) did not differ significantly from the 14 participants in the isolated condition (M=42.9, SD=17.7), $t(23)=0.78$, $p=0.44$. The results for visit one are shown in Figure 3. This shows that the two groups did not differ before spending time reading the books at home.

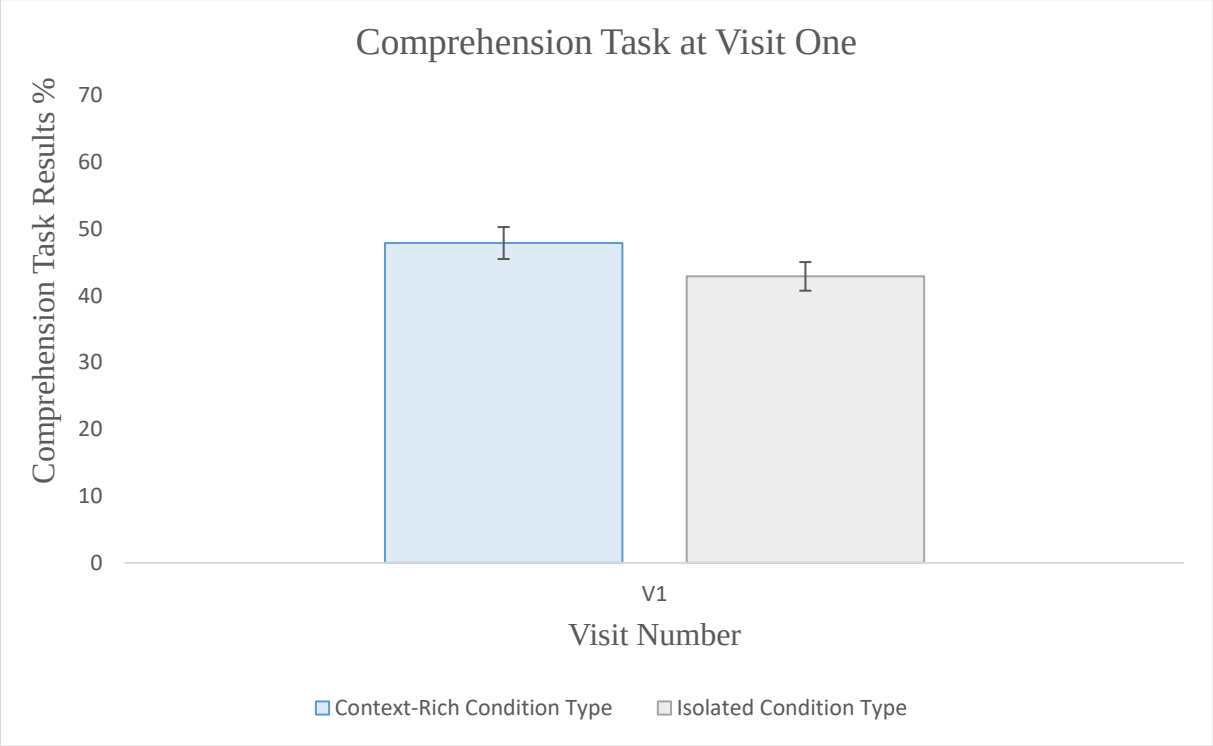
The results of visit one were not compared to visits two and three since visit one consisted of 10 trials while visits two and three consisted of 42.

At visit two, the 14 participants in the context-rich condition (M=45.2, SD=22.8) did not differ significantly from the 14 participants in the isolated condition (M=44.9, SD=18.07), $t(26)=0.04$, $p=0.97$.

At visit three, the 14 participants in the context-rich condition (M=56.3, SD=11.9) did not differ significantly from the 14 participants in the isolated condition (M=52.2, SD=15.0), $t(26)=0.78$, $p=0.44$. The results of visits two and three are as shown in Figure 4.

Figure 3

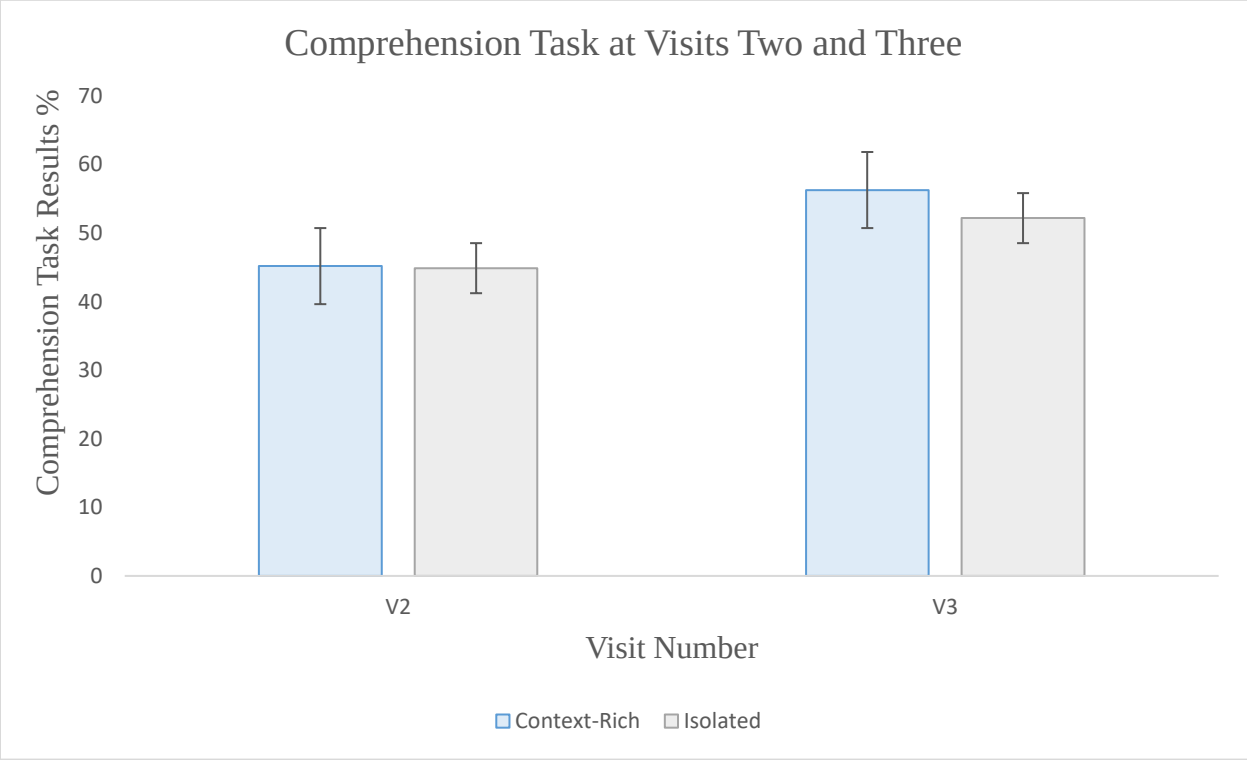
Comprehension Task Results Visit One



Note: The results of visit one were not compared to visits two and three since visit one consisted of 10 trials while the other visits consisted of 42.

Figure 4

Comprehension Task Results at Visits Two and Three



Parent-Report

At visit one, the 14 participants in the context-rich condition (M=42.1, SD=29.5) did not differ significantly from the 14 participants in the isolated condition (M=34.1, SD=20.2), $t(27)=0.81$, $p=0.42$.

At visit two, the 14 participants in the context-rich condition (M=52.8, SD=25.8) did not differ significantly from the 14 participants in the isolated condition (M=42.3, SD=25.2), $t(25)=1.03$, $p=0.31$.

At visit three, the 14 participants in the context-rich condition (M=61.7, SD=27.8) did not differ significantly from the 14 participants in the isolated condition (M=47.9, SD=28.8), $t(24)=1.24$, $p=0.23$. The results are as shown in Figure 5.

A three by two mixed factorial ANOVA, visit (visit 1, visit 2, visit 3) x condition (context-rich v. isolated) was used on the parent's MCDI reports. There was a main effect of visit $F(1,26)=72.19, p<0.001$. The results are shown in Figure 6.

Figure 5

Parent MCDI Report

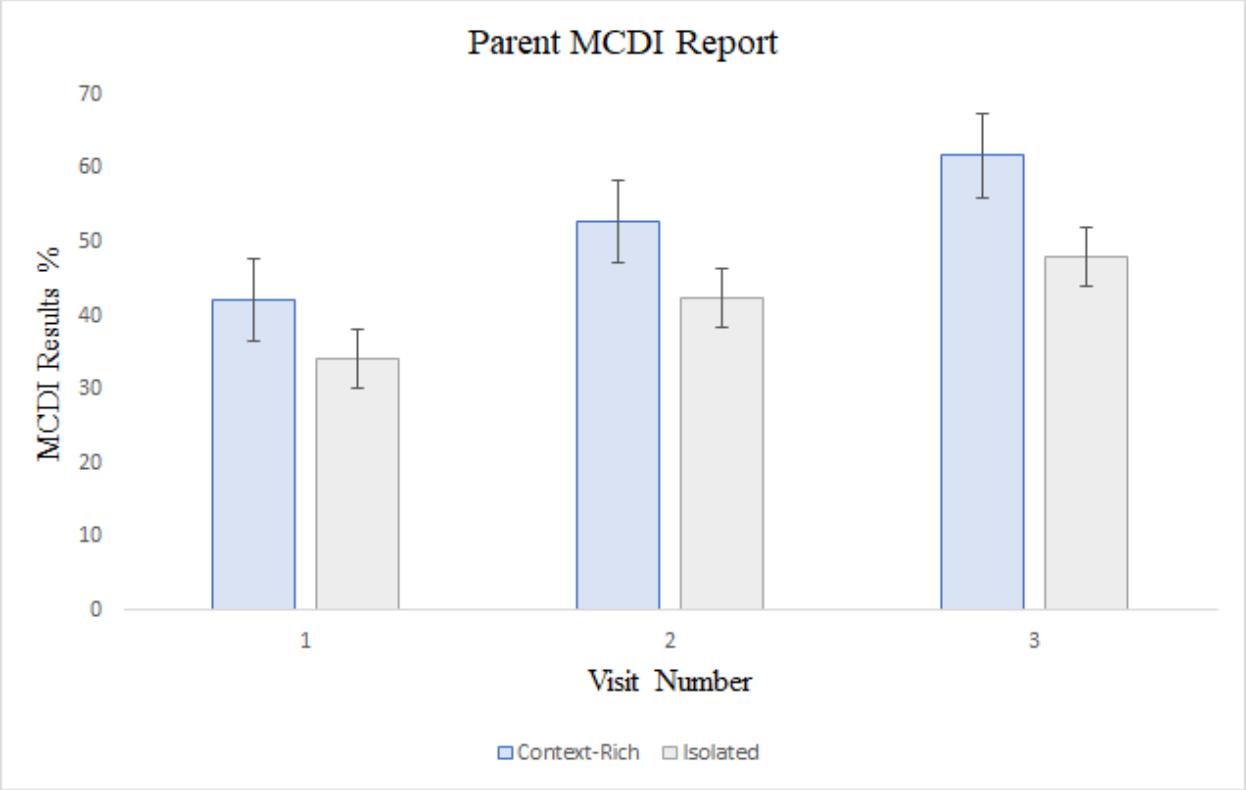
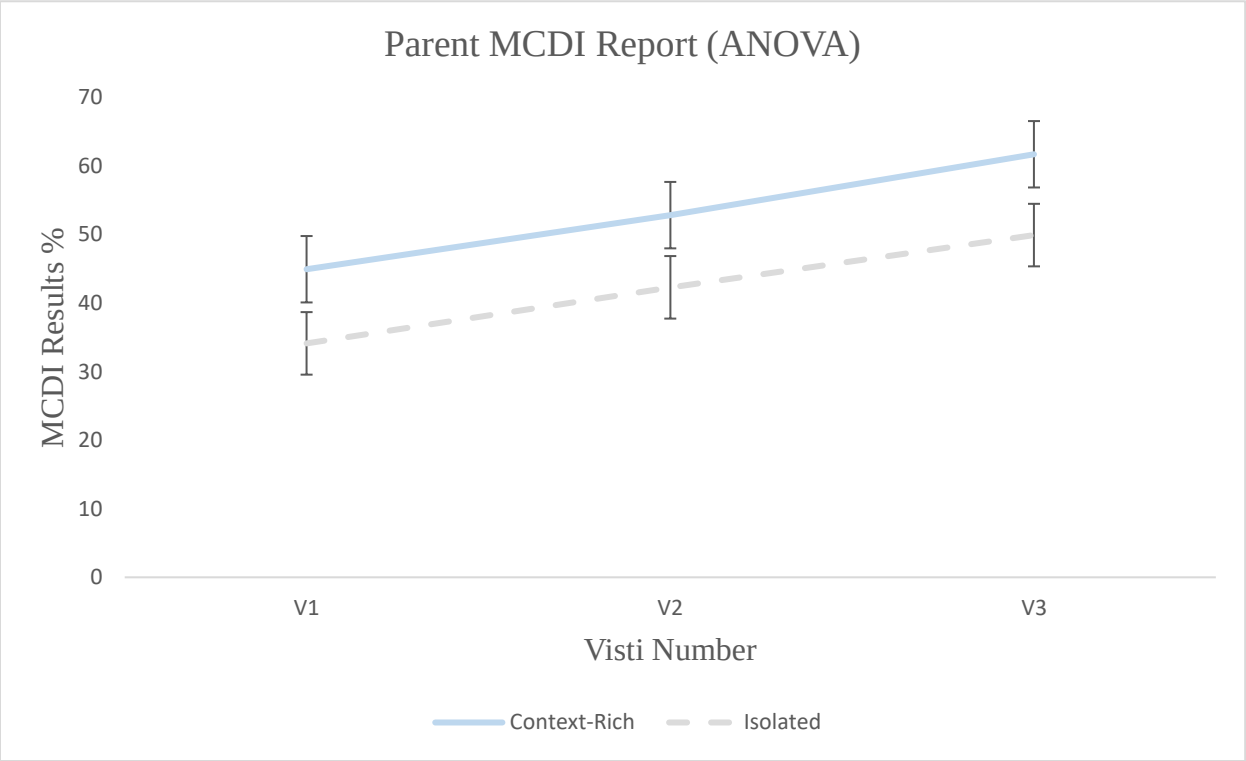


Figure 6

Parent MCDI Report (ANOVA)



Discussion

The present study focused on comparing context-rich illustration and isolated illustration styled storybooks in a toddler sample ranging from the ages of 19 to 23 months. We hypothesized that an isolated illustration condition would be most effective for vocabulary building in toddlers compared to a context-rich illustration style.

The results did not support our hypothesis. They demonstrated that there was not a significant relationship between the context-rich and isolated condition for both the comprehension task measure and the parent MCDI reports, meaning that neither condition was most effective. This does not indicate that the conditions were non-effective. On the contrary, there was a gradual vocabulary learning going on as the comprehension task percentages, and the parent MCDI results slightly increased over time, as shown in figures 4 and 5. The mixed

factorial ANOVA that was ran for the parent's MCDI report demonstrated a main effect of visit. This indicates that participants learned words over time regardless of condition. There were no other main effects or significant interactions present.

Our hypothesis may not have been supported in our study, but past studies are. Our research used several vocabulary presenting strategies. We took into account shared storybooks as we provided lab-created books meant to be read by the parent with the participant. We also included repetition and reduction as the parent was instructed to read the shared storybooks with the participant at home repeatedly. The strategy of reduction of visual ambiguity was also represented as the storybooks included the pairings of a target word and an illustration that remained constant throughout the study. Association was also included as the target words were paired with either a number or color. This allowed the participant to associate the word to its accompanying phrase. Finally, style type was included, as we compared a context-rich style to an isolated style in terms of the illustrations provided. Past research has shown that these strategies are effective for vocabulary learning and our study does show vocabulary building did take place, supporting prior studies.

Limitation

Our study presented many limitations that could explain our insignificant results. The most significant limitation we faced was a small sample size. We started with 37 participants but dropped three as they did not complete the study. An additional six were dropped as they were part of the control condition not analyzed due to the small sample size. Sample means are difficult to compare when a small sample size is present. The sample was also not representative of the greater population. All participants were recruited from the Boulder area from parents of similar race and socioeconomic status (SES). This is a limitation because it is proven that SES is

associated with vocabulary building (Marulis &Neuman, 2010). An issue that we also encountered was with our pre-test post-test design. At visit one, the comprehension task consisted of 10 trials, while at visits two and three, there were 42 trials. This limited us from comparing pre-test to post-test only in the comprehension task. We initially had 10 trials at visit one because the participants were too young and maintaining their focus on the task was difficult. For visits two and three their attention span had increased, and we were able to maintain their focus for 42 trials.

Future Direction

The limitations of the study would have to be addressed before conducting future studies. Increase the sample size, expand beyond the Boulder area, initiate with an older sample size and/or include the same number of trials at the pre and post-test for the comprehension task. Fixing these limitations might lead to significant results.

Moving forward, including a more active vocabulary learning strategy and/or personalizing the stimuli, would be an interesting addition. Merely reading a shared storybook with the participants does not involve much active learning. However, asking the participant to read the book instead of the parent (would require an older age range), having a questionnaire at the end of each reading, or even presenting the target words through a game ensures active learning. Direct learning, or simply reading a book, is not directly related to a toddler's rapid vocabulary acquisition, but active learning might be (Sénéchal, 1997). In another one of our lab projects, some of these active learning techniques are being studied. We examine how the parents read the lab-created books with their children; this is known as the parent-child interaction.

The lab-created books provided were all the same, depending on which condition the participant was in. As mentioned above, this was to reduce visual ambiguity. However, providing the same content may be a limitation since we all have different learning patterns. How can we fix this potential limitation? Personalized storybooks. According to Kucirkova, Messer, and Sheehy, children display a better vocabulary learning when exposed to personalized books than when exposed to non-personalized books (2014). We can personalize the storybooks to include the participant as the main character. This allows the participant to be more engaged and interested in what the book is about. It may also lead to active learning as the participant may ask questions such as: Is that me? Am I riding a skateboard? This active learning then leads to an association; instead of asking if they are riding a skateboard, they might associate the skateboard to them riding it. All of which leads to a robust vocabulary building.

Conclusion

The findings in our study did not support our hypothesis. Neither condition was more effective. However, gradual vocabulary building still occurred. This leaves us wondering what it is about books that promote vocabulary building. It could be that it isn't the style of the illustration but rather other important factors such as the parent's reading technique.

Vocabulary learning is not a direct path. It is complex and complete with several levels. Like a building, you must build it one brick at a time to finish the first level. Several strategies are proven effective, but no one is perfect. They all have their flaws, but when combined, the flaws of one are canceled out by the other. The right combination of strategies will lead to robust vocabulary building. Find the proper mortar and brick combination, and then you have a strong building. Find the right vocabulary building strategy, and you'll have a strong vocabulary,

language, communication, and self-expression. Find the right combination of strategies and you open a door of success for a toddler.

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