

**The Effects of Comprehensible Input on Second Language Acquisition for Special  
Education Students**

Miriam Patrick

Saint Mary's University of Minnesota

Schools of Graduate & Professional Programs

EDSE 698

Spring 2021

Submitted in Partial Fulfillment

of the Requirements for the Degree of

Master of Arts in Special Education

at

Saint Mary's University of Minnesota

Topic Selection .....	4
Research Questions of the Literature Review.....	5
Literature Review .....	6
The Comprehensible Input Principles.....	6
Comprehensible	
Compelling	
Input and Output.....	16
Speaking and Writing.....	18
Vocabulary and Acquisition.....	22
SLA and Special Education .....	25
Conclusion .....	30
Action Research Plan.....	32
Background Information and Purpose of the Action Research Project.....	32
Research Question of the Action Research Project.....	33
Hypothesis.....	33
Definition of Terms.....	34
Research Design.....	39
Sample.....	41
Instrumentation.....	42
Procedures.....	43
Validity and Reliability.....	47
Assumptions and Limitations.....	51

Cultural Competence/Bias.....	51
Ethical Considerations.....	52
Results.....	53
Interpretation of Results.....	55
Conclusion.....	59
Impact on Practice, Special Needs Students, Families, and Colleagues.....	63
Further Reflection and Continuing Questions about My Action Research Journey...	64
References.....	65
Appendices.....	69

## Topic Selection

Special education and second language acquisition (SLA) are not often considered together in research or in the action of teaching. Research has been conducted on SLA and special education separately, but there is a need for research on both together and how SLA principles and strategies affect and support special education students.

In this paper, a literature review was first conducted on the research of comprehensible input and its effects on SLA. Research considered discusses the importance of appropriate input, that is, understandable input that is just beyond the learner's comfort zone, the effect more and less understandable texts have on learners' abilities to acquire and retain language, and whether specific activities are needed for SLA or if reading is adequate. Further studies investigate the sixth principle of the Comprehensible Input Principles, which states that compelling material can aid and speed the rate of SLA for students. These studies explore the role compelling input has on personal motivation, retention of language, and the support compelling extensive reading has for students. Additionally, this paper examines how compelling input affects reading, listening, speaking, and writing skills.

The second section of this literature review evaluates the role input plays when considering output. In addition to the Comprehensible Input Principles, other reasoning for SLA includes structured output and the inclusion of traditional instruction, which includes grammar and translation instruction, explicit grammar instruction, and forced output. The studies included look at how each of these affect reading comprehension, vocabulary retention, and output. Additionally, this literature review discusses how, in addition to comprehensible input, guided

and collaborative writings and the affective filter affect students' ability and proficiency in the target language.

The final section of this literature considers the research on SLA and special education. Current research focuses on the ability of special education students to learn a language, and how interventions can support those students, but research on comprehensible input and special education is lacking and understudied. In addition to ability, the research included considers motivation and the various challenges students face and their effect on SLA.

The research focus of this current study seeks to consider how comprehensible input, when administered in a small group setting, can positively affect special education students' abilities to write and speak in the target language. The questions of this action research are:

1. Will the implementation of collaborative writing with general and special education students increase the quantity of Latin words within a Latin free write as measured by a rubric over a 6-8 week period?
2. Will the implementation of intensive reading supports increase the quantity of times special education students speak Latin in class as measured by a rubric over a 6-8 week period as compared to general education students?

### **Research Questions of the Literature Review**

The research questions of the literature review are as follows:

1. Will the implementation of collaborative writings increase the quantity of second language mastery?

2. Will the implementation of comprehensible input increase the quantity of second language mastery?

## **Literature Review**

### **The Comprehensible Input Principles**

The Comprehensible Input Principles originally started with five hypotheses, with a sixth being added in later years (Patrick, 2019). These principles provide an environment that is closer to what individuals experience while acquiring language in a natural environment (Cahyaningrum, Naftali, & Nur Hayati, 2020). In the natural language learning environment, language is acquired unconsciously through understood messages in that language that are interesting and meaningful (Patrick, 2019). The first of these six principles distinguishes between acquisition and learning. Acquisition refers to the aforementioned unconscious process by which language is acquired; through acquisition learners begin to listen, read, write, and speak in the language (Patrick, 2019). Learning refers to learning about the language and includes explicit grammar and syntax instruction (Patrick, 2019). The second, called the Natural Order Principle explains that while the actual order of acquisition within the human brain is unknown, it exists and language learners will not acquire features of a given language until they are ready (Patrick, 2019). These features differ from language to language and research has not been conducted to determine their order of acquisition (Patrick, 2019). Patrick (2019) also explains the Monitor Principle which also considers the brain's natural process for acquiring language. The Monitor Principle references the self-consciousness in each individual that can both improve skills and interfere with them (Patrick, 2019). The monitor can affect individuals positively through self-preservation, taking advantage of opportunities, and therefore taking risks, and noticing

relationships (Patrick, 2019). However, as Patrick (2019) goes on to discuss, the monitor can affect individuals negatively; in the language classroom teachers can often invoke the monitor negatively by putting too much emphasis on learning about the language and correction. When teachers put emphasis on perfection and written correction, especially when students are taking risks to communicate in the language, the monitor can cause them to return to a safe place, that is, a lower level of writing and speaking (Patrick, 2019)

The Input Principle explains the means by which individuals acquire a second language through reading and listening (Patrick, 2019). When individuals receive understandable messages in the target language (TL), they will acquire that language (Patrick, 2019). Both Patrick (2019) and Namaziandost, Nasri, & Ziafar (2019) acknowledge that a significant amount of understandable input is required for language acquisition and, subsequently, language output. This input should maintain a formula of  $i+1$  or input that is just slightly beyond the comfort level of the individual for this to occur (Namaziandost, et al., 2019). The Affective Filter Principle correlates with the Monitor Principle and the level of anxiety a learner reports during language acquisition (Patrick, 2019). While the Monitor Principle points to the actions individuals take through the monitor, the Affective Filter Principle states that as the anxiety level rises, the ability to acquire language lowers (Patrick, 2019). Cahyaningrum, et al. (2020) found that this principle is essential to language acquisition and that, when the affective filter is low, language acquisition happens easily for learners. Further, when the affective filter is low, learners feel motivated to acquire more language (Cahyaningrum et al., 2020). The Compelling Input Principle declares that while the five previous principles explain SLA, providing compelling comprehensible input encourages second language acquisition (SLA) at a faster and more successful rate (Patrick, 2019).

Namaziandost et al. (2019) explain that a level of  $i+1$ , or just beyond the comfort level of the learners in question, and a low affective filter (i.e. low anxiety) are key elements to the Comprehensible Input Principles (Namaziandost et al., 2019). As a key part of their research, Namaziandost et al. (2019) included elements of  $i+1$  input and  $i-1$  (i.e. input just below the comfort level of the learners) in their study. In this formula,  $i$  represents the current level of acquired language by the learner (Namaziandost, et al., 2019).  $+ or - 1$  then represents input that is either slightly above or slightly below that level, respectively (Namaziandost, et al., 2019).

Namaziandost et al (2019) conducted this study including 54 English as a second language (ESOL) learners between the ages of 16 and 21. Participants were already part of intact classes and were separated into two groups as part of their class (Namaziandost, et al., 2019). All participants were initially given the CEFR Headway placement test and scored between 66 and 74, equal to level B1 (Namaziandost, et al., 2019). In the group marked  $i+1$ , learners read graded readers just beyond their level of proficiency while the group marked  $i-1$  read graded readers just below their level of proficiency (Namaziandost, et al., 2019). Learners' proficiency levels were determined using the CEFR Headway placement test and they read their novels alongside their class materials with 35 minutes a week for narrating the novels they'd read (Namaziandost, et al., 2019). In order to determine the appropriate novels for each group, nine ESOL learners who were at the pre-intermediate level and four ESOL teachers read the Oxford Bookworms Series in a variety of levels; from this it was determined that levels Starter, Level, and Level 2 were appropriate the  $i-1$  group and Levels 4, 5, and 6 were appropriate for the  $i+1$  level with Level 3 being the standard for both groups (Namaziandost, et al., 2019). Namaziandost et al. (2019) determined that the impact of the difficulty of the texts used was low with a partial eta squared of 0.108, but also that the impact of time was significant with a partial eta squared of 0.674. The



learners in this study participated for a three-month period and then took the Cambridge First Certificate in English (CFE) to determine reading proficiency in English (Namaziandost, et al, 2019). Additionally, participants completed a modified Motivation for Reading Questionnaire (MRQ) once before the study and once at the end (Namaziandost, et al., 2019). The pretest scores in this study showed no significant difference between the learners who were placed in each group ( $p = 0.698$ ), however, while the post test showed that both groups' reading comprehension skills in the TL had progressed, there was significant difference ( $p = 0.001$ ) between the two groups with the i+1 group showing greater increases in their scores and scoring 7.74 points above the i-1 group (Namaziandost, et al., 2019). Additionally, the motivation of the i-1 group decreased while the motivation of the i+1 group increased (Namaziandost, et al., 2019). Namaziandost, et al. (2019) confirm the Comprehensible Input Principles through their study and show that learners acquire language when they receive understandable messages that are just beyond their comfort level in the TL.

De la Garza and Harris (2017) also support Krashen's comprehensible hypothesis with their own study that found the more novel TL words in a passage, the less accurate comprehension scores will be. De la Garza and Harris (2017) conducted a study on the effect increasing unknown words in a text would have in learner comprehension. Their study included 147 participants with a pre and post translation test to determine comprehension of the text (de la Garza & Harris, 2017). De la Garza and Harris (2017) found that as long as the number of unknown words in a text were kept under five, translation accuracy significantly increased ( $p < 0.001$ ). However, de la Garza and Harris (2017) also found that when the amount of unknown words in a passage increased beyond five, translation accuracy significantly decreased and that the further beyond four unknown words (5 or more) included in the text, the further

comprehension accuracy decreased. One interesting finding was that when the number of unknown words increased beyond four and five total, while concrete comprehension accuracy decreased, the same could not be said for inference based questions (de la Garza & Harris, 2017). In both situations, the  $p$  value was less than 0.001, showing great statistical significance in both cases and suggesting that full concrete comprehension is not needed to make inferences based on a text (de la Garza & Harris, 2017). These findings support Krashen's comprehensible hypothesis in multiple ways. First, the more unknown words in a text, the less comprehensible it is. Secondly, even with unknown words in a text, context can provide vital clues and information to support inferences.

Kara (2013) questioned whether text comprehension is adequate input for learners to acquire language and vocabulary or if targeted vocabulary practice can enhance and increase the speed at which learners acquire the TL. One hundred participants in four groups of first year language students participated in the study and were separated into two groups: word focused tasks (WFT) group and the reading only (RO) group (Kara, 2013). Both groups read texts and answered comprehension questions, but the WFT group also engaged in vocabulary activities and vocabulary gain measures for a period of one school semester (Kara, 2013). All participants in this study were given a TOEFL test and a Vocabulary Knowledge Scale to establish unfamiliarity with the chosen target words and those with scores between 65 and 75 from 100 were chosen for the study; during the study all participants in each group were given assessments immediately after reading and participating in activities, if applicable (Kara, 2013). Additionally, a second vocabulary recognition test was administered nine-weeks post study and ten weeks after the nine-week mark to consider whether time plays an important role in recall (Kara, 2013). Kara (2013) chose reading materials from various newspaper, magazine, and journal websites and a

target word was chosen for each that were considered low frequency and on intermediate level as compared to intermediate level textbooks; other unfamiliar and low frequency words were traded to create a more comprehensible passage as well. Low and high frequency words were evaluated using the Readability Index Calculator and the passages were evaluated additionally to ensure that the target word appeared six or more times, would be of interest to the participants, and were suitable for their age and level (Kara, 2013). While the RO group read and took the comprehension test, the WFT group engaged in a variety of vocabulary activities that fell into five categories: selective attention, recognition, manipulation, interpretation, and production; they also engaged in vocabulary gain measures consisting of two assessments to establish form recognition and meaning recognition (Kara, 2013). Post implementation, both groups were given a comprehension test to ensure understanding of the text and while the mean scores were fairly similar (74 and 75), the WFT group's minimum score was 70 while the RO group's minimum score was 68 (Kara, 2013). Subsequently, both groups were given a word recognition test using a scale of 1 to 4 where 1 indicates never having seen the word before, 2 indicates seeing the word prior, but not knowing its meaning, 3 indicates recognizing and knowing the word, and 4 indicates recognizing the word, but with an incorrect definition (Kara, 2013). Kara's (2013) results from this survey show that the WFT group was able to recognize and correctly define the target words while the RO group could recognize some forms, but not all. Additionally, an independent test showed significant differences (0.05) between the two groups (Kara, 2013). The findings of Kara's (2013) study showed while the WFT group did prove that following reading with vocabulary strengthening activities is a more effective way of instruction, reading comprehensible texts does result in vocabulary acquisition, although only for the short term as

the RO group could not recall the words on the delayed post test. Kara (2013) does reiterate, however, that comprehensibility in a text is vital to vocabulary acquisition.

### ***Compelling***

Namaziandost et al. (2019) focus their study on extensive reading (ER) which adds an element to reading in student choice and interest. ER, also called series reading (SR) is defined by Renandya, Krashen, and Jacobs (2018) as reading multiple books that are in a series or by the same author and either involve student choice in the selection of the books or author or increase student interest as they become involved in reading. This element of compelling material, or pleasurable material, was added to the comprehensible hypotheses by Krashen and serve to further lower the affective filter and provide a level of motivation that is not typically found in traditional instruction (Namaziandost, et al., 2019).

Jones (2015) demonstrates evidence of this motivational use of the Compelling Input Principle through student reflection. Seventy six children were interviewed across three elementary schools after in and out of class observations on their experiences and accounts of reading, and what texts they read (Jones, 2015). Jones (2015) accounted for problems and difficulties that arose due to adult expectations and assumptions by including elements of reflection and data analysis on the homes and schools among both the adults involved and the children; Jones also included schools across socio-economic statuses. The children read a variety of books that they chose, as part of time set aside for independent, voluntary reading (Jones, 2015). While there were some similarities in books chosen, particularly when considering books read that were published locally, different amounts of children were observed and interviewed at each school, accounting for the differences in books chosen and read (Jones, 2015). Through

interviews Jones (2015) found that when students read from a series, their motivation and interest in reading increased with each book or, in some cases, page. Jones (2015) also found that through SR, students created a classroom culture around reading and encouraged their peers to read similar books or engage with them on the same books and found similar reading culture cultivated in some of the students' homes. These positive reading experiences served to advance the students' reading skills and fluency and through the culture created around reading, students engaged on a deeper level and with a wider community (Jones, 2015).

Reynolds (2015) states that previous research holds that ER and series reading provide a more natural approach to language acquisition in that students choose the material that is most interesting to them and, therefore, are more invested in reading. Approximately 92 participants were included in the study and were put into four groups: two groups of native English (L1) speakers, and two groups of English as a second language (ESOL) speakers (L2) with a control group in each set (Reynolds, 2015). Reynolds (2015) gave both groups readings and both groups were interviewed about the reading afterwards, but the L1 group did this individually while the L2 group did this as a class discussion. Participants were given the same target text and read at any time and in any place provided they tracked time spent reading over the course of two weeks, which was determined to be an appropriate time for leisure reading of a text that size (Reynolds, 2015). Reynolds (2015) made use of the RANGE computer program to ensure that the chosen novel was appropriate for both groups and a total of 49 target words were chosen, 43 higher frequency words and six nonce words. Reynolds (2015) assessed participants' understanding of the target words with a constructed vocabulary assessment that asked participants to provide as much information as possible about the target words including definition or translation. Those who rated the participants' work worked in a group along with

two independent raters and reached agreement on participants' work 99.8% of the time. Overall, Reynolds (2015) found that the L1 and L2 experimental groups significantly outperformed the control group ( $p < 0.001$ , eta squared = 0.864). Reynolds (2015) then completed the interviews with the groups in order to understand more deeply their perspectives of the nonce words encountered in the chosen text. Reynolds (2015) found in these interviews that participants in the L1 experimental group remarked on three particular strategies for identifying unknown words: surrounding context (60%), root words and affixes (25%), and comparing unknown words with already known words (15%). Reynolds (2015) found the following responses from the L2 experimental group: surrounding context (87.5%), ignoring the word (6.25%), root words and affixes (3.13%), and comparing unknown words with already known vocabulary (3.13%). In both groups between 80 and 81% said they'd received previous instruction on how to deal with unfamiliar words (Reynolds, 2015). Reynolds (2015) showed that the L1 and L2 experimental groups outperformed the control groups with no significant difference between the control groups themselves. Reynolds (2015) noted that his results were better than in previous studies which, in major part, was on account of the fact a novel was chosen. Novels (and subsequently ER and SR) provide deep contextual support for new vocabulary which provides support for students even after reading the novel (Reynolds, 2015).

Cho and Krashen (2019) support Reynolds' findings that novels allow for more thorough understanding of vocabulary and allow for greater progress through self reporting of reading practices. In a replication study, Cho and Krashen (2019) surveyed teachers in Korea over the course of a one day workshop who spoke English as their second language and taught English in Korean public schools. Participants were given the survey prior to the workshop that investigated their personal practices of leisure reading in English through a variety of mediums like novels,

newspapers, and magazines (Cho & Krashen, 2019). Cho and Krashen (2019) found that results of the initial survey were fairly identical indicating that the participants were all readers but not considered avid readers of English in a variety of genres. Cho and Krashen (2019) found similar findings when surveying the participants on their speaking, listening, reading, and writing skills in that participants considered themselves moderately skilled in each area for English proficiency. Cho and Krashen (2019) interpret these findings positively and consistent with previous studies that show correlations between reading and skills like spelling and vocabulary. Their findings demonstrate that reading for pleasure not only supports vocabulary acquisition, and can bridge the gaps between types of vocabulary (e.g. every day and academic), and impacts writing skills (Cho & Krashen, 2019).

The Comprehensible Input Principles, in its original set of five, clearly state how individuals acquire language and the potential obstacles individuals may face in that neurological process. The sixth principle, the Compelling Input Principle, adds the element of compelling which can both aid and speed language acquisition. One way to easily provide supported, comprehensible, and compelling input is through novels, ER, or SR. These readings build upon each other over time and studies show that, whether students pick the original text or not, increase motivation and engagement with the language. Further, these types of readings provide support for students in comprehension and recall both while reading the text and when assessing comprehension afterwards. Additionally, when interviewed, individuals who engage in reading, in both short readings and ER/SR, report positive results in speaking and writing.

## Input and Output

Yamashita and Iizuka (2017) compared Krashen's hypothesis to Swain's argument that output is an essential component. Yamashita and Iizuka (2017) conducted a study that included 31 participants who were enrolled in university studies in the United States in order to discover the effects of structured input (SI) and structured output (SO) on language acquisition. The participants were placed randomly into two groups: SI and SO for a period of two consecutive class days (Yamashita and Iizuka, 2017). Yamashita and Iizuka (2017) chose a particular structure in Japanese for this study that had not been introduced among the group and that presented unique challenges when comparing it to the way English handles similar communication. The SI group received a handout with explicit instruction on the concept and 10 input activities evenly divided between oral and written input, while the SO group received the same explicit handout and 10 output activities in written format (Yamashita and Iizuka, 2017). After the instruction, participants took an interpretation test, which consisted of both listening and reading questions, and a production test, which asked participants to write using the target concept (Yamashita and Iizuka, 2017). Yamashita and Iizuka (2017) found in their study that both groups did comparatively well in both comprehension and production, but the SI group maintained their comprehension scores on average better than the structured output group when given a delayed posttest. For both the SI and SO groups there was significant differences in the post tests compared to the pre test ( $p = 0$ ), but little difference between the two groups themselves (Yamashita & Iizuka, 2017). For the interpretation post test,  $p$  was found to equal 0.749 and for the production post test,  $p$  was found to equal 0.780.

Yamashita and Iizuka (2017) observed structured input and output produce similar results in comprehension and production with some unexpected results. Yamashita and Iizuka's (2017)



study showed that, concerning interpretation, the SI group performed better than the SO group in both an immediate and delayed posttest, but, concerning production, the SI and SO groups performed equally well in both the immediate posttest and delayed posttest. Since the SI group did not participate in explicit output instruction or practice, this result indicates that input supports both interpretation and output (Yamashita & Iizuka, 2017). Cho and Krashen (2019) have similar findings when asking teachers to self report their skills in the four areas of reading, listening, writing, and speaking. Of these four, reading and listening are considered input based skills. Cho and Krashen (2019) demonstrate that extensive choice reading affects vocabulary acquisition and can make more complex and academic readings comprehensible to language learners. Additionally, they find that engaging in extensive or serial input increases listening comprehension skills (Cho & Krashen, 2019). Further, Jones (2015) reports through student self reflection that the use of comprehensible and compelling input in an extensive or serial way lead to lower affective filters and a desire to continue seeking input, leading to better and strong second language acquisition (SLA).

While input is a vital component of the Comprehensible Input Principles, output is absent. However, output is a vital piece of the second language classroom and is often required to demonstrate proficiency using the target language (TL). Some are tempted to consider output an important piece of SLA, but research shows that input on a comprehensible level is the best indicator of TL skills. In their replication study on reading for pleasure, Cho and Krashen (2019) find a direct correlation between self reported reading for pleasure in the TL and the output skills of writing and speaking. Further, Yamashita and Iizuka (2017) find that while two groups of learners, one receiving structure input and one receiving structured output instruction both did well on interpretation and production assessments, this is only true considering that the

structured output group received controlled input. These findings support the premise that input is essential to both comprehension, acquisition, and subsequent output skills.

### **Speaking and Writing**

Speaking and writing skills, both considered output skills, are not part of the Comprehensible Input Principles, in that neither are considered required for second language acquisition (SLA). However, these skills are important parts of a second language classroom and are the means by which certain skills are evaluated. In addition to the Comprehensible Input Principles, some argue the case that output is required for SLA (Yamashita & Iizuka, 2017). Yamashita and Iizuka (2017) found, however, that structured input (SI) is key to retain a second language. The studies discussed below, however, consider the role SI has on output, the support guided and collaborative writing can provide, and the role the affective filter plays in SLA.

Seyednejad and Gholami (2017) considered what effect structured input, meaningful output, and traditional language instruction would have on students' ability to produce and use the target language (TL). Seyednejad and Gholami's (2017) study consisted of 68 intermediate English as a Second Language (ESOL) learners selected randomly in three different classes, each of which was considered an experimental group: meaningful output (MO), traditional instruction (TI), and structured input (SI). Participants were given the same test as a pretest and posttest that asked them to describe images using the target grammatical structure and the intervention phase involved three tasks, one for each class: structured input activities, a production task, and traditional instruction (Seyednejad & Gholami, 2017). The pre-test scores were fairly close in mean score ( $p = 0.790$ ) indicating no significant difference between the three groups of students (Seyednejad & Gholami, 2017). However, the post test scores showed significant difference

between the groups with  $p$  equaling 0 between them (Seyednejad & Gholami, 2017). While the MO group had a mean score of 15.05, the TI group had a mean score of 14.95, and the SI group had a mean score of 17.45 (Seyednejad & Gholami, 2017). Seyednejad and Gholami (2017) found that SI has a significantly positive effect on students' ability to produce language and outweighed both meaningful output and traditional instruction. When compared to meaningful output instruction and traditional instruction, those students who receive SI performed better by approximately 2.5 points and 3.5 points respectively (Seyednejad & Gholami, 2017).

Villarreal and Gil-Sarratea (2020) conducted a study on the effects collaborative writing and collaboration had on students' ability to produce language. Thirty six ESOL students participated in this study and both the experimental group and the control group had the same teacher and textbook for the study (Villarreal & Gil-Sarratea, 2020). Students were given a placement test prior to the study to gauge where differences may lie between participants and the interventions were largely teacher led (Villarreal & Gil-Sarratea, 2020). Villarreal and Gil-Sarratea (2020) found no significant differences between participants ( $p = 0.242$ ) so groupings were determined randomly. Subsequent data was collected via a pretest, texts written by the students, and a recording from four randomly selected pairs of students (Villarreal & Gil-Sarratea, 2020). Villarreal and Gil-Sarratea (2020) carried out this study over the course of three weeks and five in class sessions that included the aforementioned assessments, brainstorming, group work, explicit instruction, and writing individually or in small groups. In analysis, Villarreal and Gil-Sarratea (2020) considered grammatical points, lexical points, and mechanical points. They found that grammatical considerations were favoured in conversations by two groups in particular (47.06% and 63.63% of the time), but that all groups engaged in conversations on grammar at least 40% of the time (Villarreal & Gil-Sarratea, 2020).

Additionally, Villarreal and Gil-Sarratea (2020) found that, between all the experimental groups, they resolved over 80% of grammar, lexical, and mechanical issues that arose. They found that the students in the experimental group, when they worked together, provided meaningful feedback for each other and engaged in negotiation in order to determine the appropriate way to communicate and ultimately make fewer errors in writing than the control group with  $p$  equaling 0.022 (Villarreal & Gil-Sarratea, 2020). They also found that while the control group performed better in length of writing, after collaboration, the experimental group performed comparatively (Villarreal & Gil-Sarratea, 2020). Villarreal and Gil-Sarratea (2020) found similarly in the speaking analysis that students who collaborated had opportunities to negotiate meaning while communicating and were more eager to engage in the TL.

Wang and Wu (2020) studied the affective filter and its effect on language acquisition in a study that consisted of 200 language learners separated into four groups of 50. Wang and Wu (2020) gave each student a survey that asked them to provide personal information, objective feedback, and subjective feedback. The personal information section consisted of questions related to level of study, gender, age, and major (Wang & Wu, 2020). The objective feedback section asked participants to respond regarding learner motivation, attitude, anxiety, empathy, inhibition, and personality in order to determine their effect on SLA (Wang & Wu, 2020). The subjective feedback portion consisted of questions on attitude, motivation, empathy, anxiety, self-esteem, self-confidence, inhibition, and risk to allow participants to further describe their experience (Wang & Wu, 2020). Wang and Wu (2020) found that, generally, that the higher rate of motivation, the stronger the positive relationship and the higher rate of anxiety, the lower the positive relationship. Wang and Wu (2020) found the highest affective factors to be motivation ( $>0.8$ ), anxiety ( $>0.9$ ), and inhibition ( $>0.7$ ). When comparing males and females, they found

that males outscored females in all aspects of affective filters except empathy and attitude as well as all performance standards except creativity and multitasking (Wang & Wu, 2020). Wang and Wu (2020) concluded from the feedback in this survey that affective factors, as those that affect items previously listed, have a direct impact on SLA, particularly the speed and effectiveness of the learning process. Students with high affective filters have a psychological block that prevents them from allowing language and acquisition into the brain, which in turn affects their ability to comprehend, retain vocabulary, and produce the TL (Wang & Wu, 2020). Wang and Wu (2020) note the importance of considering learners for their own experience and affective filter and teachers should strive to provide students with appropriate opportunities to build self-confidence and lower the affective filter such as performance opportunities or encouraging students to play to their advantages.

There are a variety of factors when facilitating output from students. Seyednejad and Gholami (2017) found that providing students with structured and comprehensible input showed gains in production that other ways of teaching did not. Villarreal and Gil-Sarratea (2020) studied the impact that collaborative and collaborative writing have on students noting that providing students with such opportunities allows them to work through obstructions, take risks, and negotiate communication. Through all of these examples, however, the Affective Filter Principle plays a role. Wang and Wu (2020) showed the importance of lowering the affective filter in as many ways as possible during second language instruction and that when the affective filter is high, all aspects of SLA are affected from the experience to the outcomes for each student.

## **Vocabulary and Acquisition**

Vocabulary acquisition is an important piece of the SL classroom and many programs are confined by a set of vocabulary for each year. Similarly, textbooks that are adopted by school systems and districts also focus on a set list of vocabulary, building on each list chapter by chapter. While vocabulary acquisition is not explicitly part of the Comprehensible Input Principles, it is ultimately key to proficiency in a target language (TL) and is often a source of anxiety for students, raising the affective filter and negatively impacting their process of TL acquisition. Shan (2018) discusses a variety of vocabulary frameworks from previous research that include such elements as word definition, including definitions in a variety of contexts, use in a variety of formats such as reading and writing, and knowing the abstract uses and implications of words. Additionally, one must consider the breadth and depth of vocabulary knowledge, the amount of words known and whether those words are properly acquired, respectively (Shan, 2018).

Another aspect of vocabulary acquisition one should be aware of is the difference in incidental and intentional vocabulary learning. Similar to the difference between acquisition and learning, Shan (2018) describes incidental vocabulary learning as the by-product of a different activity where explicit vocabulary learning is not the intended purpose, whereas intentional vocabulary learning involves an activity whose explicit purpose is to learn vocabulary. The ultimate goal in both cases, however, is that through vocabulary acquisition students are adequately supported in comprehending the input in the TL.

As de la Garza and Harris (2017) assert, vocabulary acquisition is considered a basic step in SLA, however it cannot be overlooked as it is one of the first steps in second language

acquisition (SLA) in a variety of contexts. De la Garza and Harris (2017) further posit that, just as Cho and Krashen (2019) find connections between reading for pleasure and input and output skills, vocabulary acquisition is an indicator of comprehension ability. While the differences between acquisition and learning are clear in the Comprehensible Input Principles, the implications and effects of incidental vocabulary learning and intentional vocabulary learning are less so and both serve a role in SLA. Thomas (2020) points out that results from studies into intentional vocabulary acquisition have a far better success rate than those related to incidental vocabulary learning when it comes to vocabulary retention. Thomas (2020) suggests that this may be because intentional vocabulary instruction looks at vocabulary in a depth that incidental instruction does not.

Ong and Zhang (2016) considered how code-switching (CS) reading tasks can enhance comprehension and vocabulary recall in a study that consisted of 154 ESOL learners in undergraduate studies in Singapore. Participants were put into two groups, a CS reading group and a comparison group (GR) that engaged in graded reading and then further divided into three groups based on scores from a vocabulary screening test, the VLT Version 2 (Ong & Zhang, 2016). Using this test, Ong and Zhang (2016) placed participants into a high ability group (score of 130 and above), a middle ability group (score of 120-129) and a low ability group (119 and below). Ong and Zhang (2016) found and adapted a target text, which was evaluated for readability, and chose five target words from it; the CS group received the text largely in Chinese with the target words in English, and the comparison group received the original English reading. The passage contained a total of 535 words, with five chosen target words chosen based on results from a pilot group of 25 participants that marked these words as difficult (Ong & Zhang, 2016). Neither group received explicit instruction and after given time to read the texts, both

groups were asked to evaluate the target vocabulary on the Vocabulary Knowledge Scale; participants then completed a recall test five minutes later with no preparation (Ong & Zhang, 2016). The GR group had a mean score of 6.95 while the CS group had a mean score of 9.76 on the initial vocabulary recall test, indicating significant differences ( $p < 0.0005$ ) between the two groups' scores (Ong & Zhang, 2016). In a delayed retrieval test, the findings were confirmed when the GR group had a mean score of 3.18 and the CS group had a mean score of 8.21, again indicating significant differences (Ong & Zhang, 2016). Similarly, the effect size of 1.27 shows that the CS group retained the target vocabulary at a better rate than the GR group (Ong & Zhang, 2016). Ong and Zhang (2016) also found these results duplicated by ability grouping with the high ability CS group outperforming the high ability GR group by 2.49, the middle ability CS group outperforming by 5.83, and the low ability CS group outperforming by 3.53.

Whether using incidental or intentional vocabulary learning, repeated exposure to the target word is required for vocabulary acquisition (Thomas 2020). Shan (2018) asserts this as well using repetition as a form of support for vocabulary acquisition and textual comprehension. The more encounters with a word, the more likely it is to be acquired by the learner (Shan, 2018). In addition to repeated exposure to target vocabulary through reading, both Shan (2018) and Kara (2013) point to vocabulary/word focused activities as a potential support for vocabulary acquisition. Kara's (2013) study intended to discover if word focused activities significantly increased student comprehension of texts in the TL, but ultimately the evidence did not support that hypothesis. However, Kara's (2013) research does support that premise that providing such activity supports gives learners more opportunities to work with vocabulary and consider target words.



## **SLA and Special Education**

Second language teachers often have degrees in their language of choice and are certified to teach this language. They are not often special education teachers or certified as such. However, second language teachers often have special education students among their classroom populations and must find ways to help these students be successful. The questions of how much training second language teachers have in special education, the capability and desire of disabled students/students with disabilities to learn language, and strategies which can help support these students are ones that often are left unanswered wholly or in part.

Ataç, and Tasçi (2020) conducted a study of 20 fourth year prospective teachers in Turkey regarding their knowledge of and attitudes towards inclusive education. Ataç, and Tasçi (2020) used an open ended questionnaire in order to obtain individual responses; the questionnaire consisted of eight questions and responses were examined individually so as to determine categories and themes. Ataç, and Tasçi (2020) found that while the majority of the participants (65%) knew what inclusive education was, few (15%) knew the differences between inclusive education and special education, however, they also found that the teachers had more knowledge on special education than inclusive education. While the participants stated that they'd had methods courses, there were no specific courses or instruction on teaching language to disabled students/students with disabilities and 70% of those surveyed indicated they did not have enough competence to teach disabled students/students with disabilities. (Ataç, & Tasçi, 2020). Ataç, and Tasçi (2020) did find that the teachers' attitudes towards inclusive education and teaching special education students was largely positive, but there was some concern with the amount of time and attention a teacher would need to commit for this. Nearly all the participants stated that they would like to continue professional development in the area of

inclusive education and that this type of professional development should be included for all teachers (Ataç, & Tasçi, 2020).

Bradley (2019) conducted a case study on an autistic student/student with autism at university level over the course of two years in a program designed to help create bilingual professionals in order to assess if such neurodiverse students are capable of acquiring a new language. The student participant took the Oral Proficiency Interview (OPI) as part of his English program and completed a survey about his experiences during the observation time (Bradley, 2019). The participant was rated as Advanced Low in the OPI, which Bradley (2019) states is the intended goal for students leaving the program. Students with an Advanced Low rating on the OPI can handle a variety of communication tasks, although it is not always consistent, participates in both formal and informal conversations on familiar topics, can narrate in present, past, and future time frames in paragraph discourse, and converse using a variety of skills like rephrasing, handling change in conversation, and connecting phrases (Bradley, 2019). In the subsequent interview, the participant expressed discomfort with social aspects, concern about clarity on instructions, and understanding less obvious aspects of speech (Bradley, 2019). Bradley (2019) concludes that autistic students/students with autism are capable of learning language, but that experiences and challenges will differ depending on the individual. Bradley (2019) also states that it is of great importance when working with neurodiverse students to expand our understanding and knowledge, as well as engage directly with students to gain perspective on their needs and experiences.

Williams and Vaughn (2020) analyzed a study they had previously conducted from the perspective of how reading interventions for adolescents (RIA) affected reading comprehension, vocabulary, and word recognition for 95 students with specific learning disabilities (SLD) who

are also ESOL students who had received a score below 1,612 on the eighth grade high stakes assessment in reading. This assessment was chosen because it had been used prior as reliable and valid and contained 44 multiple choice text based questions (Williams & Vaughn, 2020). While the original study was conducted over the course of two years, not all students with SLD received the full two years of intervention, so Williams and Vaughn (2020) accounted for this by only considering one year of intervention. Participants attended three different schools for this study and were placed into one of four groups: reading intervention for adolescents only (RIA), dropout prevention intervention only (DO), business as usual (BaU), or both RIA and DO; additionally Williams and Vaughn (2020) created two groups from the original four: treatment and comparison. Participants were evaluated for their English ability using high stakes assessments within their district or state and did not include students who were considered new to English with less than one year of study (Williams & Vaughn, 2020). Students attended interventions based on their school schedule and received approximately four hours of intervention weekly; during the first semester, intervention focused on word study, fluency, vocabulary and comprehension, while in the second semester intervention focused on content specific instruction (Williams & Vaughn, 2020). Additionally, interventions were adapted and enhanced to meet the ESOL needs of the participants and intervention was provided by reading intervention professionals (Williams & Vaughn, 2020). Williams and Vaughn (2020) collected data via a series of six assessments that tested word reading fluency, vocabulary, and reading comprehension with two assessments each. Williams and Vaughn (2020) found that in most of the tests given, there was no significant difference between the test and comparison groups with  $p$  equaling between 0.17 and 0.90. However, Williams and Vaughn (2020) did find that the proximal vocabulary score showed significant difference between the two groups ( $p = 0.04$ ).

Williams and Vaughn (2020) found that word reading fluency did improve with reading interventions, although slightly ( $ES = 0.15$ ), suggesting that students with SLD still struggle with word recall and decoding skills. Williams and Vaughn (2020) found no statistical difference ( $p = > 0.05$ ) between the two groups when it came to vocabulary knowledge, but suggested that the comparison group may have had more opportunities to work with vocabulary outside of the study through other classes, such as electives. This finding is consistent with previously discussed studies which declare that adequate exposure to vocabulary is a condition of vocabulary acquisition. Williams and Vaughn (2020) had similar findings in reading comprehension in that while RIA had a small positive impact ( $ES = 0.02$ ) on sentence level comprehension, it was not enough statistically. They state that this finding correlates with the vocabulary finding and that it is important to have texts that are accessible, i.e. comprehensible, to students (Williams & Vaughn, 2020).

Barwasser, Knaak, and Grünke (2020) conducted a study on four seventh grade students who were studying English and had SLD who were selected based on failure to meet benchmarks in the three tests given. Barwasser et al. (2020) identified 30 words unfamiliar to participants to focus on in this study which were taught via storytelling based on topics participants indicated were of interest to them. The study, which took approximately eight weeks was divided into two phases with an assessment given after a two week break from the study (Barwasser, et al., 2020). Barwasser et al. (2020) separated participants into random groups that received the intervention 3 times a week during which participants engaged in a variety of interventions including vocabulary introduction via listening, flashcards, and matching, storytelling, with the narrative always available to students, and review of key words during storytelling. Barwasser et al. (2020) also asked participants to track their own progress as part of

a reward system. Barwasser et al. (2020) found that all the participants greatly improved their vocabulary recognition scores, with a 2,400% increase, over and after the interventions, although the process differed for each student. Further analysis of the data, comparing known English vocabulary with the amount of sessions showed significant growth for three of the four participants with  $p$  equaling less than .05 in each occurrence (Barwasser, et al., 2020). These findings support Bradley's findings when working with neurodiverse students that experiences and challenges will differ from student to student.

Ataç, and Tasçi (2020) found that second language teachers were minimally prepared to work with special education students, with some having more understanding than others on topics of inclusive education and special education. The participants in this study overall felt positive towards teaching special education students, but were concerned about how to do so appropriately and effectively, particularly concerning time management; however participants agreed that further training and education were needed (Ataç, & Tasçi, 2020). Bradley (2019), considered the question of whether neurodiverse students, particularly those with autism, were capable of and had the desire to learn a second language. Bradley (2019) found that these students do have the capacity to learn a second language, particularly if they were motivated to do so on their own terms. He noted, however, that each individual student would have a different experience, needs, and challenges (Bradley, 2019). Williams and Vaughn (2020), and Barwasser et al. (2020) support Bradley's findings concerning students with SLD. In both studies, students received interventions concerning second language acquisition (SLA). Williams and Vaughn (2020) found that students with SLD improved some scores in comprehension, but still struggled with vocabulary recall while Barwasser et al. (2020) found that while the student experience may

differ greatly, with proper support and intervention students can greatly improve comprehension and vocabulary knowledge.

### **Conclusion**

The Comprehensible Input Principles explain how individuals acquire a second language (Patrick, 2019). These principles have been researched in a variety of ways and, in comparison to other ways of teaching including traditional methods and through structured output. As each study has found, the use of comprehensible input in the language classroom allows for adequate and effective acquisition of language as demonstrated through reading comprehension assessments, vocabulary retention assessments, and supports students through meaningful output in the target language.

The questions of the literature review considered the role collaborative writings played in the quantity of second language mastery and if the implementation of comprehensible input would increase the quantity of second language mastery. In both cases, the present research shows that comprehensible input is key to second language mastery in the areas of reading, writing, speaking, and listening, and that guided and collaborative writings provide students with opportunities to work through areas of concern and encourage them to take risks in language production they otherwise might not make. Namaziandost et al. (2019) and de la Garza and Harris (2017) both found that comprehensibility is key to second language acquisition (SLA). Kara (2013) also found that comprehensible input is enough to make progress in SLA, but that the addition of activities and vocabulary strengthening exercises are more effective and support progress. Namaziandost et al. (2019) and Jones (2015) supported Krashen's compelling hypothesis as a way to increase motivation and, subsequently, SLA progress. Similarly, Wang

and Wu (2020) support the idea that the affective filter plays an important role in SLA. In addition to motivation, anxiety and inhibition play some of the largest roles in the affective filter's effect on SLA (Wang & Wu, 2020). In terms of writing, Yamashita and Iizuka (2017) found that structured input (SI) had just as effective and longer lasting effects on SLA as structured output instruction. Seyednejad and Gholami (2017) also found that SI provides better results when producing in the target language than traditional instruction and meaningful output instruction. Villarreal and Gil-Sarratea (2020) studied the effects of collaborative writing on length of writing and grammatical, lexical, and mechanical concerns. Through collaborative writing, Villarreal and Gil-Sarratea (2020) confirm that discussion and group creativity increase the quantity and quality of writing in the target language. These studies support further the Comprehensible Input Principles that state that through comprehensible input (CI) individuals acquire a second language (Patrick, 2019).

Present research is not clear, however, on the effect of comprehensible input for special education students in regards to output. Bradley (2019) found that little research had been conducted on second language studies and autistic students/students with autism in both her research and in the wider autism community. Additionally, Williams and Vaughn (2020) concluded that while research has been conducted several times on reading interventions for adolescents, little research has been conducted on its efficacy with students with learning disabilities in learning a second language. While some research has shown improvements for such learners, the results heavily relied on personal motivation and the affective filter, which differs from student to student (Barwasser, et al., 2020; Bradley, 2019). More consideration is needed on the effects comprehensible input has for special education students on their experience and their affective filters.

## **Action Research Plan**

### **Background Information and Purpose of the Action Research Project**

As discussed in the literature review, studies surrounding Comprehensible Input (CI) focus on comprehension and vocabulary recall and the effect that the implementation of CI has on them. Through their studies, Namaziandost et al. (2019), de la Garza and Harris (2017) and Kara (2013) all concluded that CI is key to second language acquisition (SLA). Additionally, Kara (2013) found that the inclusion of vocabulary support activities allowed for more effective SLA. Williams and Vaughn (2020), however, found that while such activities and reading interventions supported students with specific learning disabilities (SLD) in SLA progress, not enough progress was made and they asserted that further support and interventions may be needed. Wang and Wu (2020) discussed the importance of the affective filter and its factors in SLA. They found that motivation, anxiety, and inhibition were among the top affective factors with significant impact on SLA (Wang & Wu, 2020). In other studies, Namaziandost et al. (2019) and Jones (2015) showed that through student choice in extensive reading series, motivation could be increased, thus affecting SLA. Bradley (2019) and Barwasser et al. (2020) affirmed the importance of motivation in their studies with disabled students/students with disabilities, but emphasized the importance of working with each student individually to meet their needs. These studies clearly indicate the importance of CI for second language acquisition, as well as the importance of supporting students in special education programs, however, there is a lack of research on how CI affects output and how CI supports the progress of acquisition and use of the language in special education students. The purpose of this study is to consider if and how the implementation of CI and intensive reading supports special education students in making progress towards acquiring a second language and using it through speaking and writing.



## **Research Questions of the Action Research Paper**

The research questions of the action research paper are as follows:

1. Will the implementation of collaborative writing and Comprehensible Input with general and special education students increase the quantity of Latin words written within Latin free writes as measured by word count and student reflection over a seven-week period?
2. Will the implementation of intensive reading supports through Comprehensible Input increase the quantity of times special education students speak in Latin in class as measured by spoken instances in the target language over a seven-week period?

## **Hypothesis**

The hypothesis of this classroom action research considers the impact Comprehensible Input (CI) and intensive reading supports have for special education students' speaking and writing skills in the target language. When students receive Comprehensible Input and, if needed, further small group instruction and support in reading and writing, students will display an increase in speaking and writing in the target language as shown through the amount of words written and spoken in class. Participants will increase their speaking ability and writing ability in the target language by at least 50% when the starting average is 0 and at least 10% when the starting average is above 0.

## **Definition of Terms**

### ***Choral reading***

Choral reading is a reading strategy in which the teacher works through a text with students and, as a group, everyone works together to translate the passage into the primary language (Toda, 2014).

### ***Code Switched Passage (CS)***

A code switched passage is when a passage is taken from the target language and put into the primary language entirely, except for keywords (Ong & Zhang, 2018).

### ***Free write***

A free write refers to a period of time in which students work primarily individually, but group or partner work may be utilized at certain times, to write freely at their own pace on a familiar topic. In a free write, students are first given the opportunity to re-read the text, if applicable, and ask questions about words they do not understand or remember. Then, students are shown a prompt, usually with writing options and suggestions for guidance, and given whatever amount of time they need to write all they can on the given topic. As Villarreal and Gil-Sarratea (2019) established through their study on collaborative writing, use of the target language, whether individually or collaboratively, allow for authentic engagement with the language and encourage student autonomy.

### ***Frequency list***

A frequency list is a list of terms in the target language that are sorted, first, by frequency of use in a given context. For the purposes of this study, which focuses on the Latin language, the frequency lists referenced look at Classical literature written in Latin and how often words appear in those texts. Reynolds (2015) and Ong and Zhang (2018) both explain that the use of frequently used words support comprehension and acquisition.

### ***Collaborative write***

A collaborative write is similar to a free write, but students work in groups (Villareal & Gil-Sarratea, 2019). Students may also work as a class along with their teacher. The teacher shows and discusses the prompt with students, acting as the writer and writing all the things students say in the target language. The teacher may ask the students guiding questions to prompt their memory or ask them for details to go along with what has been written. This process continues as long as time and student engagement allows.

### ***Read and Discuss (RD)***

Read and Discuss (RD) refers to a comprehensible input strategy that allows for the teacher and students to work through a passage in the target language (Patrick, 2014). Initially, after reading the selection with students, the teacher allows students to ask questions about words they don't know and then the teacher proceeds to ask students questions in the target language about the passage (Patrick, 2014). A third, optional, step to this process is the inclusion of student drawings. Often this is done individually by each student for their own records, which

they can then use on a free write (Patrick, 2014). Additionally, the teacher may share the drawings with the class to elicit further discussion in the target language (Ash, 2018).

### ***Reading option a (ROA)***

Reading option A (ROA) is a comprehensible input strategy in which a teacher works through a passage with students using a specified order of activities (Slavic). After reading a passage out loud and giving students time to work briefly on their own to understand the passage, the class begins with choral reading, followed by discussion in the target language (Slavic). Then, teacher may engage in explicit grammar instruction and work on reading out loud with students; this is then followed by a sacred reading in which tone, drama, and artistry are employed (Slavic). ROA is part of multicomponent storytelling and includes elements of discussion of context, compelling and interesting material, cognitive tasks through choral reading, and explicit discussion of grammar and culture.

### ***Small group instruction***

This term refers to any time the PI met with one or more of the study participants for target instruction. Given the limitations during the COVID-19 pandemic, this instruction occurred in person, online, and with varying numbers of participants at any given time. Barwasser et al (2020) and Bradley (2019) point to the importance of small group instruction to allow for specialized instruction as well as clear communication.

### ***Sustained Silent Reading (SSR)***

During this procedure students reread a passage they are already familiar with silently to themselves repeatedly over a prescribed period of time. During this time, students may ask any

questions they have about the text to ensure understanding and comprehension. This one on one check in, initiated by the student, in a public forum allows for a unique kind of small group and collaborative setting. Students can get what they need directly, supporting individualized instruction and support (Barwasser, et al., 2019; Bradley, 2020).

### ***Universal design for learning (UDL)***

Universal Design for Learning (UDL) refers to a framework teachers can use that is based in scientific research (CAST, Inc., 2021). When employing UDL, teachers provide students with multiple forms of engagement, to allow students to work with content in a variety of ways, multiple forms of representation, in which students can see information presented in multiples ways, and multiple forms of action and expression, to allow students to share what they know and have learned in the best way for them (CAST, Inc., 2021). The use of UDL supports individualized instruction through each of the three facets, supporting student needs, as well as authentic engagement on student terms and using student interests (Barwasser, et al., 2019; Bradley, 2020).

### **Research Design**

This is an action research study conducted within a classroom setting by the primary investigator (PI) to determine the role comprehensible input has on acquisition of a second language by special education students. The original design of this study was based on the research conducted in the literature review and included elements of a number of previously conducted studies. Considering research conducted by Villarreal and Gil-Saratea (2020) on collaborative writing, this study evaluated the effects collaborative writing had on special education students' ability to write in the target language (TL). This study sought to reconsider

Williams and Vaughn's (2020) findings that even when students with specific learning disabilities (SLD) received reading interventions, they made minimal progress in acquiring language by including consistent support throughout the process including when students produced in the TL. This study included resources provided by Ong and Zhang's (2018) study on code switching passages and their use in vocabulary recall.

The type of data collected in this study includes both quantitative and qualitative data. The (PI) collected data on the amount of times participants in the study speak in the target language (TL) during class. This included instances the participants spoke in class in the TL or wrote in the chat during class in the TL while attending digitally. Additionally, the PI collected data on the amount of words written in Latin by the participants during each free write and qualitative data during participants' reflection on previously completed free writes. As this study focuses on the amount of production increased and not accuracy, grammatical correctness and language mechanics were not considered as part of the data collected.

The design for the study included participants receiving regular classroom instruction using the principles of comprehensible input (CI). Additionally, participants were invited to participate in a small group session once a week with the primary investigator (PI). Small group sessions were designed to focus on intensive reading supports with CI and Universal Design for Learning (UDL) in mind. In addition to collaborative writing and free writes, the research design included CS passages, reading option A (ROA), and read and discuss (RD).

There are a number of variables that were considered for this study. Interventions were planned to be offered concurrently in both the in person and online setting and free writes were planned to be completed digitally to allow for pandemic conditions and social distancing.

Additionally, in order to keep the study as authentic as possible to the classroom experience, all interventions and small group instruction was carried out during the school day and during the participants' Latin classes. Due to this, considerations for participants were limited to the PI's Latin classes for the 2020-2021 school year.

After the seven-week study period, average word counts for both speaking and writing in the TL were calculated for each student individually and then percent increased was determined. Each participant was compared to their own starting data. The only data tabulated that included each participant's data was to determine the overall percent increase.

## **Sample**

This study was conducted in the southeastern United States in a county of approximately 936,250 people. The district in this county has approximately 180,500 students and the school at which this study was conducted has approximately 3,000 students enrolled.

The participants were seven students receiving supports in special education who were enrolled in Latin I or Latin II. These students were chosen for the study because their current grade in the class or current ability to speak and write in the target language (TL) indicated that extra support and instruction was needed for further progress. Of those included in the study, two participants had failed first semester Latin I or II, while the rest had passed, but displayed areas of concern in writing, speaking, or both. Six of the participants had an average of spoken words in the TL of 0 and all participants had an average of spoken words in the TL of less than 10. Two

participants had a written TL word average of 0, three had a written TL word average of less than 30 and the remaining participant included in the writing portion of the study had a written TL word average of less than 40.

Included in this study were five males and two females. The special education categories represented in the study are other health impairment (2 participants), emotional behavior disorder (1 participant), specific learning disability (3 participants), visual impairment (1 participant), and autism spectrum disorder (1 participant). Three of the participants identified as caucasian or white, three identified as African American or black, and one each identified as Asian and Hispanic.

### **Instrumentation**

For this study, both quantitative and qualitative data was collected and analyzed. Participants were provided an initial survey that inquired about their level of comfort with various elements of writing in the target language (TL) as shown in Appendix A. Participants were asked about eight different elements of writing: use of resources, use of memorized phrases and expressions, making lists, describing familiar things in simple phrases and sentences, writing in connected sentences, writing in sentences with details, comparing things, and sharing opinions on familiar topics. Both Latin I and Latin II students were asked about all of these elements except sharing opinions. That single item was only offered to Latin II students. The American Council on Teaching Foreign Language (ACTFL) describes skills such as using resources, using memorized phrases and expressions, describing familiar items, and using simple sentences as indicative of those writing at the novice level ranging from novice mid to novice high (ACTFL, 2012). Additionally, using simple sentences, with some connected sentences, describing familiar



topics with more detail, and expressing one's needs and wants can be described as intermediate level writing at the intermediate low and intermediate mid levels (ACTFL, 2012).

In addition to this quantitative data, the PI collected qualitative analysis data from the participants regarding their writing using the writing checklist (see Appendix A) and the free write analysis (see Appendix B). While the quantitative data provides the required information for the research questions of the classroom action research, the initial survey identified the structure and resources of the classroom instruction and small group instruction and the writing analysis provides insight into areas of success and growth not seen in the quantitative data.

The initial writing checklist (see Appendix A) contained four sections and was completed via Google form. Participants were initially asked how many free writes they had participated in prior to the study in the spring 2021 semester and then were asked to rate a number of writing features on a scale of confidence: not at all confident, somewhat not confident, somewhat confident, and very confident. In this section participants were asked to consider how confident they felt using the resources in the classroom, using memorized phrases and expressions, making lists, describing familiar things, writing in connected sentences, writing with details, and comparing in the TL. The third section asked participants to consider which resources they felt comfortable using including the stories provided in class, asking the teacher both verbally and in writing, and using Google Classroom resources. The last section asked participants to rate how much help they felt they needed on a scale of needing no help, needing a few reminders, needing some help, and needing lots of help. They were asked to rate the following topics: asking for help in any way, expanding sentences to include detail, writing about themselves, re-reading their writing and understanding it, writing for an extended period of time without pausing, not worrying about mistakes, and expressing themselves in Latin.

The free write analysis (see Appendix B) was completed over two days. The first day asked students to consider statistics of their free writes: total number of free writes, word counts for each completed free write, total number of words written, and highest and lowest word counts. It also asked participants to choose a free write that was their best and worst and to explain why. In order to complete this, participants needed a minimum of two free writes. If they had less than two free writes, they were asked to explain, in detail, why the free writes were missing. The second day of the analysis asked participants to look at each writing individually and consider aspects of it. These were listed from least to most complex: word count, patterns in sentences as a whole, patterns in details and word choice, and any other considerations. Participants who had fewer than two free writes were asked to look over the entire course of the semester and find areas where they had shown progress. Lastly participants were asked to assign themselves a grade and give an explanation. This grade was based on progress in writing in the TL.

Both the initial writing checklist (see Appendix A) and the free write analysis (see Appendix B) were developed by the local Latin team and in observance of the ACTFL world readiness standards. Both of these instruments were incorporated during school hours and during the participants' Latin class periods, ensuring equity in administration. Both of these instruments have been used in the local Latin classrooms before by all the teachers in order to evaluate students' progress in Latin and needs in the writing; due to these considerations, these instruments are valid and reliable.

## Procedures

Seven participants were chosen for this classroom action research based on pre-study data of overall Latin grades, ability to speak in the target language (TL) based on previous speaking grades, and ability to write in the TL based on pre-study word averages. Participants chosen had received a failing grade in Latin the previous semester, had failed to demonstrate ability to speak and write in the TL in the previous semester, or had demonstrated a need or asked for targeted support based on interviews with the primary investigator (PI). Additionally all seven participants are receiving supports through the special education program. Consent for participation in the study was obtained via a classroom action research letter sent to all students of the PI and their parents or guardians via email. Parents, guardians, and students had the option to opt out of the study.

Baseline data on all seven participants was obtained from pre-study data collected as part of the process to choose participants. Regarding speaking data, six participants had a previous record of 0 spoken words in Latin on average. One participant had an average of 5 spoken words in Latin. Writing data was more widespread among the participants. One participant had a pre-study average of 0 written words in Latin. One participant had a pre-study average of 10 words written. Two participants had a pre-study average of written words in the mid-twenties (25 and 27 words), and one participant had a written average of 36 words in Latin. Two participants were ultimately excluded from this portion of the study, and thus are not included in this baseline data on writing, due to attendance.

The procedures for this classroom action research included regular classroom instruction, collaborative writes, small group instruction, and reading supports. Participants met with the (PI)

for classroom instructions five days a week for 52 minutes each time. Each week, one class period included individual work during which participants received small group instruction. All instruction in the classroom is informed by the principles of Comprehensible Input (CI) and both the Latin I and Latin II classes use a series of stories informed by frequency vocabulary lists, as defined in the definition of terms, as well as reading materials originally written in Latin from the Classical, Medieval, and Modern periods.

After the initial survey and subsequent discussion held in the small group setting, quantitative data was collected during regular class instruction each time the participants spoke in Latin during class or wrote during a free write. For the Latin I participants, there were a total of eight speaking opportunities and four free writes during the seven-week period. For Latin II participants, there were a total of four opportunities each for speaking and writing opportunities.

Considering current conditions with the COVID-19 pandemic, participants could attend class either in person or virtually through the school's learning management systems. As such, small group instruction was offered in a variety of ways including in person, via online meeting, and through one to one feedback using the school's learning management systems. Given this extension of the small group definition, however, the majority of small group work was conducted in an online meeting or in person, and in writing was reserved on an as needed basis.

Another variable accounted for in the data collection and analysis was the amount of absences from the participants. A number of the participants were absent from class during times when speaking in the TL and writing occurred due to a variety of reasons ranging from illness to technical difficulties. To account for this, when computing the average words spoken and written, only times when the participant was present were considered.

During small group instruction, participants received CI and a variety of reading and writing supports depending on the participants needs. For example, participants with vision impairment received additional support and help for a variety of activities requiring sight or visuals. Participants who had shown difficulties with vocabulary recall received supports via vocabulary lists, additional vocabulary games through the Gimkit and Blooket websites. In addition to these specialized supports, participants received intensive reading supports and participated in collaborative writes as defined in the section definition of terms. Intensive reading supports included the use of code switched (CS) passages, reading option A (ROA), choral readings, and read and discuss (RD). Additionally, all lessons were considered through the lens of Universal Design for Learning (UDL) and students received a variety of means of engagement, representation, and expression. As part of the inclusion of UDL, the primary investigator frequently checked in with students regarding supports, accommodations, and instruction. As Barwasser, et al. (2020) and Bradley (2019) find, individualized instruction helps disabled students/students with disabilities in second language instruction and with language acquisition.

During the initial small group instruction meetings, it was determined that some participants would benefit from continued vocabulary support during both instruction and free writes. This finding is supported by Williams and Vaughn (2020) who ultimately concluded that students with specific learning disabilities (SLD) would likely require continued support and intervention for vocabulary acquisition and reading fluency. To accommodate for this, the study procedure was adapted to include an additional procedure during free writes. During collaborative writing, which was conducted with the class or small group and the PI, participants were not able to reference any materials and the focus remained on discussion and collaboration.

However, the free write procedure was amended to include the story text so that participants could reference it for spelling and vocabulary assistance as needed. Additional conversations during small group instruction led to the creation of English notes on characters and locations that appeared in stories and vocabulary games that included not only target vocabulary but every word in the Latin texts.

As part of the debrief of the writing experience, participants completed a writing analysis for their writing during the semester over a two day period (see Appendix B). Participants calculated statistics for their writing: total amount of free writes completed, amount of words written for each, total amount of words written, and highest and lowest word counts for the semester. Students then picked a writing that they felt demonstrated their best work and their worst work and analyzed why they had picked those. On day two of this analysis, participants looked over all their free writes and analyzed how their writing had changed over the course of the semester. Participants discussed the change in word count, the change in sentence length and structure, the change in details provided, and were given an opportunity to reflect on other changes they saw in their writing. In the final writing analysis, participants reflected on their progress in specific terms and used specific examples and language. Barwasser et al. (2020) note that self-graphing progress is a strategy by which students can motivate themselves and can lead to more positive classroom behaviors.

Data was collected each time participants spoke during class or small group instruction in the TL as well as during a formal free write assessment. This data was initially collected in a spreadsheet so that each participant's data could clearly be seen and was then calculated to include average words spoken or written and overall percent increased per participant (see Tables 1 and 2). While an overall percent increase was calculated that included all participants in each

portion of the study, no one participant's data was compared to any other participant. Comparisons were made between pre-study data and final data calculations.

### **Validity and Reliability**

The data collected in this study contained total words spoken in the target language (TL) and total words written in the TL over a period of time. Each opportunity for students to speak or write was considered for data and only when students were not present for the opportunity was data not collected. After the study period, this data was collected and analyzed to include total words spoken or written over the seven-week period, the average words written or spoken, and the percent increase for each participant. Gathering and analyzing the data in this way ensured that the study measured progress over time accurately and consistently across participants.

Assessments were administered during regular class periods over the course of the high school day, ensuring regularity and reliability in the administration of each. Prior to each free write, participants engaged in sustained silent reading (SSR) and asked clarification and comprehension questions of the primary investigator (PI). Participants were then allowed to write for as long as needed in the TL. For each free write and speaking opportunity, only words written or spoken in the TL and words participants knew from instruction or that were provided by the teacher were included in the data collection. No data was collected on words students looked up on their own or words provided by a third party translator. Any and all instances where participants spoke in the target language (TL) or wrote in the TL in an online chat as part of class instruction were collected for speaking data. This included questions asked in the TL, answers to questions posed by the primary investigator (PI), and input given during discussions in the TL.

The writing checklist, which participants had an opportunity to complete at the beginning of the study, was based on the American Council for the Teaching of Foreign Language (ACTFL)'s world readiness standards for the novice and intermediate levels in writing. Additionally, the final writing analysis, which was administered after the free writes were completed, also references the ACTFL standards when asking participants to reflect on their writing skills including their use of vocabulary, sentence structure, and details. Both of these tools were created by the PI with input from the other five Latin teachers in the school to reflect all the Latin classes in the program and ensure the ACTFL standards were clearly referenced and in language students would understand. Further, the analysis was updated for the 2020-2021 school year to reflect the pandemic and frequent absences from students. These steps ensured the validity of the reflection tools and that they were correctly correlated with the ACTFL world readiness standards.

Total word counts were conducted each time students spoke or wrote during class and averages were determined using the following formula:  $\text{average} = (a_1 + a_2 + \dots + a_n) / \text{number of writes or speaking opportunities}$ . Percent increase was determined first by determining the size increase ( $\text{size increase} = \text{ending average} - \text{initial average}$ ) and then determining percent increase ( $\text{percent increase} = \text{size increase} / \text{initial average}$ ). At the end of the study, overall, an increase in measurement was found in both writing and speaking of 39.67% and 68.57% respectively.

A number of factors and variables affected this study and were accounted for. To account for the COVID-19 pandemic, interventions and classroom instruction was offered both in person and online, concurrently. This was in accordance with the local district guidelines. Further, free writes were done digitally by all participants, whether in person or online, to allow for social distancing. Additionally, class attendance was a variable that could not be prepared for and so



instances where participants were not present for the data measurement were not counted in the participants individual statistics. Lastly, in order to ensure that participant data was not measured unfairly against other participant data, each participant's statistics were only compared against their own starting point and not against any other data.

This study measured quantitative and qualitative data based on special education students' ability to speak and write in Latin after Comprehensible Input and reading interventions were implemented in classroom instruction and in small group instruction. The study measured data using average and percent increase statistics and qualitative data was collected using research tools developed by the local Latin team and in accordance with ACTFL world readiness standards. Free writes and speaking opportunities were carried out in the same manner during school hours consistently and fairly and the final data showed an increase in measurement. Additionally, the study accounted for a number of variables: the COVID-19 pandemic, school attendance, and individual growth. Therefore, based on these factors, this study is considered valid.

Should this study be repeated, it is expected that similar, if not better, results would be the result. Given the research in the literature review, similar studies were conducted on how structured input (SI), affective factors, and collaborative writing affect student ability in second language acquisition (SLA). Due to this, it is likely that subsequent research on similar topics would have similar findings. Just as Williams and Vaughn (2020) showed progress, albeit statistically small, when students with specific learning disabilities (SLD) received reading interventions, this study found progress when special education students received CI and reading interventions. Similarly, as Villarreal and Gil-Saratea (2020) concluded that collaborative writing positively affects students' ability to resolve language concerns and length of writing, this study

also found that with the implementation of CI and collaborative writing, participants' writing length by word increased.

This study was carried out throughout the high school day in a public school setting and while time of day differed for each class, the data showed that students made progress in each case in writing and speaking. While the time of day changed, the procedure for each opportunity stayed the same regardless of class period. Prior to each free write, participants engaged in SSR and questioned sections of the text they were struggling with. Speaking data was collected every time the participants spoke in the TL.

Variables that impacted the study and its implementation were the COVID-19 pandemic, school attendance, size of the study, and student engagement. As previously discussed, instruction was offered both in person and online due to the pandemic. This created difficulties in communication and clarity on when small group instruction would be held. The PI accounted for this using multiple means of communication including email, phone and text messaging, verbal communication, and via Remind services. Even with these safeguards there were still gaps in attendance due to the pandemic and concurrent teaching model. In addition to this, attendance varied from participant to participant and was unreliable in some cases. To account for this, two participants were removed from the writing portion of the study as they did not complete the required free writes. This did not affect the data, however, for the other participants. Part of these variables and another factor was student engagement. With the concurrent teaching conditions and student attendance being a concern, student engagement was difficult to determine some days. To account for this, participants were not compared to other participants' data and participant data was only considered on days when they attended class.

Previous research shows that the findings of this study are built upon the work of reliable studies already conducted. Furthermore, as this study showed progress in less than ideal conditions, it can be concluded that a similar study would have the same or similar findings. Given the current pandemic conditions and difficulties that arose with attendance and absence, as well as a concurrent teaching model, a subsequent study with an all in person study, in which more comprehensible input could be given more regularly with each student, would produce results that are on par or exceed this study's findings. With all this in mind, this study is considered reliable.

### **Assumptions and Limitations**

In the process of this study it is assumed that when participants completed the initial writing survey and the subsequent writing analysis, they answered as honestly as possible and true to their experience. Additionally, unless otherwise stated, participants' writings were of their own work and did not involve a translator or assistance from anyone other than the teacher or text, when appropriate.

This study was limited in its execution due to the current COVID-19 pandemic. The primary investigator (PI) had limited access to students both in person and digitally due to social distancing criteria and ability to contact participants.

### **Cultural Competence/Bias**

While participants were not chosen to participate based on race, ethnicity, or special education category, statistics were considered to ensure that the participants reflected the Latin I and Latin II classes as a whole and were multiculturally represented. Those in the study did

represent those special education categories present in both classes: visual impairment, specific learning disability, autism, other health impairment, and emotional behavior disorder.

Additionally, students' races and ethnicities were not considered and did not influence any part of the study, but those who participated did represent the multicultural population of the class and school.

In order to account for cultural competence and ensure that participants were not judged based on bias, quantitative data collected on participants was only compared to data from each respective participant. Additionally, participants were not penalized for absences and were not required to give an excuse in order to avoid penalization.

### **Ethical Considerations**

Participants and their parents and/or guardians were notified of the classroom action research via emails on record and were given the opportunity to exclude themselves or their students from the study at any time. Additionally, the school in question was made aware of the classroom action research as well. The primary investigator (PI) also spoke to the classes involved and answered any questions that arose. Participant anonymity was protected by the PI in a number of ways. In any notes and data taken, participants were referred to by assigned number, rather than by name and only the PI has access to the full data taken during the study.

During the study, the PI was clear with participants and students about activities, their expected participation, and the expected outcome of each activity. Participants were also able to see their own progress during the study and were able to reflect on it in their writing analysis.

## Results

Results from this study were compiled using speaking and writing data in the target language (TL) from participants. Each instance of data collection included simple totals of words spoken or written in the TL and then results were calculated to show average words spoken and written in the TL over the course of the seven-week study period and percentage of growth. Table 1 shows participants speaking data including initial average from the first semester of study in the 2020-2021 school year, totals for each speaking opportunity in class, total words spoken during the study, final average for the seven-week study period, and percentage improvement.

**Table 1**

***Words Spoken in the Target Language***

	Pre-study average	Total words spoken each opportunity						total	Average	Percent improved	
1	0	0	0	0	0	0	2	2	0.3	100*	
2	0	0	0	0	0		5	5	0.8	100*	
3	0			1	0	2	3	2	8	1.6	100*
4	0	2		0		1	2	2	7	1.4	100*
5	5	10	3		1			2	16	4	-20
6	0			0	0				0	0	0
7	0	0	5	2	1				8	1.6	100*

*\* indicates a starting average of 0*

All seven participants were evaluated for words spoken in the TL during classroom and small group instruction (see Table 1). All but one participant had a starting average of zero words spoken in the TL. Of the seven participants included, one did not speak at all during the study,

maintaining an average of zero words in the TL. Two of the participants did not speak during the study until the last opportunity, increasing their average words spoken in the TL to 0.3 and 0.8. Three other participants spoken throughout the study, although not at every given opportunity. They increased their averages from zero to 1.6, 1.4, and 1.6. All of these participants that showed an increase in spoken words in the TL showed an increase of 100%, given that they started with an average of zero. One participant did not show an increase in words spoken in the TL, but instead showed a decrease of 20%. However, this participant spoke in the target language during every opportunity, showing consistency. Overall participants showed an average increase in spoken words of 1.3.

**Table 2**

***Words Written in the Target Language***

	Pre-study average	Total words written in each free write				total	average	Percent improved
1	0	82		3		85	42.5	100*
3	27	34	23	0	29	113	37.66	39.48
4	36	53	53		24	130	43.33	20.36
6	10	6	23	5	28	63	15.75	57.5
7	25	22	20	22	17	81	20.25	-19

\* indicates a starting average of 0

Five participants were included in the written portion of the study (see Table 2). Participants 2 and 5 were excluded from this portion of the study as they were not present for the free writes. Of these five participants, only one had a starting average of 0 written words in the TL. This participant showed an increase in words written in the TL with a new average of 42.5, showing an increase of 100%. One participant had a starting average of 10 words written in the

TL. They showed the most growth overall with a new average of 15.75 words and an increase of 57.5%. Two participants had starting average word counts of 27 and 36. They both showed an increase in average of 7-10 words: 37.66 and 43.33, respectively. This showed a percent increase of 39.48% and 20.36%. The last participant included was the only participant to not show an increase in average words written in the TL. This participant started with an average of 25 words written and ended the study with an average of 20.25 words written, showing a decrease of 19%. Of the five participants included in this portion of the study, four made significant progress in writing with a percent increase of over 15% in each case.

Qualitative data taken from the participants' writing analyses shows a variety of self reflection and progress monitoring from the participants. When discussing their chosen best free write, participants discussed the ease with which they wrote, and noted the interventions and amount of time spent on the stories prior to writing as particularly helpful. When discussing their chosen worst free write participants noted the shortness of the writing and their choice not to ask the primary investigator (PI) for help with vocabulary. Additionally participants correlated length of writing with how well they understood the text being discussed: the better understood, the longer the writing sample. Participants also noted that while the length of their sentences did not increase, per se, on their own, the details included in each sentence became more clear and increased in number. Lastly, participants noted that the amount of times they wrote increased from the pre-study data.

### **Interpretation of Results**

Considering the results of this study overall, a clear improvement was made in both speaking and writing in the target language (TL). Most participants in the study began with a

speaking average of 0 words in the TL and, therefore, improved 100%. Participants spoke in the TL more consistently as the study continued, with all participants except one speaking in the last given opportunity (see Table 1). Unlike the free write topics, which were specific to the story being discussed, students could speak freely on the story for class, or to ask for help in class on any topic, including vocabulary. This shows that as comprehensible input (CI) increased and opportunities to speak were given repeatedly, students' affective filters were lowered enough and their confidence and motivation lifted enough to speak in the TL in the moment. Additionally, this also supported their writing as one participant reflected that asking the teacher for vocabulary help would have improved their writing.

Table 2 shows the improvement of participants' words written in the TL. Similar to the previous data, the vast majority of participants showed growth in writing over the course of the study. As each write had a different topic, growth is shown less over the course of time, and more in the overall consideration of the data. While opportunities for speaking were given from class to class and less planned, free writes were planned and were announced ahead of time. Participants also had time to prepare prior to a free write by re-reading the text and asking questions. Given this, the percent improvement is greater than in the data on spoken words as students had time to prepare and more time to write in the TL.

Two participants did not make progress in speaking: one had a percent increase of -0.2 and the other did not make progress positively or negatively. In the first case, the difference between the pre-study data and post-study data average is one word and the data over the period of study shows that during 50% of the time that the participant was present for speaking opportunities, they spoke more times than their pre-study average and they engaged in the TL 100% of the times they were present. Because of this data, it can be concluded that while the



participant did not make any progress overall in speaking, they are continuing to engage in the TL regularly. The second participant's average stayed at 0 throughout the study. However this participant did make progress in writing of 57.5% (see Table 2). This suggests that, when given time to re-read and reflect on output, the student is making steady progress in language acquisition. Additionally, one student did not increase their average words written in the TL over the course of the study. However this participant reflected that while their words written did not increase, they wrote more times during this period than they had previously. While outside the bounds of this study, this indicates that the student felt increased motivation in writing and shows progress.

Yamashita and Iizuka (2017) found in their study that students who received structured input (SI) and structured output (SO) increased their ability in both comprehension and production, scoring greater than five points and four points on the immediate and delayed post tests respectively, but found that the SI group maintained their gains better than the SO group. This study did not have an SO group, but the findings support Yamashita and Iizuka (2017) study in that participants receiving CI were able to increase their ability to complete production based tasks in both speaking and writing, with an average percent increase of 68.6% and 39.7% respectively, despite receiving no explicit instruction in output. Furthermore, these findings also support Seyednejad and Gholami's (2017) study on production from participants receiving instruction in meaningful output (MO), traditional instruction (TI), and SI. Seyednejad and Gholami (2017) found that the SI group outperformed their counterparts ( $p = 0$ ) in the MO and TI groups and that SI has a significant effect on participants' ability to produce language. In this study, which focused on CI and its effects on special education students, results found that with

SI and reading supports in small groups, participants were able to increase their writing ability by 39.7% in the target language over the course of the seven-week study.

Villarreal and Gil-Sarratea (2020) studied the effects of collaborative writing on participants' ability to produce in the TL. They found that through collaboration, participants were able to resolve over 80% of grammatical, lexical, and mechanical concerns and, after collaboration, participants increased their length of writing to compare to the control group (Villarreal & Gil-Sarratea, 2020). Similarly in this study, participants increased the length of their writings an average of 39.67% and increased the amount of times they wrote, as applicable to those who had a pre-study average of 0 in particular, after completing collaborative writing with the PI and peers. Wang and Wu (2020) found that affective filter factors significantly impacted students' abilities in second language acquisition, particularly anxiety, motivation, and inhibition (SLA). In the qualitative data from this study, participants specifically brought up inhibition when asking questions for help, anxiety when writing without struggle, and motivation when correlating success in writing with comprehension of the story.

Williams and Vaughn (2020) concluded that students with specific learning disabilities (SLD) continued to struggle with word recognition and recall after the implementation of reading interventions for adolescents (RIA), even though their scores improved slightly with intervention ( $p > 0.05$ ). While this study did not compare the participants' scores and improvement to their peers' and focused on production rather than vocabulary recall, it can be concluded that significant progress was made regarding vocabulary through the implementation of CI and reading interventions in a small group setting as demonstrated by the overall improvement of 39.67% in writing. However, this study did include continued supports throughout the study,

including during production, providing students with aids to lower anxiety and allow them to write more freely.

## **Conclusion**

The large percentage of participants increased average times speaking (see Table 1) and writing (see Table 2) in the target language (TL) after receiving intensive reading supports in a small group setting. While some participants did not make progress overall, the data shows that they participated in speaking and writing more regularly throughout the study, showing progress in a way not calculated in this study. When reflecting on their writing progress, participants noted that the reading interventions and time spent on the inclusion of comprehensible input (CI) and multicomponent storytelling directly influenced their ability to write. Students also reported more confidence in writing and ease with which they wrote.

In conjunction with the six principles of CI and Universal Design for Learning (UDL), each reading intervention and activity used in the study was considered for its comprehensibility and compellingness and provided multiple means of engagement, representation, and expression (CAST Inc., 2021; Patrick, 2019). Provided a topic on which to write about, participants were free to discuss anything within that topic and to focus on pieces of the story they were most comfortable with or knew the best. Additionally, students could ask the primary investigator (PI) for assistance with vocabulary in this current study. In order to ensure that the input given to participants was comprehensible, reading supports focused on participants' current level of language knowledge and provided multiple and varied ways to show understanding or ask for assistance. Namaziandost, et al. (2019) showed in their study that CI at the right level is key to

language acquisition. Frequency lists were employed to ensure that the words targeted in readings and instruction supported comprehensibility (Reynolds, 2105). Additionally, students were given multiple forms of CI for each story written and spoken about prior to being asking to provide output. De la Garza and Harris (2017) found that the less new and unfamiliar target words in a text, the more comprehensible a text is. Barwasser et al. (2019) and Kara (2013) both support the inclusion of activities and multiple supports for students in vocabulary recognition and comprehension of texts.

While extensive reading (ER) and reading of novellas was not employed in this study completely, readings chosen often contained two or three parts and the same frequency lists were referenced, which permitted participants to undergo a similar experience to that of ER. Reynolds (2015) found that ER provided a more expected and natural approach to language acquisition and Cho and Krashen (2019) supported these findings through surveys of teachers in Korea. Participants in this study encountered the same vocabulary repeatedly in each story presented and vocabulary was modeled and taught in a number of ways that included aural elements, visual elements, transcription, and games, allowing for multiple representations and levels of engagement (CAST, Inc., 2021).

The findings of this study support the findings of a number of studies previously conducted on the effects of input on comprehension and production as well as special education students' abilities in second language acquisition (SLA). Yamashita and Iizuka (2017) proved in their study that both structured input (SI) and structured output (SO) support students in comprehension (mean scores of <5 and <4 points in immediate and delayed assessments) and production (mean scores of <5 and <4 points in immediate and delayed assessments), but that SI better supported students in the retention of those skills as they outperformed their SO peers.

Similarly, this study found that the inclusion of and focus on CI through reading interventions supported students in both comprehension, as found by the qualitative data, and in production, with an average increase of 39.67% in writing and 68.57% in speaking. Seyednejad and Gholami (2017) found that participants who received SI significantly outperformed their peers who received instruction in meaningful output or traditional instruction with  $p$  equaling 0. This correlation is evident in the participants' increase in writing in this study, where all but one participant increased their writing over 20% from initial counts.

Two distinct supports were implemented from the literature review for this study: code switching (CS) passages and collaborative writing. While Ong and Zhang's (2018) CS passage does not have direct correlation to this study's findings, as use of target vocabulary was not evaluated, CS passages were part of the interventions used in both the classroom and small group setting. Villarreal and Gil-Sarratea's (2020) study on collaborative writing, however, can be considered alongside the findings of this study as both focused on the effects collaborative writing had on output. Villarreal and Gil-Sarratea (2020) looked specifically at how collaboration affected grammar, lexical concerns, and mechanics in writing and found that through collaboration more than 80% of these concerns were resolved. Furthermore, Villarreal and Gil-Sarratea (2020) found that after collaboration, writing length increased for individuals who had participated in the study. Similarly, this study found that after collaborative writing with both the class and the PI, participants were able to increase their length of writing and average words in the TL. When reflecting on this, participants remarked that spending time prior to the free write on the story and in collaboration with the teacher lowered anxiety and increased motivation, which supports Wang and Wu's (2020) findings that affective factors significantly impact students' abilities with SLA.

Williams and Vaughn (2020) executed a similar study on the effects of reading interventions for adolescents (RIA) but found that while participants with specific learning disabilities (SLD) did increase their scores, they were not large enough increases ( $p > 0.05$ ) to suggest complete success. This study focused on how reading interventions and collaborative writing can affect special education students' abilities in speaking and writing and found significant increases in the majority of participants. What this suggests is that with continued support, as students in this study had continued access to supports throughout the study and while writing and speaking, they can continue to make consistent and significant progress.

The first question posed in this study was whether the implementation of collaborative writing and Comprehensible Input with general and special education students would increase the quantity of Latin words written within Latin free writes as measured by word count and student reflection over a seven-week period. This study concluded that overall these practices do increase the quantity of Latin words written in a Latin free write when collaborative writing and Comprehensible Input are employed in both the general classroom instruction and in small group instruction. Students showed overall growth of 39.67%. The second question posed in this study was whether the implementation of intensive reading supports through Comprehensible Input would increase the quantity of times special education students speak in Latin in class as measured by spoken instances in the target language over a seven-week period. This study found that participants increased their overall speaking average by 68.57% and that, therefore, these practices do positively impact students' abilities to speak in the TL. When reflecting on their progress, students pointed to the instruction and supports received as directly affecting their abilities to write freely in the TL.

As Williams and Vaughn (2020) discussed, disabled students/students with disabilities need continued support throughout their time in the world language classroom. Additionally, both Bradley (2019) and Barwasser et al. (2020) point out that world language teachers need to take each individual students' needs into account when considering their supports, affective factors, and progress in the classroom. This study showed that when those things are applied consistently and meaningfully, special education students will make progress.

### **Impact on Practice, Special Needs Students, Families, and Colleagues**

This study has already affected the program within which it was conducted and will continue to affect change. During this study the PI presented to their team the research from the literature review and implemented code switching (CS) passages and collaborative writing in their planning teams and classes. CS passages have already become a regular resource for students in the program and the research has been shared to the wider Latin teacher community. Additionally, this study inspired change in the way students reflect on their progress, widening what is considered progress and how one measures it. In previous years, student reflection has focused simply on word count and student ability to discuss lexical examples. The research involved in this study on affective factors, supports for special education students, and the need to adapt to the COVID-19 pandemic caused a change in wording and expectations on the student reflection. The reflection (see Appendix B) now includes clearer language and suggestions for students to consider when reflecting.

In gathering data for this study, the PI was able to impact students and their families through open conversations that involved specific data on student progress. While the PI already communicated with students and families regularly, gathering data on specific instances of

speaking and writing allowed the PI to share progress in the moment with students and families. Students remarked that this helped build confidence, lowering the affective filter. Further, sharing progress with students in numbers and averages allowed students to see their growth in concrete terms. Going forward, having these varieties of supports will allow students and families to see a clearer image of the Latin classroom, the expectations, and how to make progress. Students who are supported in the ways they need will make progress over time, as this study showed.

### **Further Reflection and Continuing Questions about My Action Research Journey**

The area of research regarding Comprehensible Input (CI), particularly in the United States, is scarce and this is even more true for how CI affects and can help special education students make progress. This study looked at how various supports through CI and small group instruction can support disabled students/students with disabilities in making progress in writing and speaking in the target language (TL). Moving forward, I would like to look more closely at disabled students/students with disabilities' experiences in world language classrooms and how affective factors affect their progress and confidence and how accommodations can support students in their journey or harm them, with respect to the affective filter.

Next steps for this study may include a closer look at students' writings and the vocabulary they chose to use, similar to Villarreal and Gil-Saratea's (2020) study on mechanics, lexical concerns, and grammar as well as Ong and Zhang's (2018) study on how code switching (CS) passages affect vocabulary recall. As many of the studies that did look at CI and its effects focused on comprehension and vocabulary recall, next steps include how that vocabulary recall shows itself in production.





## References

- ACTFL, Inc (2012). *ACTFL proficiency guidelines*. Retrieved from:  
<https://www.actfl.org/sites/default/files/guidelines/ACTFLProficiencyGuidelines2012.pdf>
- Ash, R (2018, November, 28). Read, draw, and discuss: A new, easy classroom discussion starter. *Pomegranate Beginnings*. Retrieved from: <https://pomegranatebeginnings.blogspot.com/2018/11/read-draw-and-discuss-new-easy.html>
- Ataç, B. A., & Tasçi, S. (2020). An investigation of prospective language teachers' knowledge and attitudes towards inclusive education in Turkey. *International Journal of Curriculum and Instruction*, 12(2), 359–373.
- Barwasser, A., Knaak, T., & Grünke, M. (2020). The effects of a multicomponent storytelling intervention on the vocabulary recognition of struggling English as a foreign language learners with learning disabilities. *Insights into Learning Disabilities*, 17(1), 35–53.
- Bradley, M. (2019). Case study: Second language acquisition with Asperger Syndrome in a university Setting. *Research in Pedagogy*, 9(2), 166–180.
- Cahyaningrum, D., Naftali S., & Nur Hayati, C. (2020). Meaningful and interesting learning process: Accomodating comprehensible input for teaching english to young learners in the 4.0 industrial age. *Jurnal Indria: Jurnal Ilmiah Pendidikan Prasekolah Dan Sekolah Awal*, 5(1).
- Cast, Inc (2021). About universal design for learning. Retrieved from: <https://www.cast.org/impact/universal-design-for-learning-udl>
- Cho, K., & Krashen, S. (2019). Pleasure reading in a foreign language and competence in speaking, listening, reading and writing. *TEFLIN Journal*, 30(2), 231–236. <https://doi-org.xxproxy.smumn.edu/10.15639/teflinjournal.v30i2/231-236>

- de la Garza, B., & Harris, R. J. (2017). Acquiring foreign language vocabulary through meaningful linguistic context: Where is the limit to vocabulary learning? *Journal of Psycholinguistic Research*, 46(2), 395–413.
- Jones, S. A. (2015). Children reading series books: Ways into peer culture and reading development. *Changing English: Studies in Culture and Education*, 22(3), 307–325.
- Kara, S. (2013). The relationship between text comprehension and second language vocabulary acquisition: Word-focused tasks. *International Journal on New Trends in Education & Their Implications (IJONTE)*, 4(1), 39–53.
- Namaziandost, E., Nasri, M., & Ziafar, M. (2019). Comparing the impacts of various inputs (i + 1 & i-1) on pre-intermediate EFL learners' reading comprehension and reading motivation: the case of Ahvazi learners. *Asian-Pacific Journal of Second & Foreign Language Education*, 4(1), 1–20.  
<https://doi-org.xxproxy.smumn.edu/10.1186/s40862-019-0079-1>
- Ong, K. K. W., & Zhang, L. J. (2018). The effects of code-switched reading tasks on late-bilingual EFL learners' vocabulary recall, retention and retrieval. *System*, 72, 13–22.  
<https://doi-org.xxproxy.smumn.edu/10.1016/j.system.2017.10.008>
- Patrick, M. (2021). The effects of code switched reading: Research and practical application. *Mater Monstrorum*. Retrieved from: <https://removingbarriers2fl.weebly.com/research/the-effects-of-code-switched-reading-research-and-practical-application>
- Patrick, R. (2019). Comprehensible input and krashen's theory. *Journal of Classics Teaching*, 20(39), 37-44. doi:10.1017/S2058631019000060
- Patric, R. (2018, January, 2). Read and discuss. *Latin best practices: Comprehensible input resources*. Retrieved from: <https://latinbestpracticescir.wordpress.com/tag/read-and-draw/>

- Renandya, W. A., Krashen, S., & Jacobs, G. M. (2018). The potential of series books: How narrow reading leads to advanced L2 proficiency. *LEARN Journal: Language Education and Acquisition Research Network*, 11(2), 148–154.
- Reynolds, B. L. (2015). A mixed-methods approach to investigating first-and second-language incidental vocabulary acquisition through the reading of fiction. *Reading Research Quarterly*, 50(1), 111–127.
- Seyednejad, H., & Gholami, H. (2017). The effect of structured input, meaningful output and traditional instruction on EFL learners' productive use of passive voice. *Theory and Practice in Language Studies*, 7(9), 737.  
<https://doi-org.xxproxy.smumn.edu/10.17507/tpls.0709.05>
- Shan Liu. (2018). Review on incidental vocabulary acquisition through reading. *Theory & Practice in Language Studies*, 8(6), 702–711.  
<https://doi-org.xxproxy.smumn.edu/10.17507/tpls.0806.22>
- Slavic, B. Reading Option A. Retrieved from: <http://www.benslavic.com/blog/wp-content/uploads/Reading-Option-A.docx>
- Thomas, N. (2020). Incidental L2 vocabulary learning: Recent developments and implications for future research. *Reading in a Foreign Language*, 32(1), 49–60.
- Toda, K. (2014, June, 8). Choral Reading. *Toda-ily Comprehensible Latin*. Retrieved from: <http://todallycomprehensiblelatin.blogspot.com/2014/06/choral-reading.html>
- Villarreal, I., & Gil-Sarratea, N. (2020). The effect of collaborative writing in an EFL secondary setting. *Language Teaching Research*, 24(6), 874–897.
- Wang, L., and Wu, X. 2020. "Influence of affective factors on learning ability in second language acquisition." *Revista Argentina de Clínica Psicológica* 29 (2):

1232–40.

<https://search-ebscohost-com.xxproxy.smumn.edu/login.aspx?direct=true&db=psyh&AN=2020-37331-165&site=eds-live>.

Williams, K. J., & Vaughn, S. (2020). Effects of an intensive reading intervention for ninth-grade English learners with learning disabilities. *Learning Disability Quarterly*, 43(3), 154–166. <https://doi-org.xxproxy.smumn.edu/10.1177/0731948719851745>

Yamashita, T., & Iizuka, T. (2017). The effectiveness of structured input and structured output on the acquisition of Japanese comparative sentences. *Foreign Language Annals*, 50(2), 387–397.

## Appendix A

### Initial Writing Checklist

4/25/2021

Free Write Checklist 01

#### Free Write Checklist 01

\* Required

1. Email address \*

---

2. At this point, we've done 2 free writes in Latin I this semester. How many have you completed? \*

*Mark only one oval.*

☐ 0

☐ 1

☐ 2

## Appendix A

### Initial Writing Checklist

4/25/2021

Free Write Checklist 01

3. Please think about how confident you are with each of these writing skills in Latin. \*

*Mark only one oval per row.*

	Very confident - I know I can do this!	Somewhat confident - I think I can do this.	Somewhat not confident - I am not sure if I can do this.	Not at all confident - I know I can't do this right now.
I can use the resources I am provided to support myself when writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can use memorised phrases and expressions from class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can make lists of things I know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can describe familiar things in phrases and simple sentences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can write in connected sentences (i.e. they clearly go together in a sequence)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can write in sentences that contain details	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can compare things in Latin and write my own opinion about things I know.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Appendix A

### Initial Writing Checklist

4/25/2021

Free Write Checklist 01

4. Check off which resources you feel confident using when reading and writing.  
Check all that apply \*

*Check all that apply.*

- ☐ The stories we are reading.  
☐ Asking my teacher for help verbally  
☐ Asking my teacher for help in writing (Remind, in the google meet chat, etc)  
☐ Other resources on Google Classroom: annotated stories, lexical guides, etc.

5. Lastly, rate each item on how much help you feel you need. \*

*Mark only one oval per row.*

	I need a lot of help!	I need some help.	I only need a few reminders.	I don't need any help at all.
Asking for help, in any way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanding my sentences to include details and be longer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing about myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Re-reading my own writing and understanding it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing for an extended period of time without pausing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing for an extended period of time and not worrying about mistakes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expressing myself in Latin.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## Appendix B

## Free Write Analysis

### Free Write Analysis

## Day 1 (The Basics)

Nomen: \_\_\_\_\_ Date: \_\_\_\_\_

1. Total Number of Free Writes: \_\_\_\_\_
2. Word Count of each:
  - a. Story title: \_\_\_\_\_
  - b. Story title: \_\_\_\_\_
  - c. Story title: \_\_\_\_\_
3. Total number of words written: \_\_\_\_\_
4. Highest Word Count:
  - a. name of free write: \_\_\_\_\_
  - b. Number of words written: \_\_\_\_\_
5. Lowest Word Count:
  - a. name of free write: \_\_\_\_\_
  - b. Number of words written: \_\_\_\_\_
6. Which of your writings is your BEST? \_\_\_\_\_
  - a. Why is it your best? \_\_\_\_\_
7. Which of your writings is your WORST? \_\_\_\_\_

## Appendix B

### Free Write Analysis

a. Why is it your worst?

8. If you have 0 writings or only 1 write, why is that? This should be a full explanation that provides some knowledge about why you don't have the writing and why you didn't make it up.
-

## Appendix B

### Free Write Analysis

#### *Free Write Analysis*

Day 2 (Reflection)

*Today we are asking you to reflect on the progress you've made in Latin using your writings. **If you have no writings or only 1 writing, skip to # 5.** These reflections should be detailed. The more you tell me, the easier it is to give you the grade you ask for. Justify your work!*

1. Looking at your word counts, how have you improved? Were there any free writes where you could have written more? What happened? Are you noticing any patterns in your words?
  2. Looking at your sentences, what patterns do you notice? Are you using the same words over and over? Are your sentences all short or long? What variety do you see? Give an example or two.
  3. Looking at the details you use, what patterns do you notice? Does the amount of detail you use change from story to story? Are you writing more details now than before? Give an example or two.
-

