University of Mary Washington

Eagle Scholar

Student Research Submissions

Spring 5-3-2024

Enhancing Second Language Acquisition for University Students with Learning Disabilities: A Mixed-Methods Study

Nelson Leung

Follow this and additional works at: https://scholar.umw.edu/student_research



Commons

Part of the Disability and Equity in Education Commons, and the Language and Literacy Education

Recommended Citation

Leung, Nelson, "Enhancing Second Language Acquisition for University Students with Learning Disabilities: A Mixed-Methods Study" (2024). Student Research Submissions. 606. https://scholar.umw.edu/student_research/606

This Education 590 Project is brought to you for free and open access by Eagle Scholar. It has been accepted for inclusion in Student Research Submissions by an authorized administrator of Eagle Scholar. For more information, please contact archives@umw.edu.

Enhancing Second Language Acquisition for University Students with Learning Disabilities: A Mixed-Methods Study

Nelson Leung

The College of Education, University of Mary Washington

EDCI 590: Individual Research

Dr. Teresa Coffman

April 28, 2024

Abstract

Second language acquisition at the university level presents notable challenges, particularly for students with disabilities. Despite its significance, this area has remained underexplored in academic research. This study bridged this gap by investigating the specific challenges and effective strategies employed by students with disabilities in second language learning. Employing a mixed-methods approach, the research combined a cross-sectional survey with indepth interviews of students with disabilities taking world language courses. The focus was to identify specific obstacles and effective practices in this context, with the goal of offering concrete recommendations for more inclusive teaching methodologies and enhanced support mechanisms in university settings. This inquiry was grounded in relevant literature from the fields of special education, inclusive education, and language pedagogy. The study found that students with disabilities encounter significant cognitive, psychological, and instructional barriers in second language acquisition, which can be effectively reduced through personalized, technology-enhanced educational strategies and increased supportive measures within inclusive learning environments. The study contributes valuable insights into the tailored needs of students with disabilities and improves both their academic performance and overall well-being in second language learning environments.

Table of Contents

Introduction	5
Purpose of the Study	6
Problem Statement	6
Research Questions	6
Study Significance	7
Literature Review	7
Inclusive Practices & Pedagogical Strategies	9
Awareness & Social Intelligence in Language Learning	10
Adaptive Strategies & Assistive Technologies	10
Moving Forward	11
Methodology	12
Theoretical Foundations & Research Design	12
Quantitative Data Collection	12
Qualitative Data Collection	13
Rationale for Mixed-Methods	13
Participant Engagement & Selection	14
Analysis of the Quantitative Survey Data	15
Recommendations & Future Directions Based on Quantitative Survey Results	23
Transition to Qualitative Insights	24
Qualitative Conclusions & Implications for Pedagogic Practice	25

Recommendations & Future Directions Based on Qualitative Interview Results.	27
Discussion	27
Summary of Critical Findings	27
Integration with Literature Review	28
Implications of Findings	28
Addressing Limitations	28
Recommendations	29
Conclusion	29
References	30
Appendix A	35
Appendix B	37
Appendix C	42
Appendix D	44

Introduction

Studying second language acquisition at the university level, especially for students with disabilities, occupies a unique intersection within educational research. This investigation has provided new insights into the challenges and effective strategies employed by these students. Drawing from an extensive array of literature in special education, inclusive education, and language pedagogy, the study utilized a mixed-methods approach to thoroughly examine these elements. This research reflected the evolving nature of education for students with disabilities by integrating global perspectives and technological advancements as well as considering the emotional and social contexts of learning, thereby enhancing the academic experiences of these students.

Pokrivčáková et al.'s (2015) study uncovers the essence of the educational themes within the context of teaching second languages to students with disabilities, holding inclusive practices and educator competencies as the foundational components for the unwavering education of such a specific audience. Their findings indicate that students, particularly from marginalized communities, encounter various obstacles that are vital in adapting and acknowledging someone's cultural background. In the same manner, Ermolova et al. (2022) stress the global perspectives related to immersive digital environments, both of which reflect and respond to the rapidly changing educational needs of students with disabilities, primarily in terms of inclusive second language education. They argue for the integration of virtual reality for the purposes of replicating the real-life scenarios for individuals, which can significantly affect their academic experience in terms of overcoming both social and psychological barriers to language learning acquisition.

Purpose of the Study

This study explored the complex barriers to second language acquisition faced by university students with disabilities, focusing on academic, psychological, social, and technological challenges. It was based on the adaptable and culturally sensitive teaching methods outlined by Pokrivčáková et al. (2015) and the innovative technological approaches proposed by Ermolova et al. (2022). The research specifically aimed to implement inclusive policies and to uncover the learner narratives that highlight the emotional and psychological aspects affecting these students.

Problem Statement

University students with disabilities demonstrate a variety of difficulties in learning second languages and these can become the impeding factors that inhibit enrollment or progression in education as well as employment. As an outcome, being grounded on multiple educational, psychological, socio-economic and technological research works discussed in the literature review section, this research project unraveled reasons determining those challenges. By drawing together these diverse academic perspectives, this research study investigated the second language learning experiences among university students with disabilities to better understand the perceived barriers of language accusation. Additionally, this research project identifies strategies and resources students with disabilities find beneficial to their language learning process.

Research Questions

1. What barriers do university students with disabilities perceive as impacting their second language learning experiences?

- 2. How do students with disabilities describe their experiences and the effectiveness of the support they receive in second language education?
- 3. Which strategies or resources do students with disabilities at the university level identify as beneficial to their language learning process?

Study Significance

This mixed-methods study has illuminated significant obstacles in language learning for students with disabilities, ranging from psychological to technological barriers. By corroborating and extending the findings of Bedareva et al. (2020), this research emphasized the necessity of creating accommodating learning environments tailored to the needs of disabled students. The results also resonated with Crispel and Kasperski (2019) in demonstrating how specialized training for educators can enhance inclusive education. Furthermore, building on Kvasyuk (2020), this study shows the benefits of integrating professional competence in language instruction within inclusive educational settings. The findings underscore the importance of a comprehensive educational strategy that leverages both technological innovation and sensitive pedagogical approaches in order to empower students with disabilities in their language learning journeys.

Literature Review

The diversity among disabilities in these students severely influences the second language learning experience at the collegiate level. Dyslexia and auditory processing disorders are just two of the disabilities that could affect the way a student learns a new language, underscoring the need for tailored educational strategies. The study conducted by Thompson-Ebanks and Jarman (2017) reveals that only 11 percent of participants chose to disclose their disability and utilize Disability Support Services (DSS), despite 30 percent of the students

surveyed identifying with a psychological disability. This highlights a significant discrepancy in service utilization, emphasizing the need for greater support and awareness to encourage disclosure.

Access to support services is complicated by the low rate at which students disclose disabilities, an issue that Cole and Cawthon (2015) explore further by researching the emotional and social factors that affect their disclosure decisions. O'Shea & Meyer (2016) also note that when students feel comfortable discussing their disabilities with faculty members, they are more inclined to use disability services. This study underscores the important role of faculty members in enabling student disclosure and ensuring access to the services available for people with disabilities.

Navigating the educational journey of students with learning disabilities is a mix of challenges and opportunities. This literature review aimed to deeply investigate the experiences of these students, considering how their specific needs interact with traditional language teaching methodologies (Schwab et al., 2018). It evaluated the flexibility and effectiveness of present-day teaching methods by drawing on frameworks such as Vygotsky's sociocultural theory and Gardner's Multiple Intelligences theory to promote a more comprehensive view of effective teaching approaches.

This section also explored common obstacles that students with learning disabilities face during language acquisition, emphasizing the social impact, educational support systems, and instructional methods. By connecting these dialogues to the main research questions, the review aimed to guide and encourage the development of inclusive teaching methods and strengthen university support systems, thereby enriching the educational experience of all students.

Inclusive Practices & Pedagogical Strategies

Rose and Shevlin's (2019) research highlights how education is continually changing and offers a detailed portrayal of how schools are making great strides toward becoming more inclusive. While significant progress has been made, achieving fully inclusive education is a challenge due to the lingering presence of traditional special education practices, governmental policy focuses, and variable teacher preparedness. This review is consistent with broader changes in education focused on personalizing learning for individual students and on the integration of technology into the classroom. It reflects the transition from traditional special education to inclusive services and accommodations for all students.

The findings of Rose and Shevlin's (2019) research expose the intricacies of establishing an all-encompassing educational environment. Their study not only aligns itself with global tendencies that stress the equity present in the educational system, but it also provides a more extensive outlook on the subject. The literature review explores how issues at a micro level could capture the larger education shifts toward inclusion. This includes a discussion on the role of educational institution policies, the professional development of teachers, and the substantial shifts necessary to provide adequate resources for all students.

In examining the complexities of inclusive education in settings designed to serve individuals of various ages and capacities, Tiernan, Casserly, and Maguire (2020) spotlight the present trends in inclusive education: a shift towards student-centered, dynamic, adaptive teaching that adjusts to different learning elements. The approach elaborates to contemporary global attention to personalized, technologically-enhanced learning environments. The results show the evolving inclusionary educational approaches, from traditional to flexible, interactive and adaptable strategies, become more effectively supportive to all students, including those with

special educational needs.

The components of the Universal Design for Learning (UDL) connect to the principles discussed by Tiernan, Casserly, and Maguire (2020). They echo the beliefs that UDL represents, which are centered around creating educational environments accessible to all learners. With a focus on differentiated instruction and collective planning, the study resonates with UDL's emphasis to ensure that all students have equal opportunities to learn and succeed by providing multiple means of engagement, representation, and expression.

Awareness & Social Intelligence in Language Learning

As awareness of the impact of language on communication skills increases, there is a growing focus on the relationship between language learning and learning disabilities.

Karababa's (2011) research at Ankara University brought to significant attention the need for a more comprehensive approach to language education. Her work highlighted that students with disabilities require language awareness programs to help them communicate effectively in academic settings. The research influenced the design of tailored language courses for university students with learning disabilities. Similarly, Sorokovykh and Pribylova (2020) explored the advantages of foreign language education for students with, showing that foreign language education can help students improve socialization skills. This process, in turn, can boost students' overall academic performance.

Adaptive Strategies & Assistive Technologies

Assistive technology integration is significant in facilitating language-learning experience among students with learning disabilities. Pokrivčáková et al. (2015) addressed the issues of language acquisition in dyslexia and ADHD and suggested approaches such as phonics-based teaching and multisensory instruction. Koch (2017) stressed the significance of built-in assistive

technology features in mainstream devices including speech-to-text and text-to-speech functions, addressing the equity of educational opportunity. Harper et al. (2016) exemplified how technologies including Livescribe Pen help to personalize education to dyslexic students and promote general educational success.

Moving Forward

In conclusion, it is crucial to connect the knowledge gathered to the main research questions. These questions focused on understanding the challenges faced by students with learning disabilities in learning second languages at the university level. Researchers aimed to explain their learning experiences and identify effective support strategies that could enhance their language acquisition process. Inquiry revolved around unraveling how students with learning disabilities navigated the complexities of learning a language and determining the most beneficial teaching methods for their success in such environments.

Crispel and Kasperski (2019) underscore the importance of specialized teacher training programs, a focus that aligned with our aspiration to reveal effective educational strategies.

Indeed, equipping educators with inclusive and responsive language teaching skills for both students with learning disabilities and those without is paramount. Moreover, the exploration of the psycho-emotional aspects of education for students with learning disabilities by Nurgul et al. (2018) and Almukhambetova and Zhetysu State University (2020) shed light on the profound impact of emotional and social contexts on students' learning processes, advocating for a holistic approach that integrates emotional support with educational tactics.

Expanding our research scope, the studies conducted by Buli Holmberg et al. (2022) and Mezo et al. (2022) emphasized the importance of being adaptable and aware of contexts when it comes to inclusive education. These findings are crucial in developing strategies that cater to the

diverse needs of students with learning disabilities in second language education. Overall, this review of existing literature provided a foundation for this research project as it addressed the goals of improving and understanding how students with learning disabilities at the university level experience second language learning.

Methodology

Theoretical Foundations & Research Design

This research adopted a combination strategy to examine language learning experiences of university students with disabilities in comprehensive ways. Through utilizing both quantitative and qualitative research, the research was designed to reflect the complexity of the questions and to explore more dimensions of the phenomenon under investigation.

This study used a mixed-methods approach to thoroughly examine the unique obstacles faced by college students with disabilities in learning a second language, allowing for an indepth study of student experiences and outcomes in education (Manzano, 2016). This comprehensive approach involved the use of quantitative survey data collection and qualitative in-depth interviews, focusing on ethical concerns and the involvement of participants (West & Blom, 2016).

Quantitative Data Collection

The initial step of the study consisted of distributing a well-designed online survey to undergraduate students with disabilities. The survey was designed to provide an extensive overview of student experiences, challenges, and perceptions of learning a second language. The data collected through this survey served as the base from which broad patterns were ascertained, and preparation for subsequent qualitative research was completed.

Survey Data Collection

The process of collecting the survey data was executed with the utmost care, ensuring that all participants were well-informed of the voluntary nature of their contribution via an introductory letter (Appendix A) explaining the survey questionnaire's purpose and scope. The use of secure tools, such as Otter.ai, allowed for the transcription and analysis of collected data from the survey (Appendix B) to be conducted in a manner that preserved the privacy and authenticity of sensitive information.

Qualitative Data Collection

Building upon the quantitative findings, the study progressed to qualitative in-depth interviews. These interviews took place with a targeted selection of survey participants, who provided detailed and rich responses. The goal of this phase was to enhance the contextual understanding of the quantitative outcomes. By doing this, it offered subtle insights as to how the pedagogical and aiding mechanisms contributed in demoting the second language learning among students with disabilities.

Rationale for Mixed-Methods

The mixed-model design was selected primarily due to its ability to offer a unified and thorough depiction of the phenomenon being investigated in educational research, which is the learning difficulties of second language learners with disabilities in a higher education environment. The quantitative strand in the study served a twofold function: to collect the requisite representative data about the population trends and essential variables of second language learning difficulties of students with disabilities, and to generalize and validate the findings through a broader population.

In contrast, the qualitative strand helped explore deeply individual participants' stories,

experiences, and contributing factors to investigate the interplay between classroom scenarios, teaching competencies, responsive pedagogy and applicable educational environments which lead to inclusivity. The key role of pedagogical strategies and support arrangements in the classroom of students with learning disabilities, as highlighted by Bedareva et al. (2020), as well as the criticality of instructor competence in the construct of inclusive classrooms (Kvasyuk, 2020).

The employment of a mixed-methods design permitted this study to embody the characteristics of adaptable educational environments and illuminate the centrality of instructor competence in fostering learning environments in which learners with disabilities have equitable opportunities. Methodological choices were informed by a desire to understand both the range and depth of educational supports and challenges, capturing both quantitative data and qualitative insights.

Participant Engagement & Selection

Drawing on the ethical guidelines suggested by Manzano (2016), this study underscored the significance of informed consent, guarding the confidentiality and privacy of participants, and protecting the data throughout the research process. Following the ethical principle adherence, a varied sample of participants was confirmed through the non-targeted and inclusive recruitment strategy by the use of digital and physical outreach methods in order to ensure audience variance and representativeness.

Careful selection of participants ensured equal demographic representation and avoided interviewer bias. Participant selection strategies consisted of digital bulletin board posts, letters of introduction, university newsletter postings, and targeted emails that were disseminated to students over the period of three weeks seeking their participation in the survey. These selection

strategies align with the interview protocol refinement framework described by Castillo-Montoya (2016), ensuring that the selection process was sensitive to the complexity of the research questions and consistent across all participants.

Twenty-six students responded to the request for study participants, identifying themselves as having learning disabilities, and agreed to complete the survey questionnaire. Of these students, four provided e-mail follow-up information to be contacted for an interview. Four interviews were scheduled, and two of these four students completed the qualitative interview portion of the study.

Analysis of the Quantitative Survey Data

The data analysis was based on a combination of quantitative methods to evaluate the questionnaire answers and thematic analysis of the interview material, as recommended by Revilla and Höhne (2020). This comprehensive approach allowed for a varied understanding of the data, identification of trends, and deep insight into the experiences of individual participants. By combining these methods, the study strived to create a coherent narrative that mirrors the complexity of the second-language acquisition process for students with learning disabilities. In the following stages of the complete analysis, the demographic distribution of the participants is first examined. The point of this initial step is to set a clear stage for a later discussion of the questionnaire results.

Demographic Background

The investigation of the research findings began with an analysis of the age distribution (See Figure 1), gender of the respondents (See Figure 2), ethnicity (See Figure 3), and major distributions of the respondents (See Figure 4). The distributions of these demographic markers

from the 26 respondents who participated in the survey provided essential contexts that illuminated the challenges and strategies discussed later.

Figure 1Age Distribution of Survey Participants

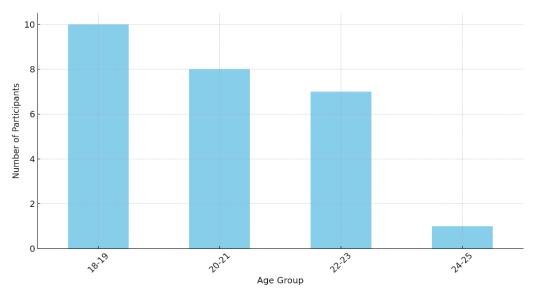
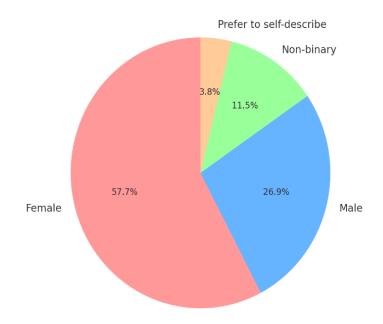
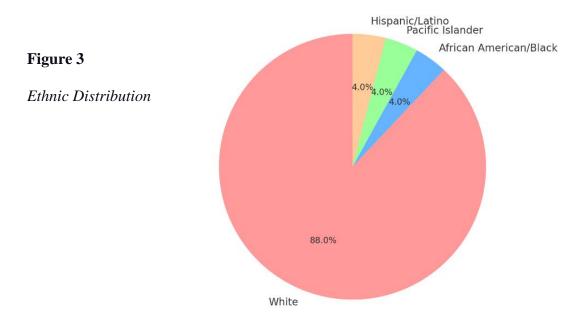
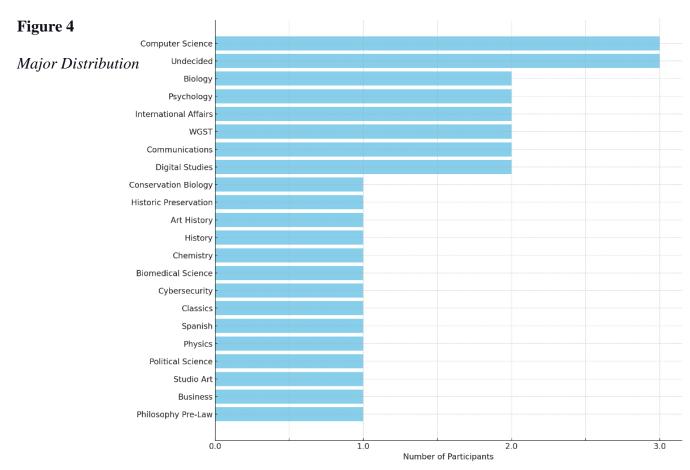


Figure 2Gender Distribution







Primary results indicated a majority of students fell within a traditional university-aged range (18-21 years). This may indicate an early college enthusiasm for language acquisition. Nonetheless, minority participation amongst older age groups could possibly represent inadequate insight upon the exceptions and hardships that non-traditional learners face. This finding corresponded with Rose and Shevlin's (2019) universal demand of equal educational accessibility. The gender analysis showed female students as the majority (57.7%); this suggests that female students complete academic surveys more frequently than males. Multiple majors expressed a general academic interest in linguistic proficiency. This finding aligned with Buli-Holmberg et al.'s (2022) recommendation that diverse educational needs be addressed in pedagogical guidance.

Implications of Demographic Insights.

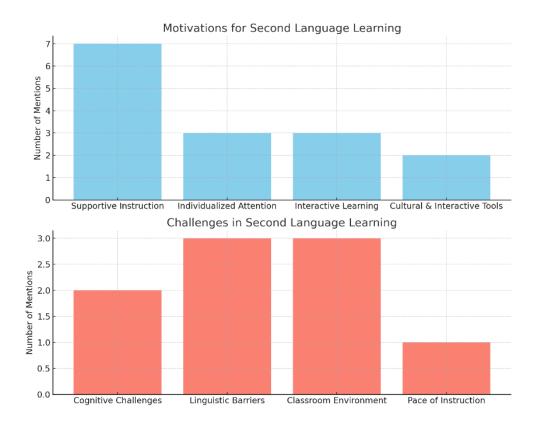
This analysis of demographic information provided a framework through which the broader issues of inclusivity and diversity in education can be viewed. The over- and under-representation of different demographics is crucial in informing subsequent research which will include a more inclusive set of participants. This adjustment could provide a better understanding of the second language learning challenges faced by university students with disabilities. These insights formed a basis from which the motivations and challenges particular to participants in their language learning initiatives could be identified, directly in alignment with the central research questions for this study.

Motivations and Challenges in Second Language Learning

Figure 5 portrays the survey that recognized significant motivators for university students with disabilities in learning their second language, with supportive instruction as the first motivator. This indicates the need for empathetic and flexible teaching strategies, which is in

accordance with Kvasyuk (2020) who advocates for individualistic teaching methods that meet different learning paces and styles. In addition, Rose and Shevlin (2019) validate the influence of personalized assistance and guidance in language learning. This highlights the fact that individual attention and one-on-one instruction do have effects in enhancing students' language learning experience.

Figure 5 *Motivations and Challenges*



Key Challenges Faced by Students.

Several challenges were also reported by students, as illustrated in Figure 5. Cognitive and linguistic disadvantages dominated, thus promoting the employment of multisensory and phonics-based pedagogies, which may be particularly favorable environments for students with disabilities such as dyslexia and ADHD (Pokrivčáková et al., 2015). Additionally, a flexible

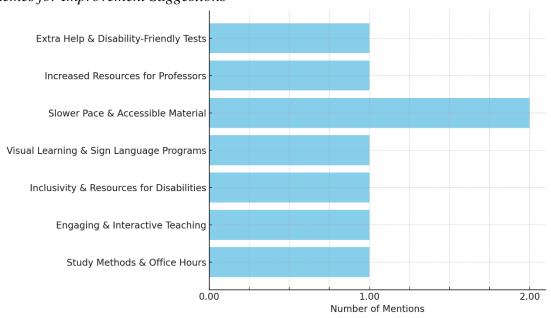
learning environment and an adaptable curriculum pace are essential to cover students' wide range of learning styles (Buli-Holmberg et al., 2022). These challenges reflect the broader issues identified in the research questions concerning the barriers to language learning among students with disabilities.

Suggestions for Improvement in Second Language Education

In response to these challenges, participants offered several suggestions for educational adjustments that would enhance the learner's capacities. These suggestions, as illustrated in Figure 6, highlight the necessity of providing an inclusive and supportive learning environment (Lazar, 2014). The use of engaging and interactive techniques, possibly augmented by virtual reality technologies, were recommended as a possibility of enhancing comprehension and learner engagement (Ermolova et al., 2022). Additionally, the inclusion of visual aids and sign language is considered multimodal instructional and an assistive technology (Fteiha, 2016). The request for a more relaxed pace of instruction and easily accessible materials revealed a long-standing need to adjust instructional methods and materials to support students with disabilities more effectively (Cole & Cawthon, 2015; Harper et al., 2016).

Themes for Improvement Suggestions

Figure 6



Theme Take-aways.

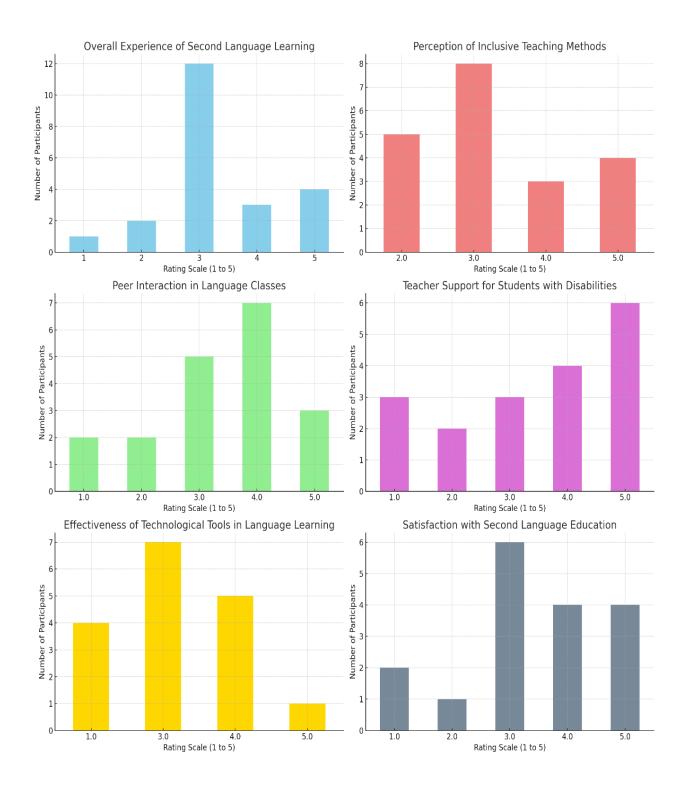
The analysis clearly implied both the motivational factors and obstacles of the students with disabilities in second language acquisition by directly addressing the research questions. It is evident that various flexible educational strategies should be utilized in response to different students' needs. The suggested practices indicate potential policy and practice changes that could promote a more inclusive second language acquisition environment. This holistic approach has covered the initial research questions and set the stage for further investigations to better the educational accessibility and effectiveness.

Engaging the Academic and Social Realms

A comprehensive examination, which is visually supported by Figure 7, explores the intrinsic motivations and support systems of disabled students in their academic and social environment at university. This subsection examined the combined roles of students' self-motives and varied support system in shaping their academic experiences, underlining the importance of pedagogical approaches that meet students' diverse needs (Kvasyuk 2020).

Figure 7

Participant Responses on Various Aspects of Second Language Learning



Student Satisfaction and Support Perceptions.

Results from the survey revealed a broad range of student satisfaction, indicating generally positive experiences across academics and extra-curricular activities. The strong positive correlation is consistent with the support offered by the academic setting, which significantly amplifies both in and out-of-class experiences (Rose & Shevlin, 2019). The data also revealed the perception of inclusivity by faculty varies significantly, emphasizing the necessity of a wider variety of teaching methods created specifically for the challenges that students with disabilities usually encounter (Schwab et al., 2018).

Recommendations & Future Directions Based on Quantitative Survey Results

Based on the aforementioned survey results, pedagogical approaches that utilize a holistic standpoint and aim to address both cognitive and situational issues best support students with disabilities. Future educational innovations should focus on personalization, comprehensive support, and a thorough utilization of technology to build an inclusive, yet still academically challenging, learning environment. These strategies will not only accommodate a majority of students, but also enhance the knowledge and experiences of all students. In turn, this will foster an educational environment in which fewer will be left behind (Pokrivčáková et al., 2015; Kuutti et al., 2021).

The importance of peer networks in improving the educational outcomes of students with disabilities is further emphasized by the quantitative survey results. This indicates that it is crucial to incorporate peer support systems into educational practices to increase the likelihood of students' success. In addition, the positive evaluations of technology tools used for language learning suggest that pedagogical approaches should be developed to bridge the digital

competence gap and allow greater accessibility and engagement for individuals requiring further support (Harper, et al., 2016).

The quantitative portion of this study effectively uncovered the dynamic interaction between student motivation, support mechanisms, and technology utilization. The results of the survey questionnaire demonstrated how these elements jointly influence language learning outcomes among individuals with disabilities. These three factors together establish a fluid educational environment in which personalization and digital tools serve as key elements in promoting higher academic achievement.

Transition to Qualitative Insights

As the study moved into its qualitative phase, the purpose was to deepen understanding by investigating the personal stories and detailed perspectives of the survey participants to explain these interconnected dynamics more accurately. Participants who completed the survey were invited to participate in a follow-up interview (Appendix D). Four participants responded, but only two participated in the actual interview. Each participant completed an Informed Consent form (Appendix C).

Exploring Personal Motivations in Language Learning

In addition to synthesizing survey data, a variety of personal motivations were cited by the two students during their respective interviews as explanations for the pursuit of second language acquisition at the university level. They reported motivations that were unrelated to academics and indicated a deep personal connection with the language that extended into cultural curiosity or a personal agenda. For example, the interviewees expressed a deep personal motivation for the pursuit of learning Japanese specifically due to cultural attractions, ranging from nationally shared popular media to historical art forms. The intensity of this cultural

engagement underlines the importance of pedagogic strategies that align with personal interests in order to motivate and engage students, as the framework suggested by Rose and Shevlin (2019) posits. These strategies should facilitate a connection between personal experiences and academic purpose in order to enrich education and possibly boost language acquisition outcomes.

Navigating the Complexities of Motivation.

The complexities of motivation in language learning are particularly acute for students with disabilities, as they also have to confront the additional obstacles that arise in their engagement. For instance, although personal interest in a particular culture as a source of motivation is vital, this interest has to be nurtured by an educational environment that acknowledges and integrates students' interests into the curriculum. Not only does this way of approaching language education meet the needs for motivation of students with disabilities, but it also addresses engagement barriers. An example of this is a feeling of disconnection that students with disabilities may have regarding the pre-established academic goals of language programs. Effective integration of personal interests with academic curricula in a classroom has a significant motivational impact on the quality of language programs, and should be offered in order to cater to our diverse student population and to foster an encouraging learning environment that facilitates successful language acquisition.

Qualitative Conclusions & Implications for Pedagogic Practice

This qualitative examination of personal motivations in language learning highlights the importance of educational practices that take into account the individual interests and cultural engagements of students. Through the integration of personal desires and formal language education objectives, educators can create more dynamic and effective learning environments.

This not only addresses specific challenges for students with disabilities, but also provides benefits more generally to the educational experience of language learning, leading to better academic outcomes.

Addressing Learning Disabilities in Language Acquisition

Learning disabilities create unique challenges in learning a second language in terms of cognitive, social, and instructional elements. In terms of cognitive barriers, learners with Learning Disabilities coped with maintenance of attention as well as retention of vocabulary. An interviewee claimed her ADHD did not minimize her motivation to learn, but it did undermine her completion of tasks involving concentration and memory. Additionally, another interviewee stated that they benefit from websites and applications that are particularly visualized to assist vocabulary learning and retention.

Effective Strategies and Accommodations

These results demonstrated a range of effectiveness in terms of support and accommodation strategies. It is clear that a broad spectrum of methods are required to maximize the potential of all students. While specific students benefited greatly from the implementation of assistive technologies and medications, others require a more tailored approach, sometimes encompassing comprehensive teaching methods and additional one on one support. Educational gaming tools, visual aids, and memory-enhancing intervention strategies were often used. Additionally, pace adjustments of construction and promoting interactive study groups were crucial to build a range of learning environments in responsive to the diverse needs of students with disability.

Recommendations & Future Directions Based on Qualitative Interview Results

This exploration into the motivational and educational dimensions of learning disabilities has revealed an array of student experiences and adaptive procedures. Furthermore, it underscores the urgency for educators to implement inclusive instructional models which not only acknowledges but also provides support for the diverse learning disabilities these students encounter. When personal motivation is merged with learner-centered tactics and a supportive environment, language acquisition outcomes for students with disabilities can become greatly improved.

This approach creates a more engaging and empowering educational experience and acts as a prologue to a receptive and globally inclusive syllabus in second language education.

Allowing students to share their own wealth of experiences in an educational setting is vital for educators to specifically tailor their pedagogical methods and create an effective and accessible language-learning experience for all students.

Discussion

Summary of Critical Findings

Central to the research findings were the principal obstacles influencing second language acquisition of students with disabilities. In particular, cognitive obstacles and language barriers were significant, thus revalidating the importance of multisensory and phonics-based approaches (Pokrivčáková et al., 2015). These strategies were particularly important for students with specific learning disabilities such as ADHD and dyslexia. Additionally, the research provides invaluable insights into the efficacy of existing support services, underscoring the importance of tailor-made teaching approaches and employment of assistive technologies, both of which learners view as highly beneficial.

Integration with Literature Review

The findings of this study both supported and deviated from the existing literature in enlightening ways. The importance of personalized learning strategies was emphasized by Rose and Shevlin (2019) and echoed by the participants; however, in the implementation of such strategies, crucial gaps have arisen especially when considering the use of technologies such as Livescribe Pen's (Harper et al., 2016) which is at times used inconsistently within educational settings. This gap illustrates the practical deficit in regards to the theory of inclusive education and the its actual implementation as observed in studies like those by Buli-Holmberg et al. (2022).

Implications of Findings

This study highlights the profound urgency of educational reforms that inclusively meet the diverse learning needs of students, particularly those with learning disabilities. The practical advantages observed from personalized learning materials and assistive technologies urge a shift toward a more inclusive, technologically enhanced pedagogical approach. While in theory this analysis also contributes to the understanding of educational diversity, emphasizing the demand for responsive curriculum in respect of the whole spectrum of learning needs.

Addressing Limitations

It is important to note the limitations of this study, including the sample size and methodology, which prevent these findings from being generalized widely. The potential for respondents to be biased in favor of their own strategies' effectiveness further emphasizes the need to interpret these findings judiciously. Understanding these limitations is critical to planning future research and interpreting these results with appropriate caution.

Recommendations

Based on the findings, the following recommendations are proposed:

- 1. Further Research It is recommended that longitudinal studies be conducted to examine the long-term effects of individualized and technology-assisted learning strategies on students with learning disabilities in acquiring a second language.
- Policy Changes Institutions should reform second language learning education policies
 by combining modern technology and individual support devices, catering to the needs of
 the students with disabilities.
- 3. Classroom Applications Formation training programs intended for educators, aiming to enhance their expertise in the scope of assistive technologies and the methodology of personalized education that is designed to greatly enhance the learning experiences of students with disabilities.

Conclusion

In summary, this mixed methods study yielded meaningful findings regarding barriers and opportunities in second-language learning for students with disabilities with empirical and theoretical foundations. Results support the implementation of an inclusive educational environment acknowledging and providing meaningful supports for diverse learners. Intentional policy and classroom shifts offer learners real opportunities for successful second language acquisition experiences. In conclusion, the study highlights that accessibility should be more than an ideal; it should be realized and utilized throughout the landscape of the educational field.

References

- Almukhambetova, B. Z., & Zhetysu State University named after I.Zhansugurov, Taldykorgan, Kazakhstan. (2020). Social environment factors influencing the emotional state of students with special educational needs. *BULLETIN Series Psychology*, 64(3), 32–36. https://doi.org/10.51889/2020-3.1728-7847.06
- Bedareva, A. V., Astapenko, E. V., Vinogradova, A. I., & Faida, V. V. (2020). Designing the educational environment of students with disabilities when teaching foreign language.

 *Proceedings of the International Scientific Conference "Digitalization of Education:

 History, Trends and Prospects" (DETP 2020). https://doi.org/10.2991/assehr.k.200509.102
- Buli-Holmberg, J., Sigstad, H., Morken, I., & Hjörne, E. (2022). From the idea of inclusion into practice in the Nordic countries: a qualitative literature review. *European Journal of Special Needs Education*, 38(1), 79–94. https://doi.org/10.1080/08856257.2022.2031095
- Castillo-Montoya, M. (2016). Preparing for interview research: The interview protocol refinement framework. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2016.2337
- Cole, E. V., & Cawthon, S. W. (2015). Self-disclosure decisions of university students with learning disabilities. *Journal of Postsecondary Education and Disability*, 28(2), 163–179.
- Crispel, O., & Kasperski, R. (2019). The impact of teacher training in special education on the implementation of inclusion in mainstream classrooms. *International Journal of Inclusive Education*, 25(8), 1079-1090. https://doi.org/10.1080/13603116.2019.1600590

- Ermolova, T. V., Savitskaya, N. V., Dedova, O. V., & Guzova, A. V. (2022). Study of the possibilities of applying immersive experience of learning a foreign (English) language in the virtual reality worlds of children with disabilities. *Science for Education Today*, *12*(4), 183–202. https://doi.org/10.15293/2658-6762.2204.09
- Fteiha, M. A. (2016). Effectiveness of assistive technology in enhancing language skills for children with autism. *International Journal of Developmental Disabilities*, 63(1), 36–44. https://doi.org/10.1080/20473869.2015.1136129
- Harper, K. A., Kurtzworth-Keen, K., & Marable, M. A. (2016). Assistive technology for students with learning disabilities: A glimpse of the Livescribe pen and its impact on homework completion. *Education and Information Technologies*, 22(5), 2471–2483.
 https://doi.org/10.1007/s10639-016-9555-0
- Karababa, Z. C. (2011). University students' awareness of the Turkish language, Foreign

 Language Learning and foreign language use. *Procedia Social and Behavioral Sciences*,

 15, 2881–2886. https://doi.org/10.1016/j.sbspro.2011.04.207
- Koch, K. (2017). Stay in the box! embedded assistive technology improves access for students with disabilities. *Education Sciences*, 7(4), 82. https://doi.org/10.3390/educsci7040082
- Kuutti, T., Sajaniemi, N., Björn, P., Heiskanen, N., & Reunamo, J. (2021). Participation, involvement and peer relationships in children with special educational needs in early childhood education. *European Journal of Special Needs Education*, 37(4), 587-602.
 https://doi.org/10.1080/08856257.2021.1920214

- Kvasyuk, E. N. (2020). Development of professional competence of future foreign language teachers in inclusive education through profession-based volunteering. *SHS Web of Conferences*, 87, 00027. https://doi.org/10.1051/shsconf/20208700027
- Lazar, C. (2014). Integration of children with SEN in the early education vision. *Journal Plus Education*. https://www.uav.ro/jour/index.php/jpe/article/view/277
- Manzano, A. (2016). The craft of interviewing in realist evaluation. *Evaluation*, 22(3), 342–360. https://doi.org/10.1177/1356389016638615
- Mezo, A. M., Almăjan-Guță, B., & Petracovschi, S. (2022). The social matter of including pupils with special educational needs in physical education classes. *Studia Universitatis Babeş-Bolyai Educatio Artis Gymnasticae*. https://doi.org/10.24193/subbeag.67(2).16
- Nurgul, T., Almukhambetova, B., Madaliyeva, Z., Nazirash, Z., Orazbekovna, B. L., & Bakytkyzy, T. N. (2018). Psycho-emotional state of students with special educational learning needs. *Journal of Intellectual Disability Diagnosis and Treatment*, 6(4), 143–148. https://doi.org/10.6000/2292-2598.2018.06.04.2
- O'Shea, A., & Meyer, R. H. (2016). A qualitative investigation of the motivation of college students with nonvisible disabilities to utilize disability services. *Journal of Diversity in Higher Education*, 9(1), 50–64.
- Pokrivčáková, S., Kucharcíková, A., Miháliková, M., Škrabánková, J., & Trnová, E. (2015).

 Teaching foreign languages to learners with special educational needs. Constantine the Philosopher University in Nitra. 1

- Revilla, M., & Höhne, J. K. (2020). How long do respondents think online surveys should be? new evidence from two online panels in Germany. *International Journal of Market Research*, 62(5), 538–545. https://doi.org/10.1177/1470785320943049
- Rose, R., & Shevlin, M. (2019). Support provision for students with special educational needs in irish primary schools. *Journal of Research in Special Educational Needs*, 20(1), 51–63. https://doi.org/10.1111/1471-3802.12465
- Schwab, S., Nel, M., & Hellmich, F. (2018). Social participation of students with special educational needs. *European Journal of Special Needs Education*, *33*(2), 163-165. https://doi.org/10.1080/08856257.2018.1424784
- Sorokovykh, G., & Pribylova, N. G. (2020). Developing social intelligence among schoolchildren with special educational needs at Foreign Language Lessons. *Pedagogy*.

 *Issues of Theory and Practice, 5(1), 46–50. https://doi.org/10.30853/pedagogy.2020.1.8
- Thompson-Ebanks, V., & Jarman, M. (2017). Characteristics of undergraduate students with disabilities: Disability disclosure and academic persistence. *Advances in Social Sciences Research Journal*, 4(1). https://doi.org/10.14738/assrj.41.2636
- Tiernan, B., Casserly, A. M., & Maguire, G. (2020). Towards inclusive education: instructional practices to meet the needs of pupils with special educational needs in multi-grade settings.

 International Journal of Inclusive Education, 24(7), 787-807.

 https://doi.org/10.1080/13603116.2018.1483438

West, B. T., & Blom, A. G. (2016). Explaining interviewer effects: A research synthesis. *Journal of Survey Statistics and Methodology*. https://doi.org/10.1093/jssam/smw024

Appendix A

To Be Used with Online Survey

ADULT RESEARCH PARTICIPANT INFORMED CONSENT FORM (Digital)

Brief Description

This research aims to understand the experiences of university students with disabilities or learning differences as they relate to learning second languages. Participants will complete an online survey, taking approximately 20 minutes of your time. The survey will explore aspects of your language learning journey, challenges faced, and the effectiveness of support received. There are minimal risks involved, primarily relating to the reflection on personal experiences. No direct benefits are guaranteed, but your participation will contribute to a better understanding of second language education for students with disabilities or learning differences. Please read the remainder of this form before deciding if you want to volunteer to be in this research study.

My name is Nelson Leung, and I am currently a Master's Program student majoring in Special Education: General Curriculum at UMW. In addition, I serve as a Language Coordinator in the World Language Department. I am conducting this research to enhance understanding of the experiences of university students with disabilities or learning differences in second language learning. Your participation in this study is entirely voluntary, and I encourage you to ask any questions you may have about the research. I am committed to providing detailed information to ensure you are fully informed about your involvement in this study.

Details of Participant Involvement

If you agree to participate, you will be asked to complete an online survey. The questions will focus on your experiences, challenges, and perceptions related to second language learning as a university student with disabilities or learning differences. After completing the survey, you may choose to participate in a follow-up in-person interview, which will allow for a deeper exploration of your language learning experiences. This additional step is entirely voluntary, and you will have the option to opt in after completing the survey.

Privacy and Confidentiality

Your responses will be kept confidential. A pseudonym will be assigned to your data, and only the researcher will know which responses belong to which participant. All data will be securely stored and destroyed after the study is completed not to exceed three years after the completion of the study.

Risks and Benefits of Participation

Participation in this study poses minimal risk, similar to those encountered in daily life. Any potential discomfort from discussing personal educational experiences will be minimized through the assurance of confidentiality and the sensitive handling of information. The primary contribution of this research is to the field of education for students with disabilities or learning differences at the university level, specifically in the context of second language learning. While direct benefits to participants may not be immediate, your valuable insights will help in advancing our understanding of the unique challenges and

adaptive strategies employed by students with disabilities or learning differences in university second language courses. The findings from this study are expected to be instrumental in developing more inclusive and effective teaching practices, thereby potentially benefiting future university students with disabilities or learning differences in their pursuit of second language education.

Participant Rights

You have the right to ask questions at any stage of the study. Participation is voluntary, with no penalties for opting out. If you decide to participate and later wish to withdraw, you can do so without any consequences. This research has been approved by the University of Mary Washington Institutional Review Board, a committee responsible for ensuring that the safety and rights of research participants are protected. For information about your rights as a research participant, contact the IRB chair, Dr. Rosalyn Cooperman (rcooperm@umw.edu).

Contact Information

For more details about the research, please contact me (nleung@mail.umw.edu) or my supervisor Dr. Teresa Coffman (tcoffman@umw.edu). To report any issues during or after participation, please contact my university supervisor Dr. Teresa Coffman (tcoffman@umw.edu).

Before agreeing to be in this research, please ask me any questions you have about participation in this study.

To be Completed by Participant

study, and agree to participate. You certify that you are at least 18 years of age. Participation is voluntary and you can withdraw at any time without penalty.
□ I Agree
Additionally, if at any point you decide not to participate in this study, please select the option below. Choosing this option will end the survey immediately, and no information will be collected from you.
☐ I do not wish to participate in this study

Appendix B

Online Survey

Demographic Information		
Age:		
18-19		
20-21		
22-23		
24-25		
25+		
Gender:		
Female		
Male		
Non-binary		
Prefer to self-describe		
Other		
Prefer not to say		
Ethnicity/Race: (check all that apply):		
African American/Black		
Asian		
Hispanic/Latino		
Native American/Alaskan Native		
White		
Pacific Islander		
Prefer to self-describe:		
Prefer not to say		
Major/Area of Study:		
Year of Study:		
Freshman		
Sophomore		
Junior		
Senior		

Survey Questions	
 Do you identify as having disabilities or learning differences? ☐ Yes ☐ No 	
 If yes, please specify the nature of your disabilities or learning differences 	
■ If no, thank you for your time. You will be exited from the survey.	
Have you registered with Disability Services?	
□ Yes □ No	
Second language Learning Experiences	
2. Please list any second languages you have studied before UMW, including in high school or other settings:	
3. What second languages are you currently learning or have learned at UMW?	
4. Are you currently receiving any accommodations or supports for your language learning. ☐ Yes ☐ No. If yes, please describe:	
5. Rate your overall experience of learning second languages at UMW.	
□ 1 - Very Poor	
□ 3 - Neutral	
☐ 4 ☐ 5 – Excellent	
6. What factors have positively influenced your second language learning experience? (Please specify)	

7.	What factors have negatively influenced your second language learning experience? (Please specify)
Chall	enges in Language Learning
8.	Have you faced any challenges in learning second languages? (Please describe)
9.	What types of accommodations or support do you feel would help overcome these challenges?
Perce	ption of Inclusive Practices
10	How inclusive do you find the second language teaching methods at UMW for students with disabilities or learning differences, particularly in relation to classroom instruction? Consider aspects such as traditional lectures, interactive activities, use of technology, and differentiated instruction.
	□ 1 - Not Inclusive
	\square 2
	\square 3 – Neutral
	\Box 4
	☐ 5 - Highly Inclusive
11	. Can you provide specific examples or experiences that have shaped your opinion?
Socia	Dynamics and Peer Interaction
1	2. Describe your interaction with peers in second language classes.
	□ 1 - Very Limited
	□ 2
	\square 3 – Neutral
	□ 4
	☐ 5 - Highly Interactive
13	. How do you think peer relationships impact your second language learning? (Please explain)

Teach	er Preparedness and Support
14.	How equipped do you feel your language teachers are in addressing the needs of students with disabilities or learning differences?
	□ 1 - Not Equipped
	\square 3 – Neutral
	□ 4
	□ 5 - Highly Equipped
15.	What specific training, skills, or competencies do you believe language teachers should possess to better support students with disabilities or learning differences?
Use of	Technology in Learning
16.	Have you used any technological tools (like language learning apps, virtual reality, etc.) in learning second languages?
	□ Yes
	□ No
17.	How effective have these tools been in your language learning process?
	□ 1 - Not Effective
	\square 2
	\square 3 – Neutral

Overall Satisfaction and Suggestions

□ 5 - Highly Effective

 \Box 4

19. Overall, how satisfied are you with the second language education you've received in relation to your disabilities or learning differences?

18. Please describe any specific experiences with these technological tools.

	☐ 1 - Very Dissatisfied
	\square 2
	\square 3 – Neutral
	\square 4
	□ 5 - Very Satisfied
20.	What suggestions do you have for improving second language education for students with disabilities or learning differences at UMW?
	you be interested in participating in a follow-up interview to discuss your experiences in etail? \square Yes \square No
•	please provide your email address below for contact purposes. Your information will be onfidential and used solely for the purpose of scheduling the interview.
Email:	

Appendix C

To Be Used with In-person Interview

ADULT RESEARCH PARTICIPANT INFORMED CONSENT FORM

Brief Description

This research aims to understand the experiences of university students with disabilities or learning differences as they relate to learning second languages. Participants selected for this second phase of the study will participate in an interview, which will take approximately 30 minutes. The interview will explore aspects of your language learning journey, challenges faced, and the support received. The risks involved are minimal, primarily relating to the reflection on personal experiences. There are no direct benefits, but your participation will contribute to the continued work to create inclusive practices at the university for second language education for students with disabilities or learning differences. **Please read the remainder of this form before deciding if you want to volunteer to be in this research study.**

My name is Nelson Leung, a Master's student in Special Education: General Curriculum and a Language Coordinator in the World Language Department at UMW. I invite you to participate in this interview to share your valuable insights which are crucial for this research. Your involvement is voluntary, and I encourage any questions about the research.

Details of Participant Involvement

If you consent to participate in the interview portion of this research study, you will be asked to engage in a one-on-one interview, where you will provide responses about your experiences in second language learning at the university level and the challenges and supports that you have experienced during your study. The interview will be audio-recorded for accuracy, subject to your consent.

Privacy and Confidentiality

All personal information and responses will be kept confidential. Data will be anonymized and securely stored, accessible only to the researcher. Identifiable information will be removed, and the data will be securely destroyed three years after the completion of the study.

Risks and Benefits of Participation

The primary risk is the potential discomfort of discussing personal learning experiences. These risks will be minimized by ensuring a respectful and supportive interview environment. You can stop the interview at any point if you feel uncomfortable. There are no direct benefits to you, but your participation will aid in enhancing second language education for students with disabilities or learning differences at the university.

Participant Rights

Participation is entirely voluntary. You have the right to withdraw at any point without any consequences. There will be no negative effects on your academic or professional status if you choose not to participate or withdraw from the study. This research has been approved by the University of Mary Washington

Institutional Review Board, a committee responsible for ensuring that the safety and rights of research participants are protected. For information about your rights as a research participant, contact the IRB chair, Dr. Rosalyn Cooperman (rcooperm@umw.edu).

Contact Information

For more details about the research, please contact me (nleung@mail.umw.edu) or my supervisor Dr. Teresa Coffman (tcoffman@umw.edu). To report any issues during or after participation, please contact my university supervisor Dr. Teresa Coffman (tcoffman@umw.edu).

Before signing this form, please ask me any questions you have about participation in this study.

To be Completed by Participant

I have read all of the information on this form, and all of my questions and concerns about the research described above have been addressed. I choose, voluntarily, to participate in this research project. I certify that I am at least 18 years of age.			
Print name of participant			
Signature of participant	Date		
I understand that my participation in this research I agree to be recorded I do not agree to be recorded.	may involve audio recording of me and/or my work:		
Signature of participant	Date		
	en given an opportunity to ask questions about the nt have been answered to the best of my knowledge and vided to the participant, and I will keep the original for		
Print name of investigator			
Signature of investigator	Date		

Appendix D

Interview Questions

1. Introduction and Background

Icebreaker

• Can you share a brief overview of your academic background and what led you to pursue second language learning at the university?

2. Motivations for Language Choice:

• What motivated you to choose the second language(s) you are studying?

3. Experiences with Second language Learning:

How have your experiences in the UMW world language college classroom differed from any previous language learning experiences you might have had?

4. Challenges in Language Learning:

• Have you faced specific challenges in learning a second language at UMW? If so, are these challenges consistent over time or are they new?

5. Challenges and Barriers:

- What specific challenges have you faced in learning second languages due to your disabilities or learning differences?
- How have these challenges affected your motivation and ability to learn second languages?

6. Support and Accommodations:

- What types of support or accommodations have you received, and how effective have they been?
- Are there additional supports or resources you wish were available to you?

7. Inclusive Teaching Practices:

- How inclusive do you find the teaching methods used in your second language classes?
- Can you give examples of teaching practices that you found particularly helpful or unhelpful?

8. Social Dynamics in the Classroom:

- How would you describe your interaction with peers in your language classes?
- What role do you think peer relationships play in your language learning process?

9. Technological Tools and Resources:

• Have you used any technological tools or resources in your language learning? If so, what were they and what has been your experience with them?

10. Suggestions for Improvement:

- Based on your experiences, what suggestions do you have for improving second language education for students with disabilities or learning differences in higher education?
- Do you have any suggestions for changes that you would like to see in the curriculum, teaching methods, or support services at UMW as it relates to second language learning?

11. Personal Insights and Reflections:

- Is there anything else about your experience as a student with disabilities or learning differences in second language learning that you would like to share
- 12. **Post-Interview Check-In:** At the conclusion of the interview, a check-in will occur to discuss your experience, allowing you to voice any concerns or discomfort you may have had. This also serves as an opportunity to debrief and reassure you about the confidentiality of your responses. The following questions will guide this process, ensuring a comprehensive approach to your well-being:
 - How are you feeling after our discussion?
 - Was there any question or part of our conversation that made you uncomfortable?
 - Is there anything you wish to clarify or add to any of your responses?
 - Do you have any concerns about how this information will be used or your confidentiality?
 - Is there any support or resources I can provide you with after this interview?