Center *for* Language Science

PennState
College of the Liberal Arts

BILINGUALISM MATTERS at PENN STATE

Newsletter

Summer/Fall 2022

Inside This Issue:

Letter from the Editors

Dear Friends,

We are thrilled to present the summer/fall 2022 issue of our Center for Language Science/Bilingualism Matters at Penn State newsletter. In this issue, we explore what the research has revealed about the relationship between language learning and intellectual disability. It is likely that you know someone who has been diagnosed with intellectual disability. This person may even be you, and if so, we particularly welcome your input and feedback on this issue! One of our main goals with this issue is to debunk the common myth that children and adults who have been diagnosed with intellectual disability cannot become multilingual. In our main research summary, we discuss just how important it is to provide equal opportunities for people with intellectual disabilities to learn other languages and become multilingual. This conclusion is supported with lots of research in our myth-busting piece on intellectual disability and language learning. And in our featured partner interview, you'll have the chance to meet Penn State faculty member Dr. Wendy Coduti, and learn about ways that students with intellectual disabilities are engaged in language and other types of learning on campus. As always, we welcome your questions, comments, and ideas, and we wish you a wonderful summer and fall semester full of language and learning!

Sincerely,

Frances Blanchette, Natacha Mally (editor-in-chief), Catherine Pham, Daisy Lei, and Lindsey Chandler

FEATURED RESEARCH

The Importance of Bilingualism for Individuals with Intellectual Disabilities

By: Natacha Mally and Catherine Pham

The opportunity to learn a second language has become an integral part of students' academic experiences. In the United States, it is common for students to take second language classes during high school and/or college. Unfortunately, however, individuals with intellectual disabilities are often not given the opportunity to learn a second language [1]. Relatedly, parents of children with intellectual disabilities raised in bilingual households are often advised against speaking to their child in the non-dominant language since it is often assumed that limiting their child's linguistic knowledge to one language is best for language development. Consequently, individuals with intellectual disabilities have not been afforded the same opportunities to expand their linguistic repertoires as their peers, thus limiting their access to the benefits associated with bilingualism, such as the ability to connect with both immediate and extended family, their community, and their cultural heritage as well as other cultures.

Defining intellectual disabilities

About 6.5 million people in the United States are categorized as having an intellectual disability [2]. According to the American Association on Intellectual and Developmental Disabilities, the term *intellectual disability* is used to describe individuals who experience difficulties learning skills that are essential to everyday life. Individuals with an intellectual disability exhibit limitations in intellectual and adaptive functioning that interfere with daily life activities, in the conceptual (e.g., language), social (e.g., communication skills), and practical (e.g., self-care skills) domains [3]. To receive a diagnosis of intellectual disability, these impairments must emerge before a child reaches the age of 18.

The benefits of bilingualism for individuals with intellectual disabilities

Being bilingual can significantly enrich an individual's life, and this is true for individuals both with and without intellectual disabilities. Unfortunately, despite the potential benefits, parents of children with an intellectual disability are often discouraged from exposing their child to more than one language [4, 5, 6, 7]. This could be due to a misconception held by some professionals that children with intellectual disabilities will be confused or overwhelmed if they learn more than one language [6, 7, 8]. In multilingual families where a second language is regularly used, depriving a child of the second language can lead them to feel isolated. Additionally, children with intellectual disabilities may be excluded from language classes that are required for other children in educational contexts, leading to further isolation and missed learning opportunities.

Despite these common practices, research has demonstrated that learning a second language does not negatively impact individuals with intellectual disabilities [4, 5, 8]. There is also emerging evidence that individuals with intellectual disabilities can greatly benefit from exposure to more than one language. This is particularly true when a child's heritage language is used to support them in a second language majority setting. According to some studies, children with intellectual disabilities who receive intervention in school in their heritage language have better outcomes than those who only receive intervention in the majority language [6, 9].

How can teachers help individuals with intellectual disabilities learn a second language?

Students with intellectual disabilities who receive reinforcers (whether tangible or social) perform better academically than students who do not receive such reinforcers [10]. Extra praise that is genuine, high fives, and happy facial expressions provide instant rewards, motivating students and strengthening their bonds with instructors. Depending on the severity of the intellectual disabilities, some educators may also benefit from including a token rewards system.

(continued on next page)

Memory is part of the conceptual domain that can be impaired in individuals with intellectual disabilities [3]. For this reason, when developing teaching materials, it is critical to consider both explicit and implicit types of instruction. Explicit learning places a high demand on working memory, which may be too taxing, whereas implicit learning does not take away from the central attentional resources [11]. However, this does not mean that explicit instructional strategies should be avoided. For example, if the goal is to teach students new vocabulary words, this could be accomplished by presenting the words and their definition to the students. This is helpful because it makes clear to students what the learning goal is. An implicit strategy might be to present students with new vocabulary words in the context of a story, which can help them to make their own connections about what the words mean. While this does not make the learning goals explicit, it may be less taxing on working memory than explicit learning.

Research shows that game- and video-based instruction can also improve classroom learning and motivation [12, 13, 14, 15]. Earning badges, leaderboards, competition, checkpoints and levels, avatars, and experience points are all examples of gaming elements that have made their way into classrooms. Gamification can also help with differentiation [12]. Students do not learn at the same rate and have different learning styles. These traditional issues are amplified in an inclusive world language classroom. Students with intellectual disabilities may struggle with fine motor skills and may be unable to read or write. Using instructional materials that include visual and auditory elements and have easily selectable answers to questions can help circumvent these types of issues.

Where do we go from here?

While much research is still needed on language learning and intellectual disability, one thing is clear: Individuals with intellectual disabilities can benefit from learning multiple languages, and they should not be deprived of the opportunity to do so. One very important reason to provide these opportunities is to foster feelings of inclusion for individuals with intellectual disabilities, who may often feel excluded and isolated from their peers and even their families. Programs such as Penn State's WorkLink, which helps integrate individuals with intellectual disabilities into campus classes and activities with their peers, can help in working toward this goal. Check out our interview with WorkLink co-director Dr. Wendy Coduti to learn more!

References

1. Wight, M. C. S. (2015). Students With Learning Disabilities in the Foreign Language Learning Environment and the Practice of Exemption. *Foreign Language Annals*, *48*(1), 39–55. https://doi.org/10.1111/flan.12122
2. Peacock, G., Havercamp, S., Weintraub, L., & Shriver, T. (2019, November 19). *Addressing Gaps in Health Care for Individuals with Intellectual Disabilities*. https://www.cdc.gov/grand-rounds/pp/2019/20191015-intellectual-disabilities.html
3. *What is Intellectual Disability?* (n.d.). American Psychiatric Association. Retrieved April 17, 2022, from https://psychiatry.org:443/patients-families/intellectual-disability/what-is-intellectual-disability
4. Kay-Raining Bird, E., Cleave, P., Trudeau, N., Thordardottir, E., Sutton, A., & Thorpe, A. (2005). The Language Abilities of Bilingual Children With Down Syndrome. *American Journal of Speech-Language Pathology*, *14*(3), 187–199. https://doi.org/10.1044/1058-0360(2005/019)
5. Edgin, J. O., Kumar, A., Spanò, G., & Nadel, L. (2011). Neuropsychological effects of second language exposure in Down syndrome. *Journal of Intellectual Disability Research*, *55*(3), 351–356. https://doi.org/10.1111/j.1365-2788.2010.01362.x
6. Ware, J., Lye, C. B., & Kyffin, F. (2015). Bilingualism and students (learners) with intellectual disability: A review. *Journal of Policy and Practice in Intellectual Disabilities*, *12*(3), 220–231. https://doi.org/10.1111/jppi.12124
7. Toppelberg, C.O., Snow, C.E., & Tager-Flusberg, H. (1999). Severe developmental disorders and bilingualism. *Journal of the American Academy of Child & Adolescent Psychiatry, 38*(9), 1197–1199. doi: 10.1097/00004583-199909000-00027
8. Uljarevic, M., Katsos, N., Hudry, K., & Gibson, J.L. (2016). Practitioner Review: Multilingualism and neurodevelopmental disorders – an overview of recent research and discussion of clinical implications. *Journal of Child Psychology and Psychiatry, 57*(11), 1205–1217. doi: 10.1111/jcpp.12596
9. Lim, N., O'Reilly, M. F., Sigafoos, J., Ledbetter-Cho, K., & Lancioni, G. E. (2019). Should Heritage Languages be Incorporated into Interventions for Bilingual Individuals with Neurodevelopmental Disorders? A Systematic Review. *Journal of Autism and Developmental Disorders*, *49*(3), 887–912. https://doi.org/10.1007/s10803-018-3790-8
10. Adibsereshki, N., Abkenar, S. J., Ashoori, M., Mirzamani, M. (2015). The effectiveness of using reinforcements in the classroom on the academic achievement of students with intellectual disabilities. *Journal of Intellectual Disabilities, 19*(1), 83–93. doi: 10.1177/1744629514559313
11. Ellis, R. (2009). Implicit and explicit learning, knowledge and instruction. In D. Singleton (Ed.), *Implicit and explicit knowledge in second language learning, testing and teaching* (pp. 3–25). Tonawanda, NY: Multilingual Matters.
12. Liu, T.-Y., & Chu, Y.-L. (2010). Using ubiquitous games in an English listening and speaking course: Impact on learning outcomes and motivation. *Computers & Education*, *55*(2), 630–643. https://doi.org/10.1016/j.compedu.2010.02.023
13. Huizenga, J., Admiraal, W., Akkerman, S., & ten Dam, G. (2009). Mobile game-based learning in secondary education: Engagement, motivation and learning in a mobile city game. *Journal of Computer Assisted Learning, 24*(4), 332–344. doi: 10.1111/j.1365-2729.2009.00316.x
14. Lin, C., Liu, E. Z., Chen, Y., Liou, P., Chang, M., Wu, C., & Yuan, S. (2013). Game-based remedial instruction in mastery learning for upper-primary school students. *Educational Technology & Society, 16*(2), 271–281. Retrieved from https://www.j-ets.net/home
15. Chang, K., Wu, L., Weng, S., Sung, Y. (2012). Embedding game-based problem-solving phase into problem-posing system for mathematics learning. *Computers and Education, 58*(2), 775–786. doi: 10.1016/j.compedu.2011.10.002

Bilingualism Matters Vignette

Common Myths vs. Research-Based Realities

Individuals with Intellectual Disabilities and (Second) Language Learning

By: Lindsey Chandler

MYTH	FACT
Individuals with intellectual disabilities should not learn a second language.	Individuals with intellectual disabilities can be successful in learning another language. The idea that they should not learn a second language perpetuates the idea of "foreign language learning disability," which presumes that intellectual disabilities prevent successful language learning and should therefore be avoided [10, 11, 14].
Individuals with intellectual disabilities do not have the cognitive resources to learn a second language.	Individuals with disabilities do not perform significantly worse than their typically developing counterparts when exposed to multiple languages [1, 4]. In fact, social and environmental factors such as anxiety and comfort with the material and the environment may hinder or facilitate language acquisition, sometimes even more so than cognitive factors [5, 6].
When living in a second-language environment, parents and schools should not use the first or home language with individuals with intellectual disabilities.	Depriving children of the use of their first language can have negative effects in the realms of cultural connectivity and the acquisition of a second language [2, 14]. In fact, use of a first or home language can provide support to individuals with intellectual disabilities when learning another language [7].

(continued on next page)

Foreign language learning in a classroom is inaccessible to individuals with intellectual disabilities.

Current approaches to classroom language learning do not take into account factors which may facilitate learning for individuals with intellectual disabilities, such as the need for trained staff, appropriate methodological and pedagogical frameworks, or a holistic approach to learning that integrates experiencing the language through sensory, kinesthetic, affective, and aesthetic domains [7, 8, 9, 13]. A safe learning environment with multisensory experiences, smaller class sizes, more time for assignment completion, review, repetition, and focus on strength rather than weakness can influence success for individuals with intellectual disabilities [3, 8, 13].

References

1. Edgin, J. O., Kumar, A., Spano, G., & Nadel, L. (2011). Neuropsychological effects of second language exposure in Down syndrome. Journal of Intellectual Disability Research, 55(3), 351–356. doi: 10.1111/j.1365-2788.2010.01362.x
2. Gorman, B. K., & Consalvi, J. [LinguaHealth]. (2011, December 8). Can special needs children be bilingual? [Video file]. Retrieved from
3. Harmer, J. (2015). The practice of English language teaching (5th ed.). Harlow, England: Pearson Education Limited.
4. Kay-Raining Bird, E., Cleave, P., Trudeau, N., Thordardottir, E., Sutton, A., & Thorpe, A. (2005). The language abilities of bilingual children with Down syndrome. American Journal of Speech-Language Pathology, 14, 187–199. doi:10.1044/1058-0360
5. Kormos, J. (2017). The second language learning processes of students with specific learning difficulties. New York and London: Taylor and Francis.
6. Kormos, J. & Smith, A. M. (2012). Teaching languages to students with specific learning differences. Clevedon: Multilingual Matters.
7. Lim, N., O'Reilly, M. F., Sigafoos, J., Ledbetter-Cho, K., & Lancioni, G. E. (2018). Should heritage languages be incorporated into interventions for bilingual individuals with neurodevelopmental disorders? A systematic review. Journal of Autism and Developmental Disorders, 49(3), 887–912. doi: 10.1007/s10803-018-3790-8
8. Piazzoli, E. & Kubiak, J. (2019). ''The only learning I'm going to get': Students with intellectual disabilities learning a second language through performative pedagogy', Scenario: A Journal for Performative Teaching, Learning, Research, XIII (1), pp. 21–41. doi: 10.33178/scenario.13.1.2
9. Schwarz, Robin L. (1997): Learning Disabilities and Foreign Language Learning. http://www.ldonline.org/article/6065/
10. Sparks, Richard L. (2009). If you don't know where you're going, you'll wind up somewhere else: The case of "foreign language learning disability" Foreign Language Annals, 42, 7–26
11. Sparks, Richard L. (2016). Myths About Foreign Language Learning and Learning Disabilities. Foreign Language Annals, 49 (2) , 252–270
12. Uljarevic, M., Katsos, N., Hudry, K., & Gibson, J.L. (2016). Practitioner Review: Multilingualism and neurodevelopmental disorders – an overview of recent research and discussion of clinical implications. Journal of Child Psychology and Psychiatry, 57(11), 1205–1217. doi: 10.1111/jcpp.12596
13. Wight, M. C. S. (2015). Students with learning disabilities in the foreign language learning environment and the practice of exemption. Foreign Language Annals, 48(1), 39–55. doi: 10.1111/flan.12122
14. Mally, N. H. G. (2019). Individuals with intellectual disabilities and second language acquisition: A framework for approaching inclusive foreign language instruction. [Master's thesis, Kansas State University]. K-State Research Exchange, http://hdl.handle.net/2097/40232.

Recent Events

On Saturday, March 26, Penn State Eberly College of Science hosted the annual ENVISION: STEM Career Day Supporting Young Women. Students in grades 6–12 were invited to attend various workshops where they could do hands-on STEM experiments and learn from Penn State scientists and engineers, so that they can envision themselves in STEM careers. CLS graduate student Natacha Mally, CLS Assistant Director Dr. Frances Blanchette, and CLS lab manager Sarah Schaech led a workshop titled "Using Language to Understand Linguistic Diversity." This workshop introduced students to the field of language science by guiding them through an activity on data analysis and interpretation to understand differences in how people with Down syndrome use language.

FEATURED PARTNER

Dr. Wendy Coduti

Interviewed by Daisy Lei

Dr. Wendy Coduti is an associate professor of education in the Rehabilitation and Human Services program and Counselor Education program at Penn State. She is also the co-director of the WorkLink program at Penn State University Park, sharing this responsibility with Dr. Allison Fleming.

Can you briefly summarize your research?

My research includes college students with disabilities and disability in the workplace, with an emphasis on creating mentally healthy workplaces, and mental health and work. I have a sabbatical for the next academic year where I will be researching "Accommodations and Supports at Work for Individuals with Long COVID."

Can you tell us about some challenges students with intellectual disabilities may face as they navigate their postsecondary education?

Some of the biggest barriers are societal views and at times stigmas directed at this population. Some may question why students with intellectual disabilities are at Penn State (or college) and/or think that these students can't work or go to college. Both of these assumptions are incorrect. Students with intellectual disabilities want the same things that all students want: independence, employment, friends, partners, etc. Programs such as WorkLink afford students the chance at securing some of those life goals.

Can you tell us about the WorkLink program and resources available for students with intellectual disabilities?

WorkLink is a two-year certificate program for students with intellectual disabilities, with a focus on further developing work skills and knowledge. Our program is a blend of WorkLink seminar courses and courses that students audit at Penn State. Audit courses can be anything that students are interested in, including hobbies they may have or courses related to their future work interests, just like all Penn State students. We also have an internship component built in, so WorkLink students have the opportunity to gain direct work experience while completing the certificate. In my opinion, our best resource is the other Penn State students who volunteer and work with WorkLink. We have student mentors, tutors, volunteers, and interns that help support students in and out of the classroom.

Is there anything else you would like to share about language learning in students with intellectual disabilities?

I think there are a lot of opportunities for language learning in students with intellectual disabilities. We have students who may be bilingual, who may have barriers with spoken language, who may use or seek accommodations in speaking/communicating, etc. Each student is an individual so their needs would be as different as any other student here at Penn State. We welcome students who are interested in learning more to email and set up a time to volunteer in the WorkLink classroom. We have lots of opportunities for volunteers to provide mentoring/tutoring for WorkLink students and assist in expanding their social opportunities. Anyone who wants to help broaden the diversity and community here at Penn State is welcome to come join us!

Editors and Contributors

Frances Blanchette

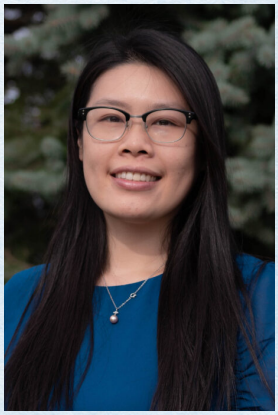
fkb1@psu.edu

Assistant Director,
Center for
Language Science

Natacha Mally

nmally@psu.edu

Doctoral Candidate,
Department of Germanic
and Slavic Languages
and Literatures



Daisy Lei

daisylei@psu.edu

Doctoral Candidate,
Department of Psychology

Catherine Pham

catherine.pham@psu.edu

Doctoral Candidate,
Department of Psychology

Lindsey Chandler

lchandler@psu.edu

Doctoral Candidate,
Department of Spanish,
Italian, and Portuguese

Bilingualism Matters is an international organization dedicated to translating findings from research on multilingualism for general audiences.

To receive research updates, links to articles, and information about our events, check out our Facebook and Twitter pages.

The Penn State **Center for Language Science (CLS)** is an interdisciplinary research group of linguists, psycholinguists, applied linguists, speech-language pathologists, speech scientists, and cognitive neuroscientists who share an interest in language acquisition and bilingualism.

To stay up to date with CLS or to read more about new and exciting language science research, check out our Facebook and Twitter pages.

Website: cls.psu.edu/bilingualism-matters
Facebook: @BilingMattersPennState @clspsu
Twitter: @BilingMatterPSU @CLSPSU
For questions and comments, email Bilingualism Matters at Penn State Branch Coordinator Frances Blanchette at fkb1@psu.edu.