

Spring 2024 Convention Issue



Visual Impairment and Deafblind Education Quarterly

Volume 69, Issue 2

The Voice and Vision of Special Education



Cover photo description: The cover photo is a picture of the DVIDB Board at the DVIDB social at the CEC 2024 Convention in San Antonio, Texas.

Photo submitted by: Nicole Johnson

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DVIDB 2024 CEC Convention & Award Winners

San Antonio, Texas



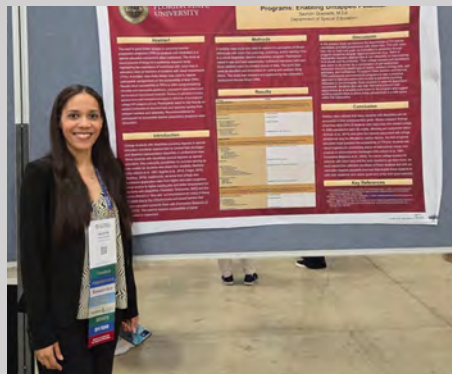
Award Winners:
Stacey Buck
Anne Gurss
Nicole Johnson
Jessica Schultz
Mary Tubbs

Past President:
Kathleen Stanfa

MEMORIES



DVIDB Presidents



Presenter:
Saurym Quezada



Dissertation of the Year:
Dr. Jessica Schultz

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Message from the Editor

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It was a pleasure to talk with and meet many of our DVIDB members and larger CEC community at the 2024 CEC Convention and EXPO in San Antonio, Texas. This issue is to celebrate and recognize the great work happening in the field of visual impairments and deafblindness. Within this issue are articles based off accepted conference proposals.

The issue begins with an article by Saurym Quezada, a doctoral student at Florida State University. In this article, she explains the untapped potential of

college students and future teachers of students with visual impairments with a visual impairment.

Next, Katie Ericson, doctoral student, and Mackenzie Savaiano, Associate Professor of Practice, from the University of Nebraska-Lincoln, share their research on the evaluation process for itinerant teachers of students with visual impairments and orientation and mobility specialists.

The following article is by Paige Furbush, clinical instructor, Sarah Ivy, associate professor, and Meridith Karppinen, Ph.D. student, from the University of Utah. These authors share their research on the use of the Picture Exchange Communication System (PECS) to examine whether PECS could be used to teach students with visual impairment and additional disabilities to differentiate among tangible symbols.

Then, Colleen Kickbush, Vision and Therapy Services Manager from Vision Forward Association, provides information about using a functional vision screening tool for early identification. The issue concludes with an article by Katie Armstrong that she completed during her Ed.D. program in Leadership and Innovation at Arizona State University. She shares her work from a single subject study with three paraprofessionals to implement hand under hand instruction.

Take some time to read this issue and gain some new insights on work happening in our DVIDB community.



2024 DVIDB Award Winners



Nicole Johnson

Distinguished
Service Award



Stacey Buck

Virginia M.
Sowell Student
of the Year
Award



Anne Gurss

Exemplary
Advocate Award



Jessica Schultz

Deborah D.
Hatton
Outstanding
Dissertation of
the Year Award



Mary Tubbs

DVIDB Teacher
of the Year

Congratulations
to the 2024
DVIDB Award
Winners!

President's Message

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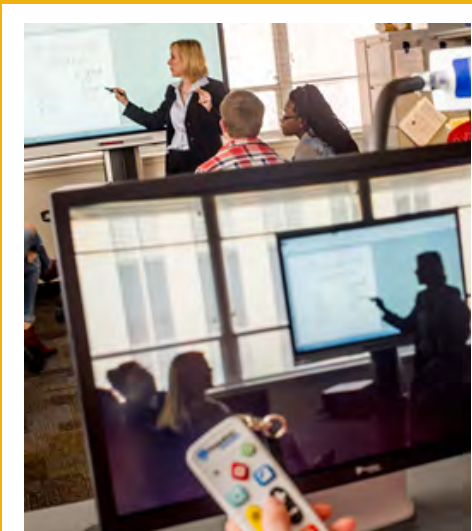
As the new president of DVIDB it was my pleasure to honor those individuals in our field who have gone above and beyond in the areas of blind and deafblind instruction, scholarship, research, and leadership at the awards presentation held during our annual DVIDB social at the recent CEC convention in San Antonio. Having spent nearly a decade in DVIDB, it gave me great joy to recognize the contributions of these outstanding students and professionals and to

attend multiple sessions at CEC highlighting the many innovations our members continue to make in the field of blind and deafblind education. It was an uplifting reminder that though we may be a small voice in the world of special education, we are mighty in the message that we share. At the same time, as I begin my role as president, I also believe it is important to acknowledge the challenges that we face as professionals and as an organization that remind us that we need to continue to lift our voices together to ensure the continued strength of our field.

I know that so many of us are being asked to do more with less in ways that we have rarely experienced before. CEC and DVIDB are no exception to this. At the same time, I also know that those of us who support professional organizations such as DVIDB do so because we recognize the significance that participation in these organizations brings to our roles as VI educators and professionals.

As you read through the amazing articles the authors have contributed to this edition of the *VIDBE-Q*, I hope that it serves as a reminder of the value that information provided by DVIDB through resources such as our online pre-conference, webinars, involvement with Getting In Touch with Literacy and this publication provides to you, your colleagues and your students. Consider how you might contribute to these important resources. I also encourage you to share an article from *VIDBE-Q* that you think would be beneficial for one of your students with a colleague or family member. We are small in our voice, but we are mighty

in our message. I hope that this edition of *VIDBE-Q* inspires you to continue to share that message beyond the membership of DVIDB to the members of the many different communities with and among whom we work and serve.



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FOR MORE INFO**



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Visual Disabilities and Teacher Preparation Programs: Enabling Untapped Potential

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*“I feel like if you want to mitigate the teacher shortage, especially in visual impairment, then you need to be tapping into the visually impaired group of people because ... once you get a blind person on a job, they don't want to leave.” -
Professor with Vision Loss*

The importance of representation of diverse identities in the teacher workforce is well-acknowledged (Sleeter & Kumashiro, 2014; CEC, 2016; Kozleski & Proffitt, 2019). While the majority of the discourse in this area refers to the racial, ethnic, and linguistic backgrounds of educators (Egalite et al., 2015; Redding, 2019), disability identity should not be ignored. Students in historically underrepresented and marginalized groups have shared about the impact of having teachers who share their identities (Fregni, 2019). College students with disabilities who are pursuing degrees in special education should be seen as opportunities to combat field shortages, increase positive disability representation (Neca et al.,

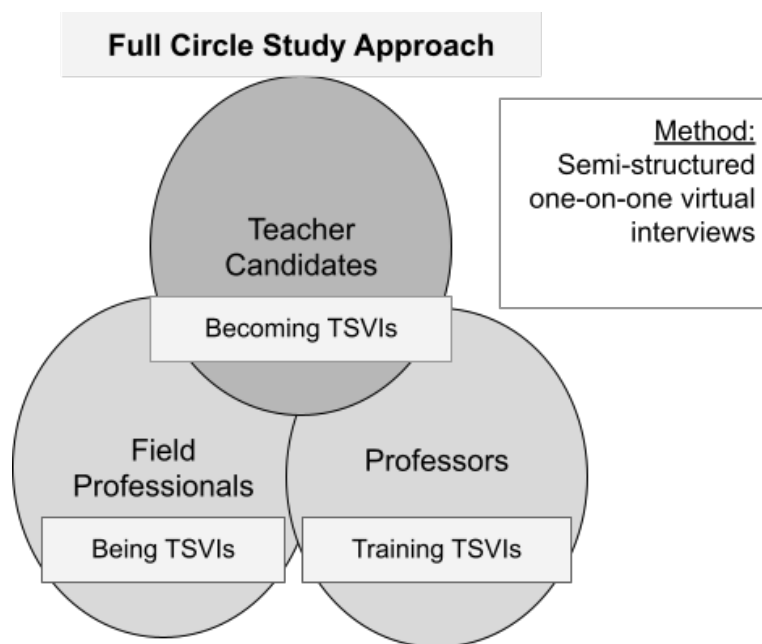
2022), and reduce disparities among working professionals with disabilities. When students with disabilities choose to pursue careers in special education, they often enter the categorical area that reflects their own disability (Otis-Wilborn et al, 1991). The ripple effect, as noted for students in historically underrepresented and marginalized groups who are taught by teachers who share their identities (Egalite et al., 2015; Fregni, 2019; Redding, 2019), is a pool of potential teacher candidates with disabilities that exemplify possibilities for success in becoming these students' future role models (CEC, 2016; Neca et al., 2022).

Unfortunately, becoming a teacher for an individual with a visual impairment (VI) presents attitudinal, environmental, and accessibility barriers that often lead to negative long-term consequences including leaving the teaching profession and scarred disability and teacher identities (Parker & Draves, 2017; Strimel et al., 2023). In seeking to learn more about how to support these students, I led a study that explored the experiences of teacher candidates with VI seeking careers as teachers of students with visual impairments (TSVIs). I aimed to learn about the motivating factors that led these students to pursue careers in education and how the experiences in their teacher preparation programs (TPPs) encouraged students' participation and persistence in higher education. I utilized qualitative research methodologies to not only interview teacher candidates but also field professionals and professors with VI to showcase a holistic picture of what it is

like to be pursuing a TSVI degree, practicing as a TSVI, and/or training future TSVIs in a visual disabilities' teacher preparation program (Figure 1).

Figure 1

Diagram of Study Approach



Through this study, I identified specific barriers teacher candidates with VI face in their quest to become TSVIs and gained insight into potential solutions to grant better access to students with VI in university TPPs. Findings show accessibility to TPPs is often compromised by professors' actions or inactions, coursework expectations, course delivery methods, and instructional formats.

Recommendations by participants for accessible TPPs were focused on proactive approaches to the instructional materials' accessibility (e.g. digital book chapters, lecture slides), classroom discussions, and fieldwork placement. To support these learners and improve TPPs, participants recommend that programs take a proactive approach to determining field placement and the accessibility of courses including strategies to accommodate and facilitate students' learning in required classes outside their special education department. Participants saw their lived experiences as a valuable enrichment to programs and suggested availing opportunities to share these perspectives in a safe space within the classrooms for the betterment of all involved. This latter point speaks to the need for faculty and administrators in higher education to consider students with VI as the experts in their accommodations and accessibility needs rather than dismissing their input or assuming to know the support students need.

College success for students with VI seeking careers as educators begins with their collective narratives. This is mostly due to the great heterogenicity found in vision loss and the way this translates into life activities including participation and performance in education. As such, there is a need to understand teaching and learning from their point of view. Additionally, while it is true that having a visual impairment means different things for different people, proactive accessibility practices such as Universal Design for Learning (UDL; CAST, 2018) can help

professors in higher education plan for variability and minimize the individual supports a student may require to access a particular course and program requirements. The following recommendations and resources can serve as guidelines.

1. To proactively combat inequities in higher education classrooms, instructors in higher education settings can seek training on UDL on campus or online as those provided by the TIES center and CAST (see recommended resources below). The TIES Center provides a comprehensive UDL course, with fully asynchronous modules, that individuals can complete at their own pace. Although geared towards K-12 education, this site also provides various resources on inclusive educational practices that can serve to provide ideas to support students with disabilities in higher education, particularly in that initial transition to college.
2. Faculty can support access to learning for students with disabilities by making small changes to their instructional approach, such as (1) choosing to use or request MS Word formatted textbook chapters, (2) ensuring that PDF files are checked for accessibility, (3) enabling alternative formats for digital text shared online learning classrooms, and (4) collaborating with colleagues in and across programs to create

predictable layouts across their courses on the institution's learning media management systems (e.g., Canvas, Blackboard, iLearn) to minimize the stress of navigating and learning multiple versions of class layouts.

3. Administrators and higher education leadership can assist in placing a greater emphasis on actionable steps that reflect accessible higher education practices by implementing policies that adhere to the Critical Components of the Quality Indicators for Higher Education (National Center on Accessible Educational Materials, 2020). The indicators are aimed at assisting institutions with planning, implementing, and evaluating systems for providing accessible materials and technologies for all students. These quality indicators are also meant to facilitate the implementation of statutory requirements that mandate equitable access to learning opportunities for students with disabilities, including equal access to printed materials, digital materials, and technologies. In providing organizational policies that follow recommended practices, college leadership can lead faculty toward increased mindfulness modeling a correct posture inclusion.

By listening and rooting instruction from the perspective of the diverse and variable population of students in higher education, instruction can shift towards

equitable practices that benefit all (Fernandez-Batanero et al., 2022) while enabling students to fulfill their academic and career goals.

Recommended Sources

CAST's National Center on Accessible Educational Materials

<https://aem.cast.org/coordinate/higher-education>

TIES Center Module on UDL <https://publications.ici.umn.edu/ties/universal-design-for-learning-modules/design-for-each-and-every-learner>

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<https://doi.org/10.1177/08884064231170573>



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“Very Dynamically Different”: Evaluation of Itinerant Teachers of Students with Visual Impairments and Orientation and Mobility Specialists

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University of Nebraska – Lincoln

Target audience: TSVIs, O&M Specialists, Administrators

“That’s the one thing that I noticed that about the system. That's, it's fundamentally designed for the regular classroom teacher...It’s very difficult for us to be evaluated in the same way.” –Kenny, TSVI/COMS

Many educator evaluation frameworks often reflect the roles and responsibilities of general education classroom teachers, assuming a one-size-fits-all approach (Gilmour & Jones, 2020; Woolf, 2019). Administrators then often apply these appraisal criteria and processes to special educators, including itinerant teachers of students with visual impairments (TSVIs) and orientation and mobility (O&M) specialists, without adaptations. However, most administrators and

researchers recognize that special educators must demonstrate different knowledge and skills to be successful. Currently, few resources exist to address these challenges. For example, the Michigan Department of Education (MDE) is one of only a few agencies offering guidance for evaluating low-incidence service providers (MDE – Low Incidence Outreach, 2022). As a result, itinerant TSVIs and O&M specialists may be vulnerable to inadequate and/or inaccurate appraisal feedback.

Additionally, itinerant TSVIs and O&M specialists often have one or more supervisors with varying backgrounds and knowledge (Benson, 2001). Due to the low-incidence nature of visual impairment, these supervisors often have little, if any, experience serving students with visual impairments (Wilton, 2017). Districts infrequently provide training regarding either the roles and responsibilities of itinerant special educators and/or the evaluation process, meaning administrators must pursue such training on their own time (Kraft & Christian, 2022).

Currently, little research exists regarding supervision or evaluation of itinerant TSVIs and O&M specialists (Benson, 2001; Woolf, 2019). Importantly, little is known about who evaluates these teachers, what feedback they receive, and how they respond to the appraisal process. For this study, we wanted to know: How are itinerant TSVIs and O&M specialists supervised and evaluated?

Method

In this case study, we wanted to understand and describe how itinerant TSVIs and O&M specialists in one Midwestern school district experienced their evaluation process. We invited the district's current itinerant TSVIs and O&M specialists, as well as their current and immediate past supervisors to participate. In total, there were five participants (see Table 1 for participant demographics). All participants were compensated for their time.

Table 1

Participant Demographics

Name	Position	Years in Education	Years as TSVI/O&M specialist
Joanna	TSVI/O&M	27	27
David	TSVI/O&M	12	8
Kenny	TSVI/O&M	30	30
Sally	TSVI	14	5
Spencer	Supervisor	20	N/A

Data Collection

For this study, we used appraisal documents and semi-structured, one-on-one interviews to better understand the evaluation process for itinerant TSVIs/O&M specialists. District appraisal documents, collected at the beginning of the study in October 2022, helped us understand what the typical district

appraisal process looked like and helped shape interview questions. One-on-one interviews then took place in November and December 2022. All TSVIs and O&M specialists then provided copies of their professional learning goals, informal observations, formal observations, and summative evaluations electronically. These personal appraisal documents, received after each interview, helped bring additional detail to participants' experiences.

Key Findings

The purpose of this study was to describe the evaluation process for itinerant TSVIs and O&M specialists. After analyzing the data, we identified four main themes: 1) following district requirements for all teachers; 2) receiving beneficial feedback from supervisors and peers; 3) supervisory challenges specific to itinerant special educators; and 4) shaping supervisor expectations.

Following District Requirements

Evaluation activities varied annually based on each teacher's seniority (i.e., how long they have worked for the district), but *all* teachers engaged in the same appraisal process and activities. As their former supervisor, Spencer, noted, "All teachers followed a district level appraisal process...probably generated for your typical classroom teacher." No accommodations were made for itinerant TSVIs and O&M specialists. However, due to the nature of their job, itinerant TSVIs and O&M specialists must schedule all observations with their supervisor, including

informal (or “drop-in”) observations, giving them some control over their observations that classroom teachers do not have.

Receiving Beneficial Feedback

Most participants noted benefits to the current evaluation process, including the opportunity to receive pedagogical feedback. Sally offered an example: “My supervisor might say, like, ‘Hey, you had a great lesson, but you talked at the beginning about what your objective was. But then, at the end you like, rush through everything.’” Such feedback was especially valuable to early career itinerant TSVIs/O&M specialists, particularly those who had no previous classroom experience. Supervisors’ pedagogical feedback is often supplemented with content- or vision-specific feedback from peers.

Itinerant-Specific Supervisory Challenges

All participants agreed that the current framework did not fully address their knowledge, skills, and abilities. Additionally, their supervisors typically entered their position with little prior knowledge or experience working with students with visual impairments, which impacts how itinerant teachers receive feedback. One participant admitted, “Generally, I don’t [use supervisor feedback].” Accordingly, some itinerant TSVIs/O&M specialists placed higher value on peer feedback. As Kenny explained, “I value the feedback from peers much more than feedback from supervisor...because I consider my peers or coworkers are expert in this area.”

Shaping Supervisor Expectations

Interestingly, most participants felt that having a supervisor with little previous vision experience benefited them, as the supervisor did not assume their job with any preconceived notions regarding itinerant roles and responsibilities. Instead, the supervisor learned on the job and through other professional development opportunities.

Similarly, itinerant service providers often reported using observations as a teaching strategy. For example, Joanna noted: “I wanted them to see the importance of orientation and mobility because not a lot of people understand it.” All informal observations and half of formal observations reflected braille lessons. All participants felt that supervisors could benefit from additional training related to itinerant service providers and vision services.

Recommendations

Evaluation is a requirement for all teachers and should lead toward professional development and improvement. However, results from the current study indicate that not all teachers’ needs are being met through the current evaluative framework.

- The district’s current evaluation rubric, like many, did not fully address the job responsibilities of itinerant TSVIs and O&M specialists. Districts should

provide training to administrators on how to adapt the evaluation process for itinerant teachers.

- Districts could also strengthen existing rubrics by adding explicit examples specific to TSVIs, O&M specialists, and their students.
- To further ensure that administrators are well-grounded in vision-specific content, districts should partner with itinerant TSVIs, O&M specialists, and other community partners (e.g., specialized schools, agencies) to develop trainings, and districts should encourage ongoing professional development for administrators.
- Administrators should allow itinerant TSVIs and O&M specialists time to pursue appropriate discipline-specific professional development.
- Administrators, with itinerant TSVIs and O&M specialists, should thoughtfully plan opportunities for peer collaboration.
- Districts may also consider providing opportunities for itinerant TSVIs and O&M specialists to develop their peer coaching and feedback skills.

The teacher evaluation process should lead to personal reflection and professional development—in short, continuous improvement. This study demonstrated that some parts of the evaluation process result in meaningful feedback for itinerant TSVIs/O&M specialists. However, with additional support from their colleagues,

itinerant TSVIs/O&M specialists can create a more meaningful continuous improvement process.

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TSVI – O&M – DB

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O&M COORDINATOR

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4. Upon admission, register and take courses!
 - Texas TSVI students must also submit information on teaching certification before admission.

Implementing Adapted PECS with Tangible Symbols and Switch Technology

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University of Utah

Target Audience: TSVIs, SLPs, other related servers

We worked with three learners with visual impairment (VI) and additional disabilities attending a special school for children with extensive support needs to evaluate whether the Picture Exchange Communication System (PECS) (Frost & Bondy, 2002) phases 1-3 could be adapted to teach them to discriminate among tangible symbols (instead of 2D graphic images) to make requests (see Table 1 for learner descriptions). All learners demonstrated an increase in their ability to initiate communication with another person and successfully make requests. As learners with visual impairments and additional disabilities often struggle to develop symbolic communication, these results are encouraging. Adapted PECS

with tangible symbols and switch technology can be an effective functional communication intervention for children with visual impairment and additional disabilities that professionals serving this population may wish to consider implementing (Ali et al., 2011; Bracken & Rohrer, 2014; Ivy et al., 2014; Ivy et al., 2020; Lund & Troha, 2008; Parker et al, 2010; Parker, 2009, Parker et al., 2010).

Before beginning the intervention, preference assessments were conducted with all learners to identify highly preferred items that had multisensory features (i.e., an auditory component, interesting tactile elements etc.). This was to ensure that a tangible symbol to represent the item could be made *and* that the student could be enticed with the item without needing to use their vision and without verbal prompts. Tangible symbols were created by the researchers to represent each item used in the intervention (Figure 1). Detailed implementation steps for each phase are listed below. Steps with an asterisk indicate an adaptation made specifically for our learners with VI and additional disabilities.

Table 1*Participant Demographics*

	Age	Disability Category	Vision	Motor	Communication
Participant 1	11	Multiple Disabilities	Low vision (medical diagnoses of Joubert Syndrome and ptosis)	Non-ambulatory, wheelchair user	Non-verbal, pre-symbolic communicator
Participant 2	14	Multiple Disabilities	Low vision (medical diagnoses of Cortical Dysplasia, CVI, myopia, and astigmatism)	Ambulatory with adult assistance; frequent seizures required use of gait trainer and stroller for safety	Verbal, mostly echolalia with some spontaneous demonstration of familiar or rote-learned phrases (i.e., “wow!”, “nice job!”)
Participant 3	7	Multiple Disabilities	Blind (Medical diagnoses of ONH, SOD, and nystagmus)	Ambulatory, able to navigate his classroom and home environment independently ; received weekly O&M services	Non-verbal, pre-symbolic communicator

Figure 1

Tangible Symbols Used in Study



Phase I Procedures

Purpose: Learners are taught to exchange a single tangible symbol to request preferred items.

1. *Communication Partner (CP) orients child by showing them where the symbol is located on the display using auditory cues and appropriate physical prompting as necessary. Quality of touch is important here. Consider hand-under-hand versus hand-over-hand.

2. “First one free”: learner plays with the reinforcer for a brief time (1st trial + any time a new reinforcer is being used)
3. *CP reclaims the reinforcer and entices the learner by presenting the reinforcer (using *auditory, olfactory, and/or tactile cues*) with NO prompting and without saying the name of the item.
4. CP waits for learner to initiate “communication” by reaching for the reinforcer.
5. After the learner starts to reach for the reinforcer, the prompter immediately provides physical assistance to help the learner pick up the tangible symbol, extend the tangible symbol to the CP, and release the symbol into the CP’s open hand.
 - a. Prompting uses backward chaining.
6. CP gives the reinforcer to the learner immediately and provides meaningful social praise.
7. Any error (i.e., learner drops or throws the symbol, plays with the symbol for an extended period of time and never initiates the actual exchange) is corrected by backing up to the step immediately before the error occurred and the prompter prompts the learner through a successful exchange of the symbol.

Phase I Troubleshooting

Below are several issues that came up and how they were addressed during Phase 1 of our PECS-VI intervention.

Table 2

Phase I Problems and Solutions

Problem	Solution(s)
My student finds the symbol reinforcing due to an interesting auditory component that closely matches the item it represents.	<ul style="list-style-type: none">• Make a new symbol that eliminates the auditory component, but is the same tactually and visually, or• Discontinue the use of the item and symbol.
Throwing the symbol is a game for my student.	<ul style="list-style-type: none">• Implement antecedent interventions to provide plenty of social interaction before and throughout the sessions.• Do not react to the throwing.• Incorporate social components to the reinforcers. Example: one of our learner's reinforcers was a sound machine. When we used this item, we would turn it into a game where we took turns, reacted to the sounds as the learner was playing with the item etc.• Incorporate calming strategies if overstimulation increases throwing behavior.
My student is showing little progress.	<ul style="list-style-type: none">• Increase dosage by adding more trials to each session.

Phase II Procedures

Purpose: Learners are taught to gain the attention of a communication partner using a single switch voice output device.

1. *Phase 1 and Phase 2 procedures are the same, except that now a switch is introduced that needs to be taught. The purpose of the switch is so the learner with VI can call a communication partner over to them, instead of travelling to find a communication partner. This allows the intervention to be accessible to learners who may not be independent travelers due to their VI or a motor impairment that limits mobility.
2. *After the child reaches for the symbol or reinforcer, the prompter immediately provides physical assistance, so the child activates the voice output switch and then pick up the symbol, reach, and release. The prompter should try to allow the child to complete the pick-up, reach, and release independently if possible.
3. *As the learner demonstrates mastery of the new sequence, the CP will begin increasing the distance between themselves and the learner, so they learn to tolerate waiting for the CP to travel to them and complete the exchange.

Phase 2 Troubleshooting

Table 3

Phase 2 Problems and Solutions

Problem	Solution(s)
My student disregards the switch	<ul style="list-style-type: none">• Provide access to symbol contingent on switch use (temporarily)• Make the switch easy to access, compared to symbol. Example: switch is placed in student's preferred visual field, symbol takes more effort to find.
My student is having difficulty finding the symbol on the display after they hit the switch	<ul style="list-style-type: none">• Teach tracking from switch to symbol with a tactile element. Example: use the diagramming strips from the Picture Maker Wheatley Tactile Diagramming Kit (APH).
My student isn't reaching and doesn't seem motivated	<ul style="list-style-type: none">• Assess for new preferences.• Switch to primary reinforcers. Example: use favorite food and drink items.• Adjust time of day to increase motivation. Example: before lunch if using primary reinforcers.

Phase 3A Procedures

Purpose: Learners are taught to discriminate between two tangible symbols: one preferred item and one non-preferred item. The learner has already learned to initiate communication in Phase 1 and 2, so only one adult is necessary for intervention and asks as the CP. They sit directly across from the child during

intervention. Two symbols are presented at a time on the display (APH All-in-one Board) and the arrangement is changed (horizontally, vertically, or diagonally) for each trial.

1. *CP physically guides the learner's hands to touch each symbol (again, be mindful of quality of touch. Symbols should be named and shown from top to bottom and left to right.) The learner gets brief access to each item.
2. *CP entices the child with referents simultaneously, using multisensory cues.
3. The symbol is exchanged for the corresponding item.
4. CP provides social praise when the learner asks for the reinforcer and no reaction when they ask for the distractor.
5. When the learner exchanges the symbol for the distractor item, a four-step error correction procedure is used. The learner should reject the distractor item, so the CP uses physical guidance to show them the symbol for the highly preferred item, prompt them through the exchange, provide social praise but not the item, distract the child from the task, then repeat the trial.

Phase 3B Procedures

Purpose: Learners are taught to discriminate between up to six tangible symbols representing preferred items. Since we don't know which item the child truly

wants, we conduct correspondence checks. Once the learner achieves 80% or above with an array, increase the array size by one symbol.

1. *CP shows available reinforcers and their position relative to each other (at the beginning of the trial and any time new items are available). Then, CP physically guides the learner's hands to touch each symbol (as in previous phases, quality of touch is important, and the symbols are always shown from top to bottom and left to right.)
2. The learner gives CP a symbol to communicate their choice.
3. CP presents all available items and says, "go ahead", "take it", etc. but does not name the item the child gave the symbol for!
4. Provide verbal praise for touching correct item, but only name the item when they pick it up.
5. If the learner goes for any item other than the one, they gave the symbol for, block access and initiate the four-step error correction.
6. Rearrange order of symbols before each new trial. Once learner achieves 80% correct, increase the array size (up to six items at a time.)

Phase 3 Troubleshooting

Table 4

Phase 3 Problems and Solutions

Problem	Solution(s)
How do we handle this many materials? (Students work up to six choices during Phase 3B!)	<ul style="list-style-type: none">• All-in-One Board (from APH) was invaluable and allowed us to quickly switch between the array of objects and array of symbols.• Having 2 people was also helpful in managing materials, even though only one person (the CP) is needed for the actual intervention.
My student is only motivated by one or two items.	<ul style="list-style-type: none">• Consider expanding student preferences through more exposure to new activities and new materials!

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Early Identification: Using a Functional Vision Screening Tool

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Early intervention providers—therapists, service coordinators, and educators—are equipped with the knowledge and resources for supporting development in children, including those with visual impairments. However, providers first need to be able to recognize those vision concerns in children under three, since they may not have yet been identified. A joint statement from the American Academy of Ophthalmology and the American Association of Pediatric Ophthalmology and Strabismus (AAPOS) states “Early detection of treatable eye disease in infancy and childhood can have far-reaching implications for vision and, in some cases, for general health (2022).” An efficient means of identification is through the use of a functional vision screening tool designed specifically for infants and toddlers. These tools have the added benefit of supplying users with a deeper understanding of vision development during this critical period, the first

years of life. The ultimate challenge is determining who is responsible for implementing these functional vision screening tools. Early intervention providers, including Teachers of Students with Visual Impairments, must be compelled to have a sense of responsibility regarding the earliest identification of vision concerns and potential visual impairment. The following information, shared at the 2024 CEC Convention, can assist early intervention providers as they create awareness for and answer this important call to action regarding the use of functional vision screening tools in early intervention.

Importance of Vision Screening

Vision screening is a method to identify red flags for vision concerns in children so that a referral can be made to appropriate vision professionals, such as eye doctors and Teachers of Students with Visual Impairments, for further evaluation. Vision screening is not meant as an assessment nor diagnostic tool. Vision screening should occur as soon as possible, especially during the first year of life—a crucial time before a child’s vision development is nearly complete around eighteen to twenty-four months.

Vision screening is essential because it can aid in the identification of children who have or are at risk for developing serious eye conditions that have the potential to lead to permanent vision loss, such as strabismus, cataracts, glaucoma, ptosis, or refractive errors like myopia and hyperopia. Many common eye

conditions can be treated with a simple referral to an eye doctor, as the child may benefit from glasses or other treatment options. Early treatment can improve educational outcomes and avoid potential negative impacts to all areas of development. Identifying vision concerns in young children through screening can lead to the discovery of potentially more serious conditions like neurological diseases. Newer functional vision screening tools are also more adept at targeting functional visual manifestations that can accelerate the identification of neurological visual impairments, such as cerebral/cortical visual impairment, even without the presence of ocular findings. Finally, utilizing a vision screening tool can help make determinations about a child's visual functioning by establishing individual vision milestones. Early intervention providers can support vision development in young children if skills and next steps are understood and reinforced. Coaching a parent or caregiver about typical vision development can help a family build the skills and confidence in advocating for their child by avoiding a wait-and-see approach. For example, a parent may think it is common for their 9-month old's eyes to move out of sync and not have a concern. However, their early interventionist will be able to introduce the concept of vision milestones and discuss that at approximately 6-7 months of age a baby's eyes will be moving together all of the time. In this scenario, the provider was able to utilize the

functional vision screening tool to coach the parent on typical vision development and refer to a medical professional for further investigation.

Early Intervention Functional Vision Screening Tools

There is a plethora of other functional vision screening tools that exist in early intervention in the United States. Some states have adopted their own state-specific vision screening tools, so providers must check their state early intervention program resources for guidance. It is critical that all programs research, pilot, and select a vision screening tool that follows best practices for this age group and meets the needs of the families they serve. Some reputable sources for additional training and information about early intervention functional vision screening tools are as follows:

Functional Vision Screening Tool	Agency/State
Birth to 3 Functional Vision Screening Tool	Vision Forward Association, WI
Vision Screening Parent Questionnaire	A Shared Vision, CO
Developmental Screening Checklist: Functional Vision	Perkins School for the Blind, MA
Neonatal Assessment European Grid (NAVEG) NAVEG - Anchor Center For Blind Children	Anchor Center for Blind Children, CO
18 Vision Development Milestones from Birth to Baby's First Birthday	Prevent Blindness

Since early vision screening demands a call to action, providers should be prepared with a functional vision screening tool to implement immediately. For this purpose, it is recommended to start using the [Birth to 3 Functional Vision Screening Tool](#), which is currently used in early intervention in the state of Wisconsin. The introduction of the Birth to 3 Functional Vision Screening Tool includes expected visual behaviors in infants and toddlers, as well as administration tips that can be very helpful for obtaining the most accurate results. The tool takes approximately 15 minutes or less to administer, can be done virtually if desired, and consists of Family and Birth History, Initial Observations (Appearance and Function), and Vision Development Checklist. After administration of the functional vision screening tool, vision screeners complete a results summary on the front page of the tool, indicating whether referral is warranted. If referral is indicated, the early intervention provider will discuss the results of the functional vision screening with the child's parent or caregiver and document actions or next steps. These actions include speaking with the child's pediatrician about potential referral to an eye care specialist like a pediatric ophthalmologist or optometrist and providing the parent with vision resources in their community. It is highly recommended that the early intervention provider consults with a Teacher of Students with Visual Impairments to determine if/when a Functional Vision Evaluation is needed. Providers can use this tool as a reference

at any time to monitor vision development skills and incorporate vision development activities into daily routines and existing interventions after coaching from a Teacher of Students with Visual Impairments.

In summary, early intervention providers, including Teachers of Students with Visual Impairments, can create an awareness of the critical need for the implementation of a functional vision screening tool for the early identification of vision concerns and its impact on overall development for infants and toddlers. Answering this call to action could mean the difference for one or many children, and either way it's worth it!

Those interested in learning more about functional vision screening tools or securing training on this particular screening tool, please contact the author for more information.

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Hand Under Hand, an Educational Milieu

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Target Audience: Educators and/or therapist in and outside the field of visual disabilities, parents

Hand under hand instruction is a form of physical assistance in which the hands of an adult are placed under the hands of the student (Lewis & Allman, 2014; Sacks, 2016) to offer support in learning tasks. Hand under hand provides a student greater control of their involvement (Lewis & Allman, 2014) and feel how the hands are used (Sacks, 2016) to complete a given task. When used properly, hand under hand instruction provides a learning environment that feels safe to the learner. This form of assistance is widely used in the deafblind community, explicitly taught in intervener training programs, and becoming more prevalent in the field of visual disabilities. In this short paper, I will first give a quick overview of the key findings obtained in a study I conducted in the spring of 2023 that evaluated what happened when hand over hand instruction was replaced with hand

under hand instruction. I will then describe why I believe hand under hand is more than a form of physical assistance and is better classified as a learning environment, or milieu, closing with how parents and educators can make the most of hand under hand support with the children in their life.

Active and Willing learners

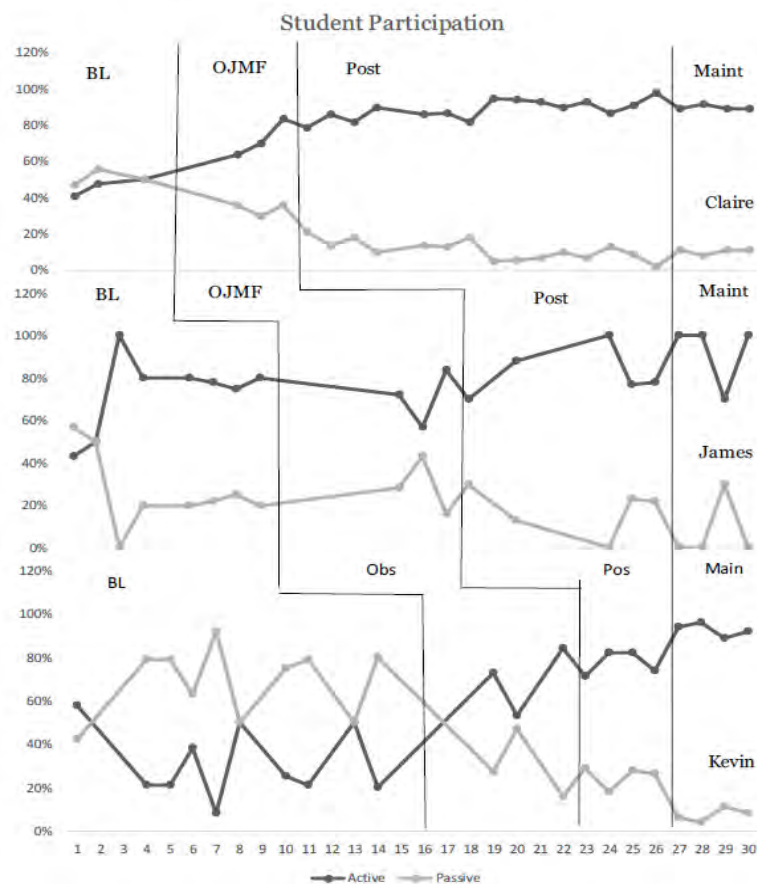
In the Spring of 2023, I conducted a study as part of my dissertation which originated from the idea that special education teachers and paraprofessionals working with students who have visual impairments require additional support from specialists who understand these students best, Teachers of Students with Visual Impairments. What developed was a single subject study that trained three paraprofessionals to replace hand over hand instruction with hand under hand instruction. The initial purpose was to highlight the effects of the training practices; student behavior, however, quickly became the highlight of the results obtained.

As an educator I find joy in having active and willing learners. When students are resistant, or passive in the learning it can be frustrating or discouraging to everyone involved. In my study I measured student behavioral responses in direct correlation to when the paraprofessionals used either hand over hand or hand under hand instruction. I closely examined students' level of involvement (active or passive) and their level of participation (willing or resistant) when each form of support was provided. The results were astounding. As you can

see in the tables below, all three students became more active and less passive as their paraprofessionals received training on implementing hand under hand instruction, and they all became more willing and less resistant to instruction.

Figure 1

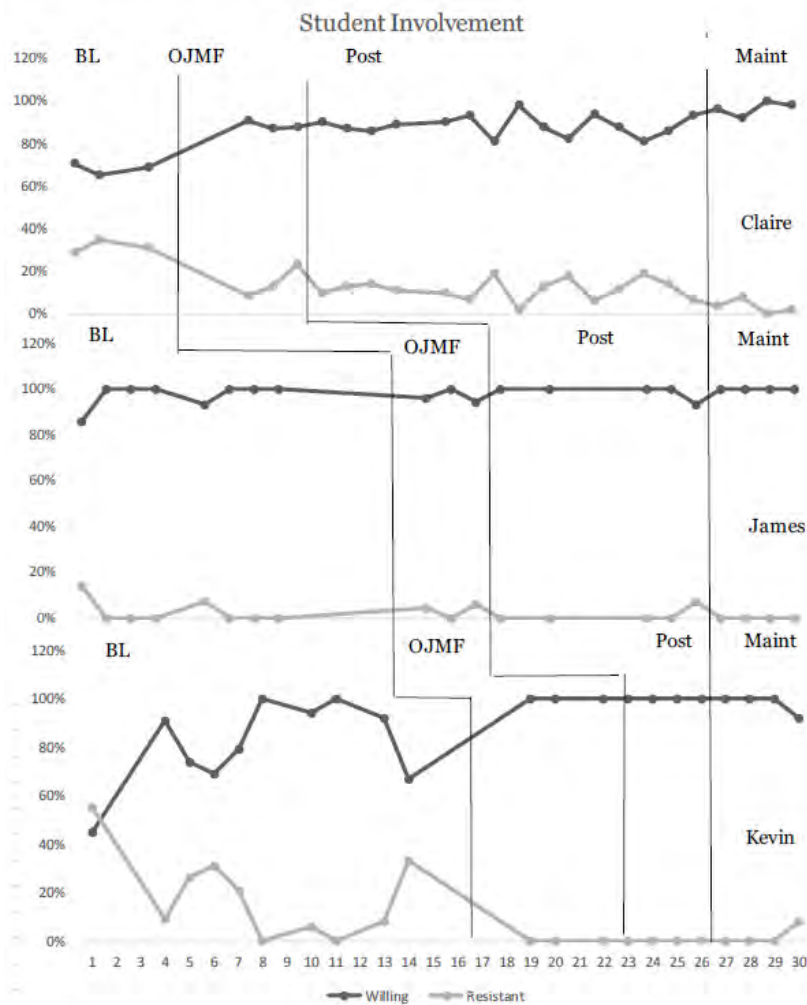
Student Participation, Active or Passive



Note. BL stands for intervention baseline, OJMF stands for the on-the-job monitoring with feedback portion of the training package, post is referring to data collected after the intervention was completed, and maint stands for the maintenance data that was collected for each participant two weeks following the completion of post intervention data.

Figure 2

Student Involvement, Willing or Resistant



Note. BL stands for intervention baseline, OJMF stands for the on-the-job monitoring with feedback portion of the training package, post is referring to data collected after the intervention was completed, and maint stands for the maintenance data that was

In addition to the positive results seen in student behavior, all three paraprofessionals reported positive feelings about hand under hand instruction and how they felt their students were responding. The paraprofessionals who

participated in this study reported that their students were becoming less aggressive, completing tasks quicker, were interested in learning, becoming more confident, responding positively, requiring less prompting, and they were willing to participate and try new things (Armstrong, 2023).

Educational Milieu

In the closing of my dissertation, I proposed the question “Is hand under hand a form of prompting nestled in the most restrictive location of the prompt hierarchy? Or is hand under hand a strategy for teaching?” (Armstrong, 2023, p. 110). The data I collected suggested that hand under hand meets both of these criteria, while simultaneously offering an opportunity to create a positive and motivating learning environment. When training others to use hand under hand instruction I describe it as a way to encourage active participation, provide authentic learning opportunities, creating an environment in which children choose to participate, and encourages increased independence. The adult is essentially creating a learning environment that builds trusting relationships between adult and child.

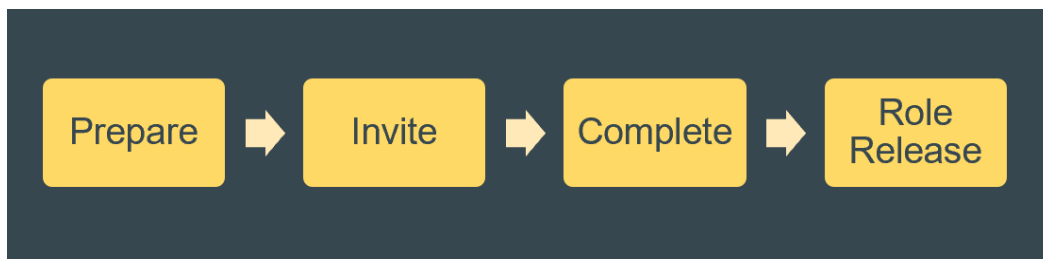
In my research, I am finding that the simple act of replacing hand over hand support with hand under hand support changes the overall dynamic of an interaction. As you saw, the initial outcomes were positive, and what I continue to see as I train additional teams.

How to

When considering hand under hand as an educational milieu, an environment that encourages authentic participation and students who choose to participate in activities with the adults who guide them requires four steps: prepare, invite, complete, and role release.

Figure 1

Four Steps in Implementing Hand Under Hand



Prepare

This is the first step in any learning process requiring that an adult comes to a lesson or activity prepared with a goal in mind and all necessary materials and equipment.

Invite

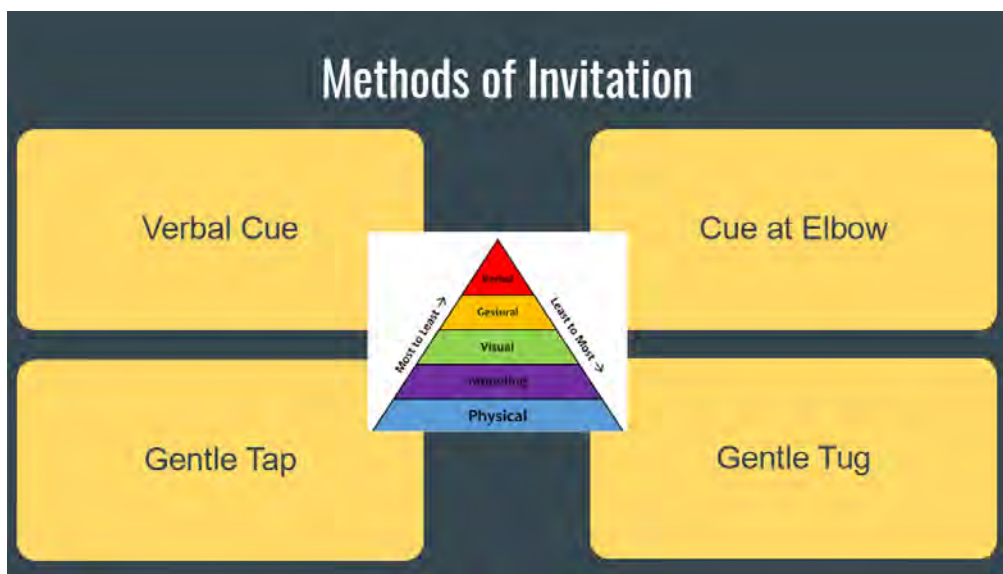
Hand under hand is an invitation for a student to join you in an activity. This is where we ask them to participate, but we don't force them. This act of inviting builds trust and ensures authentic involvement when a student chooses to join you.

Inviting a student to participate should occur through least to most prompting.

Initially during the invite stage, we are inviting them to join us, while also teaching them how to join an activity in this method.

Figure 2

Methods of Invitation



Verbal Cue. A Verbal cue is an invitation. Statements such as “let me help you,” “let me show you,” or “let’s do this together” work well. Initially, many students will not understand these cues. If they don’t, try a simple gentle tap under their hand.

Gentle Tap. With a gentle tap place your hand under theirs and gently tap the palm of their hand as you start moving forward. In this motion you are inviting them to move with you. If that doesn't work, offer a cue at the elbow.

Cue at Elbow. While using one hand to provide a gentle tap under their hand, use your other hand to prompt at their elbow, encouraging them to reach forward with you. Finally, if these methods of invitation do not work, try what I call a little tug.

Gentle Tug. Place your hand under theirs and gently place your thumb on top of their hand so that you can “tug” their hand forward to let them know what you want them to do, their hand to move forward with yours. This is gentle and short. Always quickly release the “tug” so they continue to have freedom and a right to choose to join. With practice and time this invitation becomes natural and fluid.

Complete

Once a child has been invited to join an activity, you are ready to complete the activity, with or without the student. This is the point that builds trust and encourages authentic participation. After an invitation, if a student chooses to join you GREAT, it is time to complete the activity with their hand on top of yours! If not, complete the activity, or a small part of the activity on your own. Accepting that they are not ready to join you communicates mutual respect, which builds

trust. Complete a small portion of the activity, then pause and re-invite them.

During this phase, as you continue to teach them how to participate through hand under hand, offer praise each time they reach forward and touch you or the materials. You will continue in this phase until a student is reaching out more consistently and maintaining contact. This can take anywhere between one activity to several activities or weeks, it just depends on the learner. Take your time, the payoff is worth it.

Role Release

Finally, the magic happens, and we get to the point of increased independence and participation. Role release is when the students get to shine and show us what they can do on their own, with us right there to support them as needed. In this final phase I use three main strategies to increase independence and participation: partial participation, backwards chaining, and slowly moving my hands out of the activity.

Partial Participation. I have defined partial participation as an adult accepting a student participating in any way that they can. Partial participation can be demonstrated by a student holding on to your arm as you complete the task, or touching your hand quickly to indicate that they want you to continue. This is accepting any level and form of participation.

Backwards Chaining. With backwards chaining you will complete all steps of an activity together with a child placing their hand on top of yours, then pause or encourage them to complete the very last step on their own. With practice and repetition, you slowly give them more control and expect them to complete additional steps as appropriate until eventually they are completing the task from start to finish.

Slow Release. In this final method, I slowly move my hand out of the activity. This tends to unfold naturally and organically as I feel a student is ready, but hesitant, for increased independence. This looks like me getting a student's hand further down a pencil or crayon or holding on to tongs while I just help squeeze them. It's amazing how quickly a student will take over when they “think” you are helping.

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