
**Family-Centered Early Intervention
Visual Impairment Services
Through Matrix Session Planning**

*Mindy S. Ely, Kateri Gullifor,
and Tara Hollinshead*

Early intervention visual impairment services are built on a model that values family

involvement. Legislative provision for these services is found under Part C of the Individuals with Disabilities Education Act of 1997, the Infants and Toddlers with Disabilities Act. An early intervention professional is a teacher of visually impaired students or an orientation and mobility (O&M) specialist who provides Part C services. The goals of service, referred to as child and family outcomes, are based on priorities identified by the family.

In a white paper entitled *Family-Centered Practices for Infants and Young Children with Visual Impairments*, Hatton and colleagues (2003) describe the benefits of a family-centered approach. It allows parents to guide their child's development while honoring the family's culture and values. In addition, parents work directly with their child, strengthening the parent-child relationship and supporting parent-child communication.

The graduate certificate program at Illinois State University offers experienced teachers of visually impaired students and O&M specialists specialized training in early intervention visual impairment services. As we developed this program, we were sensitive to the fact that family-centered practices are quite different from the traditional teacher-directed instruction to which most scholars were accustomed in their teaching or O&M instruction of visually impaired students. A teacher-centered approach assumes that the teacher is the expert. In contrast, family-centered practices involve the family in determining the direction and focus for the intervention session.

Consequently, we sought a method for teaching scholars to provide services that would integrate family-centered practices into their work with families of infants and toddlers with visual impairments. The approach we developed is based on delivery and planning models described in recognized resources within the field of visual impairment (American

Printing House for the Blind, n.d.; Dote-Kwan & Chen, 2014; Petersen & Nielsen, 2005). We organized these ideas into several steps that could be taught to scholars with subsequent evaluation for fidelity of implementation. In this paper, we will describe the method we call matrix session planning, followed by a discussion of the advantages and challenges scholars experienced as they used the matrix session planning method with families.

DESCRIPTION OF THE MATRIX SESSION PLANNING METHOD

Matrix session planning pulls together parent priorities, family routines, and identified strategies in a way that helps families and early intervention professionals outline a plan that can both highlight long-term goals and focus on what can be done today.

First, the early intervention professional interviews the parents to learn about their concerns, hopes, and dreams for their child. We have found the Routines-Based Interview (McWilliam, Casey, & Sims, 2009) or the Parent Assessment of Needs from *Parents and Their Infants with Visual Impairments* (Chen, Calvello, & Taylor Friedman, 2015) to be helpful interview protocols. This professional also completes a functional vision assessment. From the interview and assessment, outcomes are identified. These priorities are entered in the left-hand column of a matrix with one outcome per row (see Table 1).

Next, family routines are identified in one of two ways. The family may identify specific daily routines as being difficult for the child, or a desired outcome may naturally fit into a specific routine. Identified routines are listed across the top row of the matrix.

Then, the parent and provider brainstorm solutions using the child's strengths, preferences, and adaptive needs. These solutions are based on information from the interview and assessment. The ideas are entered into the matrix in the corresponding row and column.

Table 1
An example of matrix session planning for achieving desired outcomes through activities that can be conducted throughout the day.

Desired outcome	Snack time	Bath time	Play time
Encourage the use of vision to explore	Position the caretaker on the child's left Place snacks on the child's left	Move a yellow duck across water for tracking Search for high-contrast items that sink	Explore a variety of high-contrast textures (blocks, balls, etc.) Play hide-and-seek with noise-making toys
Improve reach and grasp while looking	Provide small pieces of snacks on the table for the child to feed him- or herself	Place a high-contrast toy slightly out of reach on the left side	Place a high-contrast toy slightly out of reach on the left side

Using the completed matrix, the professional and family choose one strategy from the matrix that will become the focus for the intervention session. Since the matrix was built using a collaborative process representing the priorities of the family, family members are willing to join their child in trying the new ideas. This willingness allows the early intervention professional to play the role of coach, demonstrating specific strategies when necessary.

The matrix should be small to avoid overwhelming the parent. Two outcomes and three daily routines are sufficient in the beginning. Over time, strategies can be added or deleted from the matrix as needed. Similarly, outcomes and daily routines will change.

ADVANTAGES

Reflection proved valuable in identifying advantages and challenges of the matrix session planning method for planning and providing early intervention visual impairment services to infants and toddlers with visual impairments and their families. Given the scholars' experience with the method, three themes emerged: planning, intervention, and reflective practices.

Planning

The matrix session planning method promoted family-centered practices by using the

parents' concerns to form the outcomes while taking their daily routines into consideration. As a result, family life was at the center of their child's plan. When using matrices, various families identified priorities such as help with bedtime and mealtime routines, promotion of sibling interactions, and development of independent walking. Problem-solving with the family to find solutions that fit into their daily routines kept family members involved while ensuring that solutions were centered on their unique desires for their child's development.

The matrix session planning method also helped families and scholars consider a variety of daily routines in which outcomes could be practiced. For example, one family expressed the desire for help in encouraging their child to visually attend to her environment. The scholar worked with the family to identify several activities that they could use to encourage the child to visually attend in various routines such as the nighttime routine and trips to the grocery store.

Further, the matrix session planning method empowered families to use the identified strategies. Using this approach, parents were actively involved in developing the ideas recorded on the matrix. During the session, they were encouraged to choose a strategy from the matrix and introduce it to their child. After the session, they implemented the strategies within their normal daily routines. In fact, one

scholar reported a situation in which a grandfather who was present during an intervention session was persuaded to participate. The mother had identified play as a priority. Use of musical instruments was identified to encourage active play and was entered into the matrix. During the next intervention visit, the scholar learned that the grandfather had begun to use this strategy with the child. As the grandfather demonstrated play with his grandson during this subsequent session, the scholar was able to point out the numerous developmental skills that he was helping his grandson develop as they played the piano. The active involvement within this family allowed the scholar to communicate the significance of their role in guiding their child's development.

Intervention

Development of the matrix gave families an opportunity to voice their successes and concerns. When creating a matrix centered on priorities and routines as identified in the interview process, the family is validated in their concerns and successes. The matrix is a direct response to the accomplishments and challenges that the family has already voiced, supporting family-centered practice.

The matrix session planning method can be viewed as a road map to outcomes outlined by the family. The matrix helped the family and the scholar break down outcomes into smaller steps. For example, one scholar found that a family had difficulty with their child at bedtime. This priority was based on a highly stressful part of the family's routine. They needed help in breaking the routine into manageable pieces with identified strategies for success. The scholar used the matrix to strategize a variety of possible solutions including a formal bedtime routine. The family independently used and revised the bedtime routine and subsequently discussed their progress each time the scholar returned. As they exper-

rienced success, they gained confidence, and a stressful situation was eventually resolved.

Scholars reported that the matrix also allowed them to highlight and organize strategies. As various ideas were discussed during a session, the matrix provided an organized means to document strategies. In addition, it proved easy to manipulate and change as necessary. When the child achieved a skill identified within the matrix, the family and scholar together could consider the next step in achieving the desired outcome. Conversely, as was described in the bedtime routine example, a strategy might be found to be ineffective for the child and might need to be adjusted. In that case, the family adapted the strategies on the matrix throughout the week. During sessions, the scholar offered specific suggestions as the week's progress was discussed. This discussion resulted in a collaborative exchange that helped the family reach their goal.

Reflection and follow-through

The format of the matrix is a direct reflection of the Individualized Family Service Plan (IFSP). The outcomes identified in the IFSP are presented in the matrix through strategies that will be used to help achieve these outcomes. Scholars reported that using the matrix as a daily lesson plan helped them to align their practice with the IFSP outcomes. This gave purpose and direction to each session and ensured that the session was driven by the IFSP through use of the matrix.

The matrix proved a useful means to document growth and progress toward a family's desired outcomes. For example, one scholar used the matrix to document the many strategies that were found to be helpful for a child with cerebral visual impairment. The scholar and the family were able to use the matrix to guide and facilitate intervention. The family then followed through by implementing these strategies in their daily life. The family's efforts were reaffirmed by the child's progress and the matrix served to document small milestones

achieved between visits, which also allowed the scholar to celebrate success with the family as they reviewed the matrix at each visit.

CHALLENGES

It can be difficult for families to take an active role in intervention sessions. Although the matrix session planning method is designed to encourage family participation, scholars found that many parents needed help in knowing how to get involved. Therefore, when identifying outcomes and strategies, scholars found it helpful to have a variety of ideas prepared in case the parent struggled to offer ideas. Once the family became accustomed to the matrix session planning method, however, they had an easier time contributing ideas. For example, the parent of a child with cortical visual impairment was excited to show the scholar the birthday gifts she had purchased that met her daughter's visual needs. This is an important part of developing empowerment in the parent as they begin to intentionally think of strategies to help their child develop in the areas that they have prioritized.

On the other hand, some families chose not to use the matrix on their own, referring to it only when the scholar was in the home. Perhaps they felt the format was overwhelming or too detailed but, regardless of the reason, we felt it was important to honor the family's choice. However, we found that even in such cases, the scholars were still able to use the matrix in the session to help guide intervention and document progress. The matrix session planning was a valuable tool for the scholar and the family, even when not being directly utilized by the family.

CONCLUSION

Experts agree that early intervention services need to follow a delivery model that is family-centered rather than teacher-led (Pletcher & Younggren, 2013; Hatton et al., 2003). Such service delivery often requires a difficult shift of practice for professionals who are accus-

tomed to working with school-aged populations. Because of the systematic nature of the matrix session planning method, scholars were able to reflectively evaluate their progress. In addition, the framework facilitated measurable feedback from instructors and mentors. Such a model is likely to prove helpful for others seeking change toward family-centered practices when working with infants and toddlers with visual impairments.

Although adherence to recommended practices are a high priority, family outcomes are the true goal. In using the matrix session planning method to help scholars shift their practice, we were encouraged by benefits to families. Increased parental engagement was an underlying theme in scholar experiences. Several scholars saw empowered parents who were identifying and implementing strategies to meet their child's developmental needs outside intervention sessions. In addition, scholars reflected on experiences that reinforced the relationship between the child and the family. This method proved successful in guiding our scholars in implementing family-centered practices by using family priorities to guide a collaborative partnership between the scholar and the family.

REFERENCES

- American Printing House for the Blind. (n.d.). *CVI: Daily routines matrix*. Retrieved from http://tech.aph.org/cvi/?page_id=352
- Chen, D., Calvello, G., & Taylor Friedman, C. (2015). *Parents and their infants with visual impairments (PAIVI)* (2nd ed.). Louisville, KY: APH Press.
- Dote-Kwan, J., & Chen, D. (2014). Developing meaningful interventions. In D. Chen (Ed.), *Essential elements in early intervention visual impairments and multiple disabilities* (2nd ed., pp. 287–336). New York: AFB Press.
- Hatton, D., Anthony, T., Bishop, V., Gleason, D., Greeley, J. C., Miller, T., Moore, S., . . . Tompkins, C. (2003). *Family-centered practices for infants and young children with visual impairments*. Position paper of

-
- the Division on Visual Impairments, Council for Exceptional Children. Arlington, VA: Council for Exceptional Children.
- Individuals with Disabilities Education Act of 1997, Pub. L. No. 105-17, 105th Cong., 1st sess.
- McWilliam, R., Casey, A., & Sims, J. (2009). The routines-based interview: A method for gathering information and assessing needs. *Infants & Young Children, 22*, 224–233.
- Petersen, B., & Nielsen, J. (2005). *Vision program: Vision skills in the natural environment: An intervention guide for use with children birth to three with blindness or vision impairment*. Logan, UT: SKI-HI Institute, Department of Communication Disorders, Utah State University.
- Pletcher, L. C., & Younggren, N. O. (2013). *The early intervention workbook: Essential practices for quality services*. Baltimore, MD: Brookes Publishing.
-
- Mindy S. Ely, M.S.Ed.**, teacher of visually impaired students, doctoral candidate, Department of Special Education, University of Illinois Urbana-Champaign; EL VISTA project coordinator and instructor, Department of Special Education, College of Education, Illinois State University, Campus Box 5300, Normal, IL 61790; e-mail: msely@ilstu.edu. **Kateri Gullifor, M.S.Ed., COMS, DTV, DTO&M**, teacher of visually impaired students, Huntley Community School District 158, 650 Academic Drive, Algonquin, IL 60102; EL VISTA student, Illinois State University; e-mail: kateri.gullifor@gmail.com. **Tara Hollinshead, B.S. Ed.**, teacher of visually impaired students, Perandoe Special Education District, 1525 Locust Street, Red Bud, IL 62278; EL VISTA student, Illinois State University; e-mail: tara.hollinshead@gmail.com.