

USING A TRANSDISCIPLINARY SERVICE DELIVERY MODEL TO INCREASE  
PARENTAL INVOLVEMENT WITH SPECIAL EDUCATION STUDENTS

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## ***Abstract***

Too often special education services are provided in a piece-by-piece fashion with individual support staff members each scheduling service to the child once or twice a week. Travel time and case-load numbers prohibit getting significant service time and frequency to the student. The literature suggests that transdisciplinary service delivery is a model that can remedy this situation by allowing teaching the classroom teacher and parents how to provide those services that can be shared or transferred from the primary service provider to others. Transdisciplinary involves the sharing of skills among and between staff, parents and the primary service provider.

To test this proposition, 24 physical, occupational and speech therapists were sampled before, during and after implementation of a transdisciplinary model. Staff developed a list of “role-sharing” tasks and who could take-on these tasks.

Over the next school year, staff implemented these sharing plans and taught others the proper procedures for success.. At the end of the school year, staff refined these “role-sharing” plans and specified what tasks can be shared (staff and another person working together), what tasks can be transferred (given to another person to do with the student) and what tasks should not be shared or transferred.

Results showed that many tasks can be either shared or transferred to other school

personnel or parents.

### ***Introduction***

Parents and teachers working together are crucial components in supporting children's academic success. Consistency in a child-learning environment from parents and teachers results in better attendance and homework habits (Quigley, 2000). The general literature reflects the kinds of parent involvement as including attending parent teacher conferences, telephone and written home-school communications, attending school functions, parents serving as classroom volunteers, homework assistance/tutoring, home educational enrichment, and parent involvement in decision making and other aspects of school governance (Cotton and Wikelund, 1989).

Over the past twenty some years, researchers have proven the importance of parental involvement in a child's education. Much attention has been focused on ways of involving the parent in school activities, however, little has been written regarding how to better involve parents of students who are in special education. Research done by Gonzelez-Pienda, Gonzalez-Pumariega and Nunez, shows that academic self-concept was the variable most positively affected by parental involvement. This is relevant because in special education we often deal with students who have a low self concept and there is a direct relationship between self-concept and achievement (Gonzelez-Pienda, Gonzalez, & Nunez, 2002).

### ***Purpose***

Finding new ways of involving special education parents is often difficult, but if we look to the literature, we find that almost any type of parental involvement will enhance the child's chances of success in school. In fact, according to a study conducted

by James Griffith, parental involvement and empowerment combined accounted for the greatest amount of variance in student test performance and schools having higher levels of parental involvement and empowerment also had higher student criterion-referenced test (CRT) scores (Griffith, 1996).

*“We also know that parents must be an active part of their children’s learning all the way through school.” William Jefferson Clinton, State of the Union Address, 1997*

The U.S. Office of Education revisions of the Individuals With Disabilities Education Act (I.D.E.A.) completed in 1998, contained major changes specifically designed to increase the parent’s involvement in the educational process. The revisions required school districts to invite the parent to be involved in the diagnosis of the disability, determination of need for special education programs and services and the extent to which the child would receive these services. In addition, parents were to be invited to participate in any planning meeting held by educators regarding their child. These changes were instituted because of the overwhelming evidence that parent involvement could improve the success of the child in school.

There is a process that has been used for years in most of the center type special education programs, called the Transdisciplinary Service Delivery Model. Transdisciplinary service delivery is described as being fundamental to two beliefs: 1) children’s development must be viewed as integrated and interactive, and 2) children must be served within the context of the natural environment. Transdisciplinary focuses on identifying those instructional techniques that can be taught to others (teachers, parents, aides, other staff) and then utilizes these individuals to facilitate the

instructional process. Thus, increasing dramatically the amount of input to the student. Transdisciplinary also recognizes the parent as an important member of the team and relies heavily on a combination of consultative, monitoring and direct service delivery from the related service specialist as ways of supporting the parent (Woodruff and Sterzin, 1988). The purpose of this study was to determine the ease of implementation and practicality of the Transdisciplinary approach.

### ***Method***

With transdisciplinary, the related service staff retains the responsibility for assessment and planning, but assumes a new role as that of teacher, consultant and monitor. In this new role, the related service staff is required to identify what they do that they can “give-up” to others. In doing so, those who assume the new responsibilities will be taught how to provide these services, supported by the related service staff. The emphasis on instruction in the natural environment (classroom and home) and on strengthening the role of the parent makes the transdisciplinary system a very I.D.E.A. friendly model.

Once a district or building has decided that they want to move to the transdisciplinary model, it is necessary to have the related service staff identify which of their duties should not be taught and transferred to others. Figures 1,2,3,4,5 shows the result of a survey of 24 physical, occupational and speech therapists from a Michigan Intermediate School District ( Cross, 2003). These professionals served students attending urban, suburban and rural districts. A large State University was housed in one of these districts which helped to provide a well-rounded representation of minority

students. As can be seen, there are many instructional tasks that could be transferred to and could easily be taught by the parent (Figures 4,5,6). It seems reasonable that we should be able to get the special education teachers to complete the same process of identifying those instructional activities and remediations that can be taught to the parent and finally taught by the parent to the child.

**Results**

Figure 6 shows only those tasks identified as parent transferable.

**FIGURE 1 - SUMMARY OF ACTIVITIES THAT SHOULD NOT  
BE DONE BY OTHERS  
SUMMARY RESULTS FOR SPEECH AND LANGUAGE THERAPY**

<b>TYPE OF ACTIVITY</b>	<b>REASONS GIVEN</b>
1. Dysphasia – PEG tube (Feeding)	Certification; too dangerous; requires extensive training
2. Cleft palate	Requires extensive training; certification
3. In depth oral – motor that includes analysis of motor components to be remediated.	Requires extensive training
4. Augmentative – Vocabulary Selection - Set up of device initially	Certification; requires extensive training Certification; requires extensive training
5. Artic – Ear training - Initial training of child	Certification; requires extensive training Certification; requires extensive training
6. Hearing impaired – Sign language	Certification; requires extensive training
7. Speech valves	Certification; too dangerous; requires extensive training

8.	Diagnostic – Evaluations	Certification
9.	Modifying the plan goals	Requires extensive training
10.	Training & establishing placement and production of sounds in a variety of concepts	Requires extensive training
11.	Oral motor activities – not inclusive of all exercises	Requires extensive training
12.	Elements of disfluency treatment	Too dangerous; requires extensive training; other (knowledge of counselling needed in some cases)
13.	Initial training and establishing assistive technology/programming	Requires extensive training
14.	Voice therapy	Requires extensive training
15.	Assessment of all speech-language and swallowing	Certification
16.	Training of producing the appropriate phoneme placement for tongue oral posturing	Certification
17.	Development of goals – updating goals	Certification
18.	Any change of objectives would need to be approved	

**FIGURE 2 - SUMMARY OF ACTIVITIES THAT SHOULD NOT BE DONE BY OTHER PROFESSIONS**  
**SUMMARY RESULTS FOR**  
**PHYSICAL THERAPY**

TYPE OF ACTIVITY	REASONS GIVEN
1. Aggressive range of motion	Certification; too dangerous; requires extensive training
2. Joint mobilization	Certification; too dangerous; requires extensive training
3. Evaluations/Assessments	Certification; requires extensive training
4. Equipment acquisitions and adaptations (athletics, positioning equipment, wheelchairs)	Requires extensive training
5. Highly refined functional balance in Positions	training Certification; too dangerous

6.	Facilitation of new motor skills (to develop appropriate Kinesiology)	Certification; too dangerous
7.	Students who are making progress so quickly that making treatment plan would be difficult	Requires extensive training
8.	Postural drainage	Too dangerous; requires extensive training
9.	Gait training that requires facilitation (hands on) to maximize results	Certification; requires extensive training
10.	PNF techniques	Requires extensive training
11.	NDT techniques	Requires extensive Training
	Myofacial release techniques	Requires extensive training
13.	Modalities	Certification

**FIGURE 3 - SUMMARY OF ACTIVITIES THAT SHOULD NOT  
BE DONE BY OTHER PROFESSIONS  
SUMMARY RESULTS FOR  
OCCUPATIONAL THERAPY**

TYPE OF ACTIVITY	REASONS GIVEN
1. PNF	Requires extensive training
2. Splinting - PT	Requires extensive training
3. SI-vestibular	Too dangerous
4. Some feeding	Too dangerous
5. Brachial Rlexis, PROM, Bn Hubones	Too dangerous; requires extensive training
6. Testing	
7. Adapt equipment (w/c) - PT	
8. Oral motor swallowing	
9. Instruction and teaching of pencil grasp, writing position, use of adaptive equipment (slant board, etc.), seating and positioning	Certification
10. Oral motor/swallowing difficulties (except to speech therapy)	Certification; too dangerous; requires extensive training
11. Splinting/orthotics (except P.T.'s)	Certification; too dangerous; requires extensive training
12. Range of motion Exercises – Upper body – except P.T.'s	Certification; too dangerous; requires extensive training
13. Instruction and teaching of integration/ sensory diet techniques	Certification; requires extensive training

**FIGURE 4**

**TASKS THAT CAN BE SHARED WITH OTHERS**

	<u>OCCUPATIONAL THERAPIST</u>	<u>PHYSICAL THERAPIST</u>	<u>SPEECH &amp; LANGUAGE THERAPIST</u>	<u>REGULAR TEACHER</u>	<u>SPECIAL EDUCATION TEACHER</u>	<u>PARENT</u>	<u>CLASSROOM AIDE</u>
<u>OCCUPATIONAL THERAPIST</u>					Fine motor/ hand writing/ tool use	Fine motor/ hand writing/ tool use	Fine motor/ hand writing/ tool use
	Dressing/ eating/ hygiene programs	Dressing/ eating/ hygiene programs	Dressing/ eating/ hygiene programs			Dressing/ eating/ hygiene programs	Dressing/ eating/ hygiene programs
	Sensory diet	Sensory diet	Sensory diet		Sensory diet	Sensory diet	Sensory diet
	Visual perception						
<u>PHYSICAL THERAPIST</u>	Gentle passive range of motion						
	Donning/ daffing orthotics						
<u>SPEECH &amp; LANGUAGE THERAPIST</u>					Basic oral motor tasks	Basic oral motor tasks	Basic oral motor tasks
	Transfer of learned sounds into various settings						
	Eliciting various language						



**Figure 6**

**Extrapolated List of Tasks That Can Be Transferred to Parents**

<b><u>Taken From</u></b>	<b><u>Given To Parent</u></b>		
<b>Occupational Therapist</b>	Hand writing Fine Motor Activities Hygiene	Tool Use Dressing Eating	Visual Perception Sensory Diet
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<b>Physical Therapist</b>	Gentle Passive Range of Motion Aerobic Endurance Donning, Daffing, Orthotics	Motor Planning (selective)	
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<b>Speech &amp; Language Therapist</b>	Basic Oral Motor Tasks Transfer of learned sounds into various settings	Daily Training of PECS Eliciting Various Language Structures	

In the Winter of 2005, I conducted a follow-up study which addressed special education teachers who were using the transdisciplinary approach. A total of 12 special education with six resource rooms and six self-contained classroom teachers were selected for a pilot study designed to probe several potential variables related to getting parents involved in their child's education. The classrooms were equally representative of rural, suburban and urban school districts with six representing elementary level and six representing secondary level classrooms.

The first variable I looked at was the amount of training the teacher had received in parental involvement. Research shows that teachers who are prepared and taught how to involve parents into their classroom find they have better communication with parents (Quigley, 2000). All of the respondents had taught less than 10 years. Eighty four percent of the respondents indicated they had taken courses or workshops that dealt with

involving parents in the their child's education. None of the respondents indicated they had taken more than six total hours of courses or workshops dealing with parent involvement. When asked "What do you do when a parent won't participate in transdisciplinary ? The majority of teachers participating in the survey (74%) indicated that they pushed the parent by sending suggested things home for them to do with the student.

Research by James Griffith indicates that parental involvement and empowerment combined accounts for the greatest amount of variance in student performance (Griffith, 1996). I asked participating teachers "have you noticed any difference in standardized assessment scores with those students who are receiving transdisciplinary education?" Responses were quite varied with 33% of respondents saying "There is no change" and the remainder were equally spread between "The students are doing significantly better since receiving transdisciplinary"; "The students are doing significantly better since receiving transdisciplinary"; "The students are doing somewhat better since receiving transdisciplinary"; "The students are doing worse"; and "There are mixed results"

### ***Conclusions***

At the present time, although there is overwhelming evidence that parental involvement can significantly improve students success in school, the evidence that a transdisciplinary service delivery approach will significantly impact the progress of special education students, is not substantiated.

Although it seems quite likely that having the special education teachers and related service staff provide the parent with educational activities to use with the child at home will improve the child's self-concept and skill levels, there is not sufficient research to

prove this.

There is a definite need for a large-scale study to measure the effectiveness of the transdisciplinary method. Future study should address the importance of teacher in-service in how to involve parents using a transdisciplinary approach, the amount of training time dedicated to the parent, parental perceptions vs. teacher perceptions and finally whether any positive or negative change occurs in the student standardized test scores.

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Robert Cross holds a BA, MA and Ph.D. from Michigan State University. He has served as a Full Professor of Graduate Special Education, Director of Special Education, Chair of Educational Leadership, Chair of Graduate Studies and Professor of Education Foundations at Grand Valley State University for the past twenty-five years. His prior experience includes service as an Executive Director of Special Education for a consortium of seven large school districts in Michigan and as Assistant Professor of Psychology and Education. Dr. Cross has authored numerous articles and most recently spent his time studying Transdisciplinary Service Delivery Systems as a means of improving services to special education students.