A Survey of Teaming and Assessment Practices of Practitioners Trained in Transdisciplinary Play-Based Assessment

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A SURVEY OF TEAMING AND ASSESSMENT PRACTICES OF PRACTITIONERS TRAINED IN TRANSDISCIPLINARY PLAY-BASED ASSESSMENT

A Thesis
Presented to
the Faculty of the Department of Psychology
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of the Requirements of the Degree
Specialist in Education

By
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A SURVEY OF TEAMING AND ASSESSMENT PRACTICES OF
PRACTITIONERS TRAINED IN TRANSDISCIPLINARY PLAY-BASED
ASSESSMENT

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This research project is an electronic survey of Western Kentucky University graduates of an OSEP funded personnel preparation project (Project TEAM) from the years 1993-2000. The program trained graduate students in transdisciplinary play based assessment from the disciplines of psychology, speech/language pathology, and Interdisciplinary Early Childhood Education (IECE) through a series of coursework, seminars and an internship. Transdisciplinary play based assessment (TPBA) is recommended by experts and learned societies in the early childhood field and is considered to be child friendly, provides a holistic view of the child and promotes communication and collaboration between the professionals and family (Linder, 1990; McGonigel, Woodruff & Roszmann-Millican, 1994). The purpose of this study was to obtain information about current practices of professionals who have received knowledge and supervised experience implementing TPBA and what they consider are barriers to using TPBA. A response rate of 40.6% (n = 35) was obtained for the 86 participants surveyed. The majority of respondents hold a graduate degree and are employed as educators or related service providers for children 3 to 12 years of age. Results of this study indicated that respondents considered themselves knowledgeable in TPBA practices, although some group differences were noted, as school psychology respondents
frequently rated their knowledge below the other groups. Further, respondents viewed TPBA practices as important to learn and use for eligibility assessment and ongoing educational assessment. However, IECE respondents rated the importance of TPBA for ongoing educational assessment higher than the other disciplines. Respondents also felt TPBA provided better information than traditional assessment approaches, yet the majority of the respondents are currently implementing either a multidisciplinary or interdisciplinary approach for assessment. Only the IECE respondents indicated they would prefer to be implementing transdisciplinary practices and were advocating for its use. The top three barriers to implementation of TPBA approach included coordinating team member schedules, federal and state requirements and time constraints for team members. Results are discussed and implications for further study are noted.
Introduction

The implementation of interventions for children with disabilities and developmental delays at an early age is crucial for maximizing their developmental outcomes (Linder, 1990). For preschool children, ages 3 to 5, a quality assessment should lead to a quality intervention plan. Federal legislation for the education of children with disabilities mandates a multidisciplinary team approach to the assessment of infants and toddlers (under age 3) and specifies a team approach of knowledgeable personnel for the assessment of preschool age children and older (ages 3 to 21; P.L. 108-446, 2004; Part C § 631; Part B § 614). The multidisciplinary approach calls for professionals knowledgeable in early childhood development to assess and identify needs of the child individually and meet to discuss interventions. Learned societies in the fields of early childhood, school psychology and early childhood special education call for assessment approaches that are comprehensive, formal and informal, and show evidence of collaboration and teamwork (National Association for the Education of Young Children [NAEYC], 2003; National Association of School Psychologists [NASP], 1999; Division of Early Childhood [In Sandall, Hemmeter, Smith and McLean, 2005]). Although the intention of the legislation and the learned societies is for a preschool age child (age 3-5) to have a comprehensive assessment completed by a team from multiple disciplines, the legislation does not specify the assessment approach that experts contend best meets the intent of the legislation, the transdisciplinary approach. The transdisciplinary approach to the assessment of preschool children allows for a holistic view of the child in his/her
natural setting, with professionals and the family working together to promote communication across the developmental domains (Linder, 1990; McGonigel, Woodruff & Roszmann-Millican, 1994). One evidence-based researched strategy that is used within a transdisciplinary approach is the transdisciplinary play-based assessment developed by Toni Linder (1990). There is research on the validity, appropriateness and usefulness to the transdisciplinary method of assessment [e.g. Bagnato & Neisworth (1991), Linder (2000), McGonigel et al. (1994), Myers and McBride(1996)], yet there is little research regarding the use of this method in school systems for the assessment of preschool age children (three to five years old). From 1993-2000, Western Kentucky University provided a series of courses and practica that trained students from school psychology, communication disorders, social work and interdisciplinary early childhood education on the transdisciplinary method of preschool assessment (Stayton, Whitaker, Jones & Kersting, 2001). It is unclear whether the graduates who participated in these personnel preparation programs have been involved in transdisciplinary assessment in their current local education agency. The following literature review and survey will look into the background of early childhood assessment and discuss the characteristics of and problems with the use of the transdisciplinary assessment approach with preschool-age children.
Federal Legislation

In 1975, the Education for All Handicapped Children Act (Public Law 94-142) was enacted by Congress to support states and local education agencies in ensuring the rights, meeting individual needs, and improving the development of infants, toddlers, children, adolescents with disabilities and their families (U.S. Department of Education, 2003). Public Law 94-142 included services to children ages birth to 21, yet states were initially only required to implement legislation for ages 3 to 21. This lack of services for young children (birth to 3) and their families led to a national concern in the 1980s. In 1986, Public Law 94-142 was amended to appropriate federal funding for states that created a system for screening children birth to 3 (U.S. Department of Education, 2003). In 1990, Public Law 94-142 was renamed the Individuals with Disabilities Education Act (IDEA) and was later amended in 1997 as Public Law 105-17. This amended law found an increased need for identifying infants and toddlers with disabilities and providing them with intervention services. Therefore, Public Law 105-17 provided funding to develop and implement a statewide, comprehensive (and) multidisciplinary system regarding early intervention services to infants, toddlers and their families (P.L. 105-17, 1997, Part C). The most recent reauthorization law (Public Law 108-446) does not make significant changes to the Infants and Toddlers with Disabilities section, Part C of IDEA 1997, but does add strong encouragement for the use of peer-reviewed and data-based
interventions. Public Law 108-446, Part C does not make changes as to what areas to evaluate or what method is to be used to meet the needs of an infant or toddler with a disability. Currently, the reauthorized IDEA, Part C, states that the individualized family service plan (IFSP) team will identify a deficit in any one or more areas of development (physical, cognitive, communication, social, emotional or adaptive). A common identified service category for ages birth to 8 is a developmental delay, which is mandated to be identified by a team of professionals. This multidisciplinary team-based assessment approach is also mandated in Part C for infants and toddlers. The team is required to identify and serve the needs of an infant or toddler along with family-directed assessment to identify concerns of the family and supports or services that may be necessary for the family to meet the needs of their young child (P.L. 108-446 Part C § 635).

Part B of the reauthorized IDEA is focused on providing special education service funds for children with disabilities ages 3 through 21 (P.L. 108-446, Part B § 611). In evaluating and determining eligibility of children ages 3 through 21, a multidisciplinary assessment is not specified, but it is mandated that assessments be completed by trained and knowledgeable personnel (P.L. 108-446, Part B § 614). Part B also specifies the use of a variety of assessment tools and strategies to gather functional and developmental information and states that no one procedure be used in determining a child’s disability. The assessment instruments should be technically sound; not biased in terms of race, culture and language; and be implemented by trained personnel who will evaluate the child in all areas of the suspected disability (P.L. 108-446, Part B § 614).
Although a specific assessment approach is not written into Part B of IDEA, a team approach to assessment is the intent of the law. Usually in the multidisciplinary team approach, each team member assesses the child at individual times and one integrated report of the child’s functioning is developed based on team members’ findings. The eligibility determination team consists of a variety of knowledgeable people in the areas of the suspected disability (Jacob & Hartshorne, 2003). Part B and Kentucky regulations mandate the eligibility team consist of a regular and special education teacher, a representative of the local education agency, someone with special expertise regarding the child and related services personnel as needed (e.g., speech/language pathologist) (P.L. 108-446, 2004, Part B § 615; Kentucky Department of Education, 2000). The parents of the child are also always included as a member of the team (Jacob & Hartshorne, 2003).

Since Public Law 105-17 in 1997, few changes have occurred in the practices of early childhood assessment. Neisworth and Bagnato (2005) stated that changes have not occurred in the “process, style and methods of assessment” of young children with disabilities that would facilitate them being “developmentally appropriate and family centered” (p. 45). While the legislation requires a multidisciplinary and/or team approach to assessment, experts in the early childhood field and learned societies (e.g., NAEYC (2003), Neisworth & Bagnato (2005)) have provided recommended approaches that go beyond what is required by legislation (e.g., transdisciplinary). These processes may better meet the intent of the legislation in the area of preschool assessment and will be the focus of the present investigation.
Kentucky Services

The Kentucky state regulations for special education define a developmental delay as “a child between the ages of three (3) through eight (8) who has not acquired skills, or achieved commensurate with recognized performance expectations for his age in one or more of the following developmental areas: cognition, communication, motor development, social-emotional development, or self-help/adaptive behavior” (Kentucky Department of Education, 2000, p. 6). The developmental delay is determined by a defined numerical discrepancy between the child’s expected performance on a measure yielding standard scores for his chronological age and his current level of performance. Evaluation procedures for the state of Kentucky are consistent with federal standards in that assessment tools are selected to be non-discriminatory by culture or native language, a variety of tools are used and tailored to the specific area of need, the child is assessed in all areas and the evaluation is comprehensive to identify all of the special education and related services needs (Kentucky Department of Education, 2000). The evaluation requirements laid out are specific to children ages three though 21 and do not specify a team assessment model or required assessment process.

The Kentucky Department of Education, Division of Exceptional Children (2003), indicated in their December 1, 2003 data that a total of 20,219 children ages three through five were receiving special education and related services. Of that number, 10,265 were served under the speech and language disability. Following close behind that, 9,075 children were being served under the classification of developmentally delayed. These numbers indicate that nearly half of all children ages three through five receiving special education services are identified as developmentally delayed, which, by
definition, will require assessing a child’s development in all domains. Thus, professionals from a variety of disciplines are needed to identify any developmental concerns in those domains.

**Recommended Practices in Early Childhood Assessment**

The NAEYC (2003) adopted a position in November 2003 advocating for early childhood professionals to be responsible for creating comprehensive systems of assessment that use sound early childhood methods. These professionals are to adopt values that support children as individuals and as part of families, cultures and communities. Further, early childhood professionals create a partnership when working with families. The NAEYC does not specify a particular assessment process because their focus is on creating guidelines for the progress of young children within the education curriculum, but they do give recommendations as to what should occur in the assessment of young children. When conducting assessments, the tools should be reliable, valid and used in an ethical manner. The assessment should be developmentally appropriate, focusing on the child’s “strengths, progress and needs (and) use methods that are culturally and linguistically responsive, tied to children’s daily activities (and are) inclusive of families” (NAEYC, 2003, p. 10). The NAEYC recommends that early childhood professionals should adopt positive attitudes and outcomes toward assessing young children. In order for that to happen, members should believe in collaboration and teamwork where all team members “agree on desired goals, methods and processes for assessing children’s progress” (NAEYC, 2003, p. 13).

The National Association of School Psychologists (NASP, 1999) adopted a position in March 1991 (revised July 1999) for the assessment of preschool and primary
grade children. They support the notion of early identification and intervention because of “children’s broad and rapid development” (NASP, 1999, p.1). NASP reports that through research and practice in early childhood assessment, it has been found that the use of standardized assessment procedures can be a problem in accurately making decisions because of the child’s rapid development and changes in performance. They caution against the sole use of standardized assessments and support a multidisciplinary team to gather several sources of information using several assessment methods in several settings. They encourage that the child be assessed as part of the family system and also encourage that those involved in the assessment of children from birth through preschool age be specially trained in this age group. NASP promotes decision-making based on “comprehensive, education and/or behavioral concerns, rather than isolated deficits identified by individual assessments” (1999, p. 9). In other words, NASP encourages that the assessment process and decisions made should be based on concerns and results from all professions involved in the evaluation.

The Division of Early Childhood (DEC) of the Council for Exceptional Children (CEC), a professional association for early childhood special educators, related service providers and families has a nationally validated set of recommended practices specific to assessment (Neisworth & Bagnato, 2005). The DEC defines assessment as the systematic collection of information to assist in making decisions regarding identification, screening, eligibility, program planning, monitoring and evaluation (Sandall et al., 2005). One key suggestion is that children are entered into a program through “flexible eligibility determination processes” (Neisworth & Bagnato, 2005, p. 48). Also, the assessment process should be used to identify the child’s needs and address those needs with
interventions, instead of simply labeling the child (Sandall et al., 2005). The families and professionals should agree upon the materials and methods used and “rating scales, direct observation, curriculum-based checklists and caregiver interview inventories” are all helpful in determining the child’s strengths which in turn will guide interventions (Neisworth & Bagnato, 2005, p. 48). They further recommend that materials be flexible, multiple and used to accommodate the child’s “sensory, response, affective and cultural characteristics,” (p. 49) which may result in findings that are more realistic than using materials that have been standardized based on children with typical development.

The American Speech-Language-Hearing Association (ASHA, 2005) has also set assessment guidelines for speech/language pathologists working with children with congenital or acquired cognitive-communication disorders. ASHA encourages that the assessment of a cognitive-communication disorder be standardized and nonstandardized for an understanding of the child’s activity level and any contextual factors that may influence the child’s communication performance. ASHA did not specify what is considered standardized and nonstandardized assessment in its assessment guidelines. Speech/language professionals are also encouraged to assess the interactions and support from the child’s communication partners, such as teachers, parents and peers in a variety of environments. This indicates the importance of observing the child with multiple persons to identify his/her communication abilities with different people. Gathering developmental and other relevant information from parents and other disciplines working with the child is also needed from speech/language pathologists’ assessment, emphasizing collaboration with the other disciplines.
It is clear, looking at these four major associations involved in early childhood, that they hold similar expectations for professionals when they are identifying disabilities and developmental delays in young children. Common themes among these professional associations include the child’s being assessed as part of a family system and involving the family to identify needs and developmental history. Also, a flexible assessment process using a variety of materials rather than or in addition to standardized assessment tools and a comprehensive and collaborative approach to assessment and agreement on interventions is encouraged. In all, family involvement, collaboration, assessment by multiple professionals and addressing the child’s needs are consistent themes advocated by learned societies for use with preschool-age children.

Models for Early Childhood Assessment

Even after years of progressive research in the field of early childhood, there is still an emphasis on using norm-referenced instruments because these tools “yield the scores some school districts require for determining eligibility” (Appl, 2000). Yet, there are concerns regarding the over reliance on norm-referenced tools. Appl points out those norm-referenced tools are sometimes misused and some have not been through a precise evaluation regarding their reliability and validity for use with young children. The results of norm-referenced assessments often give a narrow picture of the child. Linder (1990) established a number of concerns with using norm-referenced materials with preschool-age children. First, the child is traditionally tested in an office setting to eliminate distractions, a rule of most standardized tools. The office setting is not ideal to gaining a good picture of the child because it is not his/her natural environment where abilities are better represented. Traditional assessment tools are not conducive to those children who
may have physical, motor, sensory and language impairment concerns. Standardized tests require children to manipulate items, which can be difficult for children with motor impairments and are heavily weighted in oral expression of language, even though language difficulties are the most common reason for referral for preschool-age children (Linder, 1990). The standardized test items may have gaps between age level starting points that do not allow for a child with a developmental problem to fall into a specific ability level. Test results will indicate specific skills that are present or not, but do not provide information on the child's underlying developmental processes that may be interfering with the learning of these skills. Finally, norm-referenced tests do not provide important functional information about a child's needs for everyday living, which is more relevant to a parent than the child's ability to stack blocks on the test (Linder, 1990).

Early intervention is still based on assessment where “much time is spent on making a categorical diagnosis and placement” (Bagnato & Neisworth, 1991, p. 56). Bagnato and Neisworth (1991) identified a survey of 105 school psychologists in 1987, on which 42% felt their traditional preschool assessment techniques were inadequate and wanted updated information on alternative methods. Additionally, 91% of the respondents wanted knowledge of alternative play, observation and nonverbal assessment methods.

There is a continuum of service models through which assessment can take place. Each service model promotes a different process for early childhood assessment. It extends from “segregated and multidisciplinary services,” to “integrated and transdisciplinary services” (McWilliam, 2000, p. 47). There are three common models of
team assessment identified in the literature: multidisciplinary, interdisciplinary and transdisciplinary.

*Multidisciplinary.* The multidisciplinary model is most widely used in the assessment of children 3-21, but it is considered “inadequate,” by experts in the field (Bagnato & Neisworth, 1991). In this model, several professionals assess the child at independent times, according to their specific discipline. Although IDEA, Part B does not specify professionals who will do the assessment, it does specify who is on the eligibility determination team. These persons include the parents, one regular education teacher, one special education teacher, a representative of the local education agency (LEA) and other individuals who may have special expertise regarding the child (P.L. 108-446, 2004, Part B § 615). Other professionals may also be involved in the multidisciplinary assessment team. Multidisciplinary assessment is what Linder (1990) calls traditional assessment. Each professional generally uses norm-referenced materials, which pose some concerns when used with preschool-age children. When using norm-referenced tests, variation in the test administration and scoring is not allowed, as well as reinforcing or assisting the child. This can be effective when determining a diagnosis and describing the child through developmental norms in order for the child to be eligible for services but is not developmentally appropriate for preschool-age children due to their need for reinforcement (Appl, 2000). The traditional assessment process (multidisciplinary) is time consuming, in that each professional sees the child individually for up to an hour, which can also lead to fatigue and frustration from the child. Parent interviews and classroom observations take place, which requires more time during the assessment process. Reports are written by each professional and a meeting with everyone working
with the child and the parents is conducted to discuss diagnosis and intervention plans (Linder, 1990). The Individualized Education Plan (IEP) is then written with team members’ giving input based on their observations and intervention plans are created. The multidisciplinary model of preschool assessment does not promote a “whole-child” and/or a realistic view of his/her daily performance. When the professionals evaluate independently from one another, reports and recommendations can be inconsistent, causing parents to become confused.

Interdisciplinary. Similar to the multidisciplinary team, professionals from several domains are represented on the interdisciplinary team. Yet, the interdisciplinary model takes the “whole-child” perspective and stresses the involvement of parents in the team to set goals collaboratively. Team members will do their assessments at separate times using norm-referenced materials, similar to the multidisciplinary team model, but the interdisciplinary model encourages the team members to share information and discuss assessment results at regularly scheduled meetings, rather than one meeting after all evaluations have been completed. The regularly scheduled meetings will allow the team members to integrate their findings for a more holistic perspective of the child and decide what additional information they need. It also allows for reports to be integrated with few conflicting views and for interventions to have common goals across domains of development, making for a more comprehensive and consistent IEP to decrease confusion of parents (McGonigel et al., 1994). McGonigel et al. stated that although there is more collaboration of the team members during the interdisciplinary process, there is often a struggle for team members to accept other’s recommendations without understanding that person’s training and expertise. Many of the problems associated with a quality
assessment for preschool children are solved using the interdisciplinary approach compared to the multidisciplinary, such as the increased collaboration among team members and better integration of reports and interventions. Yet, there are still concerns regarding the amount of time it takes and the child friendliness of the individual assessments and assessment tools utilized in the interdisciplinary process.

Transdisciplinary. The transdisciplinary approach was developed by the National Collaborative Infant Project in the mid-70s as a response to budget cuts that forced staff members to develop cost effective teams for evaluating infants and the needs of their families (McGonigel et al., 1994). The transdisciplinary model consists of team members sharing “assessment and therapeutic expertise with each other” (Bagnato & Neisworth, 1991, p. 17). Team members and parents work actively together to create assessment and intervention goals for the developmental domains assessed by the team. The team members usually include an early childhood special educator, speech/language pathologist, occupational and physical therapist, family service worker (social worker) and a developmental pediatrician (Bagnato & Neisworth, 1991). The school psychologist is most often a part of the team if the child is preschool age.

The transdisciplinary model advocates assessing children through an approach where all members (specialists and family) gather in one room and observe and record multiple aspects of the child’s behavior. The idea of all team members observing the child at once is the key advantage of transdisciplinary assessment. The observation of the child at one time by all of the team members is child friendly, promotes the whole child view and cuts down on the time it takes to complete the evaluation. To limit feelings of discomfort by the family or child, only one team member interacts with the family and
child with prior input from the rest of the team as to what communication, motor, cognitive, social-emotional or adaptive type tasks they would like to see the child perform. Also, the transdisciplinary assessment allows for the child to avoid being handled by multiple strangers, which can interfere with building rapport with the child and the child’s comfort level, both of which affect the child’s performance (McGonigel et al., 1994). The family is central in providing further input because they are preferably present at the transdisciplinary assessment session, which solves the issue of having each professional interview the parent at different times. The transdisciplinary approach also allows the parents to observe what is taking place so they can better contribute to and understand data and interventions that are presented to them at the end of the assessment. The key to this model is that it attempts to form a team where professionals cross discipline boundaries to promote “communication, interaction and cooperation among the members” to more thoroughly assess young children (McGonigel et al., p. 103). As Correa, Jones, Thomas and Morsink (2005) indicate, transdisciplinary teaming allows skills to be shared, roles to be exchanged and mutual training of expertise to take place between the disciplines. This method is most successful when team members know each other and have worked together for a long period, eliminating the problem presented in the interdisciplinary process of accepting and understanding each other’s expertise. All decisions regarding assessment, interventions, implementation and continuing evaluation are made as a team consensus and the team will write the integrated report together (McGonigel et al., 1994).

The transdisciplinary assessment approach is able to solve many of the problems noted in the traditional assessment approach with preschool age children. It is a more
developmentally appropriate approach and child friendly, allowing the child to be observed at one time by all professionals, rather than multiple times having to take the child away from peers, teacher and play as is seen in the multidisciplinary and interdisciplinary approach. It is also family/parent friendly because they are more involved in the entire evaluation of their child during the transdisciplinary assessment, rather than just for interviews and at the eligibility meetings.

The transdisciplinary assessment process does have some disadvantages, especially in the area of teamwork and organization. Each professional will need to discuss before the assessment what they will be observing and multiple observations may be needed to get a quality sample of the child’s behaviors. Each activity and data collection procedure has to be individualized to that child and the team of professionals needs to have a high level of expertise in observing and recording behaviors simultaneously (Losardo & Notari-Syverson, 2001). Team members will also need to have an ability to adapt to the child’s mood and level of functioning that day, which may determine what direction they take in their assessment.

Another key disadvantage to the transdisciplinary approach is the lack of use of norm-referenced instruments that yield scores for special education eligibility determination. Local education agencies that do utilize the transdisciplinary approach to assess preschool children may be simultaneously using a standardized assessment tool. Parette, Bryde, Hoge and Hogan (1995) describe this model as an arena assessment. This model involves having each family member and professional sit on the floor around the child with their assessment protocols, while a designated leader (the teacher or a professional) elicits the behaviors of the child that correspond with the protocols. Often
professionals are looking for the same behaviors of the child to complete their testing, so the arena approach allows for the professionals to have immediate collaboration, rather than waiting for each others reports. Along with standardized instruments, the arena assessment will also include more informal procedures and much observation (Parette et al., 1995). It seems the arena approach operates in the same fashion as the transdisciplinary assessment approach along with the advantages of collaboration and family involvement, but it also allows for local education agencies to have the standard scores they may need to qualify the child for special education.

It is not easy to initiate transdisciplinary evaluation procedures in a school system. According to McGonigel et al., starting transdisciplinary or arena assessment methods requires much “planning, effort, time and initially, expense” (1994, p. 111). Every professional would need training and practice in this method and would need to understand the importance of the arena part of the assessment. Many individuals entering the transdisciplinary team may feel uncomfortable participating in a group assessment where they have to delegate parts of their role to team members from other disciplines. These issues would need to be discussed openly before it became enough of a problem to affect the assessment process. There are always interpersonal issues to face when creating a team. It is important that the team leader and the team members take responsibility in creating an atmosphere and environment for successful assessments. Although there are weaknesses involved in this approach, it is important to remember that the final outcomes of using this approach may be better suited for the child as it builds better rapport and provides a more holistic view of the child (McGonigel et al., 1994).
Transdisciplinary play-based assessment. Toni Linder developed a transdisciplinary assessment model named transdisciplinary play-based assessment (TPBA). Her model is a flexible, holistic and developmentally focused assessment of functioning for children ages 6 months to 6 years of age. It is flexible in that the structure, content, participants and sequences of activities can all be adapted to the needs of the child being evaluated. Such alterations include the type of language used with the child, the use of toys or materials related to the child’s culture, the use of toys or materials to allow for the child with disabilities to give higher levels of performance and modify the presentation of the materials to best promote learning and interaction (Linder, 2000). It is a holistic approach to assessment because a team consisting of the child’s parent(s) and representatives from different developmental disciplines implement the TPBA. Parents observe the play during the assessment and can give feedback as to how the child is behaving during the session compared to what they observe at home (Linder, 2000). Team members include the same individuals as described in the transdisciplinary section of this document, under Models of Early Childhood Assessment. All of these individuals observe the child for an hour to an hour and a half during the same facilitated play activities. Observation guidelines are provided to team members for each developmental domain being observed, the key being that all professionals will observe the child at the same time in the same conditions. The play-based assessment is developmentally appropriate because of the naturalistic setting that results in less stress for the child.

This type of assessment can be very helpful when writing the IEP and/or the IFSP because the mandated assessment domains will all be collected when using TPBA. The IFSP form calls for an assessment of family needs, including family-child interactions.
Through observations during the TPBA process, evaluators can observe the parent-child interaction, discuss what they observed and identify goals for the child and family at the planning meeting.

Overall, TPBA can supply information on how children process and use their functional skills, involve the parents in the assessment process and provide the opportunity for transdisciplinary teamwork (Linder, 1990). Although never specified in federal regulations, the spirit of the law and recommendations of learned societies regarding the assessment of young children is consistent with what the TPBA model represents: a collaborative, friendly and comprehensive view of the child’s performance in all areas of development.

It is important to note that TPBA has limited reliability and validity data; however, research that has been conducted in this area has supported the effectiveness of this technique. Myers and McBride (1996) studied the validity of TPBA compared to individuals randomly assigned to a standardized assessment. Parent and staff perceptions were gathered. The parent perceptions were gathered through a survey that found no significant differences between those children who received a standardized assessment and those children involved in the TPBA. On the other hand, the staff perceptions indicated they were able to gather more information in communication, social and motor skills domains with the TPBA rather than the standardized assessments. Staff also reported the TPBA to be more useful compared to the standardized assessments when identifying strengths and weaknesses of the children. In terms of the amount of time it took to complete the evaluations of the 40 participants, the TPBA was completed in less time (by 3 weeks) compared to the standardized assessments. The researchers also found
that 75% of the TPBA assessments were completed 45 days after the referral, as required by the IFSP. In all, the researchers suggested that through this research (although limitations were present), the use of TPBA is recommended as “a viable assessment method in early childhood special education” (Myers & McBride, 1996, p. 58).

Rationale for the Transdisciplinary Model as Recommended Practice

Assessment models that promote team members assessing and intervening independently of each other are not best practices, as indicated by experts and learned societies in the early childhood field. The transdisciplinary approach avoids the problem of team members performing their tasks independently. The transdisciplinary approach makes intervention “more holistic” and “enhances team members’ abilities,” bringing their expertise, resources related to the child’s behavior and individual fields of study, together (McWilliam, 2000, p. 48). McWilliam suggests that there is great value to team members taking a transdisciplinary approach because of the “exchange of competencies between team members” (p. 48). Losardo & Notari-Syverson (2001) emphasize that the transdisciplinary model facilitates communication and partnerships between the caregiver and professionals.

According to Appl (2000), “the ease and effectiveness of planning an IEP depends on the assessment information gathered during the diagnostic evaluation” (p. 223). When developing the IEP, the transdisciplinary members will have observed the same behavior, which makes for better discussion and agreement. This is not feasible when assessment is done independently using norm-referenced materials.

Play assessment was studied by Fewell and Rich (1987), using the Play Assessment Scale (PAS), which is a different approach than TPBA but does lend support
to the use of play as an assessment tool. Their study found high correlations between the Play Assessment Scale (PAS) and children’s development in cognition, communication and social behavior. They found many advantages to the use of play as an assessment medium. One advantage was “the increased cooperation on the part of the child” (p. 115). None of the children in their study were resistant to playing with the toys. A second advantage to using play was the simplicity of the administration. There were few directions for the child to follow and there was no specific order in which items were to be administered. A third advantage was the researcher’s ability to discern the child’s preferred learning strategy through play assessment, which could later be helpful to teachers’ instructional practices. Although there were limitations to their study (a small sample size and the lack of standardization of the PAS), their results show promise in using play assessment to gather developmental information about children with potential delays.

As was stated before, the TPBA does not have extensive evidence of reliability and validity support in the research literature. However, the growing trend in early childhood assessment seems to advocate for the minimum use of standardized procedures (NASP, 1999; Neisworth & Bagnato, 2005). In order for local education agencies to comply with best practices in early childhood assessment, they will need to implement alternative approaches to standardized assessment that involve “families and are compatible with children’s natural activities,” (Appl, 2000, p. 224). Gredler (2000) discussed the future of the school psychologist in early childhood education. He noted that schools will be involved in more in-depth diagnostic procedures that concentrate less on cognitive abilities and more on a problem solving approach. This would include
deciphering the learning problem in more detail, analyzing the referral question, addressing parent and teacher concerns and creating more individually focused interventions, all before a diagnosis is made.

Currently, using standardized instruments and determining discrepancies between developmental domains of children is the method required by Kentucky Department of Education preschool eligibility regulations (Kentucky Department of Education, 2000). when these graduates are practicing in Kentucky, what incentive is there for implementing assessment practices, such as TPBA, that do not readily supply norm-referenced, standardized comparisons? Unless these professionals advocate for a program change in the state, they will likely be required to follow what is regulated in their district and/or Kentucky. A survey completed by Taylor (1995) asked whether a transdisciplinary teaming approach was being utilized in early intervention programs in Kentucky, with the majority of respondents servicing both home-based and center-based programs. His findings indicated that 47% of the respondents were using the interdisciplinary approach, while 22% were using transdisciplinary and 17% using multidisciplinary approaches. The survey also asked what the perceived satisfaction was with the teaming approach being utilized and 57% responded that they were satisfied with the teaming approach they were using. These findings show that early intervention agencies serving birth through two years were using an assessment approach that encourages the team to share their information before conclusions are made, but a fewer number are using the transdisciplinary approach.

It has been reported that universities and colleges will not modify degree programs in order to prepare professionals for assessment and working with preschool
age children (Bailey, Palsha, & Huntington, 1990 as cited in Stayton et al., 2001). Some master’s level training programs in early childhood education and school psychology may offer training in alternative approaches to assessment of young children, such as TPBA, but it may not be in a manner that it would be accepted in their local education agencies. Through a personal communication with Vicki Stayton (April 14, 2006) she indicated that in the master’s level program in which she teaches TPBA, she only briefly discusses how to adapt this approach to local education agencies by using standardized tools. A very important aspect of the transdisciplinary approach is the extensive amount of collaboration and teamwork involved. Garland and Frank (1997) indicate that professionals most often do not get preservice training in teamwork. The TPBA model may be taught, but collaboration and teamwork have a lesser focus. This may lead to what Correa et al. (2005) found to be a barrier to using transdisciplinary approach in local education agencies, the “lack of collaborative skills and varying level of experience of team members” (p. 58). Yet, the transdisciplinary approach has the potential to create better interventions with all team members involved at the same time, which will decrease problems the child may have in the future and increase time for the school psychologist to perform other tasks (such as counseling and consultation) (Gredler, 2000). These future trends require frequent collaboration between professionals, which is the intent of the transdisciplinary approach. If this is the direction in which early childhood assessment is headed, it may be valuable for local education agencies to implement the transdisciplinary teaming methods in preparation for the future.
Preparing Students across Disciplines in TPBA

From 1993 - 2000, faculty members at Western Kentucky University developed and implemented two Office of Special Education (OSEP) funded personnel preparation programs for graduate students in the areas of social work, psychology, speech/language pathology and Interdisciplinary Early Childhood Education (IECE). This program initiative was in response to the need for an increased number of qualified personnel in the above disciplines who are trained to work with children with disabilities birth through 5 years and their families. For simplicity, the personnel preparation projects will be referred to as Project TEAM. The students participating in Project TEAM initiatives elected to join and in return received stipends to assist with educational expenses, while simultaneously completing their respective degree programs. The IECE students were required to partake in the project for their degree program. The major goal of each preparation initiative was to teach students in the related service areas a philosophy and approach to work with and evaluate children birth through 5 that is consistent with federal and state legislative intent and advocated by experts in the fields of early childhood and early childhood special education, school psychology and communication disorders. The initiatives included seminars conducted during a five-week field placement in the summer, with a curriculum of 8 seminars held throughout the regular school year and summer. The seminars covered topics in the program and its philosophy, the IFSP and IEP process, arena assessment, collaboration, team structure and function, early childhood curriculum and integrating goals and objectives into the families’ daily routine. Teams of 5-6 students representing each discipline were assigned to an infant, toddler or preschool setting and began their team field placement. The members
developed an individualized practicum plan that stated that each member would act as “service coordinator for a child and family, plan and implement activities with children and families, participate in an arena assessment and chair at least one of the required weekly team meetings” (Stayton, Whittaker, Jones & Kersting, 2001; Whittaker, 1998).

A program evaluation of the preparation initiatives, conducted by Whittaker (1998), found that the outcomes and attitudes toward the program were very positive. Graduates from the IECE and speech/language pathology programs reported they were best prepared in IFSP and IEP development, assessment techniques (specifically play-based assessment) and assisting families in identifying resources, priorities and concerns that met their child’s needs. School psychology graduates reported that they were best prepared in observation techniques, “interaction and communication with team members and summarizing and integrating assessment information into implications and recommendations for intervention” (p. 40). Overall, graduates who participated in the initiatives reported that working with students from other disciplines was a good opportunity and that future graduates should have the same opportunity (Stayton et al., 2001).

Purpose

Although federal legislation, Parts B and C of Public-Law 108-446 (2004) mandate a team approach to the assessment of infants, toddlers and school age children, experts in the field of early childhood education, early childhood special education and learned societies do not feel the intent of the law is being implemented. A team approach to the assessment of children birth to 5 years may need to focus less on standardized tests (NASP, 1999) which are the focus of eligibility criteria under Kentucky regulations and
more on assessments that are collaborative between multiple disciplines and provide a
holistic view of the child in his/her natural setting (Linder, 1990; McGonigel et al.,
1994). Multidisciplinary assessment is considered inadequate by experts in the field
(Bagnato & Neisworth, 1991). Interdisciplinary assessment also involves professionals
assessing a child at independent times, but encourages more meetings by the
professionals to discuss and integrate their findings before decisions are made. However,
the transdisciplinary and/or arena assessment advocates for the assessment of a child in a
classroom setting with all team members sharing and discussing the same sample of
behavior they see of the child at a single time (McGonigel et al., 1994). Infants and
toddlers should receive a developmentally appropriate assessment (NAEYC, 2003) and
the use of standardized assessments that are required by Kentucky for eligibility
determination may not be best practice when children this age are rapidly developing
(NASP, 1999). TPBA (Linder, 2000) is a model developed to assess children ages birth
to 5 years and is considered effective for use in early childhood special education (Myers
& McBride, 1996). The transdisciplinary assessment model has strong support from
experts in the field (e.g., Bagnato & Neisworth, 1991; Linder, 1990; McGonigel et al.,
1994) and is very consistent with assessment practices advocated by learned societies
(e.g., NASP, DEC, NAEYC and ASHA). One hundred and thirty-two students from
Western Kentucky University (WKU) received training in the TPBA approach to early
childhood assessment through Project TEAM. Since there are individuals trained in
TPBA, it is of interest to determine if a TPBA model is being utilized in the settings in
which they are employed. It is of further interest as to whether these individuals are
advocating for the use of TPBA in their work settings and any barriers that may be keeping them from utilizing it.

The purpose of this study is to determine whether professionals who have had training and experience implementing TPBA are using this approach for early childhood assessment. The use of TPBA for children ages birth through 2 will be reported but not emphasized in this study because that age group does not fall under the Kentucky Department of Education. IECE, school psychology and speech/language pathology graduates of WKU who participated in Project TEAM between 1993 and 2000 received training and experience implementing transdisciplinary approaches. As indicated, the transdisciplinary approach to the assessment of preschool children is consistent with recommended practices by experts in the field of early childhood assessment, but the process of determining eligibility for services (Kentucky Administrative Regulations) requires standard scores and norm-based data. While the use of a norm-based, standard score yielding instrument does not preclude the use of TPBA, it does not require a transdisciplinary model.

For this study, WKU graduates who have received training and experience implementing TPBA were surveyed. Information was obtained through an electronic survey that was sent to Project TEAM graduates in the IECE, school psychology and speech/language pathology disciplines who participated from 1993 to 2000. For the purpose of the survey, the grant-funded project was referred to as Project TEAM for the sake of the respondents recall. The survey was designed to address the following research questions:
1. How do Project TEAM graduates view transdisciplinary teaming and assessment practices?
   a. How do Project TEAM graduates view their competence in implementing transdisciplinary teaming and assessment practices?
   b. How do Project TEAM graduates view the importance of transdisciplinary teaming and assessment practices?
   c. How do Project TEAM graduates view the benefits of transdisciplinary teaming and assessment practices?

2. What assessment practices do Project TEAM graduates currently employ?

3. How do Project TEAM graduates describe barriers to implementing transdisciplinary practices?
   a. Do the barriers differ by discipline or by age group served (birth to three and three to five)?

Data obtained from this survey may provide valuable information in current practices of early childhood assessment. The survey may indicate the importance of continuing to prepare personnel in this model and/or encourage more local education agencies to utilize the graduates of this program to train personnel and implement a transdisciplinary approach to preschool assessment.
Method

Subjects

Subjects or respondents in this study included students who matriculated through Project TEAM at Western Kentucky University (WKU) from 1993-2000. The pool consisted of 32 school psychology, 70 Interdisciplinary Early Childhood Education (IECE), and 30 speech/language graduate students for a total of 132 possible respondents. To obtain the sample of graduate students, professors involved in Project TEAM and professors in the respective departments provided names and contact information for some individuals. The WKU Alumni Office provided a list of contact information for those available, and a professional association directory was used to obtain contact information for school psychologists. Contact information was available for only 86 of the 132 program participants.

Procedures

Survey development. A survey was created to identify the current teaming approaches to assessment used in respondent’s work setting(s) for children ages birth to five and their views on and use of transdisciplinary play based assessment (TPBA) in their work settings (see Appendix A). The survey consists of demographic questions to describe the sample of respondents (discipline, degree) and the respondent’s current work setting (birth through 12th grade). The survey addressed perceived knowledge, skills and confidence to implement TPBA, perceived importance of TPBA for eligibility determination and current teaming and assessment approaches implemented in their
work settings. Respondents were asked to indicate the benefits and strengths of a TPBA approach and to describe barriers to implementing TPBA if evident. Questions were designed to provide both a selection of closed and forced-choice responses and some open-ended responses to allow for elaboration. To ensure content validity, literature in the field of early childhood assessment and education was considered as a guide to survey development. Two faculty members (school psychology and IECE) involved in the personnel preparation projects, who are knowledgeable in transdisciplinary team approaches, reviewed the survey. The sequence and wording of survey questions was clarified and additional questions were incorporated after the faculty review. Another review was conducted by three IECE program graduates currently practicing in the field. These volunteers reviewed the survey and answered questions provided by the examiner (see Appendix B). The volunteers were also asked to provide feedback on the sequencing of the survey questions, their understanding of the questions being asked, how the questions related to their training and any grammatical changes. One of the volunteers provided minor wording changes to some of the survey questions to clarify and help with the comprehension of the questions. All comments were either considered or used for the final survey. The other volunteers did not feel any major changes needed to be made.

Survey distribution. An electronic survey was used to gather information directly from the respondents. An electronic survey was selected over a mail survey because of low cost and time efficiency, yet instructions were provided if the respondents preferred a print out of the survey. They were also provided with information as to how they could send it back to the examiner (Note: Appendix A is the Word Processor version of the survey. The electronic version was essentially the same with some structural differences,
i.e., drop down menus.) A mailed or emailed cover letter (see Appendix C) was the initial contact to respondents. The cover letter provided information on the examiner, why they were chosen for the survey, the incentive to be a part of a drawing for a gift certificate and the procedure for completing the survey. If the participants had both a mail and email address, the email address was chosen for initial contact. If the email address was returned invalid, a cover letter was mailed to their address. The cover letter invited the respondents to a website on the WKU network. The initial page of the website contained an introduction explaining the nature and purpose of the survey and an explanation that participants could elect to participate in a raffle drawing for 1 of 2, $50.00 gift cards after completion of the survey. A consent form (allowing the participants to decline their involvement), the survey questions and a debriefing page (explained the survey, how to be a part of the raffle for the incentive and how to obtain a final copy of the research) followed the introduction (see Appendix A). After a 30-day period for response, a reminder post card and email (see Appendix D) was sent out to those who had not contacted the examiner about joining the incentive drawing. Access to the survey on the WKU network was denied after 27 days from the date the reminder postcards and emails were sent out. The study procedures were reviewed and approved by WKU’s Human Subjects Review Board (see Appendix E).

Data analysis. The design of the project is descriptive in nature. Descriptive statistics were calculated (mean, range, frequency and percentages) for each question. The questions are conceptually grouped to look at importance, knowledge, skills, benefits and barriers to transdisciplinary play based assessment and current practices.
Results

Return Rate

A return rate was calculated based upon the number of surveys that were sent and the number returned after the 27 days past the second mailing. Of the 86 individuals with available contact information who were sent cover letters, 35 completed the survey for a return rate of 40.6% (27% of the program participants). Of the 35 respondents who completed the survey, 9 (25.7% of total) were school psychology graduates, 5 (14.2% of total) were communication disorders graduates and 21 (60.0% of total) were IECE graduates.

Description of Respondents

Respondents were asked to identify their current title/position and identify their educational level. The results are presented in Table 1. The largest group of respondents work in the Preschool Teacher position \( (n = 11, 31.4\%) \). The majority of the respondents hold a Master’s degree \( (n = 22, 62.9\%) \) and all but one have completed graduate level study \( (n = 34, 97.2\%) \). When all educational positions are combined, educators, including administrators and developmental interventionists were the majority group of respondents \( (n = 21, 60.0\%) \). Related service providers (school psychologists and communication disorders) made up the rest of the pool \( (n = 13, 37.1\%, \text{with one indicating she is a “stay at home mother”}) \).

Respondents were also asked to identify the age range of the children with whom they primarily work. The majority of the respondents \( (n = 29, 82.9\%) \) either work with
Table 1

*Descriptive Statistics of Survey Respondents*

<table>
<thead>
<tr>
<th>Position</th>
<th>n</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Psychologist</td>
<td>9</td>
<td>25.7</td>
</tr>
<tr>
<td>Speech/Language Pathologist</td>
<td>4</td>
<td>11.4</td>
</tr>
<tr>
<td>Preschool Teacher</td>
<td>11</td>
<td>31.4</td>
</tr>
<tr>
<td>Elementary Teacher</td>
<td>2</td>
<td>5.7</td>
</tr>
<tr>
<td>Special Education Teacher (K-12)</td>
<td>3</td>
<td>8.6</td>
</tr>
<tr>
<td>Developmental Interventionist</td>
<td>2</td>
<td>5.7</td>
</tr>
<tr>
<td>Administrator</td>
<td>3</td>
<td>8.6</td>
</tr>
<tr>
<td>Other&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1</td>
<td>2.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>n</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s Degree</td>
<td>1</td>
<td>2.9</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>22</td>
<td>62.9</td>
</tr>
<tr>
<td>Rank I</td>
<td>3</td>
<td>8.6</td>
</tr>
<tr>
<td>Specialist Degree</td>
<td>9</td>
<td>25.7</td>
</tr>
</tbody>
</table>

<sup>a</sup>Respondent is self labeled as a “stay at home mother.”
children ages three through five years (34.3%) or children in grades kindergarten through 6th grade (48.6%). A more detailed breakdown of the age groups is presented in Table 2.

To gather information about the population served by the respondent’s program service area, they were asked to estimate the population of their service area. The largest number of respondents indicated that the population of their service area was 30,000+ (31.4%). The smallest number of respondents’ program service area was 20,000-30,000 (8.6%) while the other service area groups were roughly equivalently represented in the remainder of the sample. Results of the population breakdown are presented in Table 2.

Survey Responses

*View of Transdisciplinary Teaming and Assessment Practices.* To answer the first research question, “How do Project TEAM graduates view transdisciplinary teaming and assessment practices,” responses to survey questions 7 through 20 were broken down into three parts for a more specific understanding of the respondents perception of the transdisciplinary play based assessment (TPBA) model. The first section analyzed the respondent’s ratings of their competence in TPBA (questions 7 through 12). The second section addressed respondents’ view of the importance of TPBA (questions 13 through 17) and the last section analyzed respondents’ views of the benefits of TPBA (questions 18 through 20). Frequencies and percentages were calculated for responses to the questions, along with follow-up analyses to identify possible group differences in ratings. An additional two questions required content analysis (questions 12 and 18) which was done by two examiners. Content analysis was conducted separate for each question. First, each set of responses was considered individually by each examiner to identify central themes (e.g., more experience and practice, state mandates). Once common themes were
<table>
<thead>
<tr>
<th>Age of Children Served</th>
<th>n</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth through two</td>
<td>2</td>
<td>5.7</td>
</tr>
<tr>
<td>Three through five</td>
<td>12</td>
<td>34.3</td>
</tr>
<tr>
<td>Grades K-6</td>
<td>17</td>
<td>48.6</td>
</tr>
<tr>
<td>Grades 5-8</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Grades 9-12</td>
<td>2</td>
<td>5.7</td>
</tr>
<tr>
<td>Other(^a)</td>
<td>2</td>
<td>5.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population of Service Area</th>
<th>n</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,000+</td>
<td>11</td>
<td>31.4</td>
</tr>
<tr>
<td>20,000-30,000</td>
<td>3</td>
<td>8.6</td>
</tr>
<tr>
<td>10,000-20,000</td>
<td>7</td>
<td>20.0</td>
</tr>
<tr>
<td>5,000-10,000</td>
<td>6</td>
<td>17.1</td>
</tr>
<tr>
<td>1,000-5,000</td>
<td>7</td>
<td>20.0</td>
</tr>
</tbody>
</table>

\(^a\)One respondent works with geriatrics and another response of not available.
identified, each examiner grouped the responses into categories fitting the theme. After discussing and coming to a consensus on the categories, each examiner again independently placed the responses into the identified categories and discussed each others groupings. After the second time, 88% of the responses were placed into a category and there was 100% agreement on categories (Patton, 1990).

*Competence in transdisciplinary teaming practices.* The first part of the research question asked, “How do Project TEAM graduates view their *competence* in implementing transdisciplinary teaming and assessment practices?” The survey responses to five questions were used to respond to this question. Two questions focused on perceived knowledge, two questions focused on perceived skills and one focused on confidence in implementing TPBA. Respondents rated themselves on a four-point likert scale from “Expert” to “Beginning” (Table 3). First the respondents rated their knowledge about TPBA (questions 7 and 9). The largest number of school psychologists rated themselves “Developing” (44.4%), in knowledge to implement a TPBA, while communication disorders and IECE rated themselves “Advanced” (80% and 76.2%, respectively). A one-way ANOVA was conducted to test for discipline differences in knowledge to implement TPBA. The ANOVA was significant $F(2, 32) = 5.65, p = .008$. The strength of the relationship between discipline and knowledge to implement TPBA was assessed with $\eta^2$, revealing 26% of the variance in knowledge was accounted for by discipline. Follow up tests were conducted to evaluate pairwise comparisons among means. The only significant group comparison was between IECE and school psychology
Table 3

*Perceived Knowledge and Skills of TPBA*

<table>
<thead>
<tr>
<th></th>
<th>Expert (%)</th>
<th>Advanced (%)</th>
<th>Developing (%)</th>
<th>Beginning (%)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge to Implement TPBA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>33.3</td>
<td>44.4</td>
<td>22.2</td>
<td>2.11 (.78)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>0.0</td>
<td>80.0</td>
<td>20.0</td>
<td>0.0</td>
<td>2.80 (.45)</td>
</tr>
<tr>
<td>IECE</td>
<td>9.5</td>
<td>76.2</td>
<td>19.0</td>
<td>0.0</td>
<td>2.86 (.48)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>2.9</td>
<td>65.7</td>
<td>25.7</td>
<td>5.7</td>
<td>2.66 (.64)</td>
</tr>
<tr>
<td><strong>Skills to Implement TPBA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>22.2</td>
<td>44.4</td>
<td>33.3</td>
<td>1.89 (.78)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>0.0</td>
<td>60.0</td>
<td>40.0</td>
<td>0.0</td>
<td>2.60 (.55)</td>
</tr>
<tr>
<td>IECE</td>
<td>9.5</td>
<td>57.1</td>
<td>33.3</td>
<td>0.0</td>
<td>2.76 (.62)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>5.7</td>
<td>48.6</td>
<td>37.1</td>
<td>8.6</td>
<td>2.51 (.74)</td>
</tr>
<tr>
<td><strong>Knowledge to Work in TPBA Teams</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>55.6</td>
<td>22.2</td>
<td>22.2</td>
<td>2.33 (.87)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>20.0</td>
<td>80.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.20 (.45)</td>
</tr>
<tr>
<td>IECE</td>
<td>9.5</td>
<td>66.7</td>
<td>23.8</td>
<td>0.0</td>
<td>2.86 (.57)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>8.6</td>
<td>65.7</td>
<td>20.0</td>
<td>5.7</td>
<td>2.77 (.69)</td>
</tr>
<tr>
<td><strong>Skills to Work in TPBA Teams</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>44.4</td>
<td>22.2</td>
<td>33.3</td>
<td>2.11 (.93)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>40.0</td>
<td>40.0</td>
<td>20.0</td>
<td>0.0</td>
<td>3.20 (.84)</td>
</tr>
<tr>
<td>IECE</td>
<td>9.5</td>
<td>52.4</td>
<td>38.1</td>
<td>0.0</td>
<td>2.71 (.64)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>11.4</td>
<td>48.6</td>
<td>31.4</td>
<td>8.6</td>
<td>2.63 (.81)</td>
</tr>
</tbody>
</table>

Note. Mean score based on Expert = 4, Advanced = 3, Developing = 2, Beginning = 1.
IECE (mean = 2.86) respondents rated their knowledge significantly higher than school psychologists (mean = 2.11).

Second the respondents rated their knowledge to work in TPBA teams. A majority of the three discipline groups rated themselves as having “Advanced” knowledge to work in TPBA teams (school psychologists 55.6%, communication disorders 80% and IECE 66.7%). Discipline differences in knowledge to work in TPBA teams was examined though a one-way ANOVA that was significant $F(2, 32) = 3.35, p = .048$. The strength of the relationship was examined with $\eta^2$, revealing 17% of the variance in knowledge was accounted for by discipline. Pairwise comparisons between means were near significance between communication disorders and school psychologists ($p = .056$). Communication disorders (mean = 3.20) rated their knowledge significantly higher than school psychologists (mean = 2.33).

The next two areas rated focused on skills in TPBA practices (Table 3; survey questions 8 and 10). The largest number of school psychologists rated themselves “Developing” in skills to implement TPBA practices (44.4%), while the majority of communication disorders and IECE respondents rated themselves “Advanced” (60% and 57.1%, respectively). A one-way ANOVA analysis revealed significant discipline differences in skills to implement TPBA, $F(2,32) = 5.58, p = .008$. The strength of the relationship between discipline and skills to implement TPBA was assessed with $\eta^2$, revealing 26% of the variance in skills was accounted for by discipline. Pairwise comparison were significant for the IECE (mean = 2.76) and school psychologists (mean = 1.89; $p = .006$). Respondents also rated their skills working in TPBA teams. IECE and school psychology respondents rated themselves as having “Advanced” skills (52.4% and
44.4%, respectively), while communication disorders respondents were split between “Expert” and “Advanced” (40% each). Discipline differences in skills to work in TPBA teams were examined and results of the one-way ANOVA were significant $F(2, 32) = 3.74, p = .035$. The strength of the relationship between discipline and skills to work in TPBA teams was assessed with $\eta^2$, revealing 19% of the variance in skills was accounted for by discipline. Pairwise differences among means found a significant difference between communication disorders (mean = 3.20) and school psychologists (mean = 2.11; $p = .036$) indicating that the communication disorders respondents rated themselves higher in skills to implement TPBA teams than the school psychologists respondents.

Respondents were asked if they felt confident enough to implement a TPBA model in their program (see Table 4; question 11). The majority of school psychology and communication disorders respondents indicated they would be most confident implementing a TPBA model with assistance from someone experienced in the model (55.6% and 60%, respectively). However, the majority of IECE respondents indicated that they were confident to implement the TPBA model without assistance, with a “Yes” response (approximately 57.1%). Respondents also answered an open-ended question that asked what more could have been included during the personnel preparation program to help them feel more confident (question 12; see Appendix F). The identified categories of responses were more practice and experience ($n = 15$), state and administrative acceptance of the TPBA method ($n = 7$) and nothing ($n = 3$).

**Importance of transdisciplinary teaming practices.** The second part of the first research question asked, “How do Project TEAM graduates view the importance of
Table 4

*Confidence in Implementing a TPBA*

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Yes</th>
<th>Yes with assistance</th>
<th>Somewhat</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Psychologists</td>
<td>22.2</td>
<td>55.6</td>
<td>11.1</td>
<td>11.1</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>20.0</td>
<td>60.0</td>
<td>20.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IECE</td>
<td>57.1</td>
<td>19.0</td>
<td>9.5</td>
<td>14.3</td>
</tr>
<tr>
<td>Total Sample</td>
<td>42.9</td>
<td>34.3</td>
<td>11.4</td>
<td>11.4</td>
</tr>
</tbody>
</table>

*Note.* n = 35.
transdisciplinary teaming and assessment practices?" Respondents rated five questions on a four-point likert scale from "Very Important" to "Not Important" (questions 13 through 17; Table 5). First the respondents rated the importance to learn TPBA during their practicum/internship (Project TEAM). The majority of school psychologists rated this as "Somewhat Important" (55.6%), while the communication disorders and IECE respondents rated it as "Very Important" (60% and 42.9%, respectively). A follow-up analysis utilizing a one-way ANOVA was conducted to test for discipline differences in the importance of learning TPBA practices. The ANOVA was significant $F(2, 32) = 4.00, p = .028$. The strength of the relationship between discipline and the importance to learn TPBA was assessed with $\eta^2$, revealing 20% of the variance in importance was accounted for by discipline or group membership. Follow-up tests were conducted to evaluate pairwise comparisons among means. The only significant difference found was between communication disorders (mean = 3.60) and school psychologists (mean = 2.55; $p = .041$). Second, the importance to learn TPBA teaming skills was examined. The majority of school psychologists rated this as "Important" (88.9%), while the communication disorders and IECE respondents again rated this as "Very Important" (60% and 52.4%, respectively). A one-way ANOVA was conducted and no significant differences between disciplines (group) in importance of learning TPBA teaming skills were found ($p = .092$).

The importance to learn TPBA for eligibility determination was the third question rated. The largest number of school psychologists rated this as "Important" (44.4%), while the majority of communication disorders respondents rated this as "Very Important" (60%) and the IECE respondents were evenly split between "Important" and "Somewhat Important" (33.3% each). A one-way ANOVA was conducted and found no
Table 5

Perceived Importance of Learning TPBA and TPBA Teaming Skills

<table>
<thead>
<tr>
<th></th>
<th>Very Important (%)</th>
<th>Important (%)</th>
<th>Somewhat Important (%)</th>
<th>Not Important (%)</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn TPBA during Project TEAM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>11.1</td>
<td>33.3</td>
<td>55.6</td>
<td>0.0</td>
<td>2.55 (.73)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>60.0</td>
<td>40.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.60 (.55)</td>
</tr>
<tr>
<td>IECE</td>
<td>42.9</td>
<td>38.1</td>
<td>19.0</td>
<td>0.0</td>
<td>3.24 (.77)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>37.1</td>
<td>37.1</td>
<td>25.7</td>
<td>0.0</td>
<td>3.11 (.80)</td>
</tr>
<tr>
<td>Learn TPBA Teaming Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>88.9</td>
<td>11.1</td>
<td>0.0</td>
<td>2.89 (.33)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>60.0</td>
<td>40.0</td>
<td>0.0</td>
<td>0.0</td>
<td>3.60 (.55)</td>
</tr>
<tr>
<td>IECE</td>
<td>52.4</td>
<td>33.3</td>
<td>14.3</td>
<td>0.0</td>
<td>3.38 (.74)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>40.0</td>
<td>48.6</td>
<td>11.4</td>
<td>0.0</td>
<td>3.29 (.67)</td>
</tr>
<tr>
<td>Learn TPBA for Eligibility Determination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>44.4</td>
<td>33.3</td>
<td>22.2</td>
<td>2.22 (.83)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>60.0</td>
<td>40.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.60 (.55)</td>
</tr>
<tr>
<td>IECE</td>
<td>23.8</td>
<td>33.3</td>
<td>33.3</td>
<td>9.5</td>
<td>2.71 (.96)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>14.3</td>
<td>40.0</td>
<td>34.3</td>
<td>11.4</td>
<td>2.57 (.88)</td>
</tr>
<tr>
<td>Learn TPBA for Ongoing Educational Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>33.3</td>
<td>55.6</td>
<td>11.1</td>
<td>2.22 (.66)</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>80.0</td>
<td>20.0</td>
<td>0.0</td>
<td>0.0</td>
<td>2.80 (.45)</td>
</tr>
<tr>
<td>IECE</td>
<td>33.3</td>
<td>42.9</td>
<td>23.8</td>
<td>0.0</td>
<td>3.10 (.77)</td>
</tr>
<tr>
<td>Total Sample</td>
<td>20.0</td>
<td>45.7</td>
<td>31.4</td>
<td>2.9</td>
<td>2.83 (.79)</td>
</tr>
</tbody>
</table>

Note. Mean score based on Very Important= 4, Important= 3, Somewhat Important= 2, Not Important= 1.
discipline (group) differences in the importance to learn TPBA for eligibility determination and was not significant ($p = .387$).

The fourth question concerning the importance of transdisciplinary teaming practices looked at the importance to learn TPBA for ongoing educational assessment. The majority of school psychologists rated this as “Somewhat Important” (55.6%), the communication disorders rated this area as “Very Important” (80%) while the IECE respondents rated this as “Important” (42.9%). Looking at discipline differences in the importance to learn TPBA for ongoing educational assessment, the one-way ANOVA was significant [$F(2, 32) = 4.76, p = .016$]. The strength of the relationship between discipline and importance for ongoing educational assessment was assessed with $\eta^2$, revealing 23% of the variance in knowledge was accounted for by discipline. Pairwise comparisons between means were significant between IECE and school psychology groups. IECE respondents rated TPBA for ongoing educational assessment as more important (mean = 3.10) than school psychology respondents (mean = 2.22).

An analysis was conducted by breaking down the importance questions (13 through 16) by their current position (e.g., preschool or elementary, developmental interventionist or administrator). The only response pattern evident was that respondents holding positions in the elementary or administrator role rated all TPBA areas as highly important compared to the preschool respondents.

The last questions to address the importance of TPBA focused on how important it is for the faculty at Western Kentucky University to continue teaching TPBA approaches to future graduate students in their disciplines (question 17; Appendix F). Of the total pool, 28.6% felt that it was “Very Important,” while 2.9% felt it “Not Important”
to continue teaching TPBA approaches. The majority of the pool felt it either “Important” or “Somewhat Important” (34.3% each). The largest group of school psychologists felt it either “Important” or “Somewhat Important” (44.4% each, 88.8% total), while majority of communication disorders respondents felt it “Important” (60%) and the largest group of IECE respondents felt it either “Very Important” or “Somewhat Important” (38.1% each, 76.2% total). Respondents were asked to indicate through an open-ended response why they answered “Somewhat Important” or “Not Important” to faculty continuing to teach this method. Their responses were categorized as untrained personnel (n = 2), no need or benefit (n = 3) and state or administration restrictions (n = 10).

**Benefits of transdisciplinary assessment and teaming practices.** The third part of the first research question asked, “How do Project TEAM graduates view the benefits of transdisciplinary teaming and assessment practices?” A variety of types of survey questions and response options were used to answer this question, including open-ended, priority ratings and likert ratings. An open-ended question (question 18; Appendix F) asked the respondents to list three most helpful/useful things they learned about TPBA. Responses were analyzed according to the content analysis procedure mentioned previously. Their responses were categorized as holistic view of the child (n = 4), natural setting (n = 7), parent involvement (n = 4), child friendly (n = 3), learning how to share their roles with the other disciplines involved (n = 15), the teaming approach/models (n = 19) and learning the knowledge and benefits to TPBA (n = 24). To further assess possible benefits of TPBA, the respondents were also asked if the TPBA approach provided “Equivalent, Better” or “Worse/Incomplete” information compared to traditional assessment approaches (question 19). Of the total respondents, 62.9% felt TPBA
provided better information, while 31.4% felt it provided equivalent information and 5.7% felt TPBA provided worse/incomplete information. The majority of school psychology, communication disorders and IECE respondents felt TPBA provided better information (55.6%, 60% and 66.7% respectively).

Respondents were also asked to categorize what they felt were the top three strengths of TPBA compared to traditional assessment approaches (question 20). Respondents chose three strengths from a list of thirteen and ranked them either “Strongest (1), Strong (2),” or “Not as Strong (3).” Frequency counts were obtained for the total number of times a response was nominated as either “Strongest,” “Strong,” or “Not as Strong” for the total group and for each discipline. As seen in Table 6, the three characteristics that received the most nominations as a strength of TPBA were holistic view of the child ($n = 15$), child friendly ($n = 13$) and child centered ($n = 13$). Both school psychology and IECE respondents nominated two of those three characteristics as a top strength, while communication disorders nominated supportive/collaborative approach as a top strength (see Table 6).

*Current Assessment Practices*

To answer the second research question, “What assessment practices do Project TEAM graduates currently employ,” respondents were asked a series of questions about current and preferred practices for eligibility determination and educational assessment. First respondents indicated what teaming model they currently implement for determining eligibility for special education services and what teaming model they would prefer to implement for that same thing (questions 21 and 23). As indicated in Table 7, the majority of school psychology respondents (77.8%) implement the interdisciplinary
Table 6

*Perceived Strengths of TPBA*

<table>
<thead>
<tr>
<th>Strengths</th>
<th>SP(^a)</th>
<th>CD(^b)</th>
<th>IECE(^c)</th>
<th>Total nominations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic view of child</td>
<td>3</td>
<td>2</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Child friendly</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Child centered</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Developmentally appropriate</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Team of professionals observe</td>
<td>1</td>
<td>2</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Supportive/ Collaborative approach</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Completed in natural environment</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Family involvement</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Results yield quality interventions</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Family friendly</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Flexible</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Enhances rapport with the child</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Culturally relevant</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

\(^a\)SP = School Psychology.

\(^b\)CD = Communication Disorders.

\(^c\)IECE = Interdisciplinary Early Childhood Education.
Table 7

*Teaming Model for Determining Eligibility*

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n   %</td>
<td>n   %</td>
</tr>
<tr>
<td><strong>School Psychology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>2  22.2</td>
<td>1  11.1</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>7  77.8</td>
<td>5  55.6</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0  0.0</td>
<td>3  33.3</td>
</tr>
<tr>
<td><strong>Communication Disorder</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>3  60.0</td>
<td>3  60.0</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>2  40.0</td>
<td>1  20.0</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0  0.0</td>
<td>1  20.0</td>
</tr>
<tr>
<td><strong>IECE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>8  38.1</td>
<td>0  0.0</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>10 47.6</td>
<td>8  38.1</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0  0.0</td>
<td>12 57.1</td>
</tr>
<tr>
<td>Other</td>
<td>2  9.5</td>
<td>0  0.0</td>
</tr>
<tr>
<td><strong>Total Sample</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>13 37.1</td>
<td>4  11.4</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>19 54.3</td>
<td>14 40.0</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0  0.0</td>
<td>16 45.7</td>
</tr>
</tbody>
</table>

*Two respondents replied “standardized testing” and the “Battelle Developmental Inventory.*
teaming model for determining eligibility and would prefer to implement that model (55.6%). The majority of communication disorder respondents currently implement the multidisciplinary teaming model (60%) and would also prefer to implement the multidisciplinary model (60%). The largest number of IECE respondents currently implements the interdisciplinary teaming model (47.6%), but the majority would prefer to implement the transdisciplinary teaming model (57.1%). A follow-up analysis utilizing a one-way ANOVA was conducted to test for discipline (group) differences in the current and preferred teaming models for eligibility determination for both of these questions. The ANOVA's were not significant (current, $p = .253$ and preferred, $p = .171$).

To further understand current practices, respondents were also asked to indicate what teaming model they currently implement for ongoing educational assessment and what teaming model they would prefer to implement for ongoing educational assessment (questions 24 and 26). As indicated in Table 8, the majority of school psychologist respondents answered similar to the question for determining eligibility. School psychology respondents indicated they are currently implementing (77.8%) and preferring to implement (55.6%) the interdisciplinary teaming model. The majority of communication disorder respondents indicated they currently implement a multidisciplinary teaming model (60%). In addition, the multidisciplinary teaming model was the preferred model to implement (60%). The majority of the IECE respondents indicated that they currently implement both the multidisciplinary and interdisciplinary teaming models (42.9%, each) while again preferring to implement the transdisciplinary teaming model for ongoing educational assessment (61.9%). Two, one-way ANOVA's were utilized to test for discipline differences in the current and preferred teaming models.
Table 10

Teaming Model for Ongoing Educational Assessment

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th></th>
<th>Preferred</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>School Psychology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>2</td>
<td>22.2</td>
<td>1</td>
<td>11.1</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>7</td>
<td>77.8</td>
<td>5</td>
<td>55.6</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>33.3</td>
</tr>
<tr>
<td><strong>Communication Disorder</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>3</td>
<td>60.0</td>
<td>3</td>
<td>60.0</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>2</td>
<td>40.0</td>
<td>1</td>
<td>20.0</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>IECE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>9</td>
<td>42.9</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>9</td>
<td>42.9</td>
<td>6</td>
<td>28.6</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0</td>
<td>0.0</td>
<td>13</td>
<td>61.9</td>
</tr>
<tr>
<td>Other(^a)</td>
<td>2</td>
<td>9.5</td>
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<td>0.0</td>
</tr>
<tr>
<td><strong>Total Sample</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multidisciplinary</td>
<td>14</td>
<td>40.0</td>
<td>4</td>
<td>11.4</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>18</td>
<td>51.4</td>
<td>12</td>
<td>34.3</td>
</tr>
<tr>
<td>Transdisciplinary</td>
<td>0</td>
<td>0.0</td>
<td>17</td>
<td>48.6</td>
</tr>
</tbody>
</table>

\(^a\)Two respondents replied "teacher/standardized test" and no specific response.
for ongoing educational assessment. Neither ANOVA was significant (current, $p = .186$ and preferred, $p = .385$), indicating no group differences in current and preferred assessment practices.

To obtain an understanding of perceived strengths in current assessment practices for determining eligibility and educational assessment, respondents first selected the top three strengths of their current teaming model for determining eligibility (question 22). As indicated in Table 9, those respondents who selected multidisciplinary as their current teaming model nominated supportive/collaborative team approach ($n = 5$), results yield quality interventions ($n = 7$) and flexible ($n = 5$) as strengths of their teaming model for eligibility determination. The respondents who selected interdisciplinary as their current teaming model also nominated supportive/collaborative team approach and results yield quality interventions ($n = 11$ and $7$, respectively) along with developmentally appropriate ($n = 9$) as strengths of their teaming model for eligibility determination. Table 10 shows the three characteristics that received the most nominations across the three disciplines: supportive/collaborative team approach ($n = 16$), developmentally appropriate ($n = 14$) and results yield quality interventions ($n = 14$). Each discipline also included these characteristics in their most nominated, with school psychology and communication disorders respondents nominating supportive/collaborative the most ($n = 6$ and $n = 4$, respectively) and IECE nominating developmentally appropriate the most ($n = 10$).

Respondents were then asked to select the strengths of their current teaming model for ongoing educational assessment (question 25). As indicated in Table 11, those respondents who selected multidisciplinary as their current teaming model nominated developmentally appropriate ($n = 8$), results yield quality interventions ($n = 5$) and child
Table 9

*Perceived Strengths of Current Teaming Model for Determining Eligibility*

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Multidisciplinary n</th>
<th>Interdisciplinary n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive/ Collaborative approach</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Developmentally appropriate</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Results yield quality interventions</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Flexible</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Family involvement</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Child centered</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Child friendly</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Completed in natural environment</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Team of professionals observe</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Holistic view of child</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Enhances rapport with the child</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Family friendly</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Culturally relevant</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Other&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

<sup>a</sup>Two respondents checked “Other” on the survey but did not give a specific response.
Table 10

*Perceived Strengths of Current Teaming Model for Determining Eligibility by Discipline*

<table>
<thead>
<tr>
<th>Strengths</th>
<th>SP(^a)</th>
<th>CD(^b)</th>
<th>IECE(^c)</th>
<th>Total nominations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive/ Collaborative approach</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>Developmentally appropriate</td>
<td>3</td>
<td>1</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Results yield quality interventions</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Flexible</td>
<td>3</td>
<td>0</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Family involvement</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Child centered</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Child friendly</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Completed in natural environment</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Team of professionals observe</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Holistic view of child</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Other(^d)</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Enhances rapport with the child</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Family friendly</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Culturally relevant</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

\(^a\)SP = School Psychologists.

\(^b\)CD = Communication Disorders.

\(^c\)IECE = Interdisciplinary Early Childhood Education.

\(^d\)Four respondents did not indicate a specific response but checked “Other” on the survey.
Table 10

*Perceived Strengths of Current Teaming Model for Ongoing Educational Assessment*

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Multidisciplinary n</th>
<th>Interdisciplinary n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmentally appropriate</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Results yield quality interventions</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Supportive/ Collaborative approach</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Flexible</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Child centered</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Child friendly</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Holistic view of child</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Family friendly</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Family involvement</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Completed in natural environment</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Team of professionals observe</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Enhances rapport with the child</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Culturally relevant</td>
<td>Unknown</td>
<td>0</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

*Two respondents checked "Other" but did not indicate a specific response.*
centered and holistic view of the child \( n = 4 \), each) as strengths of their teaming model for ongoing assessment. The respondents who selected interdisciplinary as their current teaming model also nominated developmentally appropriate \( n = 8 \) and results yield quality interventions \( n = 9 \) along with supportive/collaborative team approach \( n = 8 \) and flexible \( n = 7 \) as strengths of their teaming model for eligibility determination. As indicated in Table 12, the three characteristics that received the most nominations as a strength across the three disciplines were developmentally appropriate \( n = 16 \), results yield quality interventions \( n = 14 \) and supportive/collaborative team approach \( n = 11 \). The individual disciplines nominated these three characteristics as a strength the most, with communication disorders and IECE nominating developmentally appropriate most often \( n = 3 \) and \( n = 8 \), respectively), while school psychology respondents nominated results yield quality interventions most often \( n = 6 \).

Since the sample contacted for this survey have been trained in implementing transdisciplinary play based assessment, information was gathered as to whether the respondents have used TPBA in a previous program (question 28), if they were a part of the transdisciplinary team and responsible for initiating the team (questions 29 and 27) and if they are currently or have previously advocated for the use of TPBA in their program (questions 30 and 31). As indicated in Table 13, the majority of the total respondents have not used TPBA in previous programs (80%). The majority of the communication disorders respondents have used a TPBA model (60%) and the same majority (60%) was a part of the transdisciplinary team. Nearly half of the sample did not indicate whether they were responsible for initiating and leading the team (42.9%). An analysis was conducted to identify those who have previously TPBA, with what
Table 10

*Perceived Strengths of Current Teaming Model for Ongoing Educational Assessment by Discipline*

<table>
<thead>
<tr>
<th>Strengths</th>
<th>SP</th>
<th>CD</th>
<th>IECE</th>
<th>Total nominations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmentally appropriate</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Results yield quality interventions</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Supportive/Collaborative approach</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Flexible</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Child centered</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Child friendly</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Holistic view of child</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Family friendly</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Family involvement</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Completed in natural environment</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Team of professionals observe</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Other&lt;sup&gt;d&lt;/sup&gt;</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Enhances rapport with the child</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Culturally relevant</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<sup>a</sup>SP = School Psychologists.

<sup>b</sup>CD = Communication Disorders.

<sup>c</sup>IECE = Interdisciplinary Early Childhood Education.

<sup>d</sup>Three respondents did not indicate a specific response but checked “Other” on the survey.
Table 13

*Advocating for TPBA use in Respondent Programs*

<table>
<thead>
<tr>
<th></th>
<th>Yes (% of discipline)</th>
<th>No (% of discipline)</th>
<th>NRa</th>
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<tbody>
<tr>
<td>Previous Programs Use of TPBA</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>0.0</td>
<td>88.9</td>
<td>11.1</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>60.0</td>
<td>40.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IECE</td>
<td>14.3</td>
<td>85.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Sample</td>
<td>17.1</td>
<td>80.0</td>
<td>2.9</td>
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<tr>
<td>Respondent Part of the Team</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologist</td>
<td>11.1</td>
<td>66.7</td>
<td>22.2</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>60.0</td>
<td>40.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IECE</td>
<td>19.0</td>
<td>52.4</td>
<td>28.6</td>
</tr>
<tr>
<td>Total Sample</td>
<td>22.9</td>
<td>54.3</td>
<td>22.8</td>
</tr>
<tr>
<td>Respondents Currently Advocating for TPBA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologist</td>
<td>0.0</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>0.0</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IECE</td>
<td>28.6</td>
<td>71.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Total Sample</td>
<td>17.1</td>
<td>82.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Respondents Previously Advocated for TPBA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Psychologists</td>
<td>22.2</td>
<td>77.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Communication Disorders</td>
<td>40.0</td>
<td>60.0</td>
<td>0.0</td>
</tr>
<tr>
<td>IECE</td>
<td>42.9</td>
<td>52.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Total Sample</td>
<td>37.1</td>
<td>60.0</td>
<td>2.9</td>
</tr>
</tbody>
</table>

aN = No Response.
population was it used with and was it modified for Kentucky regulations. No response patterns were evident as the majorities provided no response. The majority of the total pool have not currently or previously advocated for a transdisciplinary teaming model (approximately 82% and 60% respectively). Although the majority of the total sample is not advocating for transdisciplinary teaming implementation, 28.6% of the IECE respondents are currently advocating and 42.9% have previously advocated.

The respondents were also asked if they have used a transdisciplinary teaming model, with what population was it used (question 32). Nearly the entire sample did not indicate an age group or gave no response (91.5%), but 2.9% of the sample indicated ages birth through two and 5.7% indicated ages three through five. If the respondents had used a transdisciplinary teaming model, they were asked if they needed to modify the approach to meet Kentucky regulations (question 33). The majority of the sample gave no response (94.3%) to the question, but 5.7% said they have modified the transdisciplinary approach. One respondent provided information as to what she did to modify. The respondent indicated, “We had to make sure that (the assessment) matched up with Kentucky goals/expectations…”

*Barriers to Implementing TPBA*

The third research question asked, “How do Project TEAM graduates describe barriers to implementing transdisciplinary practices?” Respondents were asked to identify all barriers and then designate the top three barriers to implementing TPBA and/or to supply their own barriers in an “Other” response option (question 34). The barriers receiving the most frequent nominations by the total group of respondents were coordinating team member schedules ($n = 30$), potential team members agreeing to the
transdisciplinary model ($n = 23$), federal and state requirements for eligibility ($n = 20$) and time constraints for training the transdisciplinary model ($n = 20$; see Table 14). The respondents were then asked to rank three of the barriers designated as either “Strongest, Strong” or “Not as Strong” (also question 34; see Table 14). The three barriers most often rated as one of the top three to implementing TPBA by the total group of respondents were coordinating team member schedules ($n = 25$), federal and state requirements for eligibility ($n = 13$) and time constraints for training ($n = 12$). Other barriers receiving ratings as a top strength were potential team members agreeing to it, the special education director agreeing to it and team comfort with the transdisciplinary approach.

To explore barriers further, an additional research question asked, “Do the barriers differ by discipline or by age group served (birth to three and three to five)?” A break down of how the individual disciplines nominated and ranked the barriers to implementing TPBA is provided in Table 15. School psychologists most frequently nominated coordinating team member schedules and time constraints for training ($n = 7$, each), at the same time ranking them most often as a strong barrier. Communication disorders respondents most frequently nominated coordinating team member schedules ($n = 5$) and federal and state requirements for eligibility determination ($n = 4$) as barriers, while showing a consistent scatter between the strongest of barriers. The IECE respondents most frequently nominated coordinating team member schedules ($n = 18$) as a barrier to implementing TPBA, while ranking this barrier along with the special education director agreeing to it as the most nominated strong barriers ($n = 17$ and $n = 10$, respectively). The two respondents who work with children birth through two years nominated federal and state requirements and coordinating team schedules as strong
Table 14

*Total Perceived Barriers to Implementing TPBA*

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total nominations</th>
<th>Total # of times rated a Top 3 strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinating team member schedules</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Potential team members agreeing to it</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Federal and state requirements</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>Time constraints for training</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>Time constraints for developing a team</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>Special ed. director agreeing to it</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Team members cooperation</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>Team comfort with arena approach</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>School board agreeing to it</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Family involvement and agreement</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Appropriate space and materials</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Other*a</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

*aOne respondent indicated “Numbers that can be assessed…”*
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total nominations</th>
<th>Total # of times rated a Top 3 strength</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School Psychologists</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordinating team member schedules</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Time constraints for training</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Potential team members agreeing to it</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Time constraints for developing a team</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Team members cooperation</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Team comfort with arena approach</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Federal and state requirements</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Special ed. director agreeing to it</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>School board agreeing to it</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Family involvement and agreement</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Appropriate space and materials</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Communication Disorders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordinating team member schedules</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Federal and state requirements</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Potential team members agreeing to it</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Time constraints for training</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Team comfort with arena approach</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Time constraints for developing a team</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Team members cooperation</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
(Table 15, continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special ed. director agreeing to it</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>School board agreeing to it</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Family involvement and agreement</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Appropriate space and materials</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

**IECE**

<table>
<thead>
<tr>
<th>Category</th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinating team member schedules</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Federal and state requirements</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>Potential team members agreeing to it</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Special ed. director agreeing to it</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Time constraints for training</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Team members cooperation</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Team comfort with arena approach</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Time constraints for developing a team</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>School board agreeing to it</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Family involvement and agreement</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Appropriate space and materials</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Other&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

<sup>a</sup>One respondent indicated “Numbers that can be assessed...”
barriers to implementing TPBA practices. Of the 12 respondents who work with three through five years, coordinating team member schedules ($n = 8$) special education director agreeing to it ($n = 6$) and federal and state requirements ($n = 4$) received the most nominations as strong barriers.
Discussion

The purpose of this study was to determine whether professionals who have had training and experience implementing TPBA are using transdisciplinary approaches for early childhood assessment. The literature review discussed the different ways to assess preschool age children, ages three through five years. The legislatively mandated method of assessment calls for a multidisciplinary team approach and the documentation of standardized test scores to determine special education eligibility. Learned societies and experts in the field recommend that a more developmentally appropriate and child friendly method is a transdisciplinary teaming model (e.g., Bagnato & Neisworth, 1991; NASP, 1999). Transdisciplinary play based assessment (TPBA), a model developed by Toni Linder (1990), encourages a teaming approach that relies less on standardized testing approaches and more on observation that is developmentally appropriate for preschool-age children. Since the development of Linder’s method, graduate students of Western Kentucky University’s (WKU) school psychology, communication disorders and interdisciplinary early childhood education programs were trained in this method through a personnel preparation program funded by OSEP from the years 1993-2000 (Project TEAM). Research is limited as to implementation of the TPBA method in local education agencies (LEA) in Kentucky. Based upon the number of preschool-age children being served under the category of developmental delay in Kentucky, and the fact that the majority of the respondents maintained Kentucky addresses, it is important to
gather information regarding the current assessment practices of Project TEAM graduates who received master's level training in TPBA.

A survey of the Project TEAM graduate students at WKU was utilized to answer the research questions. A possible pool of 132 program graduates was documented, yet only 65% (n = 86) had current contact information and only 35 (40.6%) responded to the survey. Of the total pool that completed the survey, IECE graduates were the majority of the sample (60%) with school psychologists and communication disorders therapists having less representation (25.7% and 14.2%, respectively). All but one respondent had completed graduate level study holding at least a Master's degree and currently employed as educators or related service providers to children ages three through five or in grades kindergarten through 6th grade. It is important to note that the majority of respondents were IECE professionals. The largest percentage of respondents are serving a population area of 20,000 or more, which indicates that many of the respondents serve in highly populated areas which may mean a higher number of children to serve in their local education agencies.

*View of Transdisciplinary Teaming and Assessment Practices*

*Competence in transdisciplinary teaming practices.* The survey data indicate that school psychologists rated themselves “Advanced” in their knowledge and in their skills to work in TPBA teams (55.6% and 44.4%, respectively) while only rating themselves as “Developing” in their knowledge and skills to implement TPBA practices (44.4% each). Discipline differences were significant in how IECE respondents rated their knowledge and skills to implement TPBA, as they rated these areas higher than school psychologists (p = .006 and p = .008, respectively). Discipline differences were also significant in how
communication disorders respondents rated their knowledge and skills to work in TPBA teams, as they rated these areas higher than school psychologists ($p = .056$ and $p = .036$). The communication disorders and IECE respondents rated themselves highly ("Advanced") in both knowledge and skills of TPBA practices and working in teams. These high ratings of knowledge and skill to work in TPBA teams may be related to respondent’s confidence level to implement TPBA, as the majority of school psychologists and communication disorders (55.6% and 60%, respectively) reported they were most comfortable implementing TPBA with assistance from someone experienced in TPBA, in other words, working with a team knowledgeable in the TPBA approach rather than an inexperienced team. In contrast, the majority of the IECE respondents indicated that they were confident enough to implement TPBA without assistance (57.1%). In a personal communication with Vicki Stayton (April 14, 2006) it was noted that IECE student receive training on TPBA and teaming throughout their graduate program, while school psychologists and communication disorders students only had the one-time experience of Project TEAM to learn about TPBA. This is possibly a contributing factor in how IECE respondents rated themselves “Advanced” in TPBA knowledge and skills and their confidence to implement TPBA without assistance. As indicated in Appendix F, most respondents felt they needed more practice and experience implementing the TPBA approach, which is consistent with their ratings of only “Advanced” or “Developing.”

*Importance of transdisciplinary teaming practices.* Communication disorders respondents felt it “Very Important” to learn TPBA and its teaming skills to use in eligibility determination and ongoing assessment. IECE respondents felt it “Very
Important” to learn the TPBA method and teaming skills, yet less important for eligibility and ongoing assessment. School psychologists felt it “Somewhat Important” to learn the TPBA method, while the communication disorders and IECE respondents felt it “Very Important.” Again, IECE may consider the TPBA method to be of importance because they received more training and experience using it compared to the other disciplines. Significant differences were found again between school psychologists and the other disciplines. The communication disorders rated the importance to learn TPBA significantly higher than the school psychologist respondents ($p = .041$). IECE respondents rated the importance to learn TPBA for ongoing educational assessment as more important than school psychologists ($p = .011$). Since the only mandated method of assessment is multidisciplinary, the school psychologists may feel it unnecessary to learn TPBA if it is not a required method by law. Yet contradictory to that theory, the largest number of school psychologists felt it “Important” to learn TPBA for eligibility determination. The open-ended responses to question 17, (WKU faculty continuing to teach TPBA methods), may give way to why the majority of the pool only felt it “Somewhat Important” to “Important.” As seen in Appendix F, most respondents indicated that either the state or their LEA administration restricts and/or does not encourage the use. As IECE respondents indicated, “My local school district does not recognize play based assessment as a formal assessment for student placement in special programs” and, “If no one is using the technique, is it wise to continue to teach it?” Most respondents emphasized or questioned if TPBA should be taught given that it is not necessary in current assessment practice. Yet, respondents did rate TPBA as being of an important practice to learn. As Correa et al. (2005) stated, there is a need for more cross-
disciplinary training and Garland and Frank (1997) noted there is a lack of pre-service training in teaming. If more training in TPBA and teaming is not provided to team members, then it may be difficult for those who are trained to bother implementing and advocating for it.

**Benefits of transdisciplinary assessment and teaming practices.** Although the requirements of the law and LEA’s administration may hinder the respondents’ feelings of TPBA importance, all three discipline groups indicate that TPBA approaches provide better information than traditional assessment approaches (multidisciplinary teaming and standardized testing; 62.9% of the total respondents). Respondents were asked to identify the three most helpful or useful things they learned from TPBA. The useful/helpful qualities that were indicated were similar to what experts in the early childhood (e.g., Correa et al., 2005; Linder, 1990; McGonigel et al., 1994) feel are benefits of TPBA as compared to traditional assessment, such as the teaming model, learning from and role sharing with the other disciplines and the child friendliness of the approach. When respondents were asked to rank the top three strengths of TPBA from a list provided, the qualities they nominated the most were comparable to what Linder (2000) believes are the strengths of her TPBA model: a holistic view of the child, child friendly and child centered.

**Current Assessment Practices**

Are professionals who were trained to use TPBA actually using it in their place of employment? The respondents were asked what teaming model they are currently implementing for determining eligibility and what teaming model they would prefer to be implementing. School psychologists currently implement and prefer to implement the
interdisciplinary teaming model while the communication disorders respondents currently implement and prefer to implement the multidisciplinary teaming model. The IECE respondents indicated that they currently implement the interdisciplinary teaming model (47.6%), but prefer to implement the transdisciplinary teaming model (57.1%). When asked what model they are currently using and preferred to implement for ongoing educational assessment, the responses were basically identical. Yet, respondents of all disciplines indicated in a previous question that they feel TPBA and possibly transdisciplinary teaming practices in general provide better information than traditional approaches. School psychology and communication disorders respondents may feel that the teaming model they are currently implementing is working for them and would not want to change that. As one school psychology respondent indicated, “In the county that I work in, I feel we are able to gain the information necessary to assess the child and develop the IEP via an interdisciplinary model. The interdisciplinary model also seems to be easier in the coordination of disciplines (OT, PT, Early Childhood Educator, Speech-Language) to gain the information needed.” The IECE respondents, who are the educators of the sample, see the children for more hours in the day and would probably like the other disciplines on the team to see what they see in the classroom, which a transdisciplinary approach could provide.

When nominating the strengths of their current teaming model for determining eligibility, the two disciplines using the interdisciplinary teaming model, school psychology and IECE, felt the top strengths were supportive, collaborative and developmentally appropriate, which do fit what McGonigel et al. (1994) describes as qualities of the interdisciplinary model. Also, school psychology respondents nominated
"results yield quality interventions" as a strength of their interdisciplinary teaming model for ongoing educational assessment, which was also described as a quality by McGonigel et al. The communication disorders respondents, who use the multidisciplinary teaming model, ranked supportive and collaborative as a strength for determining eligibility, which experts in the field may disagree with as each discipline usually assesses at independent times and collaborate their findings at the initial evaluation team meeting (Linder, 1990). For ongoing educational assessment, the communication disorders respondents ranked "developmentally appropriate" as their top strength to multidisciplinary teaming. Experts would again disagree, as the norm-referenced tools used do not allow for ongoing reinforcement to the child and they can be time consuming for the child, leading to fatigue and frustration (Appl, 2000).

If IECE respondents feel strongly that they would prefer to implement the transdisciplinary teaming model, have they considered advocating for the use of it in their places of employment? The majority of the sample is not advocating for the use of transdisciplinary teaming practices, however some IECE respondents indicated that they are currently advocating for its use. More IECE respondents are currently advocating for it when in the past they were not, which may be an indication that with the increased research in early childhood for the need of more comprehensive and developmentally appropriate assessments, IECE professionals are feeling more confident to pursue the use of this approach (Appl, 2000; McGonigel et al., 1994; NAEYC, 2003; Sandall et al., 2005).
Barriers to Implementing TPBA

Now that the respondents' responses about the current use of TPBA practices is known, it was also important to determine what barriers are holding them back from using this approach in their place of work. A list of eleven barriers were created from the literature review (Losardo & Notari-Syverson, 2001; McGonigel et al., 1994) that the respondents could choose from with the option to add additional items in the form of an open-ended response. The three barriers receiving the most nominations by the total sample were coordinating team member schedules (n = 25), federal and state requirements (n = 13) and time constraints for training the team members (n = 12). Interestingly, looking back at the population of the area the majority of the respondents serve (20,000 or more), it would make sense that their strongest barrier to using TPBA is about time to train and time to implement. A breakdown of the individual disciplines' feelings of the strongest barriers was described and each discipline nominated one barrier most often: coordinating team member schedules. Along with this, school psychologists also nominated time constraints for training most often, communication disorders nominated federal and state requirements and IECE nominated special education director agreeing to it. Looking at the age groups served, all of the above mentioned barriers were nominated most highly. Considering the high population area these disciplines serve, these barriers make sense. With a highly populated area, getting team members schedules to coordinate and time to train them can be difficult and is a difficulty described by McGonigel et al. (1994). Garland and Frank (1997) discussed how “large caseloads make it difficult for teams to find time for the staff development they need,” (p. 365) while Correa et al. (2005) mentioned lack of time as a strong barrier to proper teaming.
practices. The respondents report that for the most part they have the knowledge and 
skills of TPBA, they view it as an important assessment method but are encountering the 
barrier of lack of training by other disciplines. Maybe it is possible to eliminate this 
barrier by offering more pre-service training to the other disciplines which may decrease 
the need for training out in the field.

These barriers may also play into why the majority of respondents are not 
advocating for the use of TPBA. Although federal and state requirements is a hard 
barrier to solve, it seems that if these professionals surveyed were passionate about using 
TPBA practices, they would be able to solve the barriers of training and coordinating the 
team, along with convincing the special education director to its qualities. Yet, as seen in 
previous survey questions, the respondents had mixed feelings on the importance of using 
TPBA.

Limitations of the Study

When considering the generalizability of this study, there are many factors to 
consider. This is a finite study that was limited to a small population of Western 
Kentucky University graduates over an eight-year period. The return rate of 40.6% was 
reasonable, but considering that 132 initial names were collected, the representativeness 
of the information gathered is questionable. Available contact information of the 
respondents was limited since the Project TEAM participants had graduated between 6 
and 13 years prior to this study. Another factor is that the results of this study are based 
on an electronic survey. It is unknown how many of the participants had access to a 
computer and Internet service and what their skill level is in manipulating an online 
questionnaire. As seen in the cover letter (Appendix C) the participants had the option to
print out the survey and had ways to contact the examiner if they did not have Internet access.

Although attempts were made to improve the survey, including expert review and pilot completion of the questions, the reliability of the responses is in question because it is hard to know if respondents fully understood the intent of the questions. Was the variance in responses due to something real or to how the respondents perceived the questions? Precautions were taken in an attempt to validate the survey. Content validity was assessed by two faculty involved in the personnel preparation project and three IECE graduates practicing out in the field, who reviewed and provided feedback regarding the survey. Modifications were made based on their reviews. Additionally, in looking at the format of the electronic survey, the definitions of the teaming models (see Appendix A) may have needed to be reprinted before questions 21 through 26, as it is possible respondents may have forgotten the definitions when proceeding through the questions. Also, questions 27 through 33 may have needed to be sequenced differently with the option to skip ahead in the survey if they responded “No” to question 28.

The representativeness of the information may be skewed, as the majority of the respondents and the initial sample were graduates of the IECE program (36% of the initial contacted IECE sample responded, 56% of the initial contacted school psychology sample responded and 45% of the initial contacted communication disorders sample responded). The IECE respondents indicated that they are in educator roles (e.g., preschool, elementary or administrator) rather than roles of conducting standardized testing like the school psychologist and communication disorders respondents are and
may therefore have different perceptions on assessment of young children compared to those who do assessments often.

**Strengths of the Study**

This study provides more information on the use of TPBA and the barriers faced by professionals who were trained in TPBA and now working in local education agencies. As seen from the literature review, little research has been done on the use of and barriers to implementing TPBA or transdisciplinary practices, especially in school systems. Many of the barriers to implementing TPBA indicated by the respondents were consistent with those noted by Losardo and Notari-Syverson (2001) and McGonigel et al. (1994), such as planning and training time and coordinating team member schedules. Also, the group surveyed all received similar training and experiences through the graduate personnel preparation program. When looking at the knowledge, skill and confidence of the group regarding TPBA, it is clear that there are some differences in responses based on discipline.

**Further Research and Implications**

While the results of this study are believed to provide some very valuable information regarding the use of TPBA by professionals trained in it, further research is needed to expand these results. Response rate may be improved by gathering a larger sample size to include those who did not have available contact information. It may also be helpful to conduct some form of statistical analysis of the reliability of the survey items, while adding more factors for comparison between the types of barriers chosen (e.g., agency versus public school versus private schools). Additionally, it would be interesting to conduct a similar survey of administrators’ views of TPBA including
barriers to implementing transdisciplinary practices. Other information that would be important to gather on a future survey would be respondents current state of employment, the degree they currently hold if different from the degree they earned post Project TEAM and the years of experience they have had in school systems. The priority of federal and state requirements may relate to the lack of being able to use standardized materials during TPBA assessment, which is true of Linder’s model (1990). For the future, more emphasis on ways professionals can still use standardized measures along with the TPBA model of observation.

Overall, these results indicate that persons trained to use the more developmentally appropriate and recommended method of assessment by experts in the field of early childhood assessment, transdisciplinary assessment (or TPBA), are not implementing it in their local education agencies. Responses indicated that most participants were confident to implement the TPBA, either with or without help and felt the approach was important in the assessment of preschool age children. Despite their confidence and feelings of importance, the majority of respondents are using an interdisciplinary approach and indicated barriers to the use of transdisciplinary assessment in their local education agencies, often nominating similar barriers. Hopefully this research will begin to regard the importance and appropriateness of transdisciplinary teaming practices for preschool age children and provide evidence of the barriers faced by persons knowledgeable in it to use it in their local education agencies. This research is a first step to identifying and breaking down those barriers that are getting in the way of children and families receiving a quality assessment in the schools.
References


Appendix A

Survey of Project Team Graduates
Introduction

Thank you for taking the time to consider my survey. Your participation is greatly appreciated!

For participation in this study, click the continue button below that will take you to the consent form. Once you have reviewed the consent form, click on “I Agree” or “I Decline” to indicate your consent. Clicking “I Agree” will lead you to the beginning of the survey. Clicking “I Decline” will lead you to a thank you page.

Once you have completed the survey, click the exit button, which will take you to a debriefing page. Directions are provided as to how to be included in the drawing for the gift certificates.

If you would prefer to have the survey in print form, please click on continue and print the consent form. Once you have printed the consent form, click “I Agree” to take you to the survey where it can be printed. Please circle “I Agree” on the printed consent form to indicate your consent. Please mail both the consent form and completed survey to me anonymously at the address on the debriefing page.

The survey is approximately 35 questions long and should take you about 15 minutes to complete. This is an informational survey, so there are no right or wrong answers when responding to the items.

Thank you again,

Breanna Bartley B.A.

Western Kentucky University
Consent Form

Project Title: A Survey of Teaming Practices used in the Assessment of Young Children

Investigators: Breanna L. Bartley Elizabeth L. Jones, Ph.D.
Department of Psychology, 745-4414

You are being asked to participate in a project conducted through Western Kentucky University investigating your use of transdisciplinary assessment practices which you were trained in during your Project TEAM practicum or IECE program. Please read the following information carefully. It describes the purpose of the study, the procedure to be used, risks, and benefits of your participation and what will happen to the information that is collected from you. The University requires that you give your agreement to participate in this project.

The investigators will be available by phone to explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask him/her any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation.

If you then decide to participate in the project, please click “I Agree” at the bottom of this form. If you prefer to have the survey in print form, please print this consent form, then click “I Agree” to print the survey.

1. **Nature and Purpose of the Project**: The purpose of this survey is to identify current views and uses of transdisciplinary practices in early childhood assessment graduates of Project TEAM and the IECE M.A. programs are using in their place of employment.

2. **Explanation of Procedures**: Upon your consent, you will be asked to complete the attached survey. It is approximately 35 questions long and should take you about 15 minutes to complete.

3. **Discomfort and Risks**: There are no risks involved in filling out the survey.

4. **Benefits**: Upon completion of the survey, you can be entered into a raffle for one of two $50.00 gift certificates to Walmart®. You may also ask to see the final outcome of the survey by contacting one of the investigators.

5. **Confidentiality**: All responses to the survey will be kept in a database that is blind to your name and any email or Internet information.

6. **Refusal/Withdrawal**: Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

I AGREE  I DECLINE
Survey

As a graduate of the Project TEAM practicum and other grant funded activities at Western Kentucky University, this survey is a follow up to your use of transdisciplinary practices.

Section 1

1. Please indicate the degree you received after participating in Project TEAM:
   - [ ] Bachelor’s Degree
   - [ ] Master’s Degree
   - [ ] Rank I
   - [ ] Specialist Degree

2. Please indicate the degree program in which you were enrolled while participating in Project TEAM:
   - [ ] IECE
   - [ ] School Psychology
   - [ ] Communication Disorders

3. In what year did you complete your summer Project TEAM practicum?
   - [ ] 1993
   - [ ] 1994
   - [ ] 1995
   - [ ] 1996
   - [ ] 1997
   - [ ] 1998
   - [ ] 1999
   - [ ] 2000

4. What best describes your primary current position?
   - [ ] Developmental Interventionist
   - [ ] School Psychologist
   - [ ] Speech/Language Pathologist
   - [ ] Preschool Teacher
   - [ ] Elementary Teacher
   - [ ] Special Education Teacher (K-12)
   - [ ] Administrator (Please specify)
   - [ ] Other (Please specify)

5. In your current position, what is the age of the children with whom you primarily work?
   - [ ] Birth through two
   - [ ] Three through five
   - [ ] Grades K – 4
   - [ ] Grades 5 – 8
   - [ ] Grades 9-12
   - [ ] Other (Please specify)

6. What is the population of your program’s service area?
   - [ ] 30,000 +
   - [ ] 20,000-30,000
   - [ ] 10,000-20,000
   - [ ] 5,000-10,000
   - [ ] 1,000- 5,000

These terms will be used throughout the survey:

**Program-** Your current place of employment (local education agency (LEA), early intervention program, or other employer in the early childhood field).

**Multidisciplinary-** Traditional approach; professionals perform their assessment activities independently; all professionals work with the same child individually, creating their own interventions based on their own discipline.
Interdisciplinary- professionals from differing disciplines conduct their assessment activities independently, but often share information. They meet as a group to discuss assessment results and create the child’s IFSP or IEP.

Transdisciplinary (Arena, TPBA)- Professionals from differing disciplines form a team to observe and assess a child simultaneously; team members exchange information, knowledge and skills; families have a more central role in assessment and development of the IFSP or IEP. Implementation of the IFSP or IEP and further assessment decisions are made as a team consensus. This is exemplified by arena assessment or transdisciplinary play based assessment (TPBA).

Section II

**At the end of your practicum/internship experience:**

7. How would you rate your knowledge of how to implement a transdisciplinary play based assessment?
   ___ Expert  ___ Advanced  ___ Developing  ___ Beginning

8. How would you rate your skills to implement a transdisciplinary play based assessment?
   ___ Expert  ___ Advanced  ___ Developing  ___ Beginning

9. How would you rate your knowledge of how to work in transdisciplinary play based assessment teams?
   ___ Expert  ___ Advanced  ___ Developing  ___ Beginning

10. How would you rate your skills of how to work in transdisciplinary play based assessment teams?
    ___ Expert  ___ Advanced  ___ Developing  ___ Beginning

11. Did you feel confident enough to implement a transdisciplinary play based assessment in your program?
    ___ Yes
    ___ Yes, with assistance from someone experienced in transdisciplinary play based assessment
    ___ Somewhat
    ___ No

12. What else should have been included in Project TEAM or the IECE practicum to build your confidence to employ the transdisciplinary play based assessment?

13. To what extent was it important to learn transdisciplinary play based assessment during the Project TEAM or IECE practicum?
    ___ Very Important  ___ Important  ___ Somewhat Important  ___ Not Important

14. To what extent was it important to learn transdisciplinary play based assessment teaming skills during the Project TEAM or IECE practicum?
    ___ Very Important  ___ Important  ___ Somewhat Important  ___ Not Important

15. To what extent is it important to use the transdisciplinary play based assessment approach for eligibility determination?
    ___ Very Important  ___ Important  ___ Somewhat Important  ___ Not Important
16. To what extent is it important to use the transdisciplinary play based assessment approach for ongoing educational assessment (IFSP/IEP decisions)?

___ Very Important ___ Important ___ Somewhat Important ___ Not Important

17. To what extent is it important for WKU faculty to continue teaching the transdisciplinary play based assessment approach to disciplines involved with early childhood intervention?

___ Very Important___ Important ___ Somewhat Important (Please explain) ___ Not Important (Please explain)

18. What were three most helpful/useful things you learned about transdisciplinary play based assessment approach through participating in Project TEAM or the IECE practicum?

1. ___________________________
2. ___________________________
3. ___________________________

19. Based on your experience in the Project TEAM or IECE practicum, transdisciplinary play based assessment provides ______ information than traditional/standardized assessment approaches.

___ Equivalent ___ Better ___ Worse/Incomplete

20. Please check what you feel are the top 3 strengths of the transdisciplinary play based assessment approach, compared to traditional approaches.

___ Child friendly ___ Child centered ___ Family friendly ___ Family involvement ___ Developmentally appropriate ___ Culturally relevant ___ Holistic view of the child ___ Completed in natural environment ___ Flexible ___ Team of professionals observe and interpret the same behaviors of the child ___ Enhances rapport with the child ___ Results yield quality interventions ___ Supportive/ Collaborative team approach ___ Other ___________________________ ___ Other ___________________________

Section III

21. What is the current teaming model for determining eligibility in your program?

___ Multidisciplinary ___ Interdisciplinary ___ Transdisciplinary (Arena, TPBA) ___ Other (Please Specify) ___________________________

22. Please check what you feel are the Top 3 strengths of your current teaming model for determining eligibility.

___ Child friendly ___ Child centered ___ Family friendly ___ Family involvement ___ Developmentally appropriate ___ Other ___________________________ ___ Other ___________________________

1= Strongest  2= Strong  3= Not as strong
Culturally relevant
Holistic view of the child
Completed in natural environment
Flexible
Team of professionals observe and interpret the same behaviors of the child
Enhances rapport with the child
Results yield quality interventions
Supportive/Collaborative team approach
Other
Other

23. What teaming model for determining eligibility would you prefer to implement?
   — Multidisciplinary
   — Interdisciplinary
   — Transdisciplinary (Arena, TPBA)
   — Other (Please Specify)

24. What is the current teaming model for ongoing educational assessment in your program?
   — Multidisciplinary
   — Interdisciplinary
   — Transdisciplinary (Arena, TPBA)
   — Other (Please Specify)

25. Please check what you feel are the Top 3 strengths of your current teaming model for educational assessment.
   — Child friendly
   — Child centered
   — Family friendly
   — Family centered
   — Developmentally appropriate
   — Culturally relevant
   — Holistic view of the child
   — Completed in natural environment
   — Flexible
   — Team of professionals observe and interpret the same behaviors of the child
   — Enhances rapport with the child
   — Results yield quality interventions
   — Supportive/Collaborative team approach
   — Other
   — Other

1 = Strongest
2 = Strong
3 = Not as strong

26. What teaming model for ongoing educational assessment would you prefer to implement?
   — Multidisciplinary
   — Interdisciplinary
   — Transdisciplinary (Arena, TPBA)
   — Other (Please Specify)

27. Overall, if you are currently using a transdisciplinary teaming model in your program, were you responsible for initiating and leading a team of professionals to adopt this approach?
   — Yes
   — No

28. Have you ever been part of a program(s) that used a transdisciplinary teaming model? If so, how many?
   — Yes (How many?)
   — No
29. If a previous program used a transdisciplinary teaming model, were you a part of the team?
   - Yes
   - No

30. Are you currently advocating for implementation of a transdisciplinary teaming model?
   - Yes
   - No

31. Have you previously advocated for implementation of a transdisciplinary teaming model?
   - Yes
   - No

32. If a transdisciplinary teaming model was/is used, with what population was/is it implemented with?
   - Birth through two
   - Three through five
   - Grades K – 4
   - Grades 5 – 8
   - Grades 9-12
   - Other (Please specify) ..............................................................

33. If you were or are currently involved in a transdisciplinary teaming model, did you modify the approach while still complying with Kentucky (or other state’s) regulations?
   - Yes
   - No

If yes, what specifically did you modify?

Section IV

34. Regardless of whether or not you are currently implementing transdisciplinary practices, what are the barriers for implementing transdisciplinary play based assessment?

Check as many as apply then prioritize the Top 3 barriers

<table>
<thead>
<tr>
<th>Barriers</th>
<th>1 = Strongest barrier</th>
<th>2 = Strong</th>
<th>3 = Not as strong</th>
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<tr>
<td>Special education director agreeing to it</td>
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<tr>
<td>Time constraints for developing a team</td>
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<td>Coordinating team member schedules</td>
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Debriefing

Thank you for responding to this survey. This survey was created to determine assessment practices in early childhood settings. It was designed to gain information on how graduates of Project TEAM and the IECE M.A. program value transdisciplinary practices and their perceived competence and skills to implement transdisciplinary play based assessment. In addition an understanding of the benefits and barriers to the use of transdisciplinary practices is expected. The information you have provided will be beneficial to the training of future professionals in early childhood education.

**IMPORTANT**

If you would like to be included in the drawing for the gift certificate, please send an email to breanna.bartley@wku.edu with your name and mailing address.

If you have printed this survey, please mail the consent form and survey anonymously to:
Breanna Bartley  
Western Kentucky University  
Department of Psychology  
1906 College Heights Blvd. # 21030  
Bowling Green, KY 42101

If you would like a final copy of the research project, please contact Breanna Bartley or Dr. Elizabeth Jones. Final copies will not be available until after May 5, 2006.
Appendix B

Questionnaire for Feedback
Thank you for volunteering your time to test out my survey!

The purpose of the survey is to obtain information about current practices of professionals who have received knowledge and supervised experience implementing transdisciplinary play based assessment.

Specifically, I will be looking to gain information on the perceived skills, knowledge and importance of implementing transdisciplinary practices by the graduates who were involved in the internships and are now out in the field. Also, how the graduates view the benefits of transdisciplinary teaming and assessment practices, what assessment practices the graduates currently employ, and how the graduates describe barriers to implementing transdisciplinary practices will be looked at. (This survey is going to be online, so if the structure is questionable, it will most likely be changed anyways).

As you look over this survey, please make comments on the margins regarding:

- Grammar
- Your understanding of the question being asked
- Sequencing
- The relation to the information being gathered from the above paragraph
- Anything you feel is missing

Also, please answer the following questions after looking over the survey:

1. Does the survey ask the correct questions about transdisciplinary play based assessment and transdisciplinary practices that would be relevant to professionals who have been trained and are now out in the field?

2. Are the definitions used in the survey clear and helpful?

3. Are there specific questions that do not make sense to the purpose of the survey? (Please list the number and why)
Appendix C

Cover Letter
Dear Participant,

My name is Breanna Bartley and I am a graduate student at Western Kentucky University. I received your name and contact information from records of past Project TEAM or IECE students through Dr. Elizabeth Jones’ and the Interdisciplinary Early Childhood Education offices. I am conducting a survey for my Specialist Project to complete the Ed.S degree in School Psychology.

I feel you had a unique opportunity as a graduate of the Project TEAM or the IECE M.A. program at WKU. Because of your unique training experiences, I am soliciting your input in a survey. The purpose of this survey is to determine current transdisciplinary views and practices. I would appreciate your input to gain a better understanding of current views from the field. This survey was developed in collaboration with Dr. Jones, Dr. Stayton and Dr. Kersting at WKU.

I hope you will take into consideration the importance of your response due to the small sample of Project TEAM and IECE practicum participants during the years 1993-2000. The information you provide on this survey will be valuable in knowing how you have been able to use your training in transdisciplinary practices and if any modifications are needed for training future professionals in early childhood education. As a thank you for completing the survey, your name will be placed in a drawing for one of two $50.00 gift certificates to Walmart®.

For participation in this study, please use the website address found below. Upon entering the website, you will find an introduction page then the informed consent page. Once you have reviewed the consent form, click on “I Agree” or “I Decline” to indicate whether you consent. Clicking “I Agree” will lead you to the beginning of the survey. Once you have completed the survey, directions will be provided as to how to be included in the drawing for the gift certificates. If you would prefer to have the survey in print form, please print the consent form, then click “I Agree” to take you to the survey where it can be printed. Please circle “I Agree” on the printed consent form to indicate your consent. Mail both the consent form and completed survey to me anonymously at the address below. It is approximately 35 questions long and should take you about 15 minutes to complete. This is an informational survey, so there are no right or wrong answers when responding to the items.
All information will remain confidential and responses to the survey are anonymous. If you would like to know more about this study, please feel free to contact me using the information provided below.

Again, thank you for your participation and I hope to receive your feedback as soon as possible.

Sincerely,

Breanna L. Bartley B.A.
Specialist in Education degree candidate
Western Kentucky University
Department of Psychology
1906 College Heights Blvd. #21030
Bowling Green, KY 42101
breanna.bartley@wku.edu

Website for the survey:
http://edtech2.wku.edu/survey/teaming.htm
Appendix D

Mailed and Emailed Postcards
Hello!

This is just a reminder that if you haven’t completed the survey of Project TEAM and IECE M.A. graduates, it is still much appreciated if you would.

You can find the survey at: http://www.

If you have completed the survey, thank you for taking the time to do so!

Breanna Bartley B.A.
Specialist in Education degree candidate
Western Kentucky University
Appendix E

Human Subjects Review Board Approval Letter
In future correspondence please refer to HS06-012, August 17, 2005

Breanna Bartley
260 TPH
Department of Psychology
WKU

Dear Breanna:

Your revision to your research project, “A Survey of Teaming Practices used in the Assessment of Young Children” was reviewed by the HSRB and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects’ welfare and producing desired outcomes; that indications of coercion or prejudice are absent and that participation is clearly voluntary.

1. In addition, the IRB found that you need to orient participants as follows: (1) signed informed consent is not required from each human subject as “clicking” on the “I Agree” link and completion of the survey will imply consent; (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

This project is therefore approved at the Expedited Review Level until May 5, 2006.

2. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. A Continuing Review protocol will be sent to you in the future to determine the status of the project.

Sincerely,

Sean Rubino, M.P.A.
Compliance Manager
Office of Sponsored Programs
Western Kentucky University

cc: HS file number Bartley HS06-012
cc: Dr. Elizabeth Jones
Appendix F

Open Ended Responses
### Question 12

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<td>State or administration acceptance/Not Used</td>
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### Question 17

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<td>No Need or Benefit</td>
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### Question 18

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<td>3</td>
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<td>Team Approach/Teaming Models</td>
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<td>Learn knowledge/Benefits of TPBA</td>
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