Examining the Feasibility of the Nisonger Outcome Assessment Tool

a thesis

Presented in Partial Fulfillment of the Requirements for the Degree of Master of Arts in the Graduate School of The Ohio State University

By

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2014

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Abstract

A rating scale may be beneficial in evaluating and improving the quality of IFSP outcome and strategy statements, which may help to enhance early intervention services. In order for a rating scale to work, it must be feasible for the professionals who use it. This study examined the feasibility of one rating scale, the Nisonger Outcome Assessment Tool (Witwer, 2014).

With the help of the Ohio Department of Health and early intervention county providers, IFSPs were randomly selected from 18 counties across all four regions of Ohio. The participants of this study included three coders from a study team at the Nisonger Center. These coders used the Nisonger Outcome Assessment Tool to rate 150 outcome and strategy statements from 102 of these selected IFSPs. The Nisonger Outcome Assessment Tool is comprised of 4 sections, including (1) Outcome Functionality, (2) Meaningful Outcome Statements, (3) Strategy Evaluation, and (4) Family-based Outcomes. A 5-point likert scale called the Feasibility Scale was created and integrated into the Nisonger Outcome Assessment Tool. This scale examined the feasibility of these four sections and the overall tool in terms of time and perceived ease.

Results indicated that the Nisonger Outcome Assessment Tool takes an average of 5.1 minutes to complete in entirety, and has an average perceived ease rating of 1.9 (1-2 items were confusing or difficult). Sections 1, 2, and 4 of the tool each took about 1 minute to complete and had an average perceived ease rating of about 1 (No items were
confusing or difficult). Section 3 was slightly more time consuming and difficult, taking an average of 1.8 minutes to complete and getting an average perceived ease rating of 1.6. Overall, this assessment tool is perceived as fairly feasible and may be advantageous in improving the future quality of IFSP outcomes, strategies, and services.
Acknowledgments

Foremost, I would like to express my deepest gratitude to my advisor, Dr. Kathy Lawton, for her continuous guidance, patience, and support. I would like to thank her for all the time she took to answer my endless questions and provide invaluable feedback. Above all, I would like to thank her for always advocating for me and believing in me throughout my Master’s program. She provided me with endless opportunities that have enriched my educational experience and have helped me to build my confidence as a professional. She is a true mentor, and I will be forever grateful.

I would like to thank Dr. Andrea Witwer for letting me be a part of her early intervention study and allowing me to analyze the feasibility of her assessment tool. She helped open my eyes to the needs of the early intervention system, and I truly appreciate her willingness to answer all of my questions. To Carrie Appleton, thank you for being a sounding board throughout this whole process and for taking the extra time to be a part of my study. You are incredibly knowledgeable, and have been an excellent partner throughout the research and work we have done together.

My sincere thanks goes to Dr. Diane Sainato, who has always taken the time to assist and support me. I would like to thank her for being another mentor to me and for serving on my thesis committee. She is a phenomenal educator, and without her, I would not know half of what I know about early intervention and early childhood special education.

And lastly, I would like to thank the Ohio Departments of Health and Developmental Disabilities for their participation in the Nisonger Center Early Intervention study. Without their cooperation and willingness to share state-wide IFSPs, this study would not have been possible.
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An individualized family service plan (IFSP) is created for every child receiving early intervention services through Part C of the Individuals with Disabilities Education Act (IDEA). The IFSP is a team-developed plan, which includes components such as the child’s medical information and present level of development, family priorities and concerns, typical family routines and activities, outcomes (goals) for the child and family, and strategies to achieve these outcomes (Jung & McWilliam, 2005). The goal of the IFSP is for it to serve as a roadmap for direct caregivers and interventionists to use that will help the child and family achieve the desired outcomes (Jung, 2007). By and large, the IFSP is the guiding post for intervention and family support throughout the early intervention process.

High Quality Outcome Statements

*Overview.* The outcome statements on an IFSP serve as intervention objectives toward meeting the child’s overarching goals. These outcomes are what focus intervention and are individualized standards against which progress can be monitored (McLean, Wolery, & Bailey Jr., 2004, p. 537). In order for an outcome statement to be considered “high quality,” it must meet several criteria. Explicitly, the outcome statement should be measurable, functional, participation-based, and family-centered.

*Measurable.* In order for the outcome statement to serve as an intervention objective, it must be measurable. That is, it should include a specific behavior that is clearly observable so caregivers and interventionists know what they are monitoring. At the same time, the outcome statement should also include a criterion that describes how well the child must perform the behavior. There is a bit of debate in the EI field as to what this criterion should look like on IFSP outcome statements. For instance, Sheldon
and Rush (2009) note that the family should determine how progress toward the outcomes is measured, and that specific numeric criteria (e.g., \(\frac{3}{4}\) trials; 75% of the time) are not necessary. McWilliams (2010) states that acquisition criteria should be present, but should be written in a way to reflect functional behavior (e.g., “we will know he can do this when he can walk across the room 3 times”) (Witwer, 2013, p. 2).

Regardless of how it is written, acquisition criteria are important because these are what enable families and interventionists to know when the child has mastered the skill and when new outcome statements can be written (McLean, Wolery, & Bailey Jr., 2004, p. 538).

*Functional.* Outcome statements need to be functional to ensure they are useful to the child and family. Specifically, they should be meaningful to the child in the context of everyday living. Functional outcome statements are critical, because they promote the child’s success in his current environments and address skills needed at home and in the community (McWilliams, 2010).

*Participation-Based.* In 2001, the World Health Organization (WHO) endorsed the international classification of functioning, disability, and health (ICF) model of disability and functioning. At this time, the view of health and disability shifted from the previous medical-social model, in which disability was seen as a societal disadvantage, a function of the person, and an outcome of the interaction between health conditions and the individual’s context in their environment. Differentially, the new ICF model stipulates that functioning, disability, and health should be considered in the context of the individual’s participation in daily life (Wilcox & Woods, 2011, p. 365). This shift in views brought about a focus on participation-based early intervention outcomes.
When writing an outcome statement, the child’s current abilities and areas of need should be strongly considered. At the same time, it is equally important to look at the impact the child’s current skill set has on participation in daily routines and activities. This should be done for a variety of reasons. First, when a child is unable to participate meaningfully in daily routines, this can be detrimental to his learning and development. However, when a child increases participation in an activity or routine, he has the opportunity to build new skills during those activities. In other words, the child improves skills in communication, motor, social, adaptive, and/or cognitive development by exploring materials in the environment and interacting with others. The second rationale for participation-based outcome statements is that better skills within and across each developmental domain can lead to participation at a deeper level and more functional behavior in each routine. Specifically, a “transactional feedback loop” (Wilcox & Woods, 2011, p. 366) is established, in which more participation leads to better skill development, which leads to more advanced participation and stronger skill building, and so on.

*Family-centered.* IFSP outcome statements should also reflect the family’s values and should directly impact the child’s engagement and independence in family activities (Wilcox & Woods, 2011, p. 377). Part of the push for this criterion comes from Part C of the Individuals with Disabilities Education Improvement Act (2004), which stipulates that early intervention services need to be family centered (Wilcox & Woods, 2011, p. 367). In addition, research has shown that family-centered intervention has a positive impact on families, such as general satisfaction with intervention supports and a sense of empowerment (Jung & McWilliam, 2005, p. 134). Namely, if the IFSP contains
family-centered, jargon-free language and the family understands the plan that is outlined, they are bound to have a greater sense of power with the decision-making that takes place. Studies have shown that this sense of control correlates with better early intervention outcomes for the child and family (Dunst & Trivette, 1987; Dunst, Trivette, & Deal, 1988). Furthermore, an IFSP that is detailed and written with family-centered language will not only help the family understand the plan, but also help the family ensure that the plan is carried out and the requested services are provided. This helps guarantee that intervention is systematic and consistent for every child (McWilliam et al., 1998, p. 70).

Perhaps the most important reason for creating family-centered outcomes is that the child’s family and natural environment are both constants in his life. No matter how many hours a week a child may receive of structured intervention or therapy, the majority of the child’s time is spent with his family or caregivers in the home or child-care settings. Thus, by writing IFSP outcomes that center around family and caregiver priorities, intervention can be maximized and be made more meaningful to the child (Bruder, 2000, pp.108—109). This, in turn, can lead to better results.

Although these are the main standards for high quality IFSP outcome statements, there are a few other criteria as well. For instance, outcome statements should not be limited to one area of development and should cut across developmental domains. For example, a high quality outcome statement may read, “we would like Johnny to crawl so he can play with this toys and peers during free play at school.” This outcome addresses the areas of motor, social, and cognitive development, as opposed to a more limited outcome such as, “We would like Johnny to crawl.” Addressing several developmental
domains in one outcome is another way of maximizing intervention for the child. In addition, outcome statements should be generalizable. That is, they should have the capacity to transfer across contexts and last over time (Wolery, 1989; Bagnato, McLean, & Neisworth, 2011).

Effective Strategies

Overview. While there are many standards for writing high-quality IFSP outcome statements, there are also standards for writing effective strategies into the IFSP. Strategies must be meaningful and feasible for families and caregivers, and must also be participation-based, or embedded within natural routines. Well-written strategies are essential, because these are what guide intervention and support the child in achieving the identified outcomes. Well-written strategies also help to integrate intervention among family members and professionals, and provide intervention to the child in meaningful ways throughout each day. If done correctly, IFSP strategies also maximize intervention, and can build the family’s confidence and competence as they help their child learn and grow.

Lee Ann Jung, PhD, is one of the leaders in the field of early intervention, with 20 years of experience in special education. Now with the University of Kentucky, Jung has served as a teacher, administrator, and researcher, and has also acted as a direct interventionist for hundreds of children with disabilities and their families (University of Kentucky College of Education, 2013). Through her real-world experience and research, Jung (2007) created an organizing framework to assist with IFSP strategy writing. She uses the acronym ROUTINE to identify seven standards that strategies should meet to qualify as effective. With this acronym, Jung stipulates that strategies should be:
Routines-based (R), Outcome-related (O), Understandable and Jargon Free (U), Transdisciplinary (T), Implemented by Family and Caregivers (I), Nonjudgemental (N), and Evidence-Based (E). Each of these standards is described in detail below.

**Routines-based.** IFSP strategies should describe what everyone (family members, caregivers, interventionists) will do during daily routines to work toward the child’s outcome. By embedding strategies into daily routines that the family/caregivers already engage in, this reduces some stress for the family and makes the strategies more manageable. In other words, the family doesn’t have to take time away from what they normally do to work with the child (p. 4).

**Outcome-related.** Although it seems logical that strategies should be outcome-related, sometimes the outcomes and strategies on an IFSP can be disjointed, with no real connection between them. For example, a common IFSP outcome is, “for the child to say more words during play so he can tell us what he needs or wants.” Connected strategies may be something like, “label the child’s actions during play,” or “model simple 1-2 word phrases for the child.” These are strategies that will clearly support the child in his language development, and are thus outcome-related. However, if the strategy were to include something like, “present the child with a variety of toys and materials during play,” this would not necessarily be outcome-related. Although new and engaging materials may encourage the child’s engagement and/or attempts to comment or request, the connection between the strategy and outcome is not explicit. To avoid this disconnection, IFSP strategies should be clearly organized, and the relationship between the outcome and strategy should be emphasized. Team members can work with the
child’s family to evaluate whether the outcome will actually be achieved with each strategy (p. 4).

*Understandable and Jargon free.* Written strategies should include simple, discipline-free language, with no acronyms (e.g., SLP, EI). By using simple terminology to describe the strategies, this will help all family members and caregivers understand what they are supposed to be doing (p. 6). Jargon-free language will also help all service providers know what to do, regardless of what discipline they come from.

*Transdisciplinary.* IFSP strategies should not be specific to any discipline. Any professional, regardless of their field, should be able to utilize and implement the intervention strategy (p. 6). This means that there should not be any strategies that are strictly assigned to speech pathologists, occupational or physical therapists, or early intervention teachers.

*Implemented by Families and Caregivers.* Although professionals can implement strategies as they consult with families, the goal of all strategies should be that family and caregivers are the ones implementing them. A large reason for this is because if professionals only used strategies, the child would most likely be receiving little support. By using the family and caregivers as “key players,” however, it increases the child’s intervention throughout the day, and much more intervention can occur during natural opportunities (p. 7). This will help to create a more intensive intervention plan for the child, which will hopefully result in greater, more generalized knowledge and skills.

*Nonjudgmental.* Although the family is encouraged to try the strategies at home, the IFSP should not look like a contract between the family and interventionists (p. 7). All families have stress and pressure, and by using judgmental words such as “the family
will follow through,” or “the caregiver will implement recommendations,” this may add an increased burden. To avoid this, professionals can help extend strategies that the family/caregivers are already using, and build on their current strengths.

_Evidence-based_. Jung’s last recommendation for effective strategies is that they are evidence-based. Before recommending any strategies to the family, professionals should ensure these are supported with empirical research. Professionals should also educate themselves on strategies that may be available or offered to families but are not evidence-based. With this knowledge, they can help families make educated decisions about strategies that will most benefit their child and reduce wasted time or harm (p. 8).

Service Coordinators

Although the child’s family, caregivers, and interventionists can all help in developing the IFSP, it is ultimately the job of the family’s service coordinator to facilitate its creation. Service coordinators play a critical role in supporting the families of infants and toddlers who are at risk or have disabilities. Like many government employees, these professionals have the capacity to make a great difference in the lives of those they serve. Unfortunately, education, experience, and budgeting for these professionals are often low, while job demands and turn over rates are high (Farel, Shackelford, & Hurth, 1997, p. 235).

_High Demands_. The service coordinator’s role in the IFSP process is complex. It first begins by informing parents of their rights, facilitating a developmental screening, and if needed, coordinating a comprehensive evaluation of the child. Once family and child assessments have been administered, the service coordinator is the key professional involved with developing, implementing, monitoring, and reviewing the IFSP. When
creating this document, the service coordinator works with the family to write the outcomes and strategies. After providing the family with choices, the service coordinator identifies, coordinates, and monitors specialized services that the family and child will receive. Every six months, he or she reviews the IFSP with the family and early intervention providers to identify whether objectives have been met and make changes to outcomes or strategies as needed. Finally, when the child is close to turning 3, it is the service coordinator’s job to facilitate the child’s transition out of the early intervention program (Help Me Grow, 2007, p. 38).

Service coordinators are the primary point of contact for families in the early intervention system. In addition to creating the IFSP and reviewing it face-to-face with the family every six months, they must also complete Status Report Forms and file these with their county’s health department for data entry. Caseload sizes vary, depending on county and program affiliation (Farel, Shackelford, & Hurth, 1997), and each must keep to a strict timeline in the IFSP process. Specifically, intake and family assessment, child evaluation, and IFSP development all must occur within 45 days of the initial identification and referral (Lucas, Hurth, Shaw, & Cogan, 2010).

Limited Education & Experience. Although service coordinators play a vital role in the creation, facilitation, monitoring, and review of IFSPs, they may have little education or training for this role. In fact, service coordination is not associated with a specific discipline or degree, and qualifications vary widely within and across states (Jung and Baird, 2003, p. 207). Jung and McWilliam (2005) examined IFSPs from the state of Alabama, where a bachelor’s degree in any field of study was the degree requirement for service coordinators. Approximately 300 service coordinators were
invited to participate in their study, and more than half had less than 2 years experience (pp. 126—127). Jung and Baird (2003) also analyzed IFSPs (120) submitted by Alabama service coordinators and examined the education and experience of each participant. They found that only 32% of professionals in this role had a degree in special education, and 16% had degrees that were not related to education at all. Of their sample, 61% reported earning a bachelor’s degree, 32% earned a master’s degree, and 7% earned an associate’s degree (p. 211).

Depending on job demands and experience, service coordinators may feel overburdened in the IFSP process. Farel, Shackelford, & Hurth (1997) examined service coordinators’ experiences in writing IFSPs. The authors mailed a survey to county service coordinators at Maternal and Child Health (MCH) and mental health programs across the state of North Carolina. The survey was comprised of 43 fixed-choice questions, with about half offering an opportunity for participants to elaborate on their response and comment on why they selected a particular answer. In their analysis, the authors found that as many as 150 (33%) of the respondents indicated that IFSPs took more than 3 hours to complete (pp. 240 – 243). For the amount of IFSPs service coordinators need to write, this seems to be a very long and burdensome amount of time. With large workloads, limited training and experience, and restricted time, service coordinators are likely to feel tremendous pressure in their jobs. It is these restrictions, demands, and pressure on service coordinators that may adversely affect the quality of the IFSPs they write for the families they serve.

A Need for Improvement
Despite the explicit criteria for writing high-quality outcome statements and strategies, research suggests that service coordinators are often not meeting these criteria or using family-centered practices (Jung & McWilliam, 2005). Early intervention systems in nearly every state have struggled with the quality of IFSPs and have utilized a variety of strategies in hopes of improvement. These strategies have consisted of workshops, conferences, websites, guidance documents, technical assistance systems, and mentors. Nonetheless, IFSPs have still been found to lack in quality. That is, outcomes have been vague, un-measurable, and professionally driven, while strategies have been incompatible with family routines (Jung, 2010). The question, then, is how do we improve the writing of high quality IFSP outcomes and strategies? Possible solutions may be setting higher standards, embedding prompts into the IFSP, or utilizing rating scales.

Setting High Standards. Setting higher standards for the writing of IFSP outcomes and strategies may help to improve the quality of IFSPs. Otis-Wilborn and Winn (2000) examined the University of Wisconsin-Milwaukee (UWM) standards reform, in which standards were used to guide program restructuring and ensure special education students were ready to teach in urban schools (p. 80). Standards were created to assess students in terms of their knowledge and skills in, “(a) Child, Learner, & Disability, (b) Assessing and Gathering Information, (c) State of the Art Curriculum, (d) Collaboration and Leadership, and (e) Ongoing Professional Development.” These standards were clearly defined to indicate how students would appear as they progressed toward the standards and what evidence was needed to demonstrate meeting expectations (p. 83). Each standard was assessed with a 4-point rating scale (0-3) and was broken
down into benchmarks and indicators. By creating these clear standards and using an assessment tool to evaluate student progress, UWM was able to determine which students had adequate skills to bring to the field.

Although there are explicit criteria in the EI field for what constitutes an effectively written outcome statement and strategy, perhaps a standards reform for service coordinators is necessary. That is, perhaps there should be more specific guidelines that service coordinators should be meeting each time they write an IFSP. Nonetheless, high standards themselves do not seem to be enough. Instead, the EI field must find a way to help service coordinators meet these standards in order to improve the quality of the IFSPs they write.

*Embedded Prompts.* Jung (2010) explored whether prompts embedded into the IFSP form would help service coordinators improve the quality of the IFSPs they wrote. Prompts were for three types of content, including (a) recording family routines; (b) recording families’ priorities for emotional, material, and informational support; and (c) connecting routines and priorities to outcomes and procedures (p. 201). 94 service coordinators in Kentucky’s Early Intervention system participated in the study, and each provided two IFSPs. One IFSP was from before the included prompts, and one was after the revisions had been made. Each IFSP was rated using the revised IFSP Rating Scale (McWilliam & Jung, 2001). Items were rated on a scale of 1-5, and included whether the following were present in the IFSP: (a) family-centered language, (b) active voice, (c) functional outcomes, (d) emphasis on strengths, (e) measurable outcomes, (f) routines-based intervention, (g) evidence-based strategies, (h) natural activity settings, (i) family
implementation of intervention, (j) functional assessment information, (k) outcomes that are driven by family priorities, and (l) family priorities that are each addressed (p. 202). Results of the study demonstrated that including the prompts into the IFSP improved the quality of the service plans. When service coordinators were prompted to include certain family-centered items, 7 of the 12 items measured showed statistically significant improvement as compared to the IFSPs without the prompts. In addition, IFSPs were written with more family-centered language, were more responsive to family priorities, recognized families as implementers of the interventions to a greater extent, and were overall more functional and clear.

Interestingly, five indicators in this study showed similar improvement with the same scale items from a previous study that involved a costly three-day training (Jung & Baird, 2003). From this, it can be concluded that embedding prompts into the IFSP is a much more feasible and cost effective way to improve their quality. Despite the improvement of some rating scale items, however, three of the items (e.g., context appropriateness, specificity, active voice) demonstrated a continued need of improvement even with the inclusion of prompts. Thus, adding targeted prompts to the IFSP form may be helpful, but other steps may still need to be taken to ensure the best quality of all items (pp. 207—212).

Rating Scales. Another possible method for improving the quality of IFSPs is to use rating scales to evaluate their quality and identify areas of need. Jung and McWilliam (2005) developed a 12-item rating scale to assess evidence of family-centered practices in the content of IFSPs. Their hope was to use this rating scale not only as an evaluation tool, but also as a way to provide systematic feedback to service coordinators.
In their study, they selected 25 IFSPs from four types of programs in North Carolina (inclusive center-based programs, self-contained center-based programs, home-based programs, and health departments) (p. 126). They examined each IFSP in terms of the following items: writing (jargon free), active language, specificity, context appropriate, match outcome, location, family’s role, positiveness, outcomes with concerns, concerns with outcomes, necessity, and present level functionality. Each item was rated on a 5-point scale, resulting in a total possible score of 60 (pp. 127-128). Low scores were found on outcome and strategy writing, and the results illuminated the fact that service coordinators were struggling with writing quality IFSPs and seemed to have a lack of understanding in family-centered practice. Through measures of interrater agreement and internal consistency, Jung and McWilliams found the results to be reliable (pp. 133—134).

Rating Scale Feasibility

The use of a rating scale may be a relatively convenient, cost-effective, and reliable way to evaluate service coordinator practices and provide them with constructive feedback in IFSP writing (Allinder et al., 2000, p. 225). Although this approach may have its benefits, however, it may pose an unwelcome and impractical burden on administrators who do these evaluations. That is to say, requiring administrators to read and assess each IFSP their service coordinators write may require time and money that is not available.

Jephson (1992) examined feasibility in the context of early intervention. She utilized a 5-point likert-type rating scale to assess the opinions of Early Childhood Intervention (ECI) program directors’ on the importance and feasibility of five types of
program evaluations. The term *feasible* was defined as “capable of being done at the present time,” and response choices ranged from *not possible* (1) to *easy* (5) (p. 254). Jephson’s analysis found that program directors found the evaluation of program goals and child progress to be significantly more feasible than evaluating service quality or family progress (p. 257). Overall, results indicated that administrators and staff members were often so focused on program operation and service delivery, that they felt they had little time to evaluate their processes. From this study, it can be concluded that if early intervention service providers are going to be charged with assessing IFSP outcomes and strategies, they need a feasible instrument to do so. The feasibility of any instrument is essential for several reasons, including increasing proficiency and productivity, enhancing procedural integrity, and validating clinical utility.

*Increasing proficiency and productivity.* Time and money are precious resources. Like so many other professionals, members of the early intervention field already have so much on their plates with limited time to complete it. The longer it takes for them to complete an evaluation tool, the less time they are able to serve children and their families, thus weakening services for families in need. Connor-Smith and Weisz (2003) discussed this point as they examined work demands and training efforts to improve practices. They note, “Due to the growing emphasis on efficiency and cost-containment, most clinicians are already overworked and under increasing pressure to meet productivity standards... Time spent obtaining training is rarely considered ‘productivity’” (pp. 6-7). This same logic holds true for EI professionals. In other words, service providers barely have sufficient time to meet the needs of the families they serve, let alone utilize a cumbersome rating scale to evaluate and improve service
coordinator practices. Any time using such a rating scale would most likely not be thought of as productive, and with government dollars being stretched every day, money is lost if time is not used efficiently. By using feasible tools in practice, however, we can enhance the proficiency and productivity of EI professionals.

Enhancing Procedural Integrity. If an assessment tool is perceived as feasible, it is more likely that it will be used as it was intended. Differentially, if using an instrument is a burdensome process, professionals may begin to leave out important steps and not use it with high fidelity. This principle is often studied when researchers examine the difference between efficacy research (conducted in ideal, controlled settings), and research done in applied settings. Connor-Smith and Weisz (2003) found that treatments studied in efficacy research often have difficulty transferring to the real world. They note that this may be because in applied settings, clinicians are under multiple stressors, including limited training, poor access to supervision, and high productivity requirements (pp. 3—4). All of these stressors can negatively impact the quality of one’s work, and the extent to which professionals follow guidelines in the way they are supposed to.

These are important factors to keep in mind when considering the feasibility of an evaluation tool to use for improving IFSPs. As noted, early intervention professionals already have high demands and little time to meet them. If a tool is not perceived as feasible, it will probably not be used very well, and thus will not be very helpful in improving professional practice. By supplying EI professionals with an instrument that is easy and time efficient, however, it increases the likelihood that the instrument will be used well and will be beneficial in turn.
Validating Clinical Utility. If an assessment tool is perceived as feasible, it is more likely to be accepted and recommended in professional practice. Chorpita, Barlow, Albano, and Daleiden (1998) studied clinical utility with interventions. They describe clinical utility as a component of external validity, and examined it in terms of generalizability, cost/benefit ratio, and feasibility. The authors note, the more that these dimensions are evaluated and proven to be valuable, the greater the confidence in the clinical utility of the intervention (p. 9). Although a rating scale is not an intervention, this logic can still be applied to any assessment tool. That is, the more an instrument is studied and found to be feasible, the more it is going to be used and recommended in practice.

Current Research on Instrument Feasibility

While many instruments in the fields of education, psychology, and medicine have been examined for their validity and reliability, the feasibility of these instruments has often been neglected in the research. Stevens et al. (2013) pioneered one of the first studies on instrument feasibility. They examined the use of patient-specific measurement instruments in the process of goal setting, a common practice in clinical psychology. The authors searched databases to identify patient-specific measurements, and then searched the same databases to find studies in which the feasibility of these tools was examined. Specifically, they searched for the terms feasibility, utility, practical use, clinical use, respondent burden, and administrative burden. From items mentioned most frequently in the literature, the authors classified objective features of feasibility. These include availability, cost, understandable language, required skills and training, interpretability of the scores, and administrative burden (p. 1007). Each of these objective features would
have a strong impact on the use of a rating scale to assess the quality of IFSP outcomes and strategies.

In addition to objective features of feasibility influencing the use of an instrument, subjective features may also be at play (Stevens et al, 2013). Subjective features may include perceived ease of the tool and motivation to use the instrument in daily practice (p. 1007). For instance, service providers may be opposed to anything that will take time away from their primary roles, or may find the instrument difficult to understand and use. In addition, service providers may find their service coordinators' practices to be intact and may feel that using the rating scale is unnecessary (Jephson, 1992, p.253).

Despite the current state of IFSPs, high-quality outcomes and strategies are a crucial part of early intervention. A better system needs to be put into place to ensure service coordinators are writing these to meet high standards. As Jung and McWilliam (2005) note, “the IFSP is the most tangible agreement and design for how families in early intervention are to be supported. Its quality should, therefore, be high” (p. 134).

High standards for IFSP outcomes and strategies have already been set. By using a rating scale to evaluate compliance with these standards and inform professional development, we may finally begin to see improvement in IFSPs and early intervention services. The first step in getting early intervention service providers to utilize such a rating scale, however, is to test the feasibility of using such an assessment tool.

Feasibility of the Nisonger Outcome Assessment Tool

This study was conducted as a part of a larger study: Examining the measurability and functionality of early intervention individual family service plan (IFSP) goals/outcomes and services (Witwer, 2013). The larger study took place
through the Nisonger Center at The Ohio State University, and had three primary aims:
(1) to evaluate IFSP outcome statements and strategies throughout the state of Ohio in
terms of their measurability, functionality, and the extent to which they included
child/family-focused goals; (2) To provide Ohio early intervention service providers with
a method to evaluate the ongoing quality of outcome statements, strategies, and services
on IFSPs throughout the state; (3) To compose and validate a standardized rating tool to
aid in this evaluation, The Nisonger Outcome Assessment Tool (Witwer, 2013).

The investigation described in this thesis will examine whether the Nisonger
Outcome Assessment Tool is a feasible tool for evaluating IFSP outcome and strategy
writing. Specific study aims are as follows:

Aim 1 (overall): To determine the feasibility (perceived ease of use and rating
time) of the Nisonger Outcome Assessment Tool.

Aim 1.1. To determine the extent to which users will rate this scale as
easy to understand on a 1-5 likert scale after coding each IFSP outcome.
Hypothesis 1.1: coders will rate this scale as a 2 [a few (1-2) of the items
on the scale are confusing or difficult].

Aim 1.2: To determine the average length of time to rate an IFSP
outcome and strategy(ies) in minutes. Hypothesis 1.2: the average length
of time to rate an outcome/strategy using the scale will be 6 minutes.

Aim 2 (section 1): To determine the feasibility (perceived ease of use and rating
time) of section 1 (Outcome Functionality) of the Nisonger Outcome Assessment
Tool.

Aim 2.1. To determine the extent to which users will rate section 1 of this
scale as easy to understand on a 1-5 likert scale after coding each IFSP
outcome statement. Hypothesis 2.1: coders will rate this section as a 2 [a
few (1-2) of the items are confusing or difficult].

Aim 2.2: To determine the average length of time in minutes that it takes
to use section 1 of the tool. Hypothesis 2.2: the average length of time to
rate an outcome/strategy using this section will be 2 minutes.
Aim 3 (section 2): To determine the feasibility (perceived ease of use and rating time) of section 2 (Meaningful Outcome Statements) of the Nisonger Outcome Assessment Tool.

Aim 3.1. To determine the extent to which users will rate section 2 of this scale as easy to understand on a 1-5 likert scale after coding each IFSP outcome statement. *Hypothesis 3.1:* coders will rate section 2 of the scale as a 2 [a few (1-2) of the items are confusing or difficult].

Aim 3.2: To determine the average length of time in minutes that it takes to use section 2 of the tool. *Hypothesis 3.2:* the average length of time to rate an outcome/strategy using this section will be 1 minute.

Aim 4 (section 3): To determine the feasibility (perceived ease of use and rating time) of section 3 (Strategy Evaluation) of the Nisonger Outcome Assessment Tool.

Aim 4.1. To determine the extent to which users will rate section 3 of this scale as easy to understand on a 1-5 likert scale after coding each IFSP strategy. *Hypothesis 4.1:* coders will rate this section as a 2 [a few (1-2) of the items are confusing or difficult].

Aim 4.2: To determine the average length of time in minutes that it takes to use section 3 of the tool. *Hypothesis 4.2:* the average length of time to rate an outcome/strategy using this section will be 2 minutes.

Aim 5 (section 4): To determine the feasibility (perceived ease of use and rating time) of section 4 (Family-Based Outcomes) of the Nisonger Outcome Assessment Tool.

Aim 5.1. To determine the extent to which users will rate section 4 of this scale as easy to understand on a 1-5 likert scale after coding each IFSP outcome statement/strategy. *Hypothesis 5.1:* coders will rate this section as a 1 (no items are confusing or difficult).

Aim 5.2: To determine the average length of time in minutes that it takes to use section 4 of the tool. *Hypothesis 5.2:* the average length of time to rate an outcome/strategy using this section will be 1 minute.
METHOD
Participants

Two groups of participants were involved in this study. These included: (1) Child participants from counties throughout the state of Ohio, and (2) Coders using the Nisonger Outcome Assessment Tool. The groups are described below.

Child Participants. The first group of participants were recruited by the Nisonger Center study staff. Members of this research team contacted early intervention providers from the 88 counties in Ohio, and 27 of these counties agreed to participate. Of the participating counties, the Ohio Department of Health generated a random sample of approximately 300 children receiving EI services in Ohio, aged 0—2, and requested the necessary IFSP documentation from county level EI Representatives. County providers then mailed the requested documents to the Nisonger study staff, where each IFSP was de-identified and coded with an ID that only state and local EI providers could identify. Response packets were received from a total of 18 counties from all four regions of the state, and IFSP data was received from 102 children. The majority of children had one outcome rated, but up to 3 were rated for some. This resulted in a total of 150 outcome and strategy statements.

The 102 participants were rather diverse, varying in age, eligibility reason, and levels of delay across developmental domains. 17% of the participants were between the ages of 0 and 1, 31% were between 1 and 2 years, and 52% were between 2 and 3 years. As shown in table 1, the majority of children (59.8%) were eligible for EI services due to a substantial delay. 28.4% of the participants were eligible due to a diagnosed developmental disability, and a small portion (11.8%) of the participants were eligible
due to informed clinical opinion (ICO), mild delay, or multiple mild delays.

Furthermore, evaluation results from the Bayley Scale of Infant and Toddler Development or the Batelle Developmental Inventory were available for 78 participants. As shown in table 2, the majority of substantial delays (2.0 SD) were for expressive and receptive communication (87.2%). The majority of mild delays (1.5-1.99 SD) were for cognitive development (17.9%) and expressive communication (15.4%). The majority of no delays were for fine motor (84.6%) and gross motor development (79.5%) (Witwer, 2014).

Coders using the Nisonger Outcome Assessment Tool. The second group of participants was recruited in Witwer’s (2014) EI study to code IFSP outcomes and strategies using the Nisonger Outcome Assessment Tool. Each coder varied in education and experience and was either employed or a student at The Ohio State University. The primary coder in the feasibility study (coder 1) was a 2nd year graduate student in the Special Education Master’s program. She had a bachelor of science in special education with a moderate-intensive teaching license (K-12). She also had 6 years of experience providing home-based services through the County Board of Developmental Disabilities, and 3 years of experience teaching children with autism spectrum disorders, grades 2-8. The secondary coder (coder 2) helped to create the Nisonger Outcome Assessment Tool, held a PhD in Intellectual and Developmental Disability (IDD) Psychology, and had 15 years of experience working with children with ASD and DD. The final coder (coder 3) was also a 2nd year Master’s student in the special education program. She held a bachelor of science in child development with an early childhood (preK-3) teaching license, had four years of experience teaching general education preschool, and one year
of working with young children (18 months-5 years) with developmental disabilities. Coder 3 also created the **Feasibility Scale** used in this study.

**Instrument**

There were two instruments involved in this study. These include the *Nisonger Outcome Assessment Tool* and the *Feasibility Scale*.

*Nisonger Outcome Assessment Tool*. The *Nisonger Outcome Assessment Tool* was first developed by examining and compiling standardized IFSP rating scales (e.g., Jung & McWilliams, 2005; McWilliams, 2010) currently used by Part C programs across the country. Based on these scales, the Nisonger Center study team came up with modifications that would allow the tools to be used in the examination of Ohio IFSPs. The goal was to use a standardized rating scale to analyze outcome and strategy statements in terms of their measurability, functionality, and the extent to which they included child/family-focused goals and strategies (Witwer, 2013, p. 1).

As shown in Figure 2, The *Nisonger Outcome Assessment Tool* includes a cover page with general information about the child (e.g., ID number, age) and sections to write the outcome, current development in relation to the outcome, supports and resources, and strategies as written on the child’s IFSP. The cover page also asks the rater to check off which functional federal outcome(s) the outcome statement falls under (e.g., positive social-emotional skills, knowledge and skills, appropriate behavior to meet needs) as well as the developmental theme(s) of the outcome (e.g., cognitive, motor, adaptive, social, or communication development).

The *Nisonger Outcome Assessment Tool* contains 25 items, divided into four sections. The three main sections include **Outcome Functionality** (7 items), **Meaningful**
Outcome Statements (6 items), and Strategy Evaluation (12 items). A 3-point rating scale (0 – 2) follows each question, with 0 being the lowest and 2 being the highest. Explicit criteria and examples are included with each value to help the rater understand what a 0, 1, or 2 looks like when examining the outcome or strategy. Of the 25 items, 12 also have the number 8 as an option for rating in addition to the 0, 1, and 2. This 8 is used only if the IFSP is missing information or there is not enough information available to determine a 0 – 2 rating. Finally, the fourth and final section of this assessment tool contains three items and is titled Family-based outcomes. Two of these items are scored with only a 0 (to indicate “No”) or 1 (to indicate “yes”), as well as some statements pertaining to the strategies that the rater can circle if they apply (e.g., Helps the family to know rights). The last item in this section contains the 0 – 2 rating scale, but is only to be rated by coders that are familiar with the family.

The Feasibility Scale. To assess the feasibility of the Nisonger Outcome Assessment Tool, a feasibility scale was created by the author and integrated into the original scale. Feasibility was operationalized in terms of the time it took to use the tool, as well as the perceived ease of use. As previously described, these variables are common ways to formalize feasibility (Stevens et al., 2013).

Feasibility Scale Items. First, a question was included on the cover page that asked the coder to check off how much experience she had using the assessment tool (e.g., less than 1 week, 1-4 weeks, 1-3 months, 3-6 months, 6-9 months, or 9-12 months). In addition, before using each section of the rating scale, the coder was asked to record the start time. At the end of each section, the coder was asked to record the stop time and the total number of minutes it took to complete the section. Interobserver Agreement
was deemed close to adequate for the time data from most sections: section 1 (63%), section 2 (67%), and section 4 (97%). Interobserver agreement was not deemed adequate for the section 3 time data (37%).

Also at the end of each section of the Nisonger Outcome Assessment Tool, the question, “How easy was it for you to complete this section?” was included. The coder was prompted to circle one number on a likert scale of 1 – 5. A score of “1” was considered the easiest and “5” was the most difficult. Each value was operationally defined to help the coder choose appropriately. The descriptions for each value are as follows: a “1” represented that there was no confusion or difficulty on any item, a “2” represented that a few (1-2) of the items were confusing or difficult, “3” indicated that several (3-4) of the items were confusing or difficult, a “4” indicated that many (5 or more) of the items were confusing or difficult, and a “5” represented that all of the items were confusing or difficult. Interobserver Agreement was deemed close to adequate for the perceived ease data from most sections: section 1 (67%), section 2 (70%), and section 4 (74%). Interobserver agreement was not deemed adequate for the section 3 perceived ease data (43%).

In addition to assessing the feasibility of each section of the tool, the overall tool was also evaluated. A written prompt was provided at the beginning of section 1 and end of section 4 for the coder to record her start and stop time. On the last page of the assessment tool, the coder was asked to record the total number of minutes it took to use the scale. This was calculated by finding the difference between the section 1 start time and section 4 stop time. A final question on the overall perceived ease of the tool was also included at the end of the feasibility scale. This question also included the 1-5 rating
scale described above. Interobserver agreement was not deemed adequate for the overall
time (20%) and perceived ease data (29%).

Procedure

There were three steps in this procedure that are discussed in turn. These include the
collection of IFSPs, training with the *Nisonger Outcome Assessment Tool*, and *Feasibility Scale* training.

*Collection of IFSPs.* After the OSU study staff recruited participants, counties began sending in IFSPs to the Nisonger Center in a business reply envelope. All personally identifying information was eliminated from these documents, including which county they came from. Study staff was able to identify which general region of Ohio each IFSP came from, and through the use of ODH Early Track (their existing data tracking system), staff was also able to gain other information about child eligibility and assessment results. This information included (a) whether the child had a qualifying diagnosis (yes or no); (b) developmental domain(s) of delay (e.g., cognitive, social-emotional, adaptive, communication, or physical); (c) Evaluation scores in adaptive, personal-social, expressive language, receptive language, fine perceptual motor, and gross motor development; and (d) the child’s age in months (Witwer, 2013). In addition to information about the child’s eligibility, assessment results, and age, Nisonger also received section 6 of each IFSP, which includes the written outcome and strategy statements.

*Nisonger Outcome Assessment Tool Training.* Before rating state-wide IFSPs using the *Nisonger Outcome Assessment Tool*, the study team engaged in practice ratings with de-identified IFSPs from the Nisonger center. These came from a county that was
not included in the study, and training sessions occurred for a total of 9 weeks. Each week, coders would individually rate 2 or more outcomes and strategies using the tool. The team would then meet for approximately one hour to discuss the reliability of results and refine assessment items (e.g., clarify wording, make criteria more explicit). By the final set of ratings, the coders reached percent agreement ranging from 80%-90% (kappas ranging from .72-.94), and it was determined that coders were reliable and prepared to rate state-wide IFSPs.

*Feasibility Scale Training.* Five weeks into training with the *Nisonger Outcome Assessment Tool*, training on the *Feasibility Scale* began. One meeting was held to talk about the purpose of the scale and to explain its use. The team (coders 1, 2, and 3) went through each component of the scale, discussing what each question was asking. Coders discussed how to time themselves reliably by recording the start and stop time (in hours and minutes) for each section and subtracting the start time from the stop time to obtain the total time. Time became a categorical variable. If there was no difference between the start and stop time because the section took less than 60 seconds, coders were still instructed to record this as 1 minute. For instance, if a section took 45 seconds to rate, coders rounded up and coded this as 1 minute. If a section took a minute or more to rate, coders rounded down to the nearest minute. For example, if a section took 1 minute and 45 seconds to rate, coders were instructed to record this as 1 minute. Similarly, if a section took 2 minutes and 25 seconds to rate, coders were instructed to record this as 2 minutes. If coders had to pause while rating a section, they were instructed to record the paused time (e.g., 1 minute) and subtract this from the total time.
During the Feasibility Scale training, time was also spent discussing the “perceived ease” items on the scale. The term “confusing” was defined as any item in which the coder wasn’t sure what was being asked, or if the coder wasn’t sure how that specific item related to the outcome or strategy. “Difficult” was defined as any item in which the coder wasn’t sure how to rate the outcome or strategy statement using the criteria. Coders were instructed to make a note (e.g., circle, star) of any items they found confusing or difficult during the rating. Coders were then instructed to count the number of notations they had at the end of each section and the overall tool, and to circle this number on the Feasibility Scale. For example, if a coder starred 1 item in a section, they would then circle the number “2” on the perceived ease scale of that section [A few (1-2) items in this section were confusing or difficult].

After individually coding two practice IFSPs using the Feasibility Scale, the team reconvened. An informal assessment of the results (e.g., discussing what each coder recorded on scale) from these practice sessions showed the data to be fairly reliable, and it was determined that training was successful. The Feasibility Scale remained a part of the Nisonger Outcome Assessment Tool, and coders had a total of 4 weeks of practice with it. Each coder agreed to use the Feasibility Scale each time they used the Nisonger Outcome Assessment Tool throughout Witwer’s study.

Analysis

Inclusion/exclusion of data for feasibility analysis. Only a portion of the total data were included for this study. As shown in Figure 1, 263 de-identified outcome statements and strategies were available at the beginning of the study, with 100 assigned to each coder. The outcomes and strategies were clustered into 3 sets and randomly
assigned to each coder in a different order. 150 (57%) of the outcomes and strategies from the first 12 counties were rated by 2 coders to assess reliability, with overlap between all of the coders (e.g., set 1 was rated by coder 1 and 2, set 2 by coder 2 and 3, set 3 by coders 3 and 1). These steps were taken to reduce confounding variables and to assess interobserver agreement (IOA). After rating, 141 outcome statements and strategies were included in the database for analysis. Some outcomes and strategies (n=122) were excluded from the database due to a shortage of time for input. This is a major impact on the study, because only 54% of the data were available for analysis. As this is almost half of the original data, it significantly limited the ability to answer research questions regarding the feasibility of the Nisonger Outcome Assessment Tool.

Next, missing Feasibility Scale data were excluded. Of the 141 outcomes and strategies available in the database, 136 were included in the final sample. Some outcome and strategy statements were excluded because information on the Feasibility Scale was incomplete (n=5) during rating. That is, coders did not properly fill out the entire Feasibility Scale for every outcome and strategy they rated (e.g., left out total rating time of a section, start and stop time, and/or an ease rating). The exclusion of 5 outcome statements and strategies does somewhat limit the amount of information available for the feasibility analysis. However, because only 5 were lost and 136 still remained to analyze, this limitation (4%) was minimal.

Overview of main analyses. Simple descriptive statistics were generated for all variables. Average was used to determine the mean amount of time and mean ease rating for each section and the overall Nisonger Outcome Assessment Tool. Standard deviation was also calculated for each variable to determine how much variability was in the data.
Simple counts were utilized to investigate how often the overall assessment tool was
given a particular 5 point likert scale ease rating, and how often the total rating scale took
3, 4, 5, 6, 7, 8, or 9 minutes to use.

The data from 136 outcomes were analyzed, with 128 of these outcomes being
rated by the primary coder (coder 1). Coder 1 was used as the primary coder because she
held the least bias in the study (she did not help to create the Nisonger Outcome
Assessment Tool or the Feasibility Scale). Coder 2 had slightly more bias than the
primary coder, because she helped to create the Nisonger Outcome Assessment Tool and
had more experience using the scale (6-9 months). Coder 3 was the most biased in the
feasibility study because she created the Feasibility Scale. Overall, 24 outcomes and
strategies rated by coders 2 and 3 (48 total) were used in the analysis.

RESULTS

The aims of this study were to determine the feasibility (perceived ease of use and
rating time) of the overall Nisonger Outcome Assessment Tool as well as each of its
sections. Results will be discussed according to these aims.

Time Data

Average & Standard Deviation. The data from the overall Nisonger Outcome
Assessment Tool and each of its sections were analyzed to determine the average rating
time in minutes and standard deviation for each variable. As shown in Table 3, the
average overall time to complete the Nisonger Outcome Assessment Tool (all sections)
was 5.1 minutes (SD= 1.4). This is a minute less than the hypothesized average time (6
minutes). The time data for the overall assessment tool had the most variability when
compared to any other section.
Both sections 1 and 2 (Outcome Functionality and Meaningful Outcome Statements) of the Nisonger Outcome Assessment Tool took an average of 1.2 minutes (SD= 0.4). The results for section 1 are about a minute faster than the original hypothesis (2 minutes). The hypothesis for section 2 was that the average length of time would be 1 minute, a close match to the result. There was little variation in the time data for sections 1 and 2, as data from these sections were all very close to the mean noted above. Section 3 (Strategy Evaluation) had the longest average length of time for any section, at 1.8 minutes (SD= 0.9). This is also close to the original hypothesis for section 3 (2 minutes), and there was slightly more variation in the data for this section. Section 4 (Family-Based Outcomes) had the fastest average time, at 1.0 minute (SD= 0.1). This matches the original hypothesis for this section (1 minute), and there was almost no variability in the data for this section.

Count. The time data was also analyzed to determine the number of times the overall use of the tool lasted a particular length in minutes. As shown in Table 4, the shortest amount of time it took a coder to rate an outcome statement using the entire Nisonger Outcome Assessment Tool was 3 minutes. The longest amount of time it took was 9 minutes. 75% of the 136 rated outcomes and strategies took between 4-6 minutes to rate. Specifically, it most often took coders 4 minutes to use the tool (n=48), followed by 5 minutes (n=32), and 6 minutes (n=22). The next most common overall times were 7 minutes (n=16) and 3 minutes (n=10). The least common overall rating times were 8 minutes (n=6) and 9 minutes (n=2).
Perceived Ease Data

*Average & Standard Deviation.* The data from the overall Nisonger Outcome Assessment Tool and each of its sections were analyzed to determine the average perceived ease rating and standard deviation for each variable. As shown in Table 5, the average perceived ease rating for the overall Nisonger Outcome Assessment Tool (all sections) was 1.9 (SD= 0.9). This average rounds to a rating of “2,” which matches the original hypothesis of 2, and represents that, “*A few (1-2) of the items on the scale were confusing or difficult.*” The perceived ease data for the overall assessment tool had the most variability when compared to any other section.

Sections 1 and 4 (Outcome Functionality and Family-Based Outcomes) of the Nisonger Outcome Assessment Tool had an average perceived ease rating of 1.2 (SD= 0.4), while section 2 (Meaningful Outcome Statements) had an average ease rating of 1.3 (SD= 0.5). All of these averages are very close to a rating of “1,” which represents, “*No items in the section were confusing or difficult.*” The results for sections 1 and 2 are one rating lower, or easier, than the originally hypothesized average ratings. Namely, it was originally thought that the average rating for sections 1 and 2 would be a 2, described as “*A few (1-2) items in the section were confusing or difficult.*” The hypothesis for the section 4 average ease rating (1) was a close match to the resulting statistic (1.2). There was little variation in the perceived ease data for sections 1, 2, or 4.

Section 3 had the highest average ease rating for any section, at 1.6 (SD= 0.7). This number can be rounded to 2, which would mean that on average, “*a few (1-2) items in the section were confusing or difficult.*” This rounded statistic matches the original
hypothesis for the section 3 average ease rating. Section 3’s perceived ease data had slightly more variation when compared to the data from any other section.

**Count.** The perceived ease data was also analyzed to determine the number of times the overall use of the tool was given a particular rating. As shown in Table 6, almost half (47%) of the 136 rated outcomes and strategies were given a perceived ease rating of “2,” [(n=64); *A few (1-2) of the scale items were confusing or difficult*]. The next most common rating was a “1” [(n=47); *No scale items were confusing or difficult*]. Overall perceived ease ratings of “3” [(n=16); *Several (3-4) of the items on the scale were confusing or difficult*] and “4” [(n=9); *Many of the items on the scale were confusing or difficult*] were much less common. Finally, no coders rated the overall assessment tool as a “5” [(n=0); *All of the items were confusing or difficult*].

**DISCUSSION**

This thesis examined whether the Nisonger Outcome Assessment Tool is a feasible tool for evaluating IFSP outcomes and strategies. To carry out this investigation, a feasibility scale was created by the author and integrated into the original scale for coders to use during ratings. The study aims were to determine the feasibility (perceived ease of use and rating time) of the overall Nisonger Outcome Assessment Tool as well as each of its four sections. Results indicate that the overall rating scale takes an average of 5.1 minutes and has an average ease of “2” (1-2 of the items are confusing or difficult). The majority of sections on the assessment tool take an average of 1 minute to code, and were given a perceived ease rating of “1” (no confusion or difficulty on any item) or “2” (1-2 of the items were confusing or difficult).
Major findings. The results of this study seem to suggest the Nisonger Outcome Assessment Tool is feasible with respect to the amount of time it takes to complete. Again, the average rating time for the overall tool was 5 minutes, and the average rating time for each section of the tool was under 2 minutes. Even in the most demanding of jobs, it would seem that any tool taking around 5 minutes to use would be considered relatively feasible.

At the same time, results also indicate that participants found each section and the overall Nisonger Outcome Assessment Tool easy to use. With average ratings being around 1 (No items were confusing or difficult) for each section and the overall rating being a 2 (1-2 scale items were confusing or difficult), this seems to indicate that the rating scale is not overly cumbersome. It is important to note, however, that some coders may have been biased and may not be representative of all coders. For instance, coder 2 helped to create the Nisonger Outcome Assessment tool, making it perhaps easier for her to use than the other two coders. Coder 3 made the Feasibility Scale and conducted this study, which may mean that she was more invested in reporting accurate perceived ease ratings than the other two coders. Her data would most likely have been different than a completely impartial coder.

Nonetheless, although the data indicate positive results for feasibility, there are some important factors to consider. These include the section 3 data, overall assessment tool data, possible rationales for data variability, and data reliability. With respect to section 3, although it did not take an unreasonable amount of time (1.8 minutes) and was not given an average difficult rating (1.6), it proved to be the most time-consuming and difficult section of the Nisonger Outcome Assessment Tool. The average rating time for
section 3 was about a minute more than any other section, and the average ease rating was one number larger or more difficult than the other sections. In addition, section 3’s data was the most variable compared to any other section, with standard deviations of 0.9 (time) and 0.7 (perceived ease).

There are several possible explanations for the discrepancy between the data in section 3 and that in the other three sections. One reason may be that it contained 12 items, making it the longest section. Specifically, section 3 is about 2 times longer than sections 1 and 2 (7 and 6 items) and is 4 times larger than section 4 (3 items). The increased number of items to rate is a highly logical reason why this section may take longer and be more difficult to code.

At the same time, section 3 may also require more time and effort because it evaluates IFSP strategies, unlike sections 1 and 2 that are unique to outcome statements. It is possible that multiple strategies could have been included on an IFSP, making it more time consuming and difficult to rate this section. It is also possible that the strategies were written in a more vague or confusing manner than the outcome statements. For instance, strategies such as “utilize stretches” or “continue to count” have been written as strategies. Although these tactics may be clear to the service coordinator who wrote them, they were most likely perplexing to the coder and therefore more difficult to rate. It is highly possible that if an item was more difficult to rate, it required more time to do so as well.

Section 3 also included the largest number of items where it was an option to code an 8 (10/12 items, as opposed to 1/7, 1/6, and 0/3 items in sections 1, 2, and 4). As previously noted, 8’s were coded only if there was not enough information to rate the
item on the 0-2 scale. It is often the case that strategies are not written into the IFSP, or that they are so vague they cannot be coded (e.g., speech therapist will provide strategies). When this happens, items are automatically rated as 8’s. It is very possible that outcome statements with no or highly vague strategies received many ratings of 8, causing the section to be rated more quickly and easily. When strategies were present, the coder may then have had to take more time and put more thought into the rating. With this logic, some strategies would have a quick and easy rating time, while others would take longer and be more difficult. This may be why there is so much variability in the section 3 data.

Overall Assessment Tool Data. When examining the data, it seems there are two ways to think of the overall Nisonger Outcome Assessment Tool: fairly feasible and very feasible. Most of the time, the tool was rated as a 2 for perceived ease (1-2 items being confusing or difficult), and was most often rated in 4 minutes. These scores seem to indicate that the tool is fairly feasible, in that it can be used in a reasonable amount of time and is not overly complex. When analyzing the other prominent data, it appears that the tool is very feasible. For instance, the second-highest overall ease rating was a 1 (No items on the scale were confusing or difficult) and the second highest rating time was only 5 minutes. This total lack of difficulty with a still very short rating time seem to indicate that the Nisonger Outcome Assessment Tool is a very feasible rating scale.

Nevertheless, it is important to note that the ratings for overall time and perceived ease were the most variable of any other data (SD= 1.4; 0.9) in this study. Like section 3, the overall scale analysis was a more complex evaluation than sections 1, 2, or 4. In addition, the outcome and strategy statements provided by state-wide counties were likely
to vary considerably in terms of quality and content. Thus, some would naturally require more time and effort to rate than others. This may explain why the overall time and ease data contained more variability.

**Possible Rationales for Data Variability.** There are a variety of possible reasons why some outcome statements were easy and took little time to rate, while others were more difficult and required more time. One possible reason may have been the conditions in which each coder was rating the IFSPs. Because these were not controlled for, distractions in the home, school, or work environment during rating could have caused coders to take more time and have more difficulty concentrating (possibly making the item more difficult) on some outcomes and strategies. Another possibility is the unique characteristics that each coder brought to the table. Even with 9 weeks of reliability training with the *Nisonger Outcome Assessment Tool*, each coder brought a unique perspective when examining each outcome and strategy. These perspectives, in addition to unique personality traits such as putting more or less thought into each item, may have caused each coder to rate more slowly or find an item more difficult than others.

Perhaps the largest possible reason for the discrepancy in rating times/perceived ease ratings is because of the differences in outcomes and strategies. For instance, when outcomes and strategies are written well, it may make it easier to analyze them in terms of meeting high standards. At the same time, outcomes and strategies that are more vague or complicated in nature may be more difficult to evaluate. Thus, when outcomes and strategies are written well, the *Nisonger Outcome Assessment Tool* may be a very
feasible option. If the outcomes and/or strategies are not written well, the Nisonger Outcome Assessment Tool may be more difficult and take longer to use.

Data Reliability. The data for sections 1 and 2 showed close to adequate IOA, ranging from 63-70% for time and ease ratings. These sections contained fewer items (7 and 6) and only referred to outcomes statements, which are typically written with more clarity than strategies. This may account for why coders agreed more often on the time it took and perceived ease rating for sections 1 and 2.

The data from section 4 was the most reliable, with 97% agreement for time and 74% agreement for perceived ease. Section 4 was the shortest and most simple section (Family-based outcomes). Because there were fewer items (3) to rate and the questions were typically more straightforward, it seems logical that this would be why there was higher agreement in the data.

As noted, sections 3 and the overall assessment tool had the lowest IOA for both variables of time and ease. Again, section 3 had the most items of any section and was the only section that evaluated strategies, making it the longest and most difficult section by far. The data from the overall tool analysis covered the scale in entirety, including all sections and scale items, simple and complex. Because analyses for section 3 and the overall scale were the most complex, it would seem reasonable to assume that there would be more variability in the way coders rated time and perceived ease.

Additionally, the conditions, which may have affected variability in the data for one coder, may also affect the percent agreement in the data between two coders. For instance, extraneous variables in the settings where rating took place (e.g., distractions) may have caused some coders to take more time and have more difficulty rating some
outcomes and strategies, as compared to another coder. Unique characteristics of each coder may also have a substantial impact on IOA. As previously mentioned, each coder brought a unique perspective when examining each outcome and strategy due to different prior knowledge and experiences. These perspectives, in addition to unique personality traits, may have caused some coders to rate more slowly or find an item more difficult than others rating the same outcome and strategy. While this is the case for all of the data assessed for reliability, these confounding factors may have a deeper impact on more complex evaluations. This may be why IOA was lower for section 3 and the overall assessment tool.

Finally, measurement error may have also affected the reliability of the data. As previously mentioned, time became a categorical variable as minute scores were rounded. In some instances, time was rounded up, such as when a section took less than 60 seconds to rate and it was rounded up to 1 minute for the total rating time. In other instances, time was rounded down, such as when a section took a minute or more to rate and it was rounded down to the nearest minute. It is possible that there could have been confusion in these rounding procedures for some coders (e.g., rounding up instead of down for times over 1 minute). This potential error in measurement and confusion may have also been why the time data was not adequately reliable.

Limitations

There were several limitations to this feasibility study, including excluded data, measurement error, coder experience and bias, limited outcome and strategy variability during training, data variability, and poor reliability training.
Excluded Data. The largest limitation of this study was the restricted amount of data available for analysis. Again, although coders rated 263 outcomes and strategies, only 141 were entered in the database at the time of analysis. Due to time constraints with finishing this study, analysis needed to proceed before all data could be entered. Because of this, the study was significantly limited as almost half (46%) of the total data could not be analyzed. In addition, of the 141 outcomes and strategies available, 5 more had to be excluded due to missing information. This is a minor limitation to the study. Although the largest possible sampling of data is typically ideal, 96% of the available data could still be analyzed.

Measurement Error. Some of the time data in this study may be inflated, or appear larger than they actually are. This is because if a section took under 60 seconds to rate, coders were still instructed to round up and record the total section time as 1 minute. Thus, it is possible that some sections took a shorter amount of time than the data is reflecting. At the same time, some time data may appear shorter than they actually are. This is because minute scores were rounded down for any amount of time larger than 1 minute. In sum, time was both over and underestimated in this study, and the final resulting time data is not exact. This is a significant limitation, because it makes it hard to determine the true accuracy of rating times for each section and the overall Nisonger Outcome Assessment Tool.

Coder Experience and Bias. Coder experience is another large limitation to this study. First, one coder (coder 2) had 6-9 months of experience using the Nisonger Outcome Assessment Tool when rating state-wide IFSPs, while the other two coders (1 and 3) had 3-6 months experience. Although training on the tool was necessary to
become reliable, it is a limitation when it comes to analyzing feasibility. Typically, any task that is practiced repeatedly over time is going to ultimately be done faster and with more ease. Thus, although average rating times and perceived ease ratings indicated that the Nisonger Outcome Assessment Tool was feasible to use, it may not be as feasible a tool for someone with less experience.

Furthermore, coder bias was also a limitation of this study. First, coder 2 helped to create the Nisonger Outcome Assessment tool, making it perhaps easier (and more timely) for her to use than the other two coders. Coder 3 made the Feasibility Scale and conducted this study, which may mean that she was more invested in reporting accurate times/perceived ease ratings than the other two coders. Her data would most likely have been different than a completely impartial coder.

Limited Outcome Statement Variability During Practice. Practice ratings with the Nisonger Outcome Assessment Tool were only done with IFSPs from one county. Many of these had outcomes and strategies that were worded similarly, often resulting in similar ratings. When Witwer’s (2014) study commenced and coders began rating state-wide outcomes and strategies, it is possible that the ratings were quite different from those during practice. This is a limitation, because it may have caused raters to spend more time and/or have more difficulty with the assessment tool than they would have had they had more practice with varied outcomes and strategies. In addition to outcomes and strategies taking more time and/or being more difficult to rate, it may have also impacted the reliability of results between coders.

Data Variability. The larger standard deviations for the section 3 and overall tool data are also drawback to this study. That is, there is more variability in this data, making
the average times and ease ratings less accurate. Because of this, it is hard to know whether coders typically found section 3 and the overall tool as feasible as the data indicates.

**Poor Reliability Training.** The final limitation to this feasibility study is that little reliability training was conducted. As mentioned previously, each coder was taught to use the *Feasibility Scale* through discussion and demonstration at one training session. After individually coding two practice IFSPs using the *Feasibility Scale*, the team reconvened, and an informal assessment of the results was conducted. That is, each coder shared her feasibility results, and the researcher found them to be fairly similar. Nonetheless, despite these steps, no formal measures to assess reliability before the study began were conducted (IOA was not assessed). In addition, the reliability of the data was further limited because the data could not be accessed until all outcome statements were rated. Throughout the rating process, the researcher was not able to check the data for IOA. If this had been done, she may have noted the discrepancy among coders and called a re-training session with the feasibility scale to enhance reliability. This is a major limitation, because the resulting study data is not entirely reliable. Although Cooper, Heron, and Heward (2007, p. 120) recommend IOA of at least 80%, the data from almost all sections and the overall scale was below this. In fact, only one variable proved to be totally reliable (time, section 4), at 97% agreement.

**Implications**

Although there were several limitations to this study, the data still seem to indicate that the *Nisonger Outcome Assessment Tool* is a feasible rating scale for evaluating IFSP outcomes and strategies. Because of this perceived feasibility, the
The Nisonger Outcome Assessment Tool may be recommended as a program evaluation or technical assistance tool. Simply stated, when county providers use this rating scale to evaluate IFSP outcomes and strategies, they can note patterns in the data (e.g., certain items on the scale are always given 0’s or 8’s), and will know where and how to focus their constructive feedback and training for service coordinators.

In addition, as Jung’s (2010) study indicated, embedding prompts into the IFSP may also significantly help service coordinators write better outcomes and strategies. Because of its perceived feasibility, the Nisonger Outcome Assessment Tool may be a valuable tool to aid in embedding these prompts. That is, scale items can be adapted into written prompts and included in the IFSP. For instance, the section 1 item, “To what extent does the outcome emphasize the child’s participation in a routine?”, may be changed into “What routine will the child participate in while working toward this outcome?” This could be included right after the written outcome statement, to ensure the service coordinator is writing outcome statements that are participation-based.

In addition, the Nisonger Outcome Assessment Tool may also prove worthwhile for service coordinators to use as a self-evaluation tool. For example, by using this tool after writing an IFSP, service coordinators can assess whether the outcomes they wrote are truly measurable, functional, participation-based, and family-centered, and whether the strategies they wrote are routines-based, outcome-related, understandable, transdisciplinary, and written to be implemented by caregivers. Instead of using the tool after an IFSP is already written, it may also be helpful to embed the scale items into the IFSP and have service coordinators rate these as they go. Specifically, as they write the outcomes and strategies, service coordinators can rate themselves on scale items, ensure
they are not leaving out any crucial elements, and confirm that the outcomes and strategies are of the utmost quality.

Self-evaluation may be beneficial for a variety of reasons. First, if service-coordinators can evaluate their own practices, this may help to reduce the stress and workload of their administrators and serve as a more time-efficient option. Second, self-evaluation, a type of self-monitoring, has been shown to increase the likelihood that an individual will do what he or she intended to do. For instance, if the service coordinator knows she will be self-evaluating her written outcome and strategies, she may be more likely to write these with high quality. And finally, and perhaps most importantly, self-evaluation has been shown to improve the maintenance of responses over time (Reid, 1996, p. 325). This is obviously ideal, because we would hope that any efforts to improve professional practice would sustain throughout the coordinator’s career and span across all the IFSPs they write in the future.

Although the Nisonger Outcome Assessment Tool may serve as a valuable self-evaluation tool, a few important points must be made. First, self-evaluation should only be conducted on behaviors that are already in an individual’s repertoire. This means that in order for the tool to work for service coordinators, they must first have the knowledge and skills to write high-quality outcomes and strategies. Second, the value the individual attaches to a target behavior that is being self-evaluated may affect the outcome (Reid, 1996). In other words, if service coordinators don’t believe it is valuable or important to write outcomes and strategies that meet the aforementioned criteria, the self-evaluation may have little affect on their work.
With this information in mind, in order to use the *Nisonger Outcome Assessment Tool* as a self-evaluation tool, county providers may need to take some steps in advance. That is, extensive training and technical assistance efforts should focus on what it means for outcomes to be measurable, functional, family-centered, and participation-based (Jung & McWilliam, 2005, p. 134), and for strategies to be routines-based, outcome-related, understandable, transdisciplinary, and implemented by caregivers (Jung, 2007). Service coordinators can practice writing outcomes and strategies in training, and corrective feedback can be provided until mastery. At the same time, county service providers should also work on helping service coordinators see the value in each of these standards. Engaging in shared discussions about values in the field and sharing data to demonstrate the affects of quality outcomes and strategies may achieve this.

**Future Studies.** Due to the limitations of this current study, future studies should be conducted with the *Nisonger Outcome Assessment Tool* to assess its feasibility. First, greater reliability training on the *Feasibility Scale* should be conducted with any group of participants before and throughout the experiment to ensure higher IOA and more valid data. Second, better measurement procedures for time should be utilized to reduce error. For instance, using a stopwatch and recording the exact number of minutes and seconds for each section would seemingly result in more accurate data. Third, studies should be conducted with participants who have less experience and bias with the tool, again to enhance the validity of the data.

To explore whether the *Nisonger Outcome Assessment Tool* is perceived as feasible in applied settings, it would also be advantageous to conduct future studies with EI professionals as the participants. These professionals may include county providers,
service coordinators, early intervention specialists, or any other professional whose job it is to write or evaluate the quality of IFSPs. To determine how much training is needed for the tool to be perceived as feasible, studies should also be conducted with participants who received less training and had fewer practice sessions with the tool. Because IFSP standards vary from state to state, it may also be beneficial to look into the feasibility of this tool when it is used to evaluate IFSPs from states other than Ohio. Finally, though time and ease are important features of feasibility, it may also be beneficial to broaden the definition and analyze other variables. For instance, a future feasibility scale may analyze the feasibility of the Nisonger Outcome Assessment Tool in terms of cost, understandable language, interpretability of the scores, and/or motivation to use the instrument in daily practice (Stevens et al., 2013, p. 1007). This information may give a more complete picture of how feasible the tool will be for professionals to use in applied settings.

**Conclusion.** In conclusion, it appears that the Nisonger Outcome Assessment Tool is a fairly feasible instrument for evaluating the quality of Ohio IFSP outcomes and strategies. Again, though the tool may be very feasible to use with well-written IFSPs, it may be slightly less feasible when using it with outcome and strategy statements that are lacking in quality. Since the primary use of such an instrument may be to use it with substandard IFSPs to enhance their quality, this tool may be less practical. Nonetheless, despite a few more minutes of time or a few more items of difficulty, using the Nisonger Outcome Assessment Tool will provide highly valuable information on whether or not current IFSP outcomes and strategies meet high standards. Specifically, it will help highlight the information that should be added or changed in an outcome to ensure it
meets the standards of being measurable, functional, participation-based, and family-centered. It will also help to ensure that strategies are routines-based, outcome-related, understandable, transdisciplinary, and set up to be implemented by caregivers. Most importantly, this tool may have long-term affects on improving the future quality of IFSP outcome and strategy statements. As high-quality IFSP outcomes and strategies are correlated with better early intervention services and results for children and families, the benefits of the tool may outweigh its costs.
References


### Appendix A: Tables

<table>
<thead>
<tr>
<th>Eligibility Reason</th>
<th>Percentage (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis on form</td>
<td>18.6 (19)</td>
</tr>
<tr>
<td>Diagnosis on list</td>
<td>9.8 (10)</td>
</tr>
<tr>
<td>ICO</td>
<td>1.0 (1)</td>
</tr>
<tr>
<td>Mild Delay</td>
<td>8.8 (9)</td>
</tr>
<tr>
<td>Multiple Mild Delays</td>
<td>2.0 (2)</td>
</tr>
<tr>
<td>Substantial Delay</td>
<td>59.8 (61)</td>
</tr>
</tbody>
</table>

*Table 1.* Child Eligibility Reason, Witwer (2014)
<table>
<thead>
<tr>
<th>Assessment Domain</th>
<th>2.0 SD Delay % (n)</th>
<th>1.5-1.99 SD Delay % (n)</th>
<th>No Delay % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>10.3% (8)</td>
<td>17.9% (14)</td>
<td>71.8% (56)</td>
</tr>
<tr>
<td>Adaptive</td>
<td>17.9% (14)</td>
<td>11.5% (16)</td>
<td>52.6% (48)</td>
</tr>
<tr>
<td>Receptive Communication</td>
<td>35.9% (28)</td>
<td>11.5% (9)</td>
<td>52.6% (41)</td>
</tr>
<tr>
<td>Expressive Communication</td>
<td>51.3% (40)</td>
<td>15.4% (12)</td>
<td>33.3% (26)</td>
</tr>
<tr>
<td>Fine Motor</td>
<td>11.5% (9)</td>
<td>3.8% (3)</td>
<td>84.6% (66)</td>
</tr>
<tr>
<td>Gross Motor</td>
<td>14.1% (11)</td>
<td>6.4% (5)</td>
<td>79.5% (62)</td>
</tr>
</tbody>
</table>

*Table 2. Assessment Results according to level of delay (n=78), Witwer (2014)*
<table>
<thead>
<tr>
<th></th>
<th>Overall Scale</th>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average</strong></td>
<td>5.1</td>
<td>1.2</td>
<td>1.2</td>
<td>1.8</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>1.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.9</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*Table 3.* Time spent using the *Nisonger Outcome Assessment Tool* (minutes)
<table>
<thead>
<tr>
<th>Minutes</th>
<th>Number of times overall use of tool lasted a particular length of minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>48</td>
</tr>
<tr>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

*Table 4. Breakdown of Overall Rating Times using the Nisonger Outcome Assessment Tool*
<table>
<thead>
<tr>
<th></th>
<th>Overall Scale</th>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
<th>Section 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>1.9</td>
<td>1.2</td>
<td>1.3</td>
<td>1.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.9</td>
<td>0.4</td>
<td>0.5</td>
<td>0.7</td>
<td>0.4</td>
</tr>
</tbody>
</table>

*Table 5.* Perceived Ease Ratings of the Nisonger Outcome Assessment Tool (5 point Likert scale)
<table>
<thead>
<tr>
<th>Perceived ease rating</th>
<th>Number of times overall use of tool was given a particular perceived ease rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (no confusion or difficulty on any item)</td>
<td>47</td>
</tr>
<tr>
<td>2 (1-2 of the items were confusing or difficult)</td>
<td>64</td>
</tr>
<tr>
<td>3 (3-4 of the items were confusing or difficult)</td>
<td>16</td>
</tr>
<tr>
<td>4 (5 or more of the items were confusing or difficult)</td>
<td>9</td>
</tr>
<tr>
<td>5 (All of the items were confusing or difficult)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Table 6. Breakdown of Overall Perceived Ease Ratings of the Nisonger Outcome Assessment Tool*
Appendix B: Figures

18 participating counties in Witwer's (2013) Study (Examining the measurability and functionality of early intervention Individual family service plan (IFSP) goals/outcomes and services)

263 state-wide outcomes released to participants for coding

Outcomes included in data base n=141

Outcomes excluded from data base due to lack of time to input n=122

Outcomes included for average/standard deviation feasibility analysis n=136

Outcomes excluded due to missing data on items of feasibility scale n=5

Figure 1. Overview of Process to Obtain Data for Feasibility Analysis
Appendix C: Nisonger Outcome Assessment Tool

Nisonger Outcome Assessment Tool  Witwer et al 2014

Child's ID Number: ___________  Child's age (months): ___________
Rater ID: ___________  Date of coding: ___________
Start Time: ___________  Stop Time: ___________

Please fill in the following information from the IFSP:

1. What do we want to happen in the next 6 months?

2. What's happening now?

3. Who will help us and what strategy will they use so we can achieve our outcome?

Which functional federal outcome would this fall under? (check all that apply)
- 1) Positive social-emotional skills
- 2) Knowledge and Skills
- 3) Appropriate behavior to meet needs

Which developmental theme does the IFSP outcome fall under? (check all that apply)
- Cognitive development
- Motor/Physical development
- Adaptive development
- Social development
- Communication development (expressive or receptive)

How much experience have you had using the Nisonger Outcome Assessment tool?
Check one of the options below.
- less than 1 week
- 1-4 weeks
- 1-3 months
- 3-6 months
- 6-9 months
- 9-12 months


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**Section 1: Outcome Functionality**

1. **Routine:** To what extent does the outcome emphasize the child's participation in a routine (i.e., activity)? (Child will participate in outside play; not child will participate in running).

   - 0: No, there is no mention of a routine, nor any clear link to a routine.
   - 1: Some mention of activity within a naturalistic environment but not a specific routine (e.g., crawl to toy box at babysitter's house).
   - 2: Yes, emphasizes participation in routine in text and clear link to routine (e.g., crawls to toy box to get toys during playtime at babysitter's house).

2. **Observable:** Does the outcome state specifically (i.e., in an observable and measurable manner) what the child will do?

   - 0: No, outcome is vague in nature, could be interpreted in a number of ways.
   - 1: Some level of operational terminology (i.e., describing an external discrete behavior which can be observed), but not explicitly defined, not clearly measurable, or broad in nature (e.g., "feed self" versus "feed self with a spoon").
   - 2: Yes, outcome is stated in clear operationalized terms (describing an external discrete behavior which can be observed), which can be evaluated by all team members. The outcome includes a behavior which is observable would be able to be counted by an observer.

3. **Useful/Necessary:** Does the outcome address a skill that is either necessary/useful for participation in home or community routines?

   - 0: No, outcome addresses skill that is not considered necessary or useful for participation.
   - 1: Somewhat, usefulness is not explicit.
   - 2: Outcome clearly addresses skill used in participation in home/community routines.

4. **Acquisition Criteria:** Does the outcome include some type of acquisition criterion (i.e., an indicator of when the child can do the skill)? For example, statement such as "the family/team will know the child has met this goal when he feeds himself at lunch and dinner most of the time."

   - 0: No, there is no way to determine from current outcome when it is met.
   - 2: Acquisition criteria clearly and explicitly described.

---

*Section adapted from the (NetW/EnCoR, 2010) Goal Prototypicality Scale III*
**Section 1: Outcome Functionality**

5. To what extent does the outcome have a criterion that shows improvement in functional behavior?
   - 0 = No, no criterion listed, or criterion listed is described does not generalize to routine
   - 1 = Some attempt to contextualize the criterion, but still not clearly meaningful to the family/child routines.
   - 2 = Criterion is contextualized into daily routines, and should be able to be meaningful to all team members and family
   - 8 = Not Applicable. If 4 was coded as a 0.

6. Does the outcome have a generalization criterion (i.e., use the skill across routines, people, places, materials, etc) or is it written in such a manner that generalization criteria could be developed in a future refinement of the goal?
   - 0 = No generalization criteria and outcome is not contextualized within a daily routine or setting.
   - 1 = Some mention of multiple routines or people, but not clear generalization criteria; not sufficient for a rating of 2. For example, reference to multiple people could include use of "we."
   - 2 = Clear and explicit generalization criteria included in outcome or strategies related to this outcome.

7. Does the outcome have a criterion for the time frame in which it is thought the objective will be achieved (e.g., by the time they visit grandma for the holidays)?
   - 0 = No time frame described.
   - 1 = Time frame mentioned, but not clearly described.
   - 2 = Time frame is clearly listed and easily understood by all family members.

**Additional Notes:**
### Outcome Assessment Tool

#### Section 1: Outcome Functionality Tool User Rating Scale Questions:

1. How much time did it take for you to complete this section? ________ minutes

2. How easy was it for you to complete this section? (circle 1 number)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>There was no confusion or difficulty on any item.</strong></td>
<td>A few (1-2)</td>
<td>Several (3-4)</td>
<td>Many (5 or more)</td>
<td>All of the items were confusing or difficult.</td>
<td></td>
</tr>
<tr>
<td><strong>confusion or difficulty on any item.</strong></td>
<td>were confusing</td>
<td>were confusing</td>
<td>were confusing</td>
<td>were confusing or difficult.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or difficult.</td>
<td>or difficult.</td>
<td>or difficult.</td>
<td>or difficult.</td>
<td></td>
</tr>
</tbody>
</table>
### Outcome Assessment Tool

#### Section 2: Meaningful Outcome Statements

<table>
<thead>
<tr>
<th>Question</th>
<th>Start Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can outcome realistically be achieved in the agreed upon review?</td>
<td>2. Is this outcome relevant based on information on child's current functioning and developmentally appropriate?</td>
</tr>
<tr>
<td>0= No, outcome appears to be too lofty in nature to have a chance of being achieved based on what was written in &quot;Happening now&quot; section.</td>
<td>0= No, outcome is not appropriate based on developmental level.</td>
</tr>
<tr>
<td>1= There is at least potential for the outcome to be achieved, as it seems to be a logical next step.</td>
<td>1= Outcome is somewhat relevant, but not with certainty based on what is written.</td>
</tr>
<tr>
<td>2= Yes, the outcome is logically the next step in learning for child in this content area and is reasonable based on what is happening now.</td>
<td>2= Yes, outcome is relevant to child's current developmental level; logical step in progression of development.</td>
</tr>
</tbody>
</table>

*Should only be rated if familiar with family*

<table>
<thead>
<tr>
<th>Question</th>
<th>4. Is this outcome jargon-free; written so all can understand (i.e., readability)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0= No, outcome is clearly and explicitly written to only be carried out by only one discipline.</td>
<td>0= No, there are highly specialized terms/jargon included in outcome.</td>
</tr>
<tr>
<td>1= Some indication of being discipline specific (i.e., reference to specialized equipment or techniques), but not clearly written as such.</td>
<td>1= No explicit use of jargon, but contains complicated terms.</td>
</tr>
<tr>
<td>2= Outcome is written such that it could be implemented across multiple disciplines and individuals (professionals and family).</td>
<td>2= Outcome is written without jargon, and in such a manner that all can understand wording.</td>
</tr>
</tbody>
</table>
Section 2: Meaningful Outcome Statements

5. Is the outcome written to include active language (e.g., play, go, be, do, join, enjoy, tell) rather than passive words (i.e., tolerate, receive, increase, decrease, improve, maintain, develop, learn)?

   0 = Outcome is largely passive in nature.
   1 = Outcome contains wording that could be interpreted as passive but has some type of participation-based content.
   2 = Outcome is written with active content rather than passive. (Note: This can include phrases such as "use words.")

6. Is the function of this outcome clear and contextualized (i.e., Kim will eat with family at meal time)?

   0 = No, content is neither contextualized nor functional in current environments (e.g., include phrase, "use words" but does not indicate the function of words.)
   1 = Somewhat contextualized or functional within daily life but not both.
   2 = Yes, outcome written to include functional contextualization (so addresses function as well as the context in which it will occur), or written such that this is clearly implied. For Example, "I want Johnny to request what we want to eat (functional) at meal time (context)."

Stop Time:

Additional Notes:

---

Section 2: Meaningful Outcome Statements

1. How much time did it take you to complete this section? __________ minutes

2. How easy was it for you to complete this section? (circle 1 number)

   1  2  3  4  5

   There was no confusion or difficulty on any item.
   A few (1-2) of the items were confusing or difficult.
   Several (3-4) of the items were confusing or difficult.
   Many (5 or more) of the items were confusing or difficult.
   All of the items were confusing or difficult.
### Section 3: Strategy Evaluation

1. Can the strategy be addressed by multiple family members at multiple times/days?

   - **0**: No, strategy is written to only be implemented at very specific time with very specific people.
   - **1**: Strategy might be able to be addressed by multiple people or at multiple times but not both.
   - **2**: Yes, strategy written such that it can be addressed by multiple people at multiple times/days?
   - **3**: Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.

2. Could the family implement the strategy in context of everyday routines and activities of interest with professionals providing direct service/coaching or consultation?

   - **0**: No, family would not be able to implement strategies within everyday routines and would need more support that consultation and coaching.
   - **1**: Family might be able implement the strategies in context of everyday routines and activities but would need more support than that described above. Or Family cannot implement in everyday, but could use consultation/coaching described.
   - **2**: Yes, Family should be able implement the strategies in context of everyday routines and activities with consultation/support that is described in strategy.
   - **3**: Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.

3. For strategies related to family member roles: Is the focus of the strategy on behavior that is teachable during daily activities and routines?

   - **0**: No, not focused on behavior that is or could be taught.
   - **1**: Strategy somewhat fits into daily activities and routines, but not clearly so.
   - **2**: Yes, the strategy is focused on behavior that could realistically be taught within the child's daily activities and routines.
   - **3**: Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.

4. Does this strategy enhance child's natural learning opportunities; using materials and/or locations familiar and of interest to child/family?

   - **0**: Strategy does not enhance child’s natural learning opportunities nor does it include using familiar toys/locations.
   - **1**: Strategy either 1) enhances child’s natural learning opportunities or 2) includes using toys and/or locations familiar to the child, but not both.
   - **2**: Yes, strategy enhances the child’s natural learning opportunities and uses materials and locations familiar to child/family.
   - **3**: Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.
### Section 3: Strategy Evaluation (cont)

5. Is the strategy section written in such a manner that it can be easily understood (i.e., jargon-free)?

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No, there are highly specialized terms, jargon, or complicated terms included in strategy.</td>
</tr>
<tr>
<td>1</td>
<td>No explicit use of jargon, but contains acronyms or abbreviations (e.g., EIS) which are not defined.</td>
</tr>
<tr>
<td>2</td>
<td>Strategy is written without jargon, and in such a manner that all can understand wording.</td>
</tr>
</tbody>
</table>

6. Is the strategy connected to outcome and does it reflect the child's skills? (Or are the two disjointed i.e. they could be implemented in isolation without achieving outcome?)

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No, strategy is not connected to outcome; strategy could be implemented without achieving outcome. No explicit individualized strategies.</td>
</tr>
<tr>
<td>1</td>
<td>Overall, the strategy is connected to outcome, but does not appear to take the child's developmental level and current skills into account.</td>
</tr>
<tr>
<td>2</td>
<td>Yes, the overall strategy is clearly connected to the outcome and reflects the child's current skills and developmental level.</td>
</tr>
<tr>
<td>3</td>
<td>Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.</td>
</tr>
</tbody>
</table>

7. Is the strategy likely to burden /overwhelm the family?

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Yes, strategy is likely to overly burdensome on family in regard to time or resources required.</td>
</tr>
<tr>
<td>1</td>
<td>Strategy relies heavily on family in regard to resources needed</td>
</tr>
<tr>
<td>2</td>
<td>No, the strategy fits into daily routine and uses familiar objects and activities such that it should not be burdensome.</td>
</tr>
<tr>
<td>3</td>
<td>Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.</td>
</tr>
</tbody>
</table>

8. Can the strategy be addressed by multiple professionals in multiple environments?

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No, strategy is written to only be implemented in very specific environments with very specific people.</td>
</tr>
<tr>
<td>1</td>
<td>Strategy might be able to be addressed by multiple people or in multiple environments, but does not include clear strategies which could be operationalized by professionals.</td>
</tr>
<tr>
<td>2</td>
<td>Yes, strategy written such that it can be addressed by multiple people in multiple environments.</td>
</tr>
<tr>
<td>3</td>
<td>Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.</td>
</tr>
</tbody>
</table>
### Section 3: Strategy Evaluation (cont)

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Does the strategy stress building family capacity through provider consultation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0= No, does not stress this. Rather, it a clinical model of direct therapy where family capacity most likely not enhanced.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1= Stressing building family capacity across environments, but does not stress consultation. This can be implied if strategies include parents and professional and an implied link between the two (e.g., service coordinator will provide info/activities). Not sufficient for rating of 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2= Yes, strategy stresses building family capacity in a manner in which the provider addresses ongoing concerns and facilitates consultation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3= Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. In regard to strategies related to professional members' roles: Is the focus on the strategy on a behavior that could be taught during daily activities and routines?  

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0= No, not focused on behavior that is or could be taught.</td>
<td></td>
</tr>
<tr>
<td>1= Strategy somewhat fits into daily activities and routines, but not clearly so.</td>
<td></td>
</tr>
<tr>
<td>2= Yes, the strategy is focused on behavior that could realistically be taught within the child's daily activities and routines.</td>
<td></td>
</tr>
<tr>
<td>3= Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.</td>
<td></td>
</tr>
</tbody>
</table>

10. Do the strategy and support sections discuss/identify informal supports and community services which can be used to address outcomes?  

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0= No discussion of informal supports or community services.</td>
<td></td>
</tr>
<tr>
<td>1= Some references to supports, but not described sufficiently to warrant a rating of 2. Indicates access to service, but no indication as to how the services will be accessed by family.</td>
<td></td>
</tr>
<tr>
<td>2= Discusses informal and community supports available with clear indication of how these might be accessed by the family.</td>
<td></td>
</tr>
</tbody>
</table>

12. Is the Resources and Supports section written in such a manner that it can be easily understood (i.e., jargon-free)?  

<table>
<thead>
<tr>
<th>Rating</th>
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<tbody>
<tr>
<td>0= No, there are highly specialized terms, jargon, or complicated terms included in strategy.</td>
<td></td>
</tr>
<tr>
<td>1= No explicit use of jargon, but contains acronyms or abbreviations (e.g., EIS) which are not defined.</td>
<td></td>
</tr>
<tr>
<td>2= Strategy is written without jargon, and in such a manner that all can understand wording.</td>
<td></td>
</tr>
<tr>
<td>3= Not enough information available to make this determination. Or strategy/resources not defined such that this can be determined.</td>
<td></td>
</tr>
</tbody>
</table>

**Stop Time:**
Nisonger Outcome Assessment Tool

Section 3: Strategy Evaluation

1. How much time did it take for you to complete this section? _______ minutes

2. How easy was it for you to complete this section? (circle 1 number)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There was no confusion or difficulty on any item.</td>
<td>A few (1-2) of the items were confusing or difficult.</td>
<td>Several (3-4) of the items were confusing or difficult.</td>
<td>Many (5 or more) of the items were confusing or difficult.</td>
<td>All of the items were confusing or difficult.</td>
</tr>
</tbody>
</table>
### Outcome Assessment Tool

#### Section 4: Family-based Outcomes

<table>
<thead>
<tr>
<th>Question</th>
<th>Start Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the outcome participation-based? That is, does it help the family to know rights and effectively communicate their needs, assist their child to develop and learn, and/or help increase the family's confidence and competence?</td>
<td>0 - NO</td>
</tr>
<tr>
<td></td>
<td>1 - Yes</td>
</tr>
</tbody>
</table>

Please indicate which could describe the accompanying strategies:
- Family knows how to locate resources
- Family knows how to use resources
- Family can advocate for resources
- None of the above
- Unclear

Please circle all words which could describe the accompanying strategies:
- Family knows how to locate resources
- Family knows how to use resources
- Family can advocate for resources
- None of the above
- Unclear

#### 3. Is this outcome relevant based on information on family's priorities?

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No, outcome is not appropriate based on family's priorities.</td>
</tr>
<tr>
<td>1</td>
<td>Outcome is somewhat relevant, but not with certainty based on what is written.</td>
</tr>
<tr>
<td>2</td>
<td>Yes, outcome appears to be relevant to the family's priorities.</td>
</tr>
</tbody>
</table>

***This item is only to be done by those familiar with the family***

#### Stop Time:
### Section 4: Family Based Outcomes: User Rating Scale Questions:

1. How much time did it take for you to complete this section? ________ minutes

2. How easy was it for you to complete this section? (circle 1 number)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<td></td>
</tr>
</tbody>
</table>
**Overall Assessment Tool Evaluation**

How much time did it take you to use this tool from start to finish? _________ minutes

Overall, how easy was it for you to use the Nisonger Outcome Assessment Tool?

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td></td>
<td><strong>There was no confusion or difficulty on any item.</strong></td>
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<td><strong>All of the items were confusing or difficult.</strong></td>
</tr>
</tbody>
</table>

Additional Comments: