Quality Review and Rating of Early Intervention (QuaRREI)

HOME- AND COMMUNITY-BASED SERVICES (QUARREEI-HOME)

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The QuaRREI (pronounced *quarry*) is a process for assessing the quality of early intervention (0-5) programs. It requires observation, interviews, and paperwork review.

DIRECTIONS

The QuaRREI is a method for evaluating the quality of an early intervention (0-5) program through observation, interview, and document review. It builds on the research we have done using the FINESSE II, Families FINESSE, and checklist data, to determine program efficacy and how much a program hews to the Routines-Based Model (García-Grau, 2016; McWilliam, 2010; McWilliam & Er, 2003; Rantala, Uotinen, & McWilliam, 2009). To score the QuaRREI, an evaluator should spend at least one day with a program. Depending on whether the program provides home-based services (including visits to child care or preschool) or classroom-based services, the investment of time for this evaluation might vary. The following guidelines provide a structure for how the QuaRREI assessment might be completed.

- Determine the program's interest in being evaluated for adherence to the RBM. If they exhibit interest in this evaluation, proceed.
- Have professionals complete the FINESSE II.
- Schedule a visit.
- In home- and community-based programs, plan to observe one home visit and one classroom visit and to interview a family, a visited teacher, to interview the director, and to interview the service provider observed or another service provider. The most coherent informants would be the family, early interventionist, and teacher observed.
- For all programs, secure permission to review five intervention plans, including those of children whose visits are observed.
- For all programs, plan to examine databases for (a) staff development (e.g., checklists), (b) child progress (e.g., goal attainment or progress, child functioning, child development tests, curriculum-based assessments, child outcome summaries), and (c) family outcomes (e.g., family quality of life, satisfaction with home routines, federal-reporting data).
- For classroom-based services run by the program, plan to observe in the classroom and to interview a parent, a teacher, the director, and, if helpful, a visiting therapist.

- Proceed through the QuaRREI, using the items appropriate for the program. If a program could be carrying out practices in an item but isn't, score 1, not "NA" and don't leave it blank.
- The unusual maximum scores occur because of the weighting of items. No cutoffs have been established for summative categorization, such as acceptable and unacceptable. Until we have enough data to make reasonable cutoffs, the QuaRREI should be used as a discussion and planning tool. The three area scores (intervention planning, consultative service delivery, program improvement and evaluation) and the total score can be used for pre-post intervention data and for comparing across programs.

Potential Home-Based Program Assessment Schedule

The following schedule shows how an evaluation visit can be made in 1 day. Evaluators or programs might prefer to divide activities over 2 days. Classroom observations shouldn't be scheduled during typical nap times.

Time	Activity
8:00-9:00	Interview director
9:30-11:30	Observe home visit, interviewing home visitor in car. Ask parent for permission to interview.
12:00-1:00	Lunch and further interview with home visitor
1:00-2:30	Review individualized plans, files.
2:30-4:30	Observe visit to classroom, interviewing professional. Ask teacher for permission to interview
4:30-5:00	Review databases
Later	In-person, Skype, or telephone interviews with parent and with teacher

INTERVENTION PLANNING (MAX. = 51)

The program staff assess the needs of the child and family in both home and classroom, if appropriate, routines. They use this needs assessment to help the family choose the goals (sometimes "outcomes") for the plan. Child-level goals are written to emphasize the child's engagement or meaningful participation in routines. Family goals are written for needs related to the child as well as needs not directly related to the child. Program staff determine the family's informal and formal supports. This section applies to both home- and classroom-based services.

Components and Method of Assessment	**Unacceptable** **1**	**Could Improve** **2**	**Exemplary** **3**
1. Routines-Based Interview Interview professional & parent & review five or more plans Multiply by 5 (max. 15)	• General or nonfunctional information was obtained. • Only classroom or "play" times were discussed. • Routines when other caregivers than parents or teachers were not discussed. • Goals show general or irrelevant-sounding skills for children • Family needs are not included in goals • Plans have < 10 or > 15 goals	• Some details of EISR were asked but some general or nonfunctional information was obtained • Morning or evening routines were discussed but not both • Some but not all routines where child spends > 15 hours/week were discussed • Some goals show specific functional skills but some show general or irrelevant-sounding skills. • The only family goals are those directly related to the child's development or learning • Plans have 6-10 goals	• Details of child engagement, independence, and social relationships were asked. • Morning and evening home routines were discussed. • Routines where child spends > 15 hours/week were discussed (e.g., school, babysitter) • Goals show specific functional skills for children • Goals include family needs • Plans have about 12 goals

Notes

2. Ecomap Interview professional & parent and review file Multiply by 4 (max. = 12)	• Only child's name in the box in the middle • Informal supports arrayed on the bottom, and formal supports arrayed on the top • Insufficient informal supports included • Lines show little differentiation between levels of support • Only early intervention/ECSE supports included in formal supports	• Incomplete people living with the child in the box • Some informal and formal supports on the top and some on the bottom • Some extended family, friends, or neighbors included in informal supports, but some appear to be missing • Lines show two levels of support • Some medical, EI/ECSE, therapies, or financial supports in formal supports, but some appear to be missing	• Nuclear family in a box in the middle • Informal supports arrayed on the top, and formal supports arrayed on the bottom • Extended family, friends, BFF, and neighbors included in informal supports • Lines shown three clear levels of support and one level of stress (if appropriate) • Medical, early intervention/ECSE, therapies, and financial supports (if appropriate) included in formal supports
Notes			

3. Participation-Based Child Goals Goals on plans Multiply by 4 (max. – 12)	• No child-level goals written in terms of child's participation • Most goals written for nonfunctional skills (e.g., skills for clinical sessions) • Most goals written for meaningless or no acquisition criteria • Most goals written without reference to the number of routines in which the skill should be seen • Most goals written with no amount of time in which the skills should be observed	• Some child-level goals written in terms of child's participation • Some goals written for functional skills • Some goals written with a meaningful acquisition criterion • Some goals written with the number of routines in which the skills should be seen • Some goals written with the amount of time in which the skills should be observed	• All child-level goals (other than toilet training and sleeping) written in terms of child's participation • All goals written for functional skills (i.e., skills needed for meaningful participation in regular routines) • All goals written with a meaningful acquisition criterion • All goals written with the number of routines in which the skills should be seen • All goals written with the amount of time in which the skill should be observed
Notes			

4. Family Goals Goals on plans Multiply by 4 (max. = 12)	• No child-level family goals are included • No family-level goals are included • Family goals have either meaningless of no criteria	• Only child-related family goals are included • Some family goals have meaningful criteria	• Child-related family goals are included • Family-level goals are included • Family goals have meaningful criteria
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CONSULTATIVE SERVICE DELIVERY (MAX. = 105)

Services by early intervention (including early childhood special education) professionals, other than classroom teachers, focuses on building the capacity of the child's natural caregivers, such as parents and teachers. A primary service provider addresses all child and family goals with caregivers, using other team members for their expertise on joint visits. Visits occur in natural environments, such as homes, the community, and inclusive child care or preschool classrooms. Home visits focus on providing families with emotional support, material support, and informational support, especially on interventions they want to carry out with their children throughout the week. Professionals use collaborative consultation with families ("family consultation") and teachers rather than expert consultation. They focus on children's engagement, independence, and social relationships to maintain the emphasis on child functioning in routines. When appropriate, professionals encourage the use of informal over formal supports. When visiting classroom programs, early intervention professionals work with the teaching staff to build their capacity for promoting the child's engagement in classroom routines. They typically provide this collaborative service delivery weekly.

Components and Method of Assessment	**Unacceptable** **1**	**Could Improve** **2**	**Exemplary** **3**
5. Primary Service Provider Interview director, professional, and parent and review individualized plan Multiply by 5(Max = 15)	• More than one professional from different disciplines make visits regularly • Each professional addresses goals only in his or her discipline/area of training • Professionals do not consult with other professionals serving the child & family • Professionals have minimal communication with other professionals serving the child & family	• Regular visits are by the same comprehensive service provider (CSP), although some services are provided separately • CSP addresses all child and family goals • CSP consults with other professionals, as needed • CSP exchanges information with other professionals	• 2/3 or more of visits are by the same primary service provider (PSP) • The PSP can be from any of the major disciplines in EI/ECSE • PSP addresses all child and family goals • PSP consults with team members, as needed • PSP has some joint home visits with team members, as needed
Notes			

6. Natural Environments/Inclusion Interview director and professional Multiply by 3 (Max = 9)	• All services are provided in clinics or self-contained classrooms. • Interventions are planned for implementation in these segregated settings. • Professionals supports go to the child, not to caregivers. • Classroom children are placed where > 50% of children have disabilities. • Routines for intervention are "therapeutic" or "clinical."	• Some services are provided in natural environments but some are in clinics or self-contained classrooms. • Some interventions are planned for implementation in regular routines and some in segregated settings. • Limited professional supports go to caregivers, but many to the child. • Children spend some parts of the day with typically developing children and some parts of the day only with children with disabilities. • Some routines are natural and some are clinical.	• All services provided in places where family and child would be if child did not have disabilities (e.g., home, community, regular child care/preschool) • Interventions are planned for implementation in regular family or classroom routines • Professional supports go to caregivers who spend > 15 hours a week with the child • Classroom children are placed where at least 50% of children are typically developing • Routines are natural for the home, community, or classroom—not "therapeutic" or "clinical."
Notes			

7. Support-Based Home Visits			
7. Support-Based Home Visits Observe home visit and interview director, professional, and parent Multiply by 4 (Max. = 12)	• Home visitor is minimally positive, responsive, oriented to the whole family, friendly, and sensitive. • Home visitor ignores the emotional well-being of the primary caregiver. • Home visitor sets the agenda. • Home visitor does not seem to know or to address what the family wanted to work on during this visit. • Home visitor does not review what the family was working on since the previous visit. • Home visitor does not document what happened on the visit, what the family or the professional will work on until the next visit, or what the family would like to focus on during the next visit. • Home visitor doesn't use the matrix. • Nonfunctional child-only goals are addressed. • Home visitor recommends services instead of informal supports, to address goals.	• Home visitor provides some of the 5 elements of emotional support but not all. • Home visitor seems to care about the primary caregiver but doesn't actually determine his or her well-being. • Home visitor asks how things have been going but quickly jumps to his or her agenda. • Home visitor either has the NSF and doesn't follow it or doesn't have it but attends to the family's previously stated preferences for the visit. • Home visitor writes down what he or she and the family did on the visit or what the family would like to focus on or what the family will try, but not all three. • Home visitor has matrix for the family but doesn't use it. • Home visitor has an ecomap for the family but doesn't use it.	• Home visitor provides emotional support by being • Positive • Responsive • Oriented to the whole family • Friendly • Sensitive • Home visitor attends to the emotional well-being of primary caregiver • Home visitor lets family set the agenda • Home visitor uses the Next-Steps form to guide the visit • Home visitor completes the three main sections of the Next-Steps form • Home visitor uses the matrix to decide on what to talk about, as necessary • Home visitor whips out the ecomap when resources are needed to address a goal • Functional child goals and family goals are discussed

		• Some functional and some nonfunctional child goals are discussed.	

Notes

8. Family Consultation Observe home visit and interview professional Multiply by 5 (Max. = 15)	• Home visitor follows his or her own agenda. • If addressed previously, home visitor doesn’t ask how child has been doing and how family has been doing with intervention. • Home visitor doesn’t ask if family wants to show what child does or what they do. • Home visitor tells family what “we” should be working on with the child. • Home visitor makes suggestions or recommendations with out background or contextual information. • Home visitor works with the child. • Home visitor might tell family to try the intervention, during the visit. • Home visitor assumes intervention will work and family will carry it out.	• Home visitor attends to family concerns for this visit, but quickly reverts to his or her agenda. • Home visitor shows limited interest in how child has been doing and how family has been doing with intervention. • Home visitor inconsistently asks if family wants to show something. • Home visitor makes suggestions with minimal background or contextual information. • Home visitor demonstrates without asking first.	• Home visitor determines what family wants to talk about; could be new issue, could be on NSF, could be on matrix. • If addressed previously, home visitor asks how child has been doing and how family has been doing with intervention. • Home visitor asks if family wants to show what child does or what they do. • If new issue, home visitor asks what family wants child to be able to do, if necessary. • Home visitor asks four questions before making a suggestion (Hoosier’s Rule). • Home visitor offers to demonstrate • Home visitor gives family a chance to try the intervention. • Home visitor asks whether family believes this intervention will work. • Home visitor asks whether family will be able to carry it out (feasibility question).

			• If no to previous 2 questions, home visitor makes another suggestion and repeats the process.

Notes

9. Engagement, Independence, and Social Relationships (EISR) Observe home visit or in visited classroom, interview director and professional, and review individualized plan and written program descriptions Multiply by 3 (Max = 9)	• Service delivery focuses on nonfunctional skills, including skills demonstrated in meaningless environments or routines (e.g., clinics). • Child performance talked about out of context of natural environments (e.g., in general or in clinic). • Program focuses primarily on federal outcomes, test score improvement, or individualized-plan goal attainment. • Child goals have nothing to do with EISR.	• Some service delivery focuses on consultation around EISR, but some focuses on nonfunctional skills. • Functioning sometimes discussed in context of a specific routine but sometimes out of context. • Program focuses on EISR to some extent, but not specifically mentioning these 3 functional outcomes. • Some child goals can be identified as associated with EISR but some have nothing to do with EISR.	• Collaborative (including family) consultation focuses on EISR (i.e., child functioning and meaningful participation in routines). • Functioning always discussed in context of a specific routine. • Program focuses on these functional outcomes (AKA foundations of learning), rather than *just* federal outcomes, test scores, or individualized-plan goals. • Child goals can be identified as associated with EISR.
Notes			

10. Informal Supports Observe home visit, interview professional and family, and review file (for ecomap) Multiply by 4 (Max = 12)	• Home visitor doesn't know about the family's extended family, friends, or neighbors. • Home visitor doesn't have an ecomap. • Home visitor recommends services instead of informal supports for family-level needs. • Home visitor never mentions the family's informal supports.	• Home visitor has limited knowledge about family's extended family, friends, and neighbors. • Home visitor has an ecomap but doesn't use it. • Home visitor talks about the family's informal supports but doesn't active encourage maintaining or strengthening them. • Home visitor sometimes recommends services and sometimes refers to informal supports when a family-level need arises.	• Home visitor knows about family's extended family, friends, and neighbors. • Home visitor whips out the ecomap or otherwise refers to informal supports when a family-level need arises. • Home visitor actively encourages maintaining or strengthening the family's informal supports.
Notes			

11. Collaborative Consultation/Integrated Therapy			
11. Collaborative Consultation/Integrated Therapy Observe in classroom and interview director and professional Multiply by 5 (Max. = 15)	• Professional comes to the classroom with his or her own agenda. • Professional either takes the child out of the room or takes him or her aside. • Professional does not communicate with the teaching staff through most of the visit. • Professional determines what the problem is—why they child can't do something. • Professional does not give suggestions or recommendations to the teachers, because *he or she* is the interventionist. • Professional does not demonstrate interventions to the teaching staff. • Professional does not give feedback to teaching staff on their intervening with the child.	• Professional asks staff if they have any issues but quickly moves to his or her agenda. • Professional stays in the room but is not engaged in the ongoing routine. • Professional communicates only at the beginning and end of the visit. • Professional interacts with the child but changes the focus of the child's engagement. • Professional gives suggestions before obtaining enough background (i.e., before 4 questions). • Professional understands collaboration but doesn't give suggestions. • Professional demonstrates interventions to the teaching staff without asking if they want a demonstration. • Professional does not ask teaching staff if they think the intervention will work. • Professional does not ask teaching staff if they think they'll be able to implement the intervention.	• Early intervention professional asks staff if they have any issues they want help with. • Early intervention professional joins the child in whatever the child is engaged with. • Early intervention professional communicates with teaching staff through much of the visit. • Early intervention professional talks to teaching staff about what the problem is—why the child can't do something. • Early intervention professional interacts with the child in the context of the existing routine either to understand more about the child's functioning or to try interventions. • Professional asks at least four questions of the teaching staff (Hoosier's Rule) to establish background and context. • Professional proposes an intervention.

			• Professional asks if the teaching staff want a demonstration. • Professionals asks if the teaching staff want to try the intervention. • Professional asks teaching staff if they think the intervention will work. • Professional asks teaching staff if they think they'll be able to implement the intervention.
Notes			

12. Inclusion Observation in classroom and interview with director and early intervention professional Multiply by 3 (Max = 9)	• Children with disabilities are in a classroom where < 50% of children are typically developing. • Children with disabilities are pulled out for specialized services. • Children with disabilities often participate in activities separate from those for typically developing children.	• Children with disabilities are in a classroom where at least 50% of children are typically developing. • Specialists work 1:1 in classroom with children with disabilities. • Children with disabilities sometimes participate in activities separate from those for typically developing children	• Children with disabilities are in a classroom where at least 80% of children are typically developing. • Children with disabilities stay in that room or with that group all day long. • Children with disabilities always participate in activities with typically developing children.
Notes			

13. Frequency of Services Review of individualized plan Multiply by 3 (Max = 9)	• Child and family receive monthly visits from early intervention professionals. • Professionals make almost no additional contact via e-mail or text	• Child and family receive twice-monthly visits from early intervention professionals. • Professionals might make additional contact via e-mail or text	• Child and family receive weekly visits from early intervention professionals. • Professionals might make additional contact via e-mail or text.
Notes			

PROGRAM IMPROVEMENT AND EVALUATION (MAX = 48)

An effective program collects data and uses them to make decisions, particularly about staff development and changes in practices. Because the Routines-Based Model is family centered, programs should measure the extent to which they result in improved family quality of life and satisfaction with home routines. Child functioning in routines is another hallmark of the model, so measuring this is necessary. The backbone of the individualized plan is the list of goals, so attainment of those goals should be measured. Finally, the implementation of the model to fidelity, which requires professionals' performance to be exemplary, must be measured.

Components and Method of Assessment	**Unacceptable** **1**	**Could Improve** **2**	**Exemplary** **3**
14. Evaluating Support to Families Interview director and review files and the database Multiply by 4 (Max = 12)	• Family quality of life (FQoL) is not measured. • Family satisfaction with home routines is not measured. • Family outcomes data are not kept.	• Federal family outcome data are collected (e.g., through the Family Outcomes Survey or the NCSEAM Family Survey). • Federal family outcome data are entered at least at the factor/subscale and total level for each family into a spreadsheet (at most, at the item level). • Program leaders review aggregate federal family outcome data to determine where staff need additional training or where program needs to change procedures. • Program leaders review federal family outcome data, disaggregated by subgroups, to determine where staff need additional training or	• Family quality of life (FQoL) is measured, annually, with a psychometrically sound family-completed rating scale (e.g., the FEIQoL). • Family satisfaction with home routines is measured every 6 months, either with the RBI or with the Satisfaction with Home Routines Evaluation (SHoRE). • FQoL and SHoRE data are entered at least at the factor/subscale (for FEIQoL) and total level for each family into a spreadsheet (at most, at the item level). • Program leaders review aggregate FQoL and SHoRE data to determine where staff

		where program needs to change procedures.	need additional training or where program needs to change procedures. • Program leaders review FQoL and SHoRE data, disaggregated by subgroups, to determine where staff need additional training or where program needs to change procedures.
Notes			

15. Evaluating Child Functioning in Routines Interview director and review files and database Multiply by 4 (Max = 12)	• Professionals do not monitor progress. • Program director make decisions about staff development and policy/procedure changes in the absence of data. • Professionals do not use data to inform their federal-child-outcome reporting.	• Professionals monitor progress through curriculum-based assessments or developmental tests. • Program directors use data on child progress or status to make decisions. • Professionals use curriculum-based assessment or developmental-test data to inform their federal-child-outcome reporting.	• Natural caregivers (e.g., parents, teachers) rate children's engagement in naturally occurring, normalized (i.e., not "therapeutic," "clinical," or self-contained—disabilities-only) routines (e.g., with the MEISR or ClaMEISR). • Natural caregivers report on children's independence in naturally occurring, normalized routines. • Natural caregivers report on children's social relationships in naturally occurring, normalized routines. • Program directors use data on child functioning in routines to make decisions, especially about staff development and policy/procedure changes. • Professionals use data on child functioning to inform their federal-child-outcome reporting.

Notes

16. Evaluating Goal Attainment Interview director and professional and review files and database Multiply by 3 (Max = 9)	• No data are collected on goal attainment. • Every time a goal is discussed, only descriptive narrative reports are made. • When goal is completed, professionals stop the intervention. • When individualized plan is revised, the team examines no data. • Program doesn’t document its effectiveness. • Program director has no knowledge of differential outcomes by demographic variables.	• Data are collected on child and family goals but not on a a common metric. • Professionals collect goal attainment data on a schedule, not ongoing. • When goal is completed, professionals assume they should continue working on the skill until the next formal review. • Instead of GAS, the program uses a goal progress rating scale, such as the Therapy Goals Information Form (TGIF)[1]. • Goal progress data are examined when individualized plan is revised. • Goal progress data are presented to document program effectiveness. • Goal progress data are disaggregated by demographic variables.	• All child and family goals are defined on a 5-point goal-attainment scale (GAS): -2, -1, 0, +1, +2; alternatively, 1-5, with 5 being *attained*. • GAS completed every time (a) a professional discusses a goal with the natural caregiver or (b) the teachers and therapists address that goal. • When goal is completed (0 on the traditional scale), professionals ask family whether to continue or stop interventions. • GAS data are examined when individualized plan is revised. • GAS data are presented to document program effectiveness. • GAS data are disaggregated by demographic variables (e.g., SES, severity of disability, race).

[1] A 5-point rating scale of the frequency with which the child does the targeted skill and the independence with which he or she does the skill (McWilliam, 2005).

Notes

17. Evaluating Fidelity to the Model and Professionals' Performance Interview director and professional and review employee files and database Multiply by 5 (Max = 15)	• Staff do not receive ongoing observation and feedback (i.e., training). • Staff performance consists of an annual meeting with a supervisor who has no observed information on the staff member's performance. • No spreadsheet with data on professionals' performance is available. • Program director has no data on good or poor performance. • Program director has no data on treatment fidelity. • Staff have no opportunity to report their typical and ideal practices. • Program director reports treatment fidelity or makes staff development decisions in the absence of data. • Program has no data on what practices families experience. • Program has no data on the quality of visits to classrooms.	• Staff know what they should do but receive no systematic feedback. • Staff receive less than useful feedback, including few suggestions for improving performance. • Performance data are not entered on a spreadsheet. • Staff talk to program director about their typical practices, but these practices are not quantified. • Program director uses reports of typical practices to consider and report apparent treatment fidelity and to make staff development decisions and policy/procedure decisions. • Program obtains nonquantitative family perceptions of practices they experience and consider important. • Program director uses family perceptions of practices experienced and considered important to make staff development decisions and policy/procedure decisions.	• Staff are trained with performance checklists, to a criterion of 85% correct on 2 consecutive observations on each checklist. • Staff are monitored 4 times a year, unless they need more (consistently scoring < 85% correct) or less (consistently scoring > 85% or more). • Checklists are completed by people who score with rigor and give honest feedback. • Feedback givers provide suggestions for improving performance. • Checklist data are entered on a spreadsheet. • Program director monitors checklist data to ensure everyone is getting feedback and to identify problems in quality. • Program director uses checklist data to analyze and report treatment fidelity. • Staff self-report their typical and ideal practices (e.g., FINESSE II). • Program director uses data on typical and ideal practices

		• Staff nonquantitatively self-report their typical and ideal practices in collaborative consultation to child care/preschool. • Program director uses perceptions of typical and ideal practices in collaborative consultation to make staff development decisions and policy/procedure decisions.	to analyze and report treatment fidelity and to make staff development decisions and policy/procedure decisions. • Families report practices they experience and consider important (e.g., Family FINESSE). • Program director uses family perceptions of practices experienced and considered important to make staff development decisions and policy/procedure decisions. • Staff self-report their typical and ideal practices in collaborative consultation to child care/preschool (e.g., ProPerCECIS). • Program director uses data on typical and ideal practices in collaborative consultation to analyze and report treatment fidelity and to make staff development decisions and policy/procedure decisions.

Notes

SCORES

Area	Item	Rubric Score	Weighting	Score
Intervention Planning	1. RBI		x 5	
	2. Ecomap		x 4	
	3. Participation-Based Child Goals		x 4	
	4. Family Goals		x 4	
			Total area score (max = 51)	
Consultative Service Delivery	5. Primary Service Provider		x 5	
	6. Natural Environments/Inclusion		x 3	
	7. Support-Based Home Visits		x 4	
	8. Family Consultation		x 5	
	9. EISR		x 3	
	10. Informal Supports		x 4	
	11. Collaborative Consultation/Integrated Therapy		x 5	
	12. Inclusion		x 3	
	13. Frequency of Services		x 3	

			Total area score (max = 105)	
Program Improvement and Evaluation	14. Evaluating Support to Families		x 4	
	15. Evaluating Child Functioning in Routines		x 4	
	16. Evaluating Goal Attainment		x 3	
	17. Evaluating Fidelity & Performance		x 5	
			Total area score (max = 48)	
			Total QuaRREI-Home score (max = 204)	

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REFERENCES

Cooper, J., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis*: Upper Saddle River, NJ: Pearson.

García-Grau, P. (2016). *Early intervention and family quality of life.* (Ph.D.), Catholic University of Valencia, Valencia.

Johnston, J., & Pennypacker, H. (1993). *Strategies and tactics of scientific research*: Hillsdale, NJ: Erlbaum.

McWilliam, R. A. (2005). *Therapy Goals Information Form*. University of North Carolina. Chapel Hill, NC.

McWilliam, R. A. (2010). *Routines-based early intervention*. Baltimore, MD: Brookes Publishing Co.

McWilliam, R. A., & Er, M. (2003). *A model for using natural environments: International applications?* Paper presented at the International Society for Early Intervention. Rome, Italy, Rome, Italy.

Rantala, A., Uotinen, S., & McWilliam, R. (2009). Providing early intervention within natural environments: A cross-cultural comparison. *Infants & Young Children, 22*, 119-131.