

## Online Resource 4

*Study Design, Sample Characteristics, Theory of Mind Measures, Intervention Themes, Instructional Methods and Techniques, Number and Duration of Sessions, and Implementers and Settings of the Included Studies*

| Study            | Study Design (RCT/QED) | Sample Characteristics |    |        |    |          |        |                    | Theory of Mind Scale                                            | Intervention                                                                                                          |                                                                          |                    |                |                          |                          |                                            |
|------------------|------------------------|------------------------|----|--------|----|----------|--------|--------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------|----------------|--------------------------|--------------------------|--------------------------------------------|
|                  |                        | E                      | C  | Gender |    | Mean Age |        | Diagnoses          |                                                                 | Component s of the Intervention Program                                                                               | Instructional Methods and Techniques                                     | Number of Sessions | Session Length | Intervention Implementer | Setting                  | Intervention Format: (individual or group) |
|                  |                        |                        |    | F      | M  | Age      | Month  |                    |                                                                 |                                                                                                                       |                                                                          |                    |                |                          |                          |                                            |
| Bauminger, 2007  | QED                    | 15                     | 11 | 2      | 24 | 9        | 108,09 | ASD, HFASD         | Theory Of Mind: Strange Story Measure                           | Emotions, Advanced Theory of Mind                                                                                     | Reading and Storytelling with Picture Books, Role Play, Group Activities | 50                 | -              | Therapist                | School                   | Group                                      |
| Begeer vd., 2010 | RCT                    | 19                     | 17 | 3      | 33 | 10       | 123    | YIOSB, AS, PDD-NOS | The Tom Test                                                    | Emotions, Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief, Advanced Theory of Mind | Reading and Storytelling with Picture Books, Role Play, Play             | 16                 | 90 min         | Therapist                | -                        | Group                                      |
| Begeer vd., 2015 | RCT                    | 45                     | 52 | 7      | 90 | 9,6      | 115,2  | ASD                | The Tom Test, Tom-Advanced Test, Tom Behavior Checklist (TOMBC) | Emotions, Perspective-taking, First Order False Belief, Second Order False Belief,                                    | Role Play, Play, Group Activities, Homework                              | 8                  | 60 min         | Therapist, Psychologist  | Child Psychiatric Center | Group                                      |

| Study              | Study Design (RCT/QED) | Sample Characteristics |    |        |    |          |        |             | Theory of Mind Scale                                                                | Intervention                                                                                                                              |                                                                                          |                    |                |                                      |                   |                                            |
|--------------------|------------------------|------------------------|----|--------|----|----------|--------|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------|----------------|--------------------------------------|-------------------|--------------------------------------------|
|                    |                        | E                      | C  | Gender |    | Mean Age |        | Diagnoses   |                                                                                     | Component s of the Intervention Program                                                                                                   | Instructional Methods and Techniques                                                     | Number of Sessions | Session Length | Intervention Implementer             | Setting           | Intervention Format: (individual or group) |
|                    |                        |                        |    | F      | M  | Age      | Month  |             |                                                                                     |                                                                                                                                           |                                                                                          |                    |                |                                      |                   |                                            |
| Berg, 2002         | QED                    | 10                     | 9  | 2      | 17 | 8,2      | 99,18  | AS, PDD-NOS | Sally-Anne Task, Visual Perspective-Taking Task, Cognitive Perspective-Taking Tasks | Perspective-taking, Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief,                                   | Role Play, Group Activities, Prompt, Feedback                                            | 7                  | 45 min         | Research Assistant                   | -                 | Group                                      |
| Bylemans vd., 2022 | QED                    | 17                     | 15 | 17     | 15 | 37,11    | 445,32 | HFASD       | Verbal And Pictorial Sequencing Tasks                                               | Antecedents of Theory of Mind, First Order False Belief,                                                                                  | Reading and Storytelling with Picture Books, Group Activities, Homework                  | 6                  | 60 min         | Author/Researcher                    | Online            | Group                                      |
| Cheung vd., 2020   | QED                    | 45                     | 29 | 7      | 67 | 9,6      | 115,44 | ASD         | Theory Of Mind: Strange Story Measure, Theory Of Mind Inventory (ToMI)              | Emotions, Perspective-taking, Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief, Advanced Theory of Mind | Reading and Storytelling with Picture Books, Role Play, Play, Group Activities, Homework | 10                 | 60 min         | Occupational therapists and students | School            | Group                                      |
| Dalmış, 2013       | QED                    | 9                      | 9  | -      | -  | 11,15    | 133,8  | HFASD, AS   | Theory Of Mind: Strange Story Measure, M&M's False                                  | Antecedents of Theory of Mind, First Order False                                                                                          | Reading and Storytelling with Picture Books,                                             | 11                 | 25 min         | Author/Researcher                    | Special Education | Individual                                 |

| Study               |     | Study Design (RCT/QED) | Sample Characteristics |    |        |     |          |         |                                                                                                                             | Theory of Mind Scale                                                                | Intervention                                               |                                      |                    |                   |                          |            |                                            |
|---------------------|-----|------------------------|------------------------|----|--------|-----|----------|---------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------|--------------------|-------------------|--------------------------|------------|--------------------------------------------|
|                     |     |                        | E                      | C  | Gender |     | Mean Age |         | Diagnoses                                                                                                                   |                                                                                     | Components of the Intervention Program                     | Instructional Methods and Techniques | Number of Sessions | Session Length    | Intervention Implementer | Setting    | Intervention Format: (individual or group) |
|                     |     |                        |                        |    | F      | M   | Age      | Month   |                                                                                                                             |                                                                                     |                                                            |                                      |                    |                   |                          |            |                                            |
| de Veld vd., 2017   | RCT | 68                     | 68                     | 14 | 122    | 9,6 | 115,9    | ASD     | Belief Task, Second-Order Belief Attribution Task, Children’s “Reading The Mind In The Eyes” Task, Unexpected Transfer Task | Belief, Second Order False Belief, Advanced Theory of Mind                          | Thinking bubble technique                                  | 8                                    | 60 min             | Psychologist      | Institution              | Group      |                                            |
|                     |     |                        |                        |    |        |     |          |         | The Tom Test, Tom Behavior Checklist (TOMBC)                                                                                | Emotions, Perspective-taking, First Order False Belief, Second Order False Belief,  | Role Play, Play, Group Activities, Homework                |                                      |                    |                   |                          |            |                                            |
| de Veld vd., 2020   | RCT | 71                     | 70                     | 15 | 126    | 9,6 | 116,1    | ASD     | The Tom Test, Tom Behavior Checklist (TOMBC)                                                                                | Emotions, Perspective-taking, First Order False Belief, Second Order False Belief,  | Role Play, Play, Group Activities, Homework                | 8                                    | 60 min             | Psychologist      | Child Psychiatric Center | Group      |                                            |
| Durrleman vd., 2022 | QED | 33                     | 20                     | 15 | 38     | 6,2 | 74,46    | ASD, TG | Theory Of Mind Tests, The Verbal FB Task, The Tests Of Precursors To FB Attribution                                         | Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief, | Thinking bubble technique, Technology Assisted Instruction | 8-12                                 | 30-40 min          | Author/Researcher | -                        | Individual |                                            |

| Study                 | Study Design (RCT/QED) | Sample Characteristics |      |        |    |          |        |           |                                                                                                                                                                                                                                                           | Theory of Mind Scale                                                                                    | Intervention                                                           |                    |                |                          |         |                                            |  |
|-----------------------|------------------------|------------------------|------|--------|----|----------|--------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------|----------------|--------------------------|---------|--------------------------------------------|--|
|                       |                        | E                      | C    | Gender |    | Mean Age |        | Diagnoses | Components of the Intervention Program                                                                                                                                                                                                                    |                                                                                                         | Instructional Methods and Techniques                                   | Number of Sessions | Session Length | Intervention Implementer | Setting | Intervention Format: (individual or group) |  |
|                       |                        |                        |      | F      | M  | Age      | Month  |           |                                                                                                                                                                                                                                                           |                                                                                                         |                                                                        |                    |                |                          |         |                                            |  |
| Fisher ve Happe, 2005 | QED                    | ZK:10<br>YI:10         | 7    | -      | -  | 10,2     | 123,4  | ASD, AS   | Sally-Anne Task, M&M's False Belief Task, Children's "Reading The Mind In The Eyes" Task, Knowing/Guessing Task, Seeing Leads To Knowing Task, Penny Hiding Deception Task, Theory Of Mind And Executive Function Questionnaire, Unexpected Transfer Task | First Order False Belief, Second Order False Belief,                                                    | Reading and Storytelling with Picture Books, Thinking bubble technique | 10                 | 25 min         | Author/Researcher        | School  | Individual                                 |  |
| Hadwin vd., 1996      | RCT                    | D:10<br>I: 10          | O:10 | 3      | 27 | 9,02     | 108,28 | ASD       | "How Does It Look To You?" Task, "What Do You See/I See?" Task, Unexpected Transfer Task                                                                                                                                                                  | Perspective-taking, Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief, | Role Play, Feedback                                                    | 8                  | 30 min         | Author/Researcher        | School  | Individual                                 |  |

| Study                     | Study Design (RCT/QED) | Sample Characteristics |    |        |    |          |        |                | Theory of Mind Scale                                                                                 | Intervention                                                                                                |                                                                                                         |                    |                |                                 |                     |                                            |
|---------------------------|------------------------|------------------------|----|--------|----|----------|--------|----------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------|----------------|---------------------------------|---------------------|--------------------------------------------|
|                           |                        | E                      | C  | Gender |    | Mean Age |        | Diagnoses      |                                                                                                      | Components of the Intervention Program                                                                      | Instructional Methods and Techniques                                                                    | Number of Sessions | Session Length | Intervention Implementer        | Setting             | Intervention Format: (individual or group) |
|                           |                        |                        |    | F      | M  | Age      | Month  |                |                                                                                                      |                                                                                                             |                                                                                                         |                    |                |                                 |                     |                                            |
| Nejati vd., 2023          | RCT                    | 15                     | 15 | -      | -  | 8,7      | 105,18 | ASD            | The Tom Test                                                                                         | Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief, Advanced Theory of Mind | Reading and Storytelling with Picture Books, Thinking bubble technique, Technology Assisted Instruction | 10-12              | 60 min         | Psychologist, Author/Researcher | -                   | Individual                                 |
| Ozonoff & Miller ,1995    | QED                    | 5                      | 4  | 0      | 9  | 13,7     | 164,4  | ASD ve PDD-NOS | M&M's False Belief Task, Second-Order Belief Attribution Task, Theory Of Mind: Strange Story Measure | Perspective-taking, Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief      | Role Play, Play, Group Activities, Feedback, Reinforcement,                                             | 14                 | 90 min         | Research Assistant              | -                   | Group                                      |
| Paytner ve Peterson, 2013 | QED                    | 17                     | 7  | 3      | 21 | 7,2      | 87,135 | ASD, AS        | Tom Scale                                                                                            | First Order False Belief, Second Order False Belief                                                         | Reading and Storytelling with Picture Books, Thinking bubble technique, Feedback                        | 1-3                | 40-60 min      | -                               | School              | Individual                                 |
| Rice vd., 2015            | RCT                    | 16                     | 15 | 3      | 28 | 7,7      | 93,3   | ASD            | Nepsy-II Theory Of Mind Subtest                                                                      | Antecedents of Theory of Mind, Advanced Theory of Mind                                                      | Technology Assisted Instruction, Prompt, Reinforcement                                                  | 10                 | 25 min         | Teacher                         | Computer Laboratory | Individual                                 |

| Study                 | Study Design (RCT/QED) | Sample Characteristics |    |        |    |          |       |                     | Theory of Mind Scale                                                                         | Intervention                                                                                 |                                                                           |                    |                |                          |         |                                            |
|-----------------------|------------------------|------------------------|----|--------|----|----------|-------|---------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------|----------------|--------------------------|---------|--------------------------------------------|
|                       |                        | E                      | C  | Gender |    | Mean Age |       | Diagnoses           |                                                                                              | Component s of the Intervention Program                                                      | Instructional Methods and Techniques                                      | Number of Sessions | Session Length | Intervention Implementer | Setting | Intervention Format: (individual or group) |
|                       |                        |                        |    | F      | M  | Age      | Month |                     |                                                                                              |                                                                                              |                                                                           |                    |                |                          |         |                                            |
| Silver ve Oakes, 2001 | RCT                    | 11                     | 11 | -      | -  | 14,4     | 172,8 | ASD, AS             | Theory Of Mind: Strange Story Measure                                                        | Emotions, Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief | Technology Assisted Instruction, Prompt, Reinforcement                    | 10                 | -              | -                        | -       | Individual                                 |
| Soorya vd., 2015      | RCT                    | 35                     | 34 | 12     | 57 | 9,9      | 119,2 | ASD                 | Theory Of Mind: Strange Story Measure, Children’s “Reading The Mind In The Eyes” Task        | Emotions, Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief | Role Play, Play, Thinking bubble technique, Reinforcement, Homework       | 12 Oturum          | 90 min         | Psychologist             | -       | Group                                      |
| Tsunemi vd., 2014     | RCT                    | 9                      | 7  | -      | -  | 9,6      | 115,8 | ASD                 | M&Ms False Belief Task                                                                       | Perspective-taking                                                                           | Reading and Storytelling with Picture Books                               | 5-6                | 30 min         | Parent                   | Home    | Individual                                 |
| Waugh ve Peskin, 2015 | QED                    | ZK:19<br>AE:11         | 19 | 7      | 42 | 9,0      | 108,4 | HFAS D, AS, PDD-NOS | Theory Of Mind: Strange Story Measure, The Theory Of Mind Inventory, Second Edition (TOMI-2) | Antecedents of Theory of Mind, First Order False Belief, Second Order False Belief,          | Reading and Storytelling with Picture Books Role Play, Feedback, Homework | 10                 | 30 min         | -                        | -       | Group                                      |

| Study | Study Design (RCT/QED) | Sample Characteristics |   |        |   |          |       |           | Theory of Mind Scale | Intervention                           |                                      |                    |                |                          |         |                                            |
|-------|------------------------|------------------------|---|--------|---|----------|-------|-----------|----------------------|----------------------------------------|--------------------------------------|--------------------|----------------|--------------------------|---------|--------------------------------------------|
|       |                        | E                      | C | Gender |   | Mean Age |       | Diagnoses |                      | Components of the Intervention Program | Instructional Methods and Techniques | Number of Sessions | Session Length | Intervention Implementer | Setting | Intervention Format: (individual or group) |
|       |                        |                        |   | F      | M | Age      | Month |           |                      |                                        |                                      |                    |                |                          |         |                                            |
|       |                        |                        |   |        |   |          |       |           |                      | Advanced Theory of Mind                |                                      |                    |                |                          |         |                                            |

*Note.* – = Data not reported, RCT = Randomized Controlled Trial, QE = Quasi-Experimental, EG = Experimental Group, CG = Control Group, F = Female, M = Male, ASD = Autism Spectrum Disorder, HFASD = High-Functioning Autism Spectrum Disorder, AS = Asperger Syndrome, PDD-NOS = Pervasive Developmental Disorder – Not Otherwise Specified, ToM = Theory of Mind, E = Emotion, P = Play, EF = Executive Functions, FB = False Belief.