Naturalistic Intervention (NI)

**Brief Introduction**
Naturalistic intervention (NI) is a collection of practices designed to encourage specific target behaviors based on learners’ interests. It occurs within the typical settings, activities, and/or routines in which the learner participates.

**Description**
Naturalistic intervention (NI) is a collection of practices including environmental arrangement, interaction techniques, and strategies based on applied behavior analysis principles. These practices are designed to encourage specific target behaviors based on learners’ interests by building more complex skills that are naturally reinforcing and appropriate to the interaction. Naturalistic intervention occurs within typical settings, activities, and/or routines in which the learner participates.

NI meets evidence-based criteria with 10 single-case design studies. According to the evidence-based studies, this intervention has been effective for toddlers (0–2 years) to elementary school-age learners (6–11 years) with ASD. NI can be used effectively to address social, communication, behavior, joint attention, play, and academic skills.

**Brief Adapted from**


**Matrix of NI by Outcome and Age (years)**

**Naturalistic Intervention Research Summary**

<table>
<thead>
<tr>
<th>Ages</th>
<th>Skills/Intervention Goals</th>
<th>Settings</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-11 years</td>
<td>Social, communication, joint attention, play, learning readiness, academic</td>
<td>Home, school, community</td>
<td>EBP</td>
</tr>
</tbody>
</table>

*The information found in the Research Summary table is updated yearly following a literature review of new research and this age range reflects information from this review.*
Naturalistic Intervention (NI)

Research


Naturalistic Intervention (NI)


Naturalistic Intervention (NI)

References


Naturalistic Intervention (NI)  
Steps for Implementation

**Step 1. Identifying a Target Behavior**

A. Select a specific target behavior to be the focus of intervention. It should focus on:
   i. prelinguistic or linguistic communication and/or
   ii. social skills

B. Confirm that the target behaviors are in the learner’s IEP or IFSP.

**Step 2. Collecting Baseline Data**

A. Prior to intervention, determine the learner’s current use of the target skill.
B. Collect data on the target skills a minimum of three times in more than one environment.

**Step 3. Identifying the Contexts for Intervention**

A. Determine the learner’s daily schedule.
B. Determine what motivates the learner.
C. Identify the contexts in which naturalistic intervention will be embedded, including:
   i. learner-directed activities,
   ii. routine activities, and/or
   iii. planned activities.

**Step 4. Providing Training to Team Members**

A. Determine who will teach the skill.
B. Provide adequate training to team members before initiating naturalistic intervention.

**Step 5. Arranging the Environment to Elicit the Target Behavior**

A. Choose motivating materials/activities to engage learners and promote the use of target skills.
B. Manage and distribute teaching materials in a way that encourages learners to communicate.
C. Arrange the intervention context and environment to:
   i. encourage the use of the target act/skill and
   ii. maintain learners’ interest.

**Step 6A. Engaging the Learner in an Interaction**

A. Engage the learner in language-rich, learner-directed, and reciprocal interactions that involve the following techniques:
   i. Following the learner’s lead
   ii. Being at the learner’s level
   iii. Responding to the learner’s verbal and nonverbal initiations
   iv. Providing meaningful verbal feedback
   v. Expanding the learner’s utterances

August 2015
Naturalistic Intervention (NI)

**Step 6B. Using Strategies Based on Applied Behavior Analysis (ABA) to Elicit Target Behaviors**

A. Select a behavioral intervention (modeling, mand-modeling, modified time delay, or incidental teaching) to elicit the target act.

B. Implement modeling by:
   i. Establishing shared attention
   ii. Presenting a verbal model
   iii. Expanding the response and providing the requested material (if the learner responds to the model correctly)
   iv. Providing another model (if the learner does not respond or does not repeat the model exactly)
   v. Expanding the response and providing requested material (if the learner responds to the model correctly)
   vi. Providing the material and stating the corrected response (if the learner does not respond or does not repeat the model exactly)

C. Implement mand-modeling by:
   i. Establishing shared attention
   ii. Providing a verbal direction (mand) or question
   iii. Expanding the response and providing the requested material (if the learner responds correctly)
   iv. Providing another direction or a model (depending on learner’s needs for support) if the learner does not respond or does not respond with the target behavior
   v. Expanding the response and providing the requested material (if the learner gives the target response)
   vi. Providing the material and stating the target response (if the learner still does not give the target response or repeat the model exactly)

D. Implement modified time delay by:
   i. Establishing shared attention
   ii. Waiting 3–5 seconds for the learner to make requests/comments
   iii. Expanding on the request/comment and providing the requested material/activity (if the learners initiate at the target level)
   iv. Providing a mand or model, depending on the learner’s needs for support (if the learner does not initiate at the target level)
   v. Expanding the request and providing the material (if the learner responds correctly)
   vi. Providing the material and stating the target response (if the learner still does not give the target response or repeat the model exactly)
Naturalistic Intervention (NI)

E. Implement incidental teaching by:
   i. Setting up the environment to encourage the learner to request assistance or materials
   ii. Waiting for learner to initiate the request
   iii. Responding with a request for elaboration (if learner does not initiate with the target response)
   iv. Continuing to prompt for the elaboration until learner responds appropriately
   v. Using model, mand-model, or modified time delay procedures, depending on the needs of learner
      (if learner does not initiate a request with the target act)

Step 7: Using Data Collection to Monitor Learner Progress and Determine Next Steps

A. Collect data to evaluate the success of the intervention and guide future decision making.