Resumen:

1. Application Age:
2. BATELLE: 6 months to 23 months and 30 days (2 years), although the test can be applied up to 8 years.
3. TVIP: 30 to 60 months.
4. CBCL: 18 months (1.5 years) to 35 months and 30 days (5 years).
5. TEPSI: 24 months (2 years) to 35 months and 30 days (5 years).
6. Application Duration:
7. BATELLE: 60-90 minutes.
8. TVIP: 10-15 minutes.
9. CBCL: 20 minutes.
10. TEPSI: 20-25 minutes.
11. Scores:
12. BATELLE: Standardized score, calculated based on the sample.
    1. Interpretation of standardized scores:

* z<−1.5z < -1.5z<−1.5: decreased score.
* z>1.5z > 1.5z>1.5: superior score.

1. TVIP: Standardized scores are categorized as follows:
   1. Interpretation of standardized scores:

* 55 - 70: extremely low score.
* 71 - 85: moderately low score.
* 86 - 95: low score.
* 96 - 103: average score.
* 104 - 115: high score.
* 116 - 130: moderately high score.
* 131 - 145: extremely high score.

1. CBCL: Scores can be compared as T-scores or percentiles. Each syndrome can be evaluated individually, as syndrome groups (internalizing or externalizing), or an overall assessment can be obtained from the total sum of all syndromes.
   1. Interpretation of percentiles:

* Percentile below 93: Normal
* Percentile between 93 and 97: At Risk
* Percentile above 98: Clinical Range
  1. Interpretation of standardized scores:
* T-score below 60: Normal
* T-score between 60 and 63: At Risk
* T-score above 63: Clinical Range

1. TEPSI: Raw scores are interpreted, but if standardization is desired, a mean of 50 and an SD of 10 is used.
   1. Interpretation of raw scores:

* T-score greater than or equal to 40: normal
* T-score between 30 and 39: at risk
* T-score less than or equal to 29: delayed

# BATELLE Test

## 1. Objectives and Description

The **Battelle Developmental Inventory** is a tool designed to assess fundamental developmental skills in children from birth to eight years old, in the context of the study it is applied to children from 6 to 23 months and 30 days. It comprises 341 items grouped into the following areas:

1. **Personal/Social**: Evaluates the abilities and characteristics that allow a child to establish meaningful social interactions. It includes subareas such as interaction with adults, expression of feelings/affection, self-concept, and peer interaction.
2. **Adaptive**: Assesses a child's ability to adapt and manage in different daily situations.
3. **Motor**: Includes items that evaluate both fine and gross motor skills.
4. **Communication**: Covers both the comprehension and expression of language.
5. **Cognitive**: Evaluates the cognitive abilities of the child, including memory, perception, and problem-solving skills.

## 2. Application Method

* **Administration**: Individual.
* **Duration**: Between 60 and 90 minutes per child.
* **Context**: In the Longitudinal Survey of Early Childhood, 192 items from the inventory were used, distributed across the five mentioned areas. For children close to 24 months, some questions were censored, which might tend to evaluate them as diminished in all areas, this is considered in the standardization of the test scores.

## 3. Calculation and Interpretation of Results

* **Standardization**: In the context of the specific study, standardization did not follow the original manual, it was adapted to the specific study sample.
* **Scores**: Calculated by subtracting the group mean and dividing by the standard deviation.
* **Classification**:
  + **Standardized Scores (z)**:
    - **z < -1.5**: Classified as diminished.
    - **z > 1.5**: Classified as superior.

# Test de Vocabulario en Imágenes Peabody (TVIP)

## 1. Description and Objectives

The TVIP is the ,Spanish adaptation of the Peabody Picture Vocabulary Test, widely used in English-speaking countries. It serves educational, clinical, and research purposes, measuring an individual's receptive or auditory vocabulary. This psychometric test is typically administered to children aged between 30 and 60 months, taking about 10 to 15 minutes per child.

The objectives of the TVIP include:

* **Achievement Test**: Demonstrates the extent of vocabulary acquisition in Spanish. In Chile, it has been used to measure narrative comprehension in preschool age.
* **Assessment of School Abilities**: Indicates verbal ability or intelligence, serving as a predictor of academic success and problem-solving skills.
* **Longitudinal Studies**: Measures changes in vocabulary acquisition over extended periods.

## 2. Method of Application

The TVIP involves presenting the child with a series of images and asking them to identify the image corresponding to a spoken word. The test administrator records the child’s responses, assessing their understanding of the vocabulary. The test is designed to be straightforward, ensuring that it can be completed within a short timeframe, which is crucial for maintaining the child's attention and engagement.

## 3. Calculation and Interpretation of Results

The scores from the TVIP are standardized and categorized based on their distribution relative to the normal curve. The scoring system is designed to facilitate screening and early diagnosis of vocabulary development issues.

The interpretation of standard scores is as follows[[1]](#footnote-1):

|  |  |
| --- | --- |
| Z score | Category |
| 55 – 70 | Extremely low |
| 71 – 85 | Moderately low |
| 86 – 95 | Low |
| 96 – 103 | Average score |
| 104 – 115 | High |
| 116 – 130 | Moderately high |
| 131 – 145 | Extremely high |

These categories help in identifying children who may need further evaluation or intervention to support their language development.

# Child Behavior Checklist (CBCL)

## 1. Description and Objectives

The CBCL is an instrument designed to evaluate the behavior and socio-emotional competencies of children as reported by their parents. It is used to identify problems children may have and can also measure changes over time. The test is applicable for children from 18 months to 5 years old, taking an average of 20 minutes per child.

The CBCL is organized based on the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV), covering seven syndromes:

* Emotional Reactivity
* Anxiety/Depression
* Somatic Complaints
* Autism
* Attention Problems
* Aggressive Behavior
* Sleep Problems

Additionally, the CBCL can be scored in terms of two broader syndrome groupings:

* **Internalizing Problems**: Includes Emotional Reactivity, Anxiety/Depression, Somatic Complaints, and Withdrawn behavior.
* **Externalizing Problems**: Includes Attention Problems and Aggressive Behavior.

Sleep Problems do not belong to either grouping.

## 2. Method of Application

The CBCL involves parents filling out a checklist about their child's behavior. This process takes approximately 20 minutes per child. The responses are based on the child's behavior over the past two months.

## 3. Calculation and Interpretation of Results

The results of the CBCL are scored using empirically-based scales. Each item is scored as 0, 1, or 2, and the scores for each syndrome are summed to produce a total score. These raw scores are then transformed into T-scores, which make the scores between scales and percentiles equivalent.

The interpretation of T-scores is as follows:

* **Normal**: T-score < 60
* **At Risk**: T-score between 60 and 63
* **Clinical Range**: T-score > 63

For the percentiles:

* **Normal**: Below the 93rd percentile
* **At Risk**: Between the 93rd and 97th percentile
* **Clinical Range**: Above the 97th percentile

Children whose scores fall into the clinical range are considered to have enough reported problems to warrant further evaluation for possible clinical disorder.

# Test de Desarrollo Psicomotor (TEPSI)

## 1. Description and Objectives

The TEPSI is a screening test designed to assess the psychomotor development of children aged 2 to 5 years. It helps determine whether a child's developmental performance is within normal limits or below the expected standard. The test evaluates children's behavior in response to specific situations proposed by the examiner. It is administered to children from 24 to 35 months and takes about 20-25 minutes per child.

The TEPSI is divided into three subtests:

* **Coordination**: Evaluates the child's ability to grasp or manipulate objects and draw, involving tasks such as building towers with cubes, threading a needle, recognizing and copying geometric figures, and drawing a human figure.
* **Language**: Assesses both comprehension and expression aspects of language through tasks like naming objects, defining words, verbalizing actions, and describing scenes depicted in pictures.
* **Motor Skills**: Measures the child's ability to control their body through activities like picking up a ball, hopping on one foot, walking on tiptoes, or standing on one foot for a period of time.

## 2. Method of Application

The TEPSI is administered by observing the child's responses to various tasks and situations presented by the examiner. Each subtest is designed to capture different aspects of psychomotor development. The process takes approximately 20-25 minutes per child, making it a relatively quick assessment tool.

## 3. Calculation and Interpretation of Results

The TEPSI results are analyzed using standard scores, including z-scores and T-scores, to identify the child's developmental strengths and weaknesses. Scores are interpreted based on their deviation from the mean, with:

* Below Average: Scores falling more than 1.5 standard deviations below the mean indicate developmental delays.
* Above Average: Scores more than 1.5 standard deviations above the mean indicate superior performance.

The distribution of T-scores in the Total Test and in each Subtest has a mean of 50 and a standard deviation (SD) of 10. A T-score of 50 defines the performance of the average child of a specific age. About two-thirds of children obtain T-scores between 40 and 60, approximately 95% obtain T-scores between 30 and 70, and practically all children of a specific age obtain T-scores between 20 and 80 (3 standard deviations above and below the mean).

In summary:

* T-score greater than or equal to 40: normal
* T-score between 30 and 39: at risk
* T-score less than or equal to 29: delayed

The standardization of the test is based on a large sample, which ensures reliable comparison across different groups. This helps in identifying children who may need further evaluation or intervention based on their psychomotor development​

1. Dunn, L., Padilla, E., Lugo, D., & Dunn, L. (1986). Test de Vocabulario en imágenes Peabody [Test Peabody Picture Vocabulary]. *Madrid: TEA*. [↑](#footnote-ref-1)