STAGES Child Research: Preliminary Report

Terri O’Fallon¹

Abstract. The Loevinger Lineage (Loevinger, Torbert, Cook Greuter, O’Fallon) has much data related to adult development. This includes adults that score at very early levels of development, including Egocentric (late first person perspective in the STAGES model), “Rule Oriented” (early second person perspective), and “Conformist” (late second person perspective). Many of the adult populations comprising the Loevinger lineage research-base at the earliest levels come from adults that are compromised in some way. However, very little research has been done related to first and second person expressions of children, which are the primary ages that take these perspectives. This article describes our first attempt to examine the expressions of children at these levels who have normal healthy expressions of these earliest human perspectives.

Introduction

While there may be other Integral Elementary Schools, the Brisbane Independent School (BIS), is the only one I am aware of that is organized around the developmental levels of the children. It is a private elementary school supervised by a teaching principal, Jennifer Haynes. Jennifer has developed a child and teacher curriculum that honors the developmental levels of both the children in the school and the adults that are teachers there. For many years she has followed the children closely through their developmental journey. Parents are very involved in the school as well. Given the make-up of this school (pre-first grade levels through ages 12-13 years old) BIS seemed like the most appropriate site for a research project on normal healthy child responses at the earliest levels of the STAGES developmental model: late first person perspective (1.5), and early and late second person perspectives (2.0 and 2.5).

For reference, the matrix in Figure 1 defines each of the 12 person perspectives in the STAGES model, and their parametric definitions. See other papers in this special issue describing the STAGES model and these levels.

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Method

Preplanning for the Research

Ethical research with children as subjects requires parental permission. To accommodate this, our research team (Kim Barta and Terri O’Fallon) prepared a detailed description of our research, honoring the rights of students and their parents. Before we arrived at the school, Jennifer contacted each parent and asked them sign the permission form for doing the testing. She arranged a protected, locked file the names of all of the children being tested the permission forms, that only she has access to. The researchers giving the test to the children would not have access to the children’s identifying information (including parent names).

In the meantime Kim (a psychotherapist that has worked extensively with children of all ages) and I modified our general STAGES inventory to create one that was appropriate for young children. The general inventory has 36 sentence starters each of which the test taker completes. A function is applied to aggregate the scores for each completed sentence into a final score which represents the developmental level ("center of gravity" or "core score") of the test-taker. The standard version of the ego-development test is suited for adults so we looked to see what sentence starters should be replaced with child-friendly sentence starters.
We understood that some sentence starters might be too advanced for the youngest children and yet quite relevant to the older children so we tried to strike a balance between the younger and older children’s needs. 11 new sentence starters were embedded in the general inventory, replacing sentence starters that seemed to not be very relevant to children, for a total of 36 sentence starters. Table 1 shows the new sentence starters in blue. To summarize, we decided to add the following sentence stems: My family, Grandparents, These days, School, My parents and I, A good child, When they didn’t let me join in, Bullying could be stopped if, Children and parents are lucky when, Children who step out of line, A parent has the right to, and A child has the right to. The figure below shows the stems in order of appearance, with the new ones in blue.

Table 1. 36 Sentence Starters for the STAGES Child Inventory.

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>My family</td>
<td>When people are helpless</td>
<td>A good child</td>
<td>These days, school</td>
<td>The past</td>
<td>The past</td>
<td>I feel sorry</td>
<td>When they didn’t let me join in</td>
<td>Rules</td>
</tr>
<tr>
<td></td>
<td>3. Grandparents</td>
<td>28. A parent has the right to</td>
<td>29. If my mother</td>
<td>30. If I were in charge</td>
<td>31. My father</td>
<td>32. If I can’t get what I want</td>
<td>33. When I am nervous</td>
<td>34. A child has the right to</td>
<td>35. My conscience bothers me if</td>
</tr>
<tr>
<td></td>
<td>4. These days, school</td>
<td>36. Sometimes I wished that</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

Data Collection

When Kim and I arrived at the Brisbane school, Jennifer had already arranged for the research process to take place. Since this required an oral test with the children, she set up two private spaces where we could meet with them one by one. Kim and I went to the various classrooms and the teachers were already prepared to send a child with us when we appeared at their door. We engaged with the children on the way to our private spot, creating rapport with them on the way. Once we got settled with the child, we gave them several sentence starters for practice so that they could understand what the task was. These children had no trouble responding to the 36...
sentence starters and most appeared to thoroughly enjoy the process. Several children were very shy and wanted to respond to only a few sentences. This was expected and when that happened we simply went onto the next sentence starter until they indicated that they wanted to respond.

Kim and I typed verbatim their responses to the sentence stems. We collected and transcribed this data of 36 oral responses for each of the 53 children, gathered over two days, for a total of 1908 responses.

The School Environment

Kim and I were invited to visit each classroom so that we could see the developmental process of how the children were organized by their developmental level. As well, we spent time with the teachers to see how they related to the children and their teaching practices.

Jennifer went over the curriculum with us to show how she had designed the school as a developmentally friendly environment for the children. This included recognizing when children were in a transformation and ready to move into another classroom. This could happen any time during the school year and provided for a flexible process for the children, honoring where they were in their developmental journey.

Jennifer invited us to her teacher’s meetings so that we could see the curriculum she had created for them as they experienced their own developmental journey. These teachers were very aware of looking at themselves developmentally and understood how their own developmental level affected their teaching.

For the final days, Jennifer had arranged for Kim and I to put on a two day developmental workshop for the parents, teachers and other community members who were interested. This indeed was a vibrant community of well informed and supportive people who were doing their best to help to create a school that would serve their children. These parents were of all economic levels and were quite diverse.

New Score Aggregation Method

Until recently, we assigned the final score to an inventory using the ogive cutoff approach from the Loevinger Lineage. We had translated this approach to the 12 levels of the STAGES model (1.0, 1.5, 2.0,...,6.5).

Recently we have begun using a new formula for aggregating the 36 item scores to get a total score (or "core score"). See the article by Tom Murray on our Ogive and Rash research in this issue for details. The new process returns continuous value between 0.5 and 6.5, rather than forcing the score into categories. This "Core Score" is rounded to the nearest 1/10th of a person perspective (e.g. 3.6). Thus it does not "throw away" information as in done in the cutoff categorization method, and its higher granularity helps us to have a more nuanced score interpretation. As described in that paper, one of the advantages of the new method is that it does not confuse "shadow" elements of a completion with the authentically lower levels of complexity as seen in children. This study is the first published research to use this new method. For
Data Analysis

Once we got back to the US, I entered the children's sentence completion text into our scoring platform and began to score them. I soon realized that the sentence completions of these healthy children were very different from adults that had scored at those levels (including a prison population, and mental health facilities). The typical categories that the Loevinger Lineage had created from adult completions simply didn’t fit with this population of children. For example, a 1.5 adult sentence completion might say “When I am in charge…I would rule the world” while a child would more likely say “…I can’t be in charge – I’m just a kid. My parents are in charge.”

While scoring these inventories, the person perspectives and their paradigmatic definitions were available for analyzing the developmental levels of these 1908 child responses. I worked slowly and carefully with each response, going back and forth between them, comparing them to verify that the three STAGES parameters for each person perspective were honored despite very different responses at each level and between each level. I used the following process for scoring each sentence completion.

1. I scored each completion using the parameters (described below).
2. I compared all of the sentence stems that were scored at the same level to see if any of them seemed to fall prior to or extend later than most of those scores.
3. I rescored these stems and moved back and forth between the meaning making that seemed to lie at each developmental level and also meet the parameters.
4. I checked each completion several times until I was satisfied with the scores.

Validating the Child Inventory

Once the inventories were scored I sent them off to our statisticians to get a Cronbach’s alpha to make sure the internal consistency was adequate.

Table 2. Internal consistency for child protocol stems. N=53 protocols.

<table>
<thead>
<tr>
<th>Data Subset</th>
<th>Cronbach's alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>All stems</td>
<td>0.88</td>
</tr>
<tr>
<td>Old stems</td>
<td>0.85</td>
</tr>
<tr>
<td>New stems</td>
<td>0.63</td>
</tr>
</tbody>
</table>

**Conclusion**: The overall internal consistency of the child protocols as measured by the Cronbach’s alpha statistic was "good" (α = 0.88), according to the table below.
A commonly accepted rule of thumb for describing internal consistency is as follows:*

<table>
<thead>
<tr>
<th>Cronbach's alpha</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \alpha \geq 0.9 )</td>
<td>Excellent</td>
</tr>
<tr>
<td>( 0.9 &gt; \alpha \geq 0.8 )</td>
<td>Good</td>
</tr>
<tr>
<td>( 0.8 &gt; \alpha \geq 0.7 )</td>
<td>Acceptable</td>
</tr>
<tr>
<td>( 0.7 &gt; \alpha \geq 0.6 )</td>
<td>Questionable</td>
</tr>
<tr>
<td>( 0.6 &gt; \alpha \geq 0.5 )</td>
<td>Poor</td>
</tr>
<tr>
<td>( 0.5 &gt; \alpha )</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>


From this statistic, given 53 participants, we can see the entire inventory with 11 changed sentence starters out of 36, had an internal consistency of .88 (only .02 away from “Excellent”). However the 11 new ("child") stems by themselves didn’t fare as well, letting us know that we won’t test with only the child stems but will always use the 36 sentence stems with the child sentence starters embedded. This should give us an accurate result. Also, we plan further research on strengthening the new child-friendly stems.

Results

Above we described our new method for aggregating survey scores into the final "core score." This, combined with the 1.1 million word study which shows what words tend to come up at each developmental level, helps us make a more nuanced decision in the scoring of each sentence stem, a process of triangulation with different kinds of evidence to support a more accurate score. This gives us the data to support the core stage any person is at. (Our preliminary vocabulary research is summarized in the paper in this issue summarizing all STAGES research to date.)

The test was administered verbally to 53 children at their school in Brisbane, and the audio was transcribed. An expert scorer scored the results, which are shown in Figure 3 as frequencies in histograms at both the item level and the survey level.
From the Survey graph we can note that the vast majority of children scored at 2.0, with a few at 1.5, 2.5, and 3.0. From the completions graph we can see that there are also a few item scores as low as 1.0, and as high as 4.0.

O’Fallon continues to analyze this data to derive descriptive accounts of how the children make meaning of various themes (later to be published).

**Discussion**

Most children at the 1.5 Egocentric level range from the ages of about 18 months old to about the age of 4 years old. The 2.0 Rule Oriented level generally begins around the age of 4, and ranges up through around the ages of twelve or thirteen. The 2.5 Conformist level can range from the approximate ages of 12 or 13 through the age of around 19, but we also have many adults at that age. The 3.0 Expert usually ranges from around the age of 18 or 19 though the mid 20’s but can extend far into the 20’s and 30’s and beyond.

Looking at the ranges of these children who were at about the age 4 ½ through the ages of about 13, we can see a healthy distribution with most of the children expressing at the 2.0 level and six younger children who were old enough to be in school but still represented the 1.5 level. However, we also see that 11 children representing nearly 21% of this population, seem to reach into the 2.5 and 3.0 levels and appear to be more developmentally mature than most children in that age range. There could be many reasons for this, including a developmentally appropriate curriculum for the children.

**Summary**

We have developed an oral sentence completion test for children. This test has very close to an excellent internal consistency using Cronbach’s alpha. We have tested 53 children using this test and that we are now doing qualitative research to uncover descriptions of healthy children at these levels which are mostly populated with healthy children, rather than with compromised adults. This is just a beginning, and we are happy to be on this journey.
Future Research

The next question we are inquiring into is “What are the phenomenological qualities of children at each of these developmental levels?”

To respond to this question we are in the process of doing a qualitative research project. We are categorizing all of the sentence completions at each developmental level into common themes to see if we can locate common identifiers for children at each of these levels.

To date we have done the preliminary categorizations on about 70% of the 1908 sentence completions. We will continue to sift through all of these stems until we have an idea of the themes that describe children at each of these developmental levels. This will take some time and will be well worth the effort.