
Nitty Gritty Writing Assessment

Learning to write is a complex skill which includes aspects of motor, cognitive and language development. It is common for classroom teachers to report that children with ASD experience significant difficulties and/or resistance whenever a handwriting task is required. When the learner perceives writing tasks as difficult, challenging behavior may also occur in an effort to avoid the non-preferred activity. While some research has confirmed these difficulties (Fuentes 2009; Kushki et al 2011), the specific aspects of writing that present barriers for learners on the Autism Spectrum have not been fully investigated.

Production of written text requires simultaneous processing of motor and cognitive demands. After much practice, most children develop automaticity in the physical aspects of handwriting and are then better able to focus on the reasoning and language related to content and composition. Given that many students on the autism spectrum experience delays in fine motor development, the mechanics of handwriting can be frustrating and skill development in this area delayed.

“If children cannot form letters – or cannot form them with reasonable legibility and speed – they cannot translate the language in their minds into written text. Struggling with handwriting can lead to a self-fulfilling prophecy in which students avoid writing, come to think of themselves as not being able to write and fall further and further behind their peers” (Graham, 2009).

Initial findings suggest that explicit handwriting instruction is an important element in preventing writing difficulties in the primary grades. How can we begin to address these needs? While there are other critical elements that affect learning to write, (e.g., attention, motivation), environmental and physical factors are often the easiest to modify to encourage the student’s best efforts and may alleviate some of the stress surrounding writing practice.

The *Nitty Gritty Writing Assessment* is suggested as a starting point for handwriting instruction when students are having difficulty. It is a practical, informal process to assist teachers in identifying some of the factors that may be interfering with handwriting skill development and highlights key considerations that may guide instruction.

DESCRIPTION

The ***Factor Observation Checklist*** chart itemizes some of the important elements that contribute to the development of handwriting skills and are to be noted during the observations. The assessment can be completed in approximately 30 minutes, however, two

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shorter sessions are recommended, at least 30 minutes apart since writing may be a difficult and non-preferred task for some students.

COMPONENTS

- Step 1** Observation of the student during a writing task to identify areas of concern and record results on the *Factor Observation Checklist*
- Step 2** Structured assessment to maximize the student's attempts, probe supportive measures and record results, including a writing sample
- Step 3** Summarize the results and prioritize first teaching targets and supports

PROCEDURE

Step 1. OBSERVATION

Observe the student for 10-15 minutes during a typical activity where writing is required. The student can be working independently or with staff support. Avoid interacting with the student verbally during the observation. Using the *Factor Observation Checklist* as a guide, observe and comment on each of the sections in Part 1 (Environment, Physical, Materials, and Support). The Notes in the Quality section of the checklist should be filled in based on the writing sample(s) observed. Following the observation, rate each section in the right column regarding level of concern.

Step 2. STRUCTURED ASSESSMENT

The purpose of the structured assessment is to evaluate whether feedback, correction and/or prompting the specific areas rated as "concerns" in the initial observation result in improvement. In other words, can we maximize the student's skills or improve learning by targeting the conditions that were initially not optimal for performance. A series of short writing tasks is presented and the assessor notes which supports appear to be effective. Handwriting samples are collected to compare skills with and without supports. This can usually be accomplished in 15-20 minutes. These dated work samples can also serve as documentation of current skills with level of adaptation or prompting noted.

Planning and Materials: Before starting the session, review and highlight the factors in the checklist that were possible concerns. Consider each section and decide how you will adjust the instruction or materials to check on each factor. For example, if the student had difficulty with an immature grasp, you might have grip adapters on hand to try out. If difficulty was noted with

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staying on a line using standard lined paper, have primary paper or color coded lined paper available. If the desk was too high, provide another at the right height during the structured assessment.

Suggested Materials: several sheets of lined and unlined paper; writing utensils of different widths, lengths and shapes, including pencils, pens and markers; adapted grips; highlighter; pre-made worksheets for trace/copy/write examples

Motivation: This should be a positive experience for the student. Appropriate to the student's understanding, explain that you will be trying different things to help make writing easier. If the student is able to participate in judging effectiveness, ask him/her to "vote" on each strategy. (Did that help? Let's try it this way. Is this harder? Easier?). Remember to praise all attempts. If more concrete reinforcement is needed, a tangible item, special activity or privilege can be provided to acknowledge the work when completed.

Environment: Make sure the desk and chair size and height are appropriate. The student should be sitting square to the desk, feet on the floor, arms resting on the desk *before starting*. The desk should be clear of all materials except those needed for the task.

Physical: Prompt/assist the student to the "Ready Position", (i.e., sit upright with good posture and hold the utensil and paper correctly). Demonstrate the correct position for the paper, the supporting hand and the writing hand. Monitor if the student is able to maintain good positioning as the task continues. If handedness is not clear or firmly established, present the writing utensil in the student's midline and note which hand is used.

Note: If handedness is unclear, have the student trace and copy the same letter or word sample first with one hand, then the other to note which hand appears to have better control.

Quality: *Acquire an independent writing sample.* This can be done through modelling, providing a sample to copy or a direct request to the student. As appropriate, acquire additional samples under several conditions to compare results (i.e., with and without prompting, adapters, positioning, etc.). The content of the writing sample will vary based on the skill level of the student and the concerns identified during the initial observation and might include some/any of the following:

- Single letters, a word or short phrase that is first traced, then copied, then printed from dictation (without the sample visible)

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- An independent sample of the student's name; then the name with prompting to guide the grasp or the movement of the hand. (NOTE: Prompting should occur from the side of the student's dominant hand)
- A 4-6 word sentence that is copied underneath a sample
- If utensil grasp is awkward, weak or immature, ask the student to trace and copy words using different adapters. Writing utensils of different thicknesses can also be tried to see if one is easier for the student to use or seems to allow for better control.

If letters are inconsistent in size or writing veers from the line, ask the student to write the same word on paper with different line widths or in a boxed template. Using tactile cues for the bottom line (i.e., tape, Wikki-Stiks, clear ruler) may be helpful for some students while learning to print upper case letters. Highlighting the top and bottom lines may also be tried.

Data: As each segment is completed, *initial and date the writing samples* and make note on the right side of the work whether the sample was completed independently (Ind) or with help (PP=partial prompt; FP=full prompt). If comparing two samples, note the variable on each (i.e., right hand vs. left hand; triangle pencil vs ½" marker) to allow for comparison.

Summary and Recommendations: Following the structured session with the student, note below the factors that appear to be influencing success and corresponding recommendations. An IEP objective may be added if applicable. Repeating this informal measure prior to each reporting period may be helpful to document progress. When handwriting samples are used as a permanent product for progress monitoring, it is important to keep the conditions the same, ideally an independent example of the same content.

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