

Jesse and the School Quandary: Ready, Set, Go?: Facilitator's Guide

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Topic: School Readiness

Abstract:

Primary care clinicians should screen every child for problems with physical health, development, vision, hearing, and immunization status at the preschool visit. This visit is also an opportunity for health promotion, anticipatory guidance and helping parents assess whether their child is ready for school. Clinicians should know how to assess school readiness and make appropriate recommendations for interventions when problems are identified. Timely intervention for cognitive, emotional, or social difficulties can have a positive effect on a child's attitude toward school and learning. This case presents the story of Jesse Le, a five-year-old Cambodian-American boy who will be entering kindergarten. Clinicians will discuss Jesse's readiness for school, considering his language and behavioral difficulties.

Goal:

To provide learners with a basic understanding of how to assess a child's school readiness.

Objectives:

By the end of the session, learners will be able to:

1. Describe the appropriate medical, developmental and psychosocial screening of a child who is preparing to enter school.
2. Identify children at risk, and those who require intervention or further testing.
3. Describe the positive and negative effects of "holding a child back" from entering kindergarten.

Prerequisite Case: N/A

Related Cases:

"The Tale of Tommy's Testing" (Learning Disorders)

"The Restless Pupil" (Attention-Deficit/Hyperactivity Disorder)

Theme: Child Development and Behavior

Key Words: Delayed speech, language development, hearing screen



Bright Futures Core Concepts:

While all of the Core Concepts are included in each case, this particular case can be used to highlight communication, partnership, advocacy and prevention/health promotion.

Materials Provided:

- Facilitator's Guide
- 2-part Case Narrative: Part I and Epilogue
- Handout #1: Screening for Tuberculosis and Lead Exposure
- Handout #2: Jesse's Denver II
- Handout #3: Goodenough-Harris Draw a Person Scoring Criteria
- Handout #4: Jesse's Drawing
- Bibliography

Facilitator Preparation:

Facilitators should thoroughly review this guide and the other materials provided. At the end of the guide we have included a section entitled, "**Independent Learning/Prevention Exercises,**" that will further stimulate group and individual education on this topic.

Suggested Format for a One Hour Session:

We anticipate that case facilitators will modify implementation of the case session to best fit their educational setting and learners. For detailed recommendations on case facilitation, please see the chapter entitled, "A Brief Guide to Facilitating Case-Discussion," found in *The Case Teaching Method; and Growth in Children and Adolescents* (book 1 of this series).

Introduction: **Preschool Screening:** As children prepare to enter elementary school, their ability to handle separation from family, control impulses and explore new environments becomes increasingly important. The increasing demands of school will require children to pay attention to teachers, to acquire new skills in listening and reading, and to depend increasingly upon verbal communication in order to learn and socialize.

Many children and their parents navigate this early educational transition without difficulty, while others struggle. A child's developmental profile can identify children at high risk for later school difficulties. Parents are essential informants about their child's development, but there are limitations to parental report.

The *Bright Futures* manual outlines a possible approach to developmental observation, or "opportunistic observations," during routine well child exams and other visits. Parents' perceptions of their child's development and behavior, and their subsequent reactions, are one of the most powerful environmental influences on a child. Only by interviewing both parent and child and observing their interactions can a health care provider assess a child's readiness for school.

Language: Delayed speech or language development is one of the most common developmental disorders of childhood, estimated to occur in about 5 to 10% of preschool children. Language difficulties may lead to increasing frustration for a child because of difficulties communicating intent or comprehending instructions. Increasing behavioral symptoms, such as tantrums, acting out in class, kicking, hitting and biting may suggest such frustration.

Language can be described as a symbolic system for the storage or exchange of information. Expressive language refers to the ability to generate symbolic output or encode, which may be either visual (writing, signing) or auditory (speech). Receptive language refers to the ability to decode (extract meaning from) the language output of others, either visual (reading, sign language) or auditory (listening comprehension). Speech refers to the mechanical aspects of sound production, but not the content of spoken language. Language disorders may encompass one or more aspects of encoding or decoding information through symbolic means.

Preschool children with expressive language disorders often use short sentences and omit small but grammatically important words such as "the" or "is." Parental report is less reliable regarding articulation, but a history of other adults not understanding a child suggests a possible expressive language or articulation (speech) disorder.

Screening for a child's language development is important for all early childhood and preschool visits in order to assure optimal language development. However, parental report of a child's language abilities is less reliable as children approach school age and develop more complex language patterns. In addition, standardized language assessment tools are important to consider in the office setting, but may be of limited use for evaluating the older preschool child. The Early Language Milestone Scale (ELM) and the Clinical Linguistic and Auditory Milestone Scale (CLAMS) are helpful in assessing a child's expected language milestones up to the age of 36 months. The Denver Developmental Screening Test II also has only three items expected of children over four years of age (counting 5 blocks, defines 7 of 8 words and listing 2 of 3 opposites). As a result, clinicians must rely heavily on historical and observational data when concerned about a child's language development.

Open the Discussion: Introduce the case title and the session goal. Explain that this will be an interactive case discussion and not a lecture. Distribute Part I of the case and ask one or more of the participants to read it aloud.

Part I

Jesse Le is a 5-year-old boy who comes to your office with his mother for a physical examination prior to entering kindergarten next week. The family is new to your practice and you have no previous records.

According to his mother, Jesse has been attending preschool for the past 2 years. His teachers have mentioned that Jesse had difficulties learning colors and shapes. Mrs. Le has noticed that Jesse gets easily frustrated when he is not able to name things at home, so she has stopped "*quizzing him*" about the names of items. He generally plays well with other children, but has been sent home from preschool twice in the past 6 months because of fighting with his peers and kicking his teacher. Mrs. Le would like Jesse to attend

kindergarten, but she worries that he may not be ready. She would like your opinion about whether or not to hold him back for a year.

Jesse's medical history is unremarkable, with the exception of several ear infections each winter, including 4 this past year. He is presently taking no medications.

Jesse was born at full-term in Phnom Penh, Cambodia following an uncomplicated pregnancy. His mother reports no delay in his early motor milestones, but he did not speak his first words until 16 months of age. He still has difficulty communicating with adults who don't know him well. He generally uses full sentences with 4 or 5 words, but the words are not always recognizable.

Jesse moved to the United States with his family at one year of age. The primary language spoken in his home is Khmer (Cambodian), although his mother is fluent in English. Jesse primarily speaks English, although he does understand some Khmer. Jesse currently lives with his mother, his grandmother, several extended family members and his 16-month-old sister. He has seen his father several times in the past year, but does not spend time with him regularly. Jesse's mother works full-time as a secretary. There are significant financial stresses in the home. Extended family history is positive for depression and substance abuse.

Jesse jumps up on the exam table and excitedly talks about entering kindergarten this year. Physical examination reveals a well-developed young boy with a height and weight at the 25th percentile for age. The remainder of his exam, including a complete neurological exam, is unremarkable.

Following this reading, ask all participants “So what do you think about this case? What would you like to focus on during our discussion today?” List agenda items on a blackboard or flipchart. Then use the questions below to guide the discussion. Remember that the key to successfully leading a small group is facilitation of the discussion rather than lecture. Draw as many participants as possible into the discussion. Allow silences while group members think about questions. Present material from the discussion guide only when needed to complement or redirect the group discussion.

Guiding Questions and Discussion:

What concerns do you have about Jesse? Describe the language, self-help, social, fine and gross motor milestones expected of a child entering kindergarten.

Language skills:

- A 5-year-old child should use complete sentences that include at least 5 words.
- A simple rule of language development is that by age two, 50% of a child's speech should be intelligible to a stranger; by age three, 75%; and by age four, 100%.
- A 5-year-old child should be able to follow a series of three simple instructions. (E.g., *"Please place your pencil on the table, put your paper on top of it, and then put your hands on top of the paper."*)
- Many 5-year-old children are able to recognize letters, particularly if they have attended preschool.
- For most 5-year-old children who have been exposed to English as a second language consistently in a home or school setting, these criteria will also apply. However,

grammatical errors may occur more frequently and vocabulary is generally decreased for a child who is learning a second language.

Self help/social skills:

- Five-year olds can follow simple rules while playing board or card games.
- Most are able to go to the toilet without assistance and can dress themselves with the exception of tying shoes and zipping in back.
- They should know their address and phone number.

Fine motor skills:

- A preschool child should be able to copy a triangle or square.
- A 5-year-old is expected to draw a person with at least 3 body parts and significant detail. Norms are described in *The Harriet Lane Handbook*. (Goodenough-Harris Draw-a-Person Test and Gesell Figures).

Gross Motor skills:

- 5-year-old children should be able to skip, hop on one foot without support, and swing on a swing.

What screening tests should every child have at the preschool visit?

Height, weight and blood pressure should be compared to age-based norms. A dental screening is also important. Vision and hearing should be screened, with a minimum of visual acuity screening and documentation of normal pure tone hearing (office based or pre-school screening program or previous formal audiologic evaluation). Immunization records should be reviewed. Clinicians should assess the need for tuberculosis skin testing or lead level as described in Handout #1.

Distribute Handout #1 and Handout #2.

Developmental Screening should be done periodically as part of routine health care. One popular method is the Denver II.

Ask learners how they would interpret Jesse's Denver II? What would they want to do next? Jesse's Denver II screen is positive for delay in language milestones.

Vision screening at the preschool visit is aimed at identifying potentially progressive eye disease or visual impairments that could impair a child's educational performance. Screening for visual acuity may identify correctable refractive errors, eye diseases that may lead to blindness, a space occupying lesion or other central nervous system disorder. The visual acuity of children at a preschool visit may be tested with the Snellen Illiterate E chart or the Snellen chart with standard letters of the alphabet, if possible. If visual acuity is less than 20/40 in either eye, or if there is a difference of more than two Snellen lines between eyes, referral to a specialist is advisable. The Snellen tests do require the child's cooperation, but several objective forms of vision testing are being developed. Many childhood vision defects are best managed if they are corrected before 6 years of age.

Routine hearing screening at the preschool visit is important in order to identify children whose ability to learn in a classroom setting will be diminished without intervention. Diminished hearing may lead to delayed language development, educational difficulties and behavioral problems. Clinical detection of hearing loss during a physical examination is notoriously difficult, since children often may be highly attuned to monitoring visual cues. It is estimated that 1 in 2000 newborns will have a severe sensorineural hearing loss. By 2 years of age, 1 in 25 children will have mild to moderate hearing loss. And studies suggest that up to 20% of children entering public schools in disadvantaged neighborhoods fail auditory screening tests. A hearing evaluation is particularly important for any child who has possible language difficulties. Students who fail a tympanometry exam without evidence of an acute effusion should be referred to an audiologist for complete, standard audiologic assessment and impedance measurements. Referral to an otolaryngologist is indicated if hearing loss is suspected.

What additional questions should you ask Jesse's mother about language and speech development?

Bright Futures Guidelines suggest trigger questions including those below, which can be used to elicit further information about a child's language and social abilities.

- **Do you have any specific concerns about Jesse's development or behavior?**
Parental concerns regarding global or specific areas of development have been found to correlate with an increased risk of an abnormality. As a result, a positive answer to this question should lead to further evaluation. On the other hand, report of behavioral difficulties may suggest a developmental difficulty or may reflect a parent's need for assistance in learning to modulate a child's behavior.
- **How does Jesse communicate what he wants?**
A 5-year-old can be expected to use sentences that include at least 5 words. Children at this age should also have mastered the use of past and future tense. As a result, they generally understand the concepts of "before," "after," "until" and "if, then." They also understand jokes. Children with expressive language difficulties tend to speak less often and convey less information in a sentence than their normal peers. A five-year-old child's language should be nearly 100% intelligible to a stranger.
- **How much do you think Jesse understands?**
Concerns about a child's receptive language abilities may suggest hearing difficulties or auditory processing difficulties. A parental concern about a child's understanding of spoken language suggests the need for further speech and language evaluation.

How else might you assess Jesse for language problems in your office?

As described above, standardized language assessment may be of limited value during the pre-kindergarten screening because of the complexity of language compared to the available screening measures. Assessing the language abilities of a bilingual child is even more difficult in the office setting. An alternative to standardized language testing has been suggested in which a provider can augment historical information from parents with observations of and direct

communication with a child (see Sturner and Howard, 1997). Preschool children are sometimes reluctant to participate in a rich bilateral dialogue with their health care provider. However, even the most reticent of children will routinely utter at least a few sentences about a picture of a person they draw themselves. Upon entering the exam room and while taking a history, a child can be given a piece of paper and a writing utensil and asked to draw a picture of a person. Later during the exam, the child can participate in a conversation about his drawing. "Yes" or "no" questions are a good starting point. The use of increasingly open-ended questions will lead to further conversation. This language sample will provide evidence of a child's intelligibility, grammatical usage and areas of current interest to the child.

Distribute Handout #3 and Handout #4. Ask learners how they would interpret Jesse's drawing of a person. His score is 10, which is appropriate for a 5-year-old.

Based on Jesse's presentation, what further evaluations are warranted?

Jesse has a history of delayed language development, with onset of spoken language at 16 months. By report, he is not always understood by strangers, suggesting decreased intelligibility for a 5-year-old child. Reading and writing difficulties have been related to communication difficulties in earlier years.

1. Given that normal speech and language development requires adequate auditory abilities, a hearing screening is an integral part of the evaluation of any preschool child. This is particularly important for a child like Jesse who presents with possible speech or language difficulties. A full auditory evaluation in such a case should include both a tympanogram and pure tone screening.
2. Given Jesse's history of language difficulties, a full speech and language assessment with a pediatric speech and language pathologist would be useful to identify areas of concern and plan for necessary interventions to augment his communication skills. Since Jesse is bilingual, assessment in both languages may be helpful.
3. Hearing and speech evaluations are available through the local school system free of charge to the family. Access to further evaluation varies according to state of residence and insurance status.
4. Jesse also has a recent history of aggressive behavior in preschool, which may be the result of communication difficulties or may be related to a variety of other factors. Behavioral counseling is warranted to address the cause of these behaviors and to help Jesse learn alternative ways to express his frustration.

Should Jesse be "held back" from entering school?

Some communities, and hence their educational professionals, subscribe to the belief that there are children who are emotionally "too young" or physically "too small" to enter kindergarten, although they would qualify for school entry because of their chronologic age. The perception may be that children at risk in the early years will have difficulty ultimately catching up with their peers, socially, cognitively and physically. However, one could argue that the disparity between schools and a child's "readiness" are because schools are not prepared to offer the necessary educational settings, rather than that a child could not learn in any educational setting.

Similarly, repetition of a grade is often offered to children who have academic difficulties during a given school year. However, repetition of the same material, without a new intervention, is unlikely to improve a child's learning abilities. A child may act out in class if repetition of classwork leads to boredom. This may be a concern if Jesse were to simply remain in his current preschool setting.

In this case, Jesse is demonstrating evidence of possible language difficulties. Further evaluation and appropriate treatment of any language difficulties is preferred to "holding him back" in order to maximize Jesse's academic performance.

Distribute the Bibliography page and Epilogue. Ask someone to read the Epilogue aloud.

Epilogue

Jesse was referred for full audiologic evaluation, which was found to be normal. He also had a speech and language evaluation, which suggested moderately diminished receptive and expressive language abilities. After one year in a special "language based" kindergarten, and speech and language therapy twice per week, Jesse's language and behavior gradually improved. He will be entering a regular first grade class next year and continuing individual speech and language therapy.

Refer back to group's learning agenda and summarize the key teaching points that were made. This will give the group a sense of accomplishment, and emphasize the important messages. Suggest further sources of reading or other information if there are agenda items that were not covered in the discussion.

Independent Learning/Prevention Exercises: Facilitators may wish to assign "Independent Learning/Prevention Exercises" to the group, particularly if time constraints hinder the completion of the case. The following list includes suggestions to explore the available community resources that focus on School Readiness, as well as other areas of pertinent interest that can be integrated during or after the session. If the exercise is done in the absence of the facilitator, learners should take notes on their experience, then discuss with a faculty member for feedback.

1. Have the learners try a "Draw-A-Person" test on a patient or their own child.
2. Invite an educational specialist from a local school or state department of education to discuss evaluations for school readiness.

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Jesse and the School Quandary: Ready, Set, Go?
Handout #1: Screening for Tuberculosis and Lead Exposure

Tuberculosis: Screening for tuberculosis with a tuberculosis skin test (PPD) should occur if any of the following are present:

1. Contacts of persons with confirmed or suspected tuberculosis
2. Children with radiographic or clinical findings suggesting tuberculosis
3. Children immigrating from endemic countries (e.g., Asia, Middle East, Africa, Latin America)
4. Children with travel histories to endemic countries and/or significant contact with indigenous persons from such countries
5. Incarcerated adolescents
6. Children infected with HIV or living in a household with HIV-infected persons

Lead Exposure: The Centers for Disease Control and Prevention recommends:

- Screening of all children enrolled in Medicaid at ages 12 and 24 months or at ages 36-72 months if they have not been previously screened
- Universal Screening in areas defined by census tracts and zip codes where at least 27% of the housing was built before 1950 and in which the percentage of 1- and 2-year-olds with elevated blood lead levels is at least 12%.
- Targeted screening of children at risk, which can be determined from a personal risk assessment questionnaire.

The Bright Futures guidelines suggest these questions to assess a child's risk of lead exposure:

- Does your child live in, or regularly visit, a house or other building built before 1960?
- Does it have peeling or chipping paint? Has there been recent renovation or remodeling?
- Does your home's plumbing have lead pipes or copper pipes with lead solder joints?
- Does your child live near a heavily traveled major highway where soil and dust may be contaminated with lead?
- Do you give your child any home remedies that may contain lead?
- Have any of your children or any of their playmates had lead poisoning?

If an answer to any of the above questions is positive, the child is considered at high risk of high-dose lead exposure and should be screened.

Jesse and the School Quandary: Ready, Set, Go?

Handout #2: Jesse's Denver II

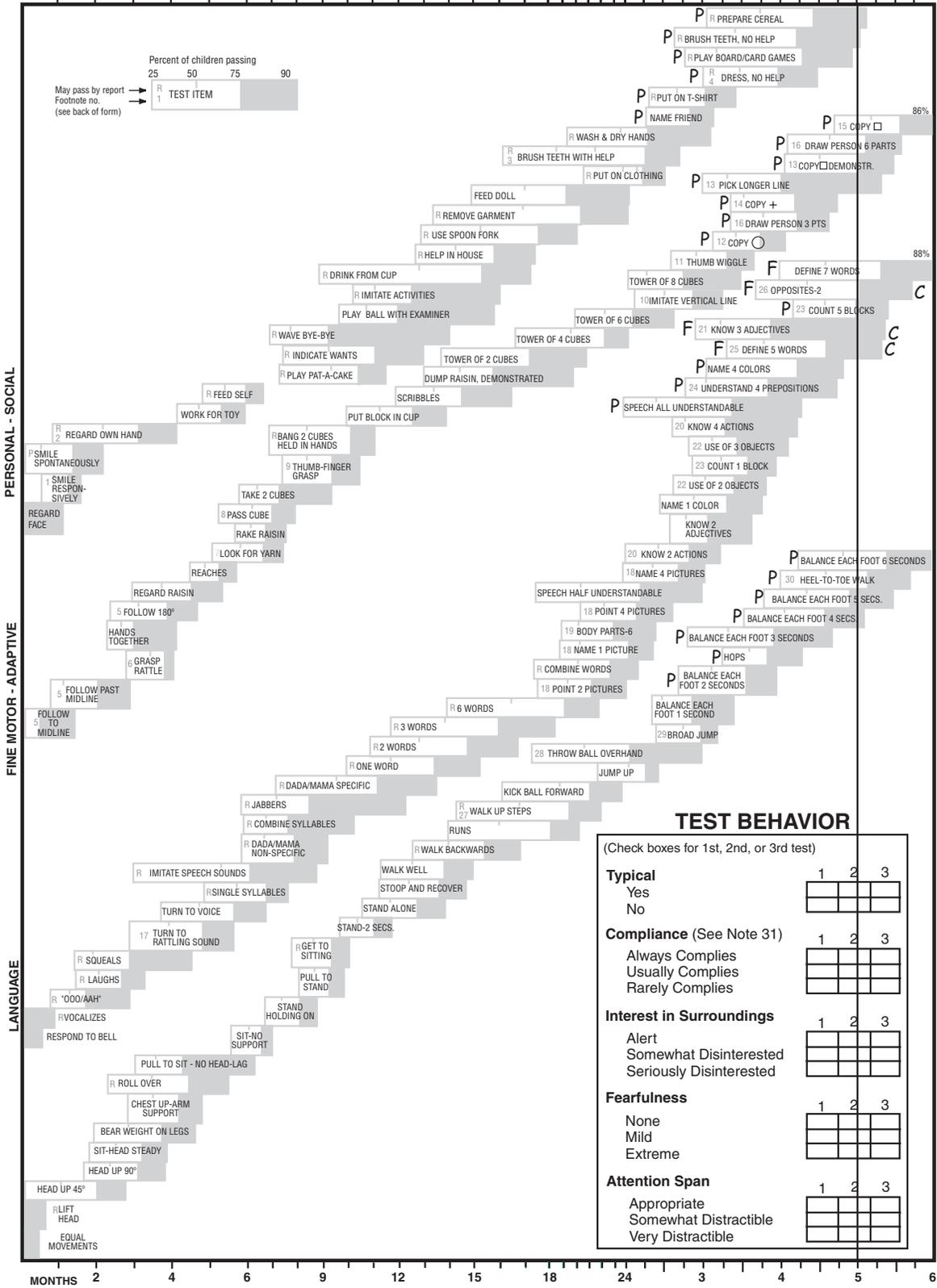
DA FORM 5694, MAY 1988

Examiner:
Date:

Name: Jesse Le
Birthdate:
ID No.:

Denver II

MONTHS 2 4 6 9 12 15 18 24 3 4 5 6 YEARS



FOR USE OF THIS FORM, SEE AR 600-75

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Jesse and the School Quandary: Ready, Set, Go?
Handout #3: Goodenough-Harris Draw-a-Person Test

Procedure: Give the child a pencil and a sheet of blank paper. Instruct child to “Draw a person; draw the best person you can.”

Scoring: Give the child one point for each detail present using the following guide.

General

1. Head present
2. Legs present
3. Arms present

Trunk

4. Present
5. Length greater than breadth
6. Shoulders

Arms/legs

7. Attached to trunk
8. At correct point

Neck

9. Present
10. Outline of neck continuous with head, trunk, or both

Face

11. Eyes
12. Nose
13. Mouth
14. 12 & 13 in two dimensions
15. Nostrils

Hair

16. Present
17. On more than circumference; nontransparent

Clothing

18. Present
19. Two articles; nontransparent
20. Entire drawing nontransparent (sleeves & trousers)
21. Four articles
22. Costume complete

Fingers

23. Present
24. Correct number

25. Two dimension, length, breadth

26. Thumb opposition

27. Hand distinct from fingers and arm

Joints

28. Elbow, shoulder or both

29. Knee, hip, both

Proportion

30. Head: 1/10 to 1/2 of trunk area

31. Arms: Approx. same length as trunk

32. Legs: 1/2 times trunk length; width less than trunk width

33. Feet: 1/10 to 1/3 leg length

34. Arms and legs in two dimensions

35. Heel

Motor Coordination

36. Lines firm and well connected

37. Firmly drawn with correct jointing

38. Head outline

39. Trunk outline

40. Outline of arms and legs

41. Features

Ears

42. Present

43. Correct position and proportion

Eye Detail

44. Brow or lashes

45. Pupil

46. Proportion

47. Glance directed from profile drawing

Chin

48. Present; forehead

49. Projection

Profile

50. Not more than one error

51. Correct

Goodenough age Norms:

Age (yr):	3	4	5	6	7	8	9	10	11	12
Points:	2	6	10	14	12	22	26	30	34	38

Jesse and the School Quandary: Ready, Set, Go?
Handout #4: Jesse's Drawing



Dialogue regarding picture:

Examiner: "Jesse, did you draw a picture or a girl here?"

Jesse: "Girl."

Examiner: "Who do you think this is?"

Jesse: "My mother."

Examiner: "What is she doing in this picture?"

Jesse: "Walks my dog."

Examiner: "Um hum. Can you tell me anything else about this picture?"

Jesse: "Plane. House. Flowers."

Comment:

These few responses to questions suggest Jesse's language may not be at the level expected for a 5 year old child. Most 5 year olds are able to speak in sentences of at least 4 or 5 words. In addition, use of prepositional phrases and articles is typical. Articulation should also be noted.

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Suggested Readings (Annotated):

Palfrey JS. School Readiness. In: Parker S, Zuckerman B, editors. *Behavioral and Developmental Pediatrics*. Boston: Little, Brown and Company; 1995. p 261-264.

This concise chapter describes expectations of children about to enter school. A differential diagnosis and management approach is presented for children without expected preschool readiness skills. A bibliography is presented for children, parents and health care providers.

Sturner RA, Howard BJ. Preschool Development 1: Communicative and motor aspects. *Pediatrics in Review* 1997;18(9):291-301. This article reviews preschool development, emphasizing specific expectations of children at the 2 through 5 year visits. An excellent approach to "interviewing the child" about their drawings in order to assess language ability is described.

Montgomery JW. Easily overlooked language disabilities during childhood and adolescence: A cognitive-linguistic perspective. *Pediatric Clinics of North America* 1992;39(3):513-524.

Language difficulties that may impact a child's academic performance from preschool through adolescence are discussed. The range of medical and psychological factors that may affect a child's language development are discussed.