Matanuska-Susitna Borough School District Speech-Language Therapy Services

Evaluation Reference Packet

Updated: August, 2008

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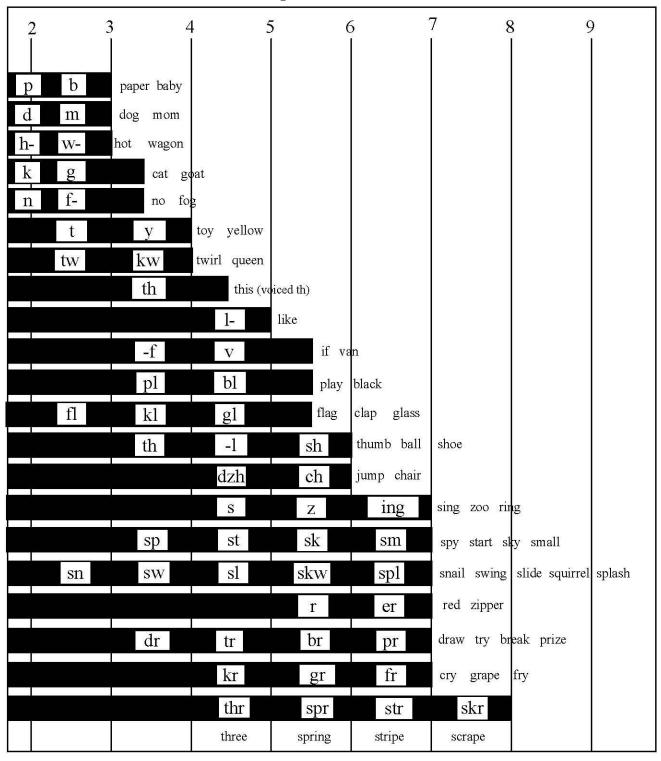
Section I

Articulation

Iowa-Nebraska Articulation Norms for Females

The solid bar below stops at the recommended ages of acquisition for phonemes and clusters, based generally on the age at which 90% of the children correctly produced the sound.

Age Level for FEMALES



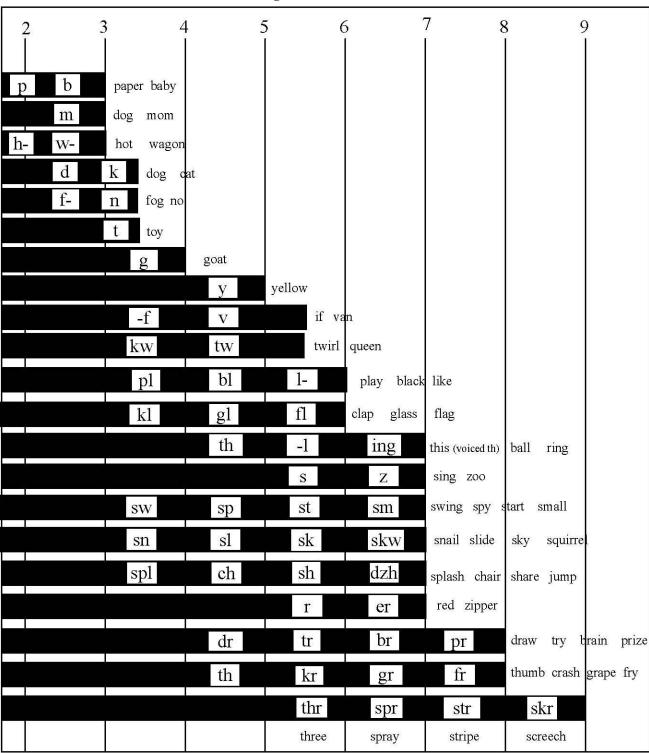
Note regarding phoneme positions: h- refers to prevocalic positions
-h refers to post vocalic positions

unless indicated, all other representations refer to pre and post vocalic positions

Iowa-Nebraska Articulation Norms for Males

The solid bar below stops at the recommended ages of acquisition for phonemes and clusters, based generally on the age at which 90% of the children correctly produced the sound.

Age Level for MALES



Note regarding phoneme positions: h-refers to prevocalic positions -h refers to post vocalic positions unless indicated, all other representations refer to pre and post vocalic positions

Phonology Chart

Phonological Process	Gone by Age	Example
Voicing error	3;0	pig = pick
Stopping s, z, f, v	3;0	soap = toap
Final Consonant Deletion	3;3	comb = coe
Fronting	3;6	car = tar
Consonant Harmony/ Assimilation	3;9	mine = mime
Syllable Deletion	4;0	elephant = efant
Cluster Reduction	4;0	spoon = poon
Stopping sh, ch, j	4;6	shop = dop
Gliding of L	6;0	leg = weg
Gliding of R	8;0	run = one

^{*}Source – American Speech-Language Hearing Association

Please use the following symbols on reports:

- -j is "y" (yo-yo) -sh is "sh" (shoe)
- th is voiced th (these)
- zh as in treasure

- -dz is "j" (judge) -ch is "ch" (chair)
- TH is unvoiced th (think)

Recommended Articulation and Phonology Tests

Articulation/Phonology Test Used for Eligibility	
Arizona Articulation Proficiency Scale – 3 (AAPS-3)	
Photo Articulation Test – 3 (PAT-3)	
Goldman-Fristoe Test of Articulation 2 (GFTA-2)	
Khan-Lewis Phonological Analysis – 2 (KLPA-2)	
Structured Photographic Articulation Test featuring Dudsbury - 2 (SPAT-D2)	
Assessment Link between Phonology and Articulation (ALPHA)	
Hodson Assessment of Phonological Patterns (HAPP)	

Please use the following symbols on reports:

-dz is "j" (judge) -ch is "ch" (chair) - TH is unvoiced th (think) -j is "y" (yo-yo) -sh is "sh" (shoe)

- th is voiced th (these)

- zh as in treasure

Matanuska-Susitna Borough School District Speech-Language Services Intelligibility Estimate Worksheet

Student_	udent				Age				
Speech-	peech-Language Pathologist								
student are not of 2. Mark 3. Mark backgro	to the stude is highly uni	ntelligible, each under n unintellig ot understa	the SLP marstandable word than the model in the more than the model.	ay want to word. at an unfa	analyze ea	ch syllable it	word bour	ndaries	

Student should be:

- -2/4 intelligible at 2 years (50%)
- -3/4 intelligible at 3 years (75%)
- -4/4 intelligible at 4 years (90-100%)
- *Developmentally appropriate errors (e.g. "r, l, s") may affect intelligibility. This should be noted on the report.

Matanuska-Susitna Borough School District Speech-Language Services Oral Mechanism Screening

Student	Age
Speech-Language Pathologist	Date
I. LIPS: Appearance	
1. Position of the lips at rest:	protruded pressed together
	wide open
2. Are lips symmetrical?	yes no
Function	
1. Can student purse lips?	yes no
2. Can student retract lips to left?	yes no
3. Can student retract lips to right?	yes no
4. What lips movements can be seen or	n an automatic level?
II. TEETH:open bitecross	biteover bitenormal
1. Are any teeth missing that would a	affect production of speech sounds?yesno
2. Which speech sounds might be affe	ected by missing teeth?
3. Does the student wear a dental appli	ance?yesno
4. What type of appliance?	
5. How will speech production be affect	cted by the appliance?
III. TONGUE:	
1. Movement: Can the student elevate	e the tip of the tongue to the alveolar ridge?
yesnoresti	rictive frenulum
2. Function: Can the tongue move inde	ependently of the jaw?yesno
3. Voluntary movements:protru	ide tongueretract tongue
eleva	te tonguelower tongue
4. Can the voluntary movements be ma	ade outside the mouth?yesno
5. Is excessive anterior tongue movement	ent observed?yesno
6. Tongue posture at rest:	
IV. TONSILS:normalenlarge	edabsent
V. VELO-PHARYNGEAL SUFFICIENCY:	appears normalquestionable
VI. DIADOCHOKINETIC RATE:ap	
Comments:	

Matanuska-Susitna Borough School District Speech-Language Services Educational Impact Checklist: Articulation – School Age

Student	Date_				
Reporter	Grade_				
1. Is this student's speech difficult to	to understand?	Often	Sometimes	Rarely	
2. Does this student make errors in	spelling on the sar	ne sounds th	ney misarticulate?	Y	N
Please attach writing samples.					
3. Does the student misarticulate so	ounds while reading	g?		Y	N
Please provide examples:					
4. Does the student appear frustrate	ed due to articulation	on errors?		Y	N
Please provide examples:					
5. Does the student appear to avoid	speaking in class	because of a	rticulation errors?	Y	N
Please provide examples:					
6. Has this student indicated that he	e/she is having pro	blems or sho	wn concern about		
speech production?				Y	N
Please provide examples:					
7. Do others comment on this stude	ent's speech errors	?		Y	N
Please provide examples:					
8. Does the student's speech distract	et listeners from w	hat is being	said?	Y	N
Please provide examples:					
In my oninion this student's outi	aulation annuns as	lwawaalw aff	not advantianal		
In my opinion, this student's article performance.	culation errors at	iversely allo	ect educational		
Y N					
Please provide examples:					
Trease provide examples.					
Reporter's Signature		 D	ate		

Matanuska-Susitna Borough School District Speech-Language Services Communication Impact Checklist: Articulation – Preschool

Child	Date		
Reporter	Grade		
1. What language does the child speak a	t home?		
2. Is this child's speech difficult for pare	ents or teachers to understand?	Y	N
3. Is this child's speech difficult for other	ers to understand?	Y	N
4. Does this child appear frustrated by h	is/her speech errors?	Y	N
5. Does the child attempt to communica	te?	Y	N
If yes, how? (e.g. gestures, words)		
6. Does the child understand basic conc	epts (e.g. in, on, under)?	Y	 N
7. Does the child follow simple direction	ns?	Y	N
8. Does the child ask and answer question	ons?	Y	N
9. Does the child use 2-3 words together	r (e.g. doggie go)?	Y	N
10. Does the child use 4-5 words togeth	er?	Y	N
11. Does the child name common object	ts or pictures?	Y	N
12. Does the child point to named object	ts or pictures?	Y	N
13. Does the child have grammar errors	when speaking (e.g. hims for his,		
he walking, her is running).		Y	N
14. Does the child's speech sound unusu	ual in any way (e.g. stuttering,		
high pitched, hoarse, nasal?).		Y	N
Is yes, how?			
15. Does this child have any medical co	ncerns (e.g. ear infections, allergies)?	Y	 N
If yes, what are the concerns?			
Do the child's communication skills imp	pact his/her social interactions or partici	pation in	 I
age appropriate activities?		Y	N
Please provide examples			
Signature			

Diadochokinetic Syllables Rate Worksheet

Name:	Age:
Date:	Examiner:

Instructions: Time the number of seconds it takes your client to complete each task the prescribed number of times. The average number of seconds for children from 6-13 years of age is reported in the right-hand side of the table. The standard deviation (SD) from the norm (mean or average) is also found in the table. Subtract the SD from the norm to determine each SD interval. For example, using the /puh/ norm with a 6 year old, 3.8 (4.8-1.0) is one SD, 2.8 (4.8-2.0) is two SD, 2.3 (4.8-2.5) is two-and-a-half SDs, etc. Therefore, a 6 year old child who needed 2.6 seconds to complete the /puh/ sequence would be two SDs below the mean.

				Norms	s in seco	onds for	diadoc	hokineti	c syllable ı	rates
							Age			
Task	Repetitions	Seconds	8	9	10	11	12	13	16	17
puh	20		4.2	4	3.7	3.6	3.4	3.3	14.8	14.8
tuh	20		4.4	4.1	3.8	3.6	3.5	3.3	14.9	14.9
kuh	20		4.8	4.6	4.3	4	3.9	3.7	15.5	15.3
	Standard									
	deviation		0.7	0.7	0.6	0.6	0.6	0.6	11	11
puktuhkuh	10		8.3	7.7	7.1	6.5	6.4	5.7	10.3	10
	Standard deviation		2	2	1.5	1.5	1.5	1.5	12.8	12.8

Comments:	 	 	

^{*}Norms from Assessment in Speech-Language Pathology: A Resource Manual (Shipley and McAfee, 1998)

Section II Language Evaluation

Matanuska-Susitna Borough School District Speech-Language Services Educational Impact: Language - School Age

Stude	ent Date		
Repo	rter Grade		
1.	Is it likely the concern is impacted by a second language or social dialect of the	* 7	
	student?	Y	N
2.	Do attention issues impact performance in the classroom?	Y	N
3.	Does the student speak in complete sentences?	Y	N
4.	Does the student's grammar differ significantly from his/her peers?	Y	N
	If yes, please provide examples.		
5.	Does the student express him/herself effectively (organized, sequential thoughts)?	Y	 N
6.	Is the student's vocabulary appropriate for his/her age?	Y	N
	If no, please provide examples.		
7.	Is the student able to listen to a story and answer questions?	Y	— N
8.	Is the student usually able to follow oral directions without repetitions?	Y	N
9.	Is the student able to problem solve in social situations?	Y	N
10.	Does the student have difficulty remembering the names of familiar items?	Y	N
11.	Is the student able to use language relevant to the situation?	Y	N
	If no, please provide examples		
12.	Is the student able to answer questions appropriately in general conversation?	Y	– N
13.	Is the student able to understand abstract language (e.g. idioms, proverbs, humor)?	Y	N
In m	y opinion, this student's language difficulties adversely affect		
educ	ational performance.	Y	N
Pleas	se provide examples	_	
		_	
Repo	rter's Signature Date		

Matanuska-Susitna Borough School District Speech-Language Services Communication Impact: Language – Preschool

Child	Date			
Reporter	Grade			
1. What language does the child	speak at home?			
2. Is this child's speech difficult for parents or teachers to understand?3. Is this child's speech difficult for others to understand?				
5. Does the child attempt to con	nmunicate?	Y		
If yes, how? (e.g. gestures	s, words)			
6. Does the child understand base	sic concepts (e.g. in, on, under)?	Y	 N	
7. Does the child follow simple	directions?	Y	N	
8. Does the child ask and answe	r questions?	Y	N	
9. Does the child use 2-3 words	together (e.g. doggie go)?	Y	N	
10. Does the child use 4-5 word	s together?	Y	N	
11. Does the child name commo	on objects or pictures?	Y	N	
12. Does the child point to name	ed objects or pictures?	Y	N	
13. Does the child have gramma	ar errors when speaking (e.g. hims for his,			
he walking, her is running	(;).	Y	N	
14. Does the child's speech sour	nd unusual in any way (e.g. stuttering,			
high pitched, hoarse, nasa	1?).	Y	N	
Is yes, how?				
15. Does this child have any me	dical concerns (e.g. ear infections, allergies)?	Y	 N	
If yes, what are the concer	rns?			
Do the child's communication sl	xills impact his/her social interactions or partici	pation in		
age appropriate activities?		Y	N	
Please provide examples				
Signature				

Guidelines for Completing a Language Sample

Standard Procedures for Collecting, Transcribing and Analyzing a Language Sample:

- 1. Tape record the language sample.
- 2. In order to obtain more student responses, keep SLP dialogue at a minimum.
- 3. If the student can sustain dialogue, collect consecutive verbatim utterances. The SLP may collect consecutive verbatim utterances over several therapy and/or diagnostic sessions.
- 4. If the student cannot sustain dialogue, collect non-consecutive, verbatim utterances.
- 5. ELEMENTARY/SECONDARY: Transcribe 40-50 utterances for ages 6-21.
- 6. PRESCHOOL: Transcribe 25 utterances for ages 3-5.
- 7. Use the Speech-Language Department Transcription Form.
- 8. Analyze the sample using the Speech-Language Department Analysis Form.

Suggestions For Transcribing A Sample: When Does An Utterance Begin And End?

- 1. A unit (utterance) of spoken language can be terminated by inflection.
- 2. A unit can complete a thought.
- 3. Termination of an utterance can be determined by a pause.
- 4. If an overuse of the same conjunction (and, so then) results in a run-on sentence, terminate the utterance after two clauses joined by the overused conjunction.

Scoring the Language Sample:

When scoring the language sample only: penalizing errors should be counted as restrictions. Technical errors that are common for the child's age, culture, or environment that don't call attention should not be counted as restrictions (i.e., "I got a dog, you ain't.").

- A. (S) Semantic restrictions. Unclear meaning due to semantic (vocabulary) problems rather than syntax or morphology restrictions. This includes use of non-specific vocabulary and unclear referents: such as "this, that, these, over there," and unclear personal pronouns when no antecedents have been provided by the speaker and the listener has no way of knowing what is being referred to. Also included are generic terms i.e., "thing, stuff" when more specific words are required.
- B. (WR) Word retrieval: refers to difficulty selecting appropriate words and may be characterized by lengthy pauses and use of verbal fillers. May be related to verbal mazing. C. (GW) Giant Words: refers to slurring together of 2-3 words resulting in syllable reduction and decreased intelligibility; i.e. /girihwatin/ for "girl is watching". This may be age appropriate for preschool children.
- D. Topic maintenance: The child makes rapid and inappropriate changes in topic without providing transitional cues to the listener.
- E. (T) Turntaking: refers to appropriate give/take in conversational setting including balance of initiating and responding.
- F. ([]) Mazing: Refers to a tangled use of words when attempting to express a message. May be characterized by false starts, meaningless repetitions and revisions, hesitations and verbal fillers. May also be referred to as "fluency". May be related to word retrieval or morphology and syntax difficulties.
- G. (Q/C) Quantity and Conciseness: refers to the requirements for a conversational contribution to be as informative as required; not too lengthy or brief in content.
- H. (COH) Coherence: reflects the degree to which a message has been organized prior to its presentation. Speaker uses structural knowledge, decides what to feature and subordinate in message so there is a sense of order.

References:

Owens, Robert E. Jr. LANGUAGE DEVELOPMENT An Introduction. Charles E. Merrill. 1984. Simon, Charlann S. Communicative Competence: A Functional-Pragmatic Approach to

Language Therapy. Communication Skill Builders. 1981.

Tyack, Dorothy. Gottsleben, Robert. LANGUAGE SAMPLING, ANALYSIS, AND TRAINING A Handbook for Teachers and Clinicians. Consulting Psychologists Press. 1977.

Restricted Utterances are utterances that contain language errors such as grammar, word order or meaning errors. Age appropriate errors are not considered restricted.

Calculating Mean Length of Response

MLR NORMS

Age	MLR	
1.5	1.2	
2	1.8	
2.5	3.1	
3	4.1	
3.5	4.7	
4	5.4	
4.5	5.5	
5	5.7	
6	6.6	
7	7.3	
8	7.6	

Methods To Calculate MLR:

- 1. Count any two-word proper noun, person's name, as one word, e.g. "Mary Jane"=1 word
- 2. Count any multiple-word term as one word if it pertains to one object, e.g. "roller coaster".
- 3. Count contractions as two words if they occur as shortened versions of the subject and verb: "it's", "you're".
- 4. Words contracted to the negative are counted as one word: "don't", "can't".
- 5. Repetitions of an enumerated series of statements are counted separately: "There's Jody," There's Billy."
- 6. Repetitions of the same word or phrase, if apparently unintentional, are counted only once: "my, my, my foot hurts."

Reference: Templin, M.C. Certain Language Skills in Children:Their Development and Interrelationships. (Child Welfare Monographs, No. 26.) Minn. University of Minnesota Press, 1957 Found in: Sourcebook of Language Learning Activities; William J. Worthley, Ph. D. Little, Brown and Company, 1978, p. 21022.

Calculating Mean Length of Utterance MLU Norms

Age (yrmo.)	Predicted MLU	Predicted MLU, 1 SD (middle 68%)	Predicted MLU, 2SDs (middle 95%)
1-6	1.31	1.99 - 1.62	1.66 - 1.96
1-9	1.62	1.23 - 2.01	1.85 - 2.39
2-0	1.92	1.47 - 2.37	1.02 - 2.82
2-3	2.23	1.72 - 2.74	1.21 - 3.25
2-6	2.54	1.97 - 3.11	1.40 - 3.68
2-9	2.85	2.22 - 3.48	1.58 - 4.12
3-0	3.16	2.47 - 3.85	1.77 - 4.55
3-3	3.47	2.71 - 4.23	1.96 - 4.98
3-6	3.78	2.96 - 4.60	2.15 - 5.41
3-9	4.09	3.21 - 4.97	2.33 - 5.85
4-0	4.4	3.46 - 5.34	2.52 - 6.28
4-3	4.71	3.71 - 5.71	2.71 - 6.71
4-6	5.02	3.96 - 6.08	2.90 - 7.15
4-9	5.32	4.20 - 6.45	3.07 - 7.57
5-0	5.63	4.44 - 6.82	3.26 - 8.00

Source: From J.F. Miller and R. Chapman (1981). "The Relationship Between Age and Mean Length of Utterance in Morphemes" *Journal of Speech and Hearing Research*, 24, 154-161. Adapted by permission of the American Speech-Language-Hearing Association

Methods to Calculate MLU:

- 1) Use at least 100 utterances
- 2) Count as 1 morpheme:
 - -repetitions of words unless the words are produced for emphasis (e.g. "no, no, no")
 - -compound words (e.g. birthday, cowboy)
 - -proper names (e.g. Bill Smith)
 - -ritualized reduplications (e.g. choo-choo, night-night)
 - -auxiliary verbs (e.g. is, have, will, am, can, must, would)
 - -irregular Past Tense Verbs (e.g. ran, fell, jump)
 - -diminutives (e.g. doggie, kitty, mommy)
- 3) Count as 2 morphemes:
 - -plural nouns (e.g. cats)
 - -third person singular (e.g. runs)
 - -present progressive (e.g. running)
 - -possessive nouns (e.g. boy's)
 - -regular past tense verbs (e.g. jumped)
 - -all other grammatical inflections
 - -concatenatives (e.g. hafta, wanna, gonna)
- 4) Do not count stuttering or fillers (e.g. um, uh, ah)
- 5) Divide number of morphemes by number of utterances

Source: Brown's Rules to Calculate MLU (1973)

Recommended Language Tests

Preschool

Eligibility Tests	Additional Tests	
SICD-R	Bracken-3	
PLAI-2	Boehm-3	
PLS-4	Boehm-3P	
CELF-P2	PPVT-IV	
SPELT-P2	Other measure	
TACL-3		
*TOLD-P3		
REEL-3		

Elementary

Middle/High School

Elementary	Middle/High School		
Eligibility Tests	Additional Tests	Eligibility Tests	Additional Tests
OWLS	Bracken-3	TOAL-4	LPT-3
CASL	Boehm-3	CELF-4	PPVT-IV
CELF-P2	Boehm-3P	*TOLD-I:3	SPELT-3
CELF-4	LPT-3	CASL	Other measure
*TOLD-P:3	PPVT-IV	TEEM	
*TOLD-I:3	SPELT-II	OWLS	
TEEM	Other measure	RIPA-2	
TACL-3			
TLC-2			
RIPA-P			

^{*} Must have at least 3 standard scores of 7 or less on core subtests to qualify

Section III

General References

Standard Score/Percentile Rank

$$-1 \text{ SD} = 85 = 16^{\text{th}}\%\text{ile}$$

$$-1.5 \text{ SD} = 78 = 7^{\text{th}} \% \text{ile}$$

$$-1.7 \text{ SD} = 74 = 4^{\text{th}}\% \text{ile}$$

$$-2 SD = 70 = 2^{nd}$$
 %ile

Standard Score (mean=100, +/-15)

Percentile Rank (mean = 50th%ile)

General Interpretation

Normal: above SS 85, 16th %ile

Mild Delay: SS= 79-84, 8th -15th% ile

Mild-Moderate

Moderate Delay: SS=70-78, 3rd-7th%ile

Moderate-Severe

Severe Delay: SS=below 70, below 2nd %ile

Calculating Percent of Delay

When trying to determine percent delay as required by the intent of the ECDD category, one must use tests that provide age equivalency results. The following formula can be used to acquire the percent of delay to determine eligibility:

• Calculation of percent delay:

Chronological Age (CA) – Age equivalent (AE) =Y

 $Y/CA \times 100 = \% \text{ delay}$

Example: 48 - 36 = 12

12/48 = 0.25 x 100 = 25% delay

Section IV

Interventions

Grammar

- Evaluate the appropriateness of requiring the student to use specific grammatical forms (e.g. developmentally the child may not use correct subject-verb agreement until the age of 6 or 7).
- Determine if the child's errors' are a result of dialectical differences (e.g. the pattern of subject-verb agreement may not used within his/her social group).
- Oconsider the type of grammatical model the student is exposed to at home. Without placing negative connotations on his/her parent's grammatical style, explain the difference between "home" grammar and "school" grammar, which is more formal.
- Use a private signal to remind the student to use correct grammar if you hear an error.
- Have the student complete written worksheets in which he/she must choose the correct grammatical form to complete the sentences (e.g. "I saw, seen a new car.").
- Write down specific errors you hear the child producing and have him/her make appropriate corrections orally.
- When speaking privately with the student, restate his/her error with a rising intonation (e.g. "He <u>done</u> it?") to see if the student recognizes errors and spontaneously makes appropriate corrections.
- Give or read the student a list of sentences and have him/her identify if the sentences are correct or incorrect and fix errors if needed.
- o If the student is not using complete sentences, elaborate on what is said. For example, if he says "ball" and points, say, "You want to play with the ball"?
- If the student is not using plurals correctly, have him/her point to a picture of a cat and then a picture of cats to ensure he/she understands the concept.

Verb Tenses

- Make sure the student understands the concept of verb tenses by demonstrating what "is happening" what "already happened" and what "will happen" through the use of objects, pictures and/or sentences.
- Determine whether the student understands the concept of time which influences comprehension of verb tensing (e.g. Can he/she answer questions using "yesterday, today and tomorrow, before/after").
- Determine whether the student has appropriate sequencing skills.
 (Can the student answer questions using "first, next, then").
- Make headings titled "yesterday", "tomorrow" and "today" under which the class lists activities they "were doing", "will do" and "are doing". The following day, change "today" to "yesterday" and tomorrow" to "today". Change verb tenses as needed.
- Ask open ended questions which stimulate usage of present progressive (e.g. instead of "Is the boy running?" ask "What happened?").

Pronouns

- Make sure the student understands the use of each pronoun (e.g. "he" for one boy, "they" for more than one person).
- When you hear the child use a pronoun incorrectly, model the correct sentence and have the child repeat it. To reinforce the concept that pronouns need a referent, have the student describe an individual or individuals using the appropriate pronouns (e.g. "Randy is a boy. He is tall. He is laughing. His shirt is blue.").
- o To practice correct pronoun usage, point to an individual in the class or a picture of someone and say, "Tell me what he/she is doing". Instruct the student to start with he, she or they.

Negation

- When you are discussing categories, talk about categories items do not fit in (e.g. "an apple is a fruit, it is not meat).
- Using category cards, have the student determine which one doesn't belong and then tell you in a complete sentence, why it does not (e.g. "The dog doesn't belong because it is not a zoo animal.").
- o Have the class play a guessing game where you can provide many examples of correct negation (e.g. "No, its' not a vegetable.").
- Have the student look through a catalog and identify things he/she doesn't like. (I don't like...).
- Using an absurd statement, have the student explain, in a complete sentence, why it doesn't make sense. (e.g. "The cat barked." Student says, "Cats don't bark.").
- Ask the student general knowledge questions and assist the student in answering appropriately (e.g. "Is the sun shaped like a box?"). Require the student to answer in a complete sentence (e.g. "No, the sun isn't shaped like a box." Or "no, it isn't.").

Questioning Skills

- O Determine if the student knows the difference between "telling" and "asking". Young students may confuse these concepts and launch into a lengthy narrative about some personal experience when asked if they have any questions. This may not be developmentally appropriate for kindergarten and first grade students.
- o Provide a written model for the student to demonstrate how statements can be changed into questions. Circle the words that "move" in a statement and draw arrows to show where they move to make a questions (e.g. "Spot is a dog." "Is spot a dog?").
- o Talk about question words "who, what, when, where, why, and how". Determine if the student understands the type of answer that results from each word (e.g. "who..."= person).
- Play "20 Questions" about a mystery object or person to practice forming questions.
- o Have the students formulate "wh" questions after being presented with a one word answer (e.g. "book" "What do we read?").

Following Directions

- Seat the student near the teacher and away from noisy and visually distracting areas.
- Draw the student's attention to key aspects of auditory information (e.g. repeat important point, say the student's name before instructions).
- Teach the student to recognize key words and phrases related to directions and instructions.
- Informally assess the student's short-term visual and auditory memory skills in order to determine which is stronger. Use the results when presenting information.
- o Provide visual information to support information the student receives auditorily (e.g. chalkboard, pictures, gestures).
- Teach the student to visualize the instructions, as if they were in a movie, and then play them back (e.g. The student sees him/herself opening an English book, then turning to page 212, etc.).
- Establish a routine for the student to follow when performing activities (e.g. listen to the person speaking, wait until all directions are given, ask questions about anything you do not understand, make sure you have all needed materials).
- o Have the student read ahead on a subject to be discussed in class so that he/she is familiar with new vocabulary and concepts that will be used during instructional periods. (If the student can't read have parents/siblings/peers read the information with an emphasis on vocabulary).
- Stop at key points when delivering directions and ask the student questions about what he/she needs to do to determine if he/she understands.
- Give the student one task to perform at a time. Introduce the next task only when the student has successfully completed the previous task.

- Teach the student to ask questions when he/she doesn't understand. Provide the student with environmental cues and prompts designed to enhance his/her success in the classroom (e.g. posted rules, schedule of daily events, steps for performing tasks).
- o Teach the student to make reminders for him/herself.
- o Teach the student to use associative memory clues.
- Have the student repeat/paraphrase directions, explanation, and instructions immediately after hearing them.

Vocabulary

- Have the student divide cards that label objects, persons, places,
 etc. in the environment into different categories (e.g. "animals,
 vehicles, food"). This will teach the student how to "file" words in his/her memory.
- In addition to labeling objects, persons, places, etc. have the student provide verbs that could be used with each (e.g. "book" – read, skim, browse, turn the page).
- In addition to labeling objects, have the student provide places
 where it could be found and uses for it.
- Have the student list all the vocabulary that he/she can think of that goes with a given verb.
- Explain to the student where he/she can go to find word meanings in the classroom (e.g. dictionary, thesaurus, encyclopedia). Teach the student how to use these resources.
- Have the student maintain a notebook with a list of words he/she doesn't know. Help the student look up each word, write a definition and use it in a sentence.
- Teach new vocabulary in the context of known information (e.g. category, association, etc.).
- Give the student a "word of the day" and reinforce the student each time he/she uses the word.
- During conversation repeat phrases used by the student, revising the vocabulary to include additional words (e.g. the student says, "The TV show was good." Repeat by saying "I'm glad the TV show was so entertaining.").

Articulation

- o Make sure the student's hearing has been checked.
- Evaluate the appropriateness of requiring student to produce the sounds (e.g. "r" is not developmentally appropriate until age 7-9 years old).
- Speak to the student specifically about what he/she needs to do differently (e.g. Make an "r" sound, not a "w" sound).
- Have the student raise his/her hand or clap when he/she hears the target sound produced during a series of isolated sound productions (e.g. "ssss, shshshsh, rrrr, tttt, pppp, rrrr, mmmm, bbbb, rrrr").
- Use a puppet to produce the target and error sounds. The student must correctly distinguish correct/incorrect sounds the puppet makes in words (e.g. "wabbit, rabbit").
- Have the student read a list of words and rate his/her production of the target sound after each word.
- Draw a picture or use a puppet to show the student what the lips,
 tongue, etc. look like during production of the target sound.
- Have the student identify objects in the room that start with his/her target sound and practice saying those words with the student.
- Use pictures of similar sounding words (e.g. if the student says "sh" for "ch", use pictures of "sh" and "ch" words such as "ships" and "chips"). As the teacher says the words, the student points to the appropriate pictures, then the student takes a turn and the teacher points to the words. This teaches the student that changing the sound changes the meaning of the word.
- During oral reading, underline words containing the target sound to help the student remember to make good sounds.

Difficulties sequencing sounds

- Have the student draw vertical lines between the syllables of words
 he/she has difficulties with to help him/her practice the words.
- o Have the student identify the number of syllables in words.
- Slow the child's speech. Have him/her repeat each syllable after you. Then put the first two syllables together. Add the third and/or fourth syllable when the first syllables are correct.
- Have the student keep a notebook of words encountered each day which are difficult to say. These can be practiced with the teacher or a peer assistant.

If the student is frustrated and resulting in unfavorable reaction:

- Teach the child ways to restate and rephrase a misunderstood message rather than continuing to repeat the original message with the same error patterns.
- Share with the student a time in your life when you were frustrated in order to let him/her know you understand his/her feelings.
- Discuss and role play with the entire class different kinds of disabilities and the accompanying frustrations the students might feel if they were experiencing similar difficulties. Include speech problems in your discussion.

Stuttering

- Familiarize yourself and the student with the terms fluency,
 dysfluency, stuttering, easy speech, etc. Keep the words as neutral
 as possible without negative connotations.
- Evaluate the appropriateness of requiring the student to speak fluently (e.g. developmentally young children experience a normal period of dysfluency, and all persons are occasionally dysfluent).
- During conversations, calmly delay your responses by one or two seconds.
- Have the student make a list of times and/or situations in which he/she has particular difficulties with speech (e.g. when he/she is embarrassed). Discuss the reasons for this and seek solutions to the difficulty experienced.
- Have the student practice techniques for relaxing (e.g. deep breathing, tensing and relaxing muscles) which he/she can employ when he/she starts to become dysfluent.
- Have the student identify specific words or phrases on which he/she becomes dysfluent and practice those words using an "easy" voice.
- When the student is speaking fluently, try to extend the positive experience by allowing him/her the opportunity to continue speaking.
- o Try to give your student your undivided attention so he/she will not feel a need to hurry or compete for others for attention.
- o If the student is more dysfluent when involved in another activity at the same time he/she is talking, encourage the student to stop the other activity while speaking.
- o If the student is highly excited, wait until he/she is calmer before requiring any verbal explanations. A high level of excitement often precipitates an anxiety level that interferes with fluency.

- O not interrupt or finish the student's sentences, even if you think you can anticipate what he/she is going to say. This can be extremely frustrating and can decrease the student's willingness to participate.
- o Use a private cue (e.g. raise a finger, touch the earlobe) to remind the student to use "easy" speech during classroom activities.
- Empathize with the student and explain that he/she is not less valuable as a person because of the stuttering. Emphasize the student's positive attributes.
- Provide the student with an appropriate model of slow, easy speech.
- When the student is dysfluent, explain that this happens to everyone at times.
- When the student seems extremely frustrated by a stuttering episode, react calmly with a reassuring statement (e.g. "sometimes words don't come out easily, do they? Or "You worked hard on that word.").