

**California State University, Fresno**  
**Department of Communicative Disorders and Deaf Studies**

**CDDS 215**  
**Phonologic and Severe Speech Disorders:**  
**Communication Intervention, Augmentation, and Alternatives**

*Required Text.* Caroline, B. (2009). *Children's Speech Sound Disorders*. Hoboken, NJ: Wiley-Blackwell.

*Required Software:* Adobe Acrobat Reader (be sure to have the latest version). It is available free at the Adobe website:

[HTTP://WWW.ADOBE.COM/PRODUCTS/ACROBAT/READSTEP2.HTML](http://www.adobe.com/products/acrobat/readstep2.html)

*Recommended Texts:* Secord, W.A., Boyce, S.E., Donahue, J.S., Fox, R.A., & Shine, R.E. (2007). *Eliciting sounds: Techniques and strategies for clinicians (2<sup>nd</sup> Ed.)*. Thompson- Delmar Learning.<sup>1</sup>

*Additional Readings:* See the schedule at the end of syllabus. Additional readings may be added.

*Purpose of the Course.*

This three semester-unit course involves advanced study in intervention of phonologic and severe speech disorders. At the completion of the course, successful students should have a basic understanding of the nature of disorders of phonology and articulation, causal factors potentially related to these disorders, and the information necessary to assess and treat children with these disorders. Also the course will cover advanced study in intervention of severe speech disorders including treatment design and pedagogical theories including motor learning and cognitive frameworks for designing treatment. The course topics include effective behavioral intervention strategies and how to effectively monitor the progress of students in school settings. Included will be the design, selection, and use of augmentative and alternative methods of communication for children with severe speech disorders. Topics include the full range of service delivery options, including general education, and the knowledge and skills to meet the needs of students. The course presentation consists of a combination of lectures and student group discussions besides assigned readings and written assignments. Prerequisites: Graduate standing in C.D.D.S. **This course is partial fulfillment of ASHA Standard III-D. This course is partial fulfillment of CTC Standards 1, 3, and 5.**

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<sup>1</sup>ISBN-10: 1-4018-9725-8

*Primary Learning Outcomes*

1. The students will identify and differentiate in writing the phonologic and severe-speech disorders and causal factors known to be related or potentially related to these disorders.
2. The students will explain and give examples in writing of assessment and treatment procedures for children with these disorders.
3. The students will explain and give examples in writing of the types of augmentative and alternative methods of communication used for children with phonologic and severe speech disorders.
4. The students will explain in writing the issues, principles, and practices of assessment of used for children with phonologic and severe speech disorders.
5. The students will explain and apply in writing the decision making processes for the selection appropriate augmentative and alternative methods of communication used for children with phonologic and severe speech disorders.

*Requirements of the Course.*

Attendance: Regular attendance of class sessions is required. Students are responsible for all course content, including those sessions they have missed. Students are expected to be in class at the beginning of each scheduled session.

Readings: The students must complete of all reading assignments. *The instructor reserves the right to change or add reading assignments.*

Case Studies: Students will complete four written case studies related to phonologic and severe speech disorders. Through these case studies, students will learn about the populations typically presenting speech sound disorders, their assessment, and treatment. Readings will be assigned with the case studies. Case study results prepared outside of class should be typed (a 12-point font) using APA style. Some case questions may be completed within class sessions. *See "Penalties for Late Submissions" for information on late submissions. Cases may be submitted late only for documented emergencies.*

Class participation: Students must participate in class discussions and activities. Some work on the case studies will be done in class. (See *Class Preparation Assignments* below.) It is anticipated that there will be one or more off-campus class events, please be prepared to attend.

Class Preparation Assignments: All students will complete 10 to 30 class preparation assignments. The preparation assignments will be provided one or two class sessions before they are due (sometimes via email). These will consist of one or two questions, often based on an aspect of the current readings or to advance work on the case studies. They can often be answered in one or two paragraphs, or the completion of a list or a chart. Written assignments must be typed (a 12-point font, with 1-inch margins). These preparation assignments will be graded for credit or no credit. Credit will be given for answers that are responsive to the questions, and do not consist of copying or slightly rewording material from the readings. *Students will submit these preparation assignments at the beginning of class on the due date.* Students

should have a copy for their own reference during the class session. These questions may be used for class discussions or activities. Students may be asked to share their answers with a small group or the entire class. **Late submissions will not be accepted except for a documented emergency. Even in the case of a documented emergency, a student unable to attend class may be asked to email or mail the preparation assignment to the instructor to verify that the assignment was completed before the class session.**

*Grading.*

Grades for the students will be based on the evaluation activities listed below. There will be *no other source* of data for computing the students' grades. Scores for these elements of the course will be weighted as follows for deciding the students' final grades. *Grades will be based on each student's final points earned. Percentages will be calculated to the nearest 1%. The instructor will not adjust student point totals to artificially change a letter grade.*

EVALUATION ACTIVITY	PERCENT OF TOTAL POINTS	TOTAL POSSIBLE POINTS
Case Study 1	25.00%	250.00
Case Study 2	25.00%	250.00
Case Study 3	25.00%	250.00
Final Case Study	25.00%	250.00
<b>Total:</b>	100.00%	1000.00

GRADE	PERCENTAGE
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 79%
F	59% or lower

PERCENT PREPARATION ASSIGNMENTS RECEIVING CREDIT	DEDUCTION FROM TOTAL POINTS
70% or more	No deduction from total points (-0 points)
50 – 69%	Deduction of 5% of total possible points (-50 points)
Less than 50%	Deduction of 10% of total possible points (-100 points)

*General Course Policies*

*Provisions for students with disabilities.* Upon identifying themselves to the instructor and the university, students with disabilities will receive reasonable accommodation for learning and evaluation. For more information, contact Services to Students with Disabilities in the Library 1202 (278-2811).

*Electronic recording of class sessions.* No student may electronically record any class session without the *prior* permission of the instructor. The instructor reserves the right to deny or rescind permission to record class sessions at any time and for any reason. All or any electronic recordings of class sessions *must* be erased or destroyed before the completion of the current semester.

*Computer and e-mail requirements.* "At California State University, Fresno, computers and communications links to remote resources are recognized as being integral to the education and research experience. Every student is required to have his/her own computer or have other personal access to a workstation (including a modem and a printer) with all the recommended software. The minimum and recommended standards for the workstations and software, which may vary by academic major, are updated periodically and are available from Information Technology Services (<http://www.csufresno.edu/ITS/>) or the University Bookstore. In the curriculum and class assignments, students are presumed to have 24-hour access to a computer workstation and the necessary communication links to the University's information resources."

In addition, for this course, all students *must* have an e-mail account and be able to send and receive e-mail. Assignments, announcements, handouts, and other information will be provided via e-mail. Some assignments may be submitted to the instructor via e-mail. All students must have access to the latest version of the *Adobe Acrobat Reader* software, which can be downloaded *for free* (and to meet the specifications of each student's operating system) at the following web address: <http://www.adobe.com/products/acrobat/readstep2.html>.

*Honor Code.* "Members of the CSU Fresno academic community adhere to principles of academic integrity and mutual respect while engaged in university work and related activities." You should:

- 1 understand or seek clarification about expectations for academic integrity in this course (including no cheating, plagiarism and inappropriate collaboration)
- 2 neither give nor receive unauthorized aid on examinations or other course work that is used by the instructor as the basis of grading.
- 3 take responsibility to monitor academic dishonesty in any form and to report it to the instructor or other appropriate official for action.

Instructors may require students to sign a statement at the end of all exams and assignments that "I have done my own work and have neither given nor received unauthorized assistance on this work."

*Plagiarism and cheating.* "Cheating is the actual or attempted practice of fraudulent or deceptive acts for the purpose of improving one's grade or obtaining course credit; such acts also include assisting another student to do so. Typically, such acts occur in relation to examinations. However, it is the intent of this definition that the term 'cheating' not be limited to examination situations only, but that it include any and all actions by a student that are intended to gain an unearned academic advantage by fraudulent or deceptive means. Plagiarism is a specific form of cheating which consists of the misuse of the published and/or unpublished works of others by misrepresenting the material (i.e., their intellectual property) so used as one's own work." Penalties for cheating and plagiarism range from a 0 or F on a particular assignment, through an F for the course, to expulsion from the university. For more information on the University's policy regarding cheating and plagiarism, refer to the Class Schedule (Legal Notices on Cheating and Plagiarism) or the University Catalog (Policies and Regulations). **Because the instructor cannot objectively determine a student's intentions, he will consider student behavior that is consistent with cheating or plagiarism to be cheating or plagiarism. It is the student's responsibility to avoid any suspicious behaviors.**

*Civility and Disruptive Classroom Behavior.* "The classroom is a special environment in which students and faculty come together to promote learning and growth. It is essential to this learning environment that respect for the rights of others seeking to learn, respect for the professionalism of the instructor, and the general goals of academic freedom are maintained . . . Differences of viewpoint or concerns should be expressed in terms which are supportive of the learning process, creating an environment in which students and faculty may learn to reason with clarity and compassion, to share of themselves without losing their identities, and to develop and understanding of the community in which they live . . . Student conduct which disrupts the learning process shall not be tolerated and may lead to disciplinary action and/or removal from class."

*Students are expected to treat the instructor and each other with civility, common courtesy, and respect. Students who fail to do so may be asked to leave a class session. Talking (including use of sign language) while a member of the class or the instructor "has the floor" or is speaking is considered disruptive behavior. The use of pagers, telephones, or other devices that are disruptive during class is prohibited; such devices must be turned off during class sessions. Accessing the internet or email on computers in class is disruptive and is prohibited.*

*Copyright policy.* Copyright laws and fair use policies protect the rights of those who have produced the material. The copy in this course has been provided for private study, scholarship, or research. Other uses may require permission from the copyright holder. The user of this work is responsible for adhering to copyright law of the U.S. (Title 17, U.S. Code). To help you familiarize yourself with copyright and fair use policies, the University encourages you to visit its copyright web page: <http://www.csufresno.edu/library/about/policies/docs/copyrtpolicyfull.pdf>.

Digital Campus course web sites contains material protected by copyrights held by the instructor, other individuals or institutions. Such material is used for educational purposes in accord with copyright law and/or with permission given by the owners of the original material. You may download one copy of the materials on any single computer for noncommercial, personal, or educational purposes only, provided that you (1) do not modify it, (2) use it only for the duration of this course, and (3) include both this notice and any copyright notice originally included with the material. Beyond this use, no material from the course web site may be copied, reproduced, republished, uploaded, posted, transmitted, or distributed in any way without the permission of the original copyright holder. The instructor assumes no responsibility for individuals who improperly use copyrighted material placed on the web site.

*Penalties for late submission of assignments or examinations.* Any assignment submitted<sup>2</sup> or examinations taken after the due date and time without instructor approval will be penalized. **Such approval is provided only for documented emergencies. Students are required to provide documentation in support of their request.** Students must *receive* approval *personally* from the instructor (leaving a message for the instructor does not constitute having received personal approval from the instructor). No requests for late submission will be accepted after the due date and time. The following schedule of penalties will be assessed on the total assignment or examination. Make-up examinations will be scheduled only at the discretion of the instructor.

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<sup>2</sup>An *assignment* is any work due from a student at a particular date and time. *Submission* means that the instructor has personally received the assignment or examination.

DATE SUBMITTED	PENALTY
Each half day (day divided at noon) beginning with the half day in which the examination or assignment was due, up to five business days (8:00 a.m. – 5:00 p.m. Monday through Friday).	-2.5% of <i>total</i> points of an assignment or examination earning points. No credit for assignments graded credit-no credit.
After five business days <sup>2</sup> .	<i>No credit</i> given for the assignment or examination. No credit for assignments graded credit-no credit.

*Syllabus Subject to Change.*

This syllabus and schedule are subject to change in the event of extenuating circumstances. If you are absent from class, it is your responsibility to check on announcements made while you were absent.

*Course Schedule.*

The following is a *tentative schedule* of topics and readings to be covered in this course. The schedule or readings may be modified.

Session Plan	Case Studies & Readings
<b>Session 1.</b> Introduction to the course. Articulation vs. Phonologic Disorders.	Syllabus; McLeod & Bleile 2003. Bowen (2009) Ch. 2.
<b>Session 2.</b> Classification and etiological issues for Phonologic and Severe Speech Disorders.	Bowen (2009) Ch. 2. Shriberg, Austin, Lewis, McSweeney, & Wilson 1997a
<b>Session 3.</b> Classification and etiological issues for Phonologic and Severe Speech Disorders.	Bowen (2009) Ch. 3. Lewis, Shriberg, Freebairn, Hansen, Stein, Taylor Silyengar 2006
<b>Session 4.</b> Classification and etiological issues for Phonologic and Severe Speech Disorders.	Bowen (2009) Ch. 3.
<b>Session 5.</b> Assessment of Phonologic and Severe Speech Disorders.	Bowen (2009) Ch. 2. Ingram, and Ingram (2001)

Session Plan	Case Studies & Readings
<i>Session 6.</i> Assessment of Speech Sound Disorders.	Bowen (2009) Ch. 2. Shriberg & Kwiatkowski 1982a; Shriberg, Austin, Lewis, McSweeny, & Wilson 1997b
<i>Session 7.</i> Selection of Treatment Targets	Bowen (2009) Ch. 7 (selections). Gierut 2001; Stoel-Garnmon, Stone-Goldman & Glaspey 2002
<i>Session 8.</i> Selection of Treatment Targets	★ <b>Case 1</b>
<i>Session 9.</i> Treatment design in phonological and severe speech disorders: cognitive and motor learning frameworks.	Bowen (2009) Ch. 4.
<i>Session 10.</i> Cognitive approaches: Contrast Treatment	Bowen (2009) Ch. 4. Weiner 1981; Williams 2000a, 200b
<i>Session 11.</i> Cognitive approaches: Cycles Approach	Bowen (2009) Ch. 4. Tyler Edwards and Saxman (1987)
<i>Session 12.</i> Cognitive approaches: Language- and Communication-Based Approaches to Treatment.	Camarata (1993)
<i>Session 13.</i> Motor Skill Learning Principles.	Bowen (2009) Ch. 7. Skelton 2004a and 2004b
<i>Session 14.</i> Motor Skill Learning Principles.	Bowen (2009) Ch. 7
<i>Session 15.</i> Motor-Learning Approaches to Treatment.	Bowen (2009) Ch. 6 San Diego Articulation Manual
<i>Session 16.</i> Motor-Learning Approaches to Treatment.	Bowen (2009) Ch. 7 ★ <b>Case 2</b>
<i>Session 17.</i> Motor Skill Learning Approaches: Teaching Specific Speech Sounds	Bowen (2009) Ch. 6
<i>Session 18.</i> Multiple-element Treatment Approaches	Tyler, Lewis & Welch 2003

Session Plan	Case Studies & Readings
<i>Session 19.</i> Additional Treatment Considerations: Oral-motor and auditory discrimination.	Bowen (2009) Ch. 8. Forrest 2002; Lof 2006
<i>Session 20.</i> Service delivery options. Shifting the Locus of Clinical Control: Self-monitoring and Involving Paraprofessionals in Treatment.	Koegel, Keogel, Van Voy & Ingham 1988
<i>Session 21.</i> Service delivery options. Shifting the Locus of Clinical Control: Self-monitoring and Involving Paraprofessionals in Treatment.	Bowen (2009) Ch. 9
<i>Session 22.</i> Additional Treatment Considerations: scheduling, treatment styles and dismissal.	Shriberg & Kwiatkowski 1982b; Kwiatkowski & Shriberg 1998
<i>Session 23.</i> Treatment of Bilingual Children with speech sound disorders.	Bowen (2009), Ch 3. Yavas and Goldstein (1998); Ray (2002).
<i>Session 24.</i> Treatment of Bilingual Children with speech sound disorders.	★Case 3
<i>Session 25.</i> Childhood Apraxia of Speech.	
<i>Session 26.</i> Childhood Apraxia of Speech.	ASHA 2007a, 2007b
<i>Session 27.</i> Treating Childhood Apraxia of Speech.	
<i>Session 28.</i> Treating Childhood Apraxia of Speech.	Apraxia Kids SLP Start Guide <sup>3</sup>
<i>Session 29.</i> Treating Childhood Apraxia of Speech.	

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<sup>3</sup> <http://www.apraxia-kids.org/site/apps/nl/newsletter.asp?c=chKMI0PIIsE&b=1071417>

<b>Session Plan</b>	<b>Case Studies &amp; Readings</b>
FINAL EXAMINATION	★Case 4

CDDS 215: PHONOLOGIC AND SEVERE SPEECH DISORDERS: COMMUNICATION  
INTERVENTION, AUGMENTATION, AND ALTERNATIVES

**Case 1: Assessment**

*You have been assigned a client from our speech and hearing clinic. Review your client's file to complete the following tasks.*

Tasks.

1. Regarding your client for this case . . .
  - a. If you currently are assigned a child client with a diagnosis of “phonological disorder” or “childhood/developmental apraxia of speech,” you will need a whole word transcription of that child’s speech taken from a standardized test.
2. Using the case history in the file, provide a background statement about your case.
3. Complete a process analysis of your client using the worksheet provided.
  - b. On the worksheet provide the totals in the “Processes per Word” column. On the worksheet provide the totals in the “Totals” row on the last Worksheet page.

CDDS 215: PHONOLOGIC AND SEVERE SPEECH DISORDERS: COMMUNICATION  
INTERVENTION, AUGMENTATION, AND ALTERNATIVES

**Case 2: Diagnosing your client using the S.D.C.S.**

4. Review your data from Case 1.
5. Now from your client's file, gather any evidence that would support each of the classifications of the Speech Disorders Classification System. Format your response as you see below. For some areas there will be no information or it is not applicable because of your client's current age; state that under "evidence and rationale." Any data that fits into a classification may be used in other classifications. Also, be sure to state the subtype characteristic to which you are relating the data (the reader should have all of the information needed to understand your work).

<u><b>Client:</b></u>	<u><b>Age:</b></u>
<i>SD-GEN</i>	Possible classification: <sup>4</sup>  Evidence and Rationale
<i>SD-OME</i>	Possible classification: <sup>1</sup>  Evidence and Rationale
<i>SD-DPI</i>	Possible classification: <sup>1</sup>  Evidence and Rationale
<i>SD-DAS</i>	Possible classification: <sup>1</sup>  Evidence and Rationale
<u><b>SD-DYS</b></u>	Possible classification: <sup>1</sup>  Evidence and Rationale
<i>SE</i>	Possible classification: <sup>1</sup>  Evidence and Rationale
<i>RE-A (SD)</i>	Possible classification: <sup>1</sup>  Evidence and Rationale

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<sup>4</sup>Choose one from: Very likely, Likely, Neutral, Unlikely, Very Unlikely, Not Applicable

*RE-B (SE)* Possible classification:<sup>1</sup>

Evidence and Rationale

*Typical development* Possible classification:<sup>1</sup>

Evidence and Rationale

6. Finally, select the most likely subtype for your client and state why you have made that decision.

CDDS 215: PHONOLOGIC AND SEVERE SPEECH DISORDERS:  
COMMUNICATION INTERVENTION, AUGMENTATION, AND ALTERNATIVES

**Case #3: Further analysis and selecting targets for your client**

Using your information from Case 1, complete the following tasks.

*Your Tasks.*

7. Complete a phonetic inventory.
8. Calculate percent consonants correct
9. Complete a phonemic collapse analysis.
10. Select treatment targets and exemplar sounds. There are three methods we discussed in class. What would be the targets and exemplar sounds for each of the following methods?
  - a. A phonologic process (which process would be the first priority to treat and what would be 4 exemplar sounds for that process)? Give your rationale for your selections.
  - b. A phonemic collapse (which collapse would be the first priority to treat and what would be 4 exemplar sounds for that collapse)? Give your rationale for your selections.
  - c. Complete the target selection for the complexity approach (what would be the four sounds you would treat?) Give your rationale for your selections.
  - d. Finally, which of these approaches would you use to select targets and exemplars? Give a rationale for your decision.
  - e. Write behavioral objectives for your targets. Be sure to include all required elements of an objective.

## CDDS 215: PHONOLOGIC AND SEVERE SPEECH DISORDERS:

## COMMUNICATION INTERVENTION, AUGMENTATION, AND ALTERNATIVES

**Case 4: Designing Two Treatments for Your Client**

11. You need to design *two* different treatment programs for your client. Use the treatment targets you selected in Case 3 for both treatments. Describe the procedures for each treatment providing the following. For each area, discuss not only what you would do but *why* you would do it
  - a. Sequence of treatment steps or phases.
  - b. For each phase or step, the treatment tasks used:
    - i. The stimuli to be used (provide a list of teaching and probe words).
    - ii. The responses expected.
    - iii. And your response to correct/acceptable or incorrect/unacceptable responses.
  - c. Describe measurement procedures and how you would use the data to determine when to move forward, backward, etc. in your program. Also describe your probe procedures and when you will administer probes.
12. Contrast the cognitive treatment and motor learning treatment principles. In this contrast, discuss the points that are major difference between the ideas for these two approaches to treatment (i.e., those ideas or principles that defines a treatment as cognitive-linguistic or motor learning).
13. For each your selected treatments indicate if it is primarily a cognitive-linguistic or motor-learning treatment and give your rationale for that choice.
14. Select a service deliver option from our class lectures. Discuss your rationale for your selection and why you rejected the other options.

**CDDS 215 Grading for Case 1****1. Background Information**

	Clear	10.00
Cohesive	10.00	
Complete	10.00	
	<i>TOTAL</i>	<i>30.00</i>

<u><i>Credit</i></u>	<u><i>Percent Credit</i></u>
<i>Full</i>	<i>100.00%</i>
<i>Mostly</i>	<i>80.00%</i>
<i>Half</i>	<i>60.00%</i>
<i>Partially</i>	<i>40.00%</i>
<i>Incorrect or unclear</i>	<i>20.00%</i>
<i>Not Done</i>	<i>0.00%</i>

**2. Process Analysis**

Deductions per Error\* 2.50

*TOTAL*            *220.00*

*\* Errors were counted for classification of individual sound changes as processes, percent occupancy, and for developmental classification.*

**CDDS 215 Grading for Case 2*****Summary of Results***

1. Classification and Analyses	230.00
2. Final Classifications	20.00
<b>TOTAL</b>	<b>250.00</b>

**1. Classification and Analyses**

SD-GEN	30.00
SD-OME	30.00
SD-DPI	30.00
SD-DAS	30.00
SD-DYS	30.00
SE	30.00
RE-A (SD)	10.00
RE-B (SE)	10.00
Typical development	30.00
<b>TOTAL</b>	<b>230.00</b>

*For each possible diagnosis, there should be an accurate discussion the criteria for each diagnosis, the data that supports or contradicts that diagnosis, and the likelihood of the diagnosis applying to the student's client.*

**2. Final Classifications**

Final Classification	20.00
<b>TOTAL</b>	<b>20.00</b>

*For the final diagnostic classification, there should be a statement of the diagnosis and the rationale for that diagnosis. Rationale should fit the data from Case 1 and the criteria for the diagnostic category.*

<u>Accuracy</u>	<u>Percent Credit</u>
Consistently	100.00%
Mostly	80.00%
Half	60.00%
Partially	40.00%
Incorrect or unclear	20.00%
Not Done	0.00%

### **CDDS 215 Grading for Case 3**

**1 Complete a phonetic inventory.**

Deductions per Error: 2.00

Possible Points: 48.50

**2 Calculate percent consonants correct**

Deductions per Error: 2.00

Possible Points: 48.50

**3 Complete a phonemic collapse analysis.**

Deductions per Error: 2.00

Possible Points: 48.50

***Complexity Analysis***

Deductions per Error: 2.00

Possible Points: 48.50

**4 Target Selection**

phonologic process 14.00

phonemic collapse 14.00

Complexity approach 14.00

Final Target Selection            14.00

*TOTAL*                            *Possible Points*                    *56.00*

*For target selection, credit given for selection of targets that accurately reflects the data provided in the analyses from Case 1 and Case 3, and states behavioral objectives with all required elements (stimulus conditions, response topography, response level, measurement criterion with statement of number of response opportunities, and setting).*

<b><u>Target Selection</u></b>	<b><u>Credit Earned</u></b>
Full	100.00%
Mostly	80.00%
Half	60.00%
Partially	40.00%
Incorrect or unclear	20.00%
Not Done	0.00%

**CDDS 215 Grading for Case 4****Treatment 1**

Terminal objective with all required elements (stimulus conditions, response topography, response level, measurement criterion with statement of number of response opportunities, and setting)	15.00
Sequence of treatment (correctly has all steps and phases for this treatment).	15.00
Treatment activities or tasks	
Stimuli ( <i>fit this treatment program</i> ).	6.50
Responses ( <i>fit the treatment program</i> ).	6.50
Consequences ( <i>fit the method of feedback provided in this treatment</i> ).	6.50
Measurement procedures ( <i>fit the data requirements to impairment this treatment</i> ).	20.00
How would you (and what would you) probe? ( <i>Will measure generalization across phonemes</i> ).	20.00

**Treatment 2**

Terminal objective/behavior with all required elements (stimulus conditions, response topography, response level, measurement criterion with statement of number of response opportunities, and setting)	15.00
Sequence of treatment (correctly has all steps and phases for this treatment).	15.00
Treatment activities or tasks	
Stimuli ( <i>fit this treatment program</i> ).	6.50
Responses ( <i>fit the treatment program</i> ).	6.50
Consequences ( <i>fit the method of feedback provided in this treatment</i> ).	6.50
Measurement procedures ( <i>fit the data requirements to impairment this treatment</i> ).	20.00

<i>How would you (and what would you) probe? (Will sufficiently measure generalization across phonemes and settings).</i>	20.00
<i>Compare and contrast these two treatment programs (credit based on accuracy of contrast and comparison).</i>	10.00
<i>Contrast cognitive-linguistic treatment and motor learning treatment principles. (Credit based on accuracy of statement about these approaches and the comparison of them.)</i>	20.00
<i>Which treatment? (A treatment must be selected and a rationale given. Rationale must show that the benefit of the selected treatment are greater than those of the nonselected treatment.)</i>	11.00
<i>Service Delivery? (A discussion of the service delivery models should be given, with their advantages and disadvantages. Then, consistent with that discussion, the student must select one model as appropriate for this client and the selected treatment, giving a rationale for the decision.)</i>	30.00
<b>TOTALS</b>	<b>250.00</b>

<u>Credit</u>	<u>Percent Earned</u>
<i>Full</i>	100.00%
<i>Most</i>	80.00%
<i>Half</i>	60.00%
<i>Partial</i>	40.00%
<i>Incorrect</i>	20.00%
<i>Not Done</i>	0.00%

Phonologic Process Analysis Worksheet

Client: \_\_\_\_\_ Clinician: \_\_\_\_\_ Date: \_\_\_\_\_

<i>Target Word</i>											
<i>IPA Adult Transcription</i>											
<i>Child's Productions</i>											
										Whole Word and Syllable Processes	Initial Consonant
											Final Consonant
											Unstressed Syllable
											Reduplication
											Consonant cluster
											Medial Consonant
											Epenthesis
											Metathesis
										Assimilation Processes	Velar Assimilation
											Nasal Assimilation
											Labial Assimilation
											Alvolar
											Prevocalic Voicing
										Devoicing of Final	
										Segment Change (Substitution) Processes	Velar Fronting
											Backing
											Stopping
											Gliding of Liquids
											Palatalization
											Affrication
											Vocalization
											Nasalization
											Denasalization
											Denasalization
											Deaffrication
											Glottal
										Vowel Changes	
										<b>Other Processes</b>	
										ses. per	

<i>Target Word</i>	<i>IPA Adult Transcription</i>	<i>Child's Productions</i>	Whole Word and Syllable Processes							Assimilation Processes							Segment Change (Substitution) Processes							Other Processes	ses per				
			Initial Consonant	Final Consonant	Unstressed Syllable	Reduplication	Consonant cluster	Medial Consonant	Emendation	Metathesis	Velar Assimilation	Nasal Assimilation	Labial Assimilation	Alveolar	Prevocalic Voicing	Devoicing of Final	Velar Fronting	Backing	Stopping	Glide of Liquids	Palatalization	Affrication	Vocalization			Nasalization	Denasalization	Denasalization	Deaffrication
<i>Totals</i>																													
<i>Percent Occurrence</i>																													
<i>Developmentally Inappropriate? (Check for "Yes")</i>																													

## DEFINITIONS OF PHONOLOGIC PROCESSES

- Initial Consonant Deletion: Deletion of the first consonant in a word; it only applies to singletons *not* clusters
- Final Consonant Deletion: Deletion: Deletion of the final consonant in a word; it only applies to singletons *not* clusters
- Unstressed Syllable Deletion: Deletion of the unstressed syllable in a word.
- Reduplication: Repetition of a syllable (in whole or part) within a word. The repetition changes the phonemes that make up the replaced syllable.
- Consonant cluster Reduction: Deletion (*not substitution*) of one or more members of a consonant cluster; clusters do *not* cross syllable boundaries.
- Medial Consonant Deletion: Deletion of one or more consonants in the medial position of a word. This process may be further designated as Medial Onset Consonant Deletion (first consonant in a syllable) or as Medial Coda Consonant Deletion (deletion of the consonant after the vowel (nucleus).
- Epanthesis: Addition of a sound (usually /ə/) in a syllable.
- Metathesis: Shift of two or more phonemes to another position in the word or phrase
- Coalescence: Combination features from two sounds to form a single sound.
- Velar Assimilation: Change of a nonvelar to a velar when there is a velar in the word or phrase.
- Nasal Assimilation: Change of a nonnasal to a nasal when there is a nasal in the word or phrase.
- Labial Assimilation: Change of a nonlabial to a labial when there is a labial in the word or phrase.
- Alveolar Assimilation: Change of a nonalveolar to a alveolar when there is a alveolar in the word or phrase.
- Prevocalic Voicing: Change of a voiceless consonant preceding a vowel to a voiced consonant.
- Devoicing of Final Consonants: Change of a voiced consonant (at the end of a word or after a vowel) to a voiceless consonant.
- Velar Fronting: Shift of velars to the alveolar position.
- Backing: Shift of anterior consonants (alveolar and forward) to posterior position (palatal or velar).
- Stopping: Substitution of a stop for a fricative or affricate.
- Gliding of Liquids: Substitution of a glide for a liquid
- Palatalization: Substitution of a palatal for a nonpalatal sound.
- Affrication: Substitution of an affricate for a fricative.
- Vocalization: Substitution of a vowel for vocalic /ə, ɜ/ final /l/, or syllabic /l/.
- Nasalization: Substitution of a nasal for a non-nasal sound.
- Denasalization: Substitution of a nonnasal for a nasal.
- Depalatalization: Substitution of an alveolar fricative for a palatal fricative.
- Deaffrication: Substitution of a fricative for an affricate.
- Glottal Replacement: Substitution of a glottal stop for another phoneme.

- *Vowel Changes*: Any changes in a vowel or diphthong, which is not vocalication. Usually, the vowel is neutralized (place is shifted toward the /ə/ position).

CDDS 215: PHONOLOGIC AND SEVERE SPEECH DISORDERS:  
COMMUNICATION INTERVENTION, AUGMENTATION, AND ALTERNATIVES

**Example of a Preparation Assignment.**

**Purpose: to explain to parents possible programs that aid in the prevention of speech sound disorders in the school setting.**

California Code of Regulations (CCR 3030) stipulates that an articulation disorder is diagnosed in the school setting when:

*“(A) The pupil displays reduced intelligibility or an inability to use the speech mechanism which significantly interferes with communication and attracts adverse attention. Significant interference in communication occurs when the pupil's production of single or multiple speech sounds on a developmental scale of articulation competency is below that expected for his or her chronological age or developmental level, and which adversely affects educational performance.”*

Case: Charlie is a 5-year, 1-month-old male in Mrs. Smith's kindergarten class. He has a mild frontal lisp in all word positions and is not stimulable. In the classroom, he is excelling in both academic and social fronts. His teacher has no concerns apart from his mild speech error. Please describe to Charlie's parents a Response to Intervention (RtI) program that is aimed at remediating speech errors so as to prevent a speech sound disorder from actualizing (under the education code criteria) and impacting educational performance.