

Running Head: ACCOMODATIONS THROUGH TECHNOLOGY

Fair accommodations for poor readers and writers through technology

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Universal Design/AT for Learning and Literacy for English Language Learners in the General

Classroom Settings

Dr. Davina Pruitt-Mentle

## Introduction

Reading and writing are paramount literacy skills if one aims at academic success. Students who start their education in an American elementary or junior high school go through the eligibility process for special education services. Unlike ELLs (English Language Learner), when they enroll in a high school, they already have an IEP (Individualized Education Program). An ELL who comes from another country where no assessment was made needs to wait, sometimes for years, before the process is complete. This occurs due to bureaucracy or lack of support from staff and administrators. They claim it is a language issue and, therefore, more time should be given. In the meantime, teachers come into play to identify effective strategies for these students.

The issue is worsen when students are illiterate in their L1. They acquire oral skills quite rapidly and may have an outstanding aural and visual memory. They are even able to copy or write a few rote sentences on their personal information, but they cannot express their ideas proficiently in writing. Students in this situation may feel marginalized if the teacher does not provide them the means to actively participate and benefit from the activities their classmates take part in. Behavioral issues may ensue when the student attempts to gain attention from his or her peers and the teacher.

The objective of this paper is to design effective instructions for students in the situation described above. The lessons will include software and hardware that will allow full participation of low achieving learners who, notwithstanding their poor writing and reading skills, can verbally communicate with fluency or near fluency, and recognize frequently used words, initial consonant and vowel sounds.

In order to plan instructions for my student, I will first complete the SETT framework (Zambala, 1995) with the secondary goal of gathering information on the student's environment, needs, available resources and tasks in mind. Instructions will also be planned in accordance with the SIOP (Sheltered Instruction Observation Protocol) model that has been put in place by PGCPSS (Prince George's County Public Schools). SIOP checklist assures that key elements are included in sheltered instructions.

Since this course is a culmination of a series offered to PGCPSS teachers, this paper also aims to reinforce the theories discussed in the previous courses. The first course was on teaching ESOL reading and writing in the secondary content areas, offered in the spring of 2007, while the second one was on bilingualism and biculturalism, offered in the fall of the same year. I will attempt to insert writing and reading strategies taught in the former and cultural elements from the latter.

The rubric will also be included in this lesson plan. Through Rubistar.com, a website that allows teachers to create rubrics I will delineate the standards of the project.

### Subject

The subject M. Sei chosen for this project is currently a student in my ESOL 1 class. He is an 18-year-old male student who first enrolled in a U.S. school on August, 21, 2006 after his arrival in May. Even though Sei claims to be from Senegal, his documents show Guinea-Bissau.

Sei told me he moved out of his native country at a very tender age and was reunited with his parents after many years apart. They lived together for some time then his father came to the

United States. Sei and his father were separated again for many years and reunited in the U.S. He was born in Guinea-Bissau but sought asylum in Senegal for reasons still unclear.

Sei first settled in Brooklyn, New York before he moved to Hyattsville, Maryland. He was enrolled in 9<sup>th</sup> grade in New York because he received 2.6 credits in 2006-2007, which are not enough for 10<sup>th</sup> grade. Since he has difficulty reading in his native French and interrupted schooling, he was screened for AIM, a program that targets students with no or interrupted education. He was placed in AIM and attends classes every other day. The rest of his weekly schedule includes courses offered to pupils who have negligible if any gaps in their education.





Despite Sei's motivation to learn how to read and write, he complains that he has difficulties and is sometimes embarrassed that he cannot do as well as his siblings and classmates. He is aware that his time is running out because he will soon need to join the work force. His request to be tested for special education has been submitted. However, due to his age, staff does not make it a priority to expedite the process. So far, no accommodations have been approved in the classroom or in standardized tests. In addition, his other teachers do not feel they are properly trained or have the time and instructional materials to provide a solid instruction.





He does not have any serious behavioral issues except for his occasional crass comments on other students and some overreactions to teasing by his classmates. In general, he is keen on pleasing his teachers and works well independently. As long as the tasks do not require reading and/or writing that are above his level, he seems engaged, especially during open class discussions.

### General Assessment

SETT framework guide below will aid teachers in collecting data that will guide them in the decision-making process of assisted technology design. Strategies were based on A

*Handbook on Universal Design for Learning and Accessible Technology*, by Denise C. DeCoste,  
Ed.D, provided in class.

	CCStudent <sub>[DP]</sub> 	Environment <sub>[I]</sub> 	Tasks <sub>[D]</sub> 	Tools <sub>[I]</sub> 
What We Know	<p>Engaged during class discussions, but some comments are pertinent and some are not. Presents difficulty decoding and writing in French and English For most part, stays on task when working on the computer Teacher pleaser Embarrassed about doing “different work” or not doing well Motivated by grade Identifies all numbers, some initial consonant and vowels Can copy capitals and lower-case letters but cannot identify them.</p>	<p><b>Classroom</b> Gets teased by classmates for his  He does not get along with some students Sits in the back There are computers, a printer, headphones and microphones There are audio books and a helpful friend willing to help him There is not a teacher aid Class is during lunchtime. Students are hungry and tired There are not a lot of opportunities for students to express themselves verbally. He has an MP3 file player Classroom laptops are equipped with speech-to-text and text-to-speech features</p>	<p>Students are expected to perform at LAS Links and HAS Acceptable level of reading and writing in each class. Homework is assigned weekly to reinforce content presented in class. Biweekly online quizzes and class assignments measure student’s knowledge and skills. Students are also expected to participate in an online discussion board on a topic suggested by the teacher. They are also graded for their notebooks. Written warm-up at the beginning of each class to review or preview content.</p>	<p><b>No tech</b> Time to access computers. Assign group roles with specific rules and expectations. Identify a student who gets along with Sei and is a French speaker to read and write for him. Provide multiple representations of content and hands- on activities. Provide magnified copies. Allow one word or illustrations from magazines as answers.</p>

	Student 	Environment 	Tasks 	Tools 
What We Know	<p>Perfect attendance but beginning not to come back from lunch</p> <p>Attempts to complete his work.</p> <p>Reacts to classmates' teasing and reciprocates teasing.</p> <p>Lack of social skills</p> <p>Mostly responds to oral instructions</p> <p>Has basic computer skills and acquire new ones easily.</p> <p>Cannot understand word meaning</p> <p>Uses verb tenses improperly</p> <p>Asks for help</p> <p>Grasps the main idea and organizes thought well in words</p> <p>Unable to abstract important content</p> <p>Brings incomplete homework</p> <p>Poor drawer.</p> <p>Failing grades in the second and third quarters mainly due to incomplete assignments.</p>	<p style="text-align: center;"><b>School</b></p> <p>High-end speech-to-text and text-to-speech software available for teachers only</p> <p>After-school homework help available</p> <p>Teachers do not meet often</p> <p>Teachers feel unprepared to help low-literacy students</p> <p>Few adequate materials available</p> <p>Administrator are delaying the IST process based on student's age</p> <p style="text-align: center;"><b>Home environment</b></p> <p>Has a brother and a cousin that have higher literacy skills</p> <p>Works part-time in a major store</p> <p>Father attends meeting and is concerned</p> <p>Father is illiterate and does not speak English</p>	<p>Class or small group discussions on readings with written reports comprising lists or sentence responses.</p> <p>Take notes from lectures</p> <p>Listen and watch teacher's modeling.</p> <p>Since student works after school, extra time should be given to turn in assignments.</p> <p>Sit closer to the front so teacher can monitor him more closely.</p> <p>Deliver new vocabulary into small chunks.</p>	<p><b>Low tech</b></p> <p>Student focuses on one task at a time.</p> <p>Illustrate meaning with pictures and graphic organizers to help student organize ideas in paper.</p> <p>Tape recorders to record lectures and worksheets.</p> <p><b>High tech</b></p> <p>Keep a computer at hand with a headset to utilize speech to text and text to speech software.</p> <p>Spoken online dictionaries.</p> <p>Scan materials into reading software.</p> <p>Allow online image searches to print relevant materials.</p>

<p><b>What We Need to Know</b></p>	<p>How much technology training does he have?</p> <p>What grammatical errors does he make when speaking his native language?</p>	<p>Who can provide extra help at home?          How literate are his siblings and his cousin?          Can his coworkers or his religious community help him?          How many hours does he work daily?          What time does he start?          Is there a free literacy program in the community?          Does he have a place and a schedule to study at home?          Is he asked to do chores at home that take a lot of time?          Is he able to arrive at school earlier to complete his assignments?          Does he have a computer at home?          Are his family members computer literate?          Is the media specialist prepared to train students on how to use the inbuilt text-to-speech and speech-to-text features?</p>	<p>Would it help if some online activities were paper-based?</p>	<p>Is he familiar with the suggested high tech technology?</p> <p>How easily can he learn the new technologies?</p> <p>Can he meet the teacher outside of class to receive training? If not, who can train him?</p>
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Developed by Joy Zabala, Educational Specialist, joy@joyzabala.com

## IST Report

IST (instructional support team) meetings occur in order to bring together data on a particular student to assess the need for interventions and techniques that will maximize the student's academic, behavioral, or affective success. Depending on the need of the student, several specialists such as teachers, counselors, speech therapists will contribute in the decision-making process (Petersen, 2007).

Teachers are required to provide information on the student including attendance, grades, behavioral issues, student's sample work as well as successful and unsuccessful intervention attempts. Despite Sei's perfect attendance, his grades for the second and third quarter were "E" (failing) mostly due to his incomplete assignments. He is also failing in all classes except for AIM, which was specially designed for students with no or interrupted education. His grade under this program was a "D", a passing but low grade. Unless the task is oral, he is generally unengaged, often laying his head on his desk or taking part in teasing and complaining about classmates. He is also having difficulties in sound-letter correlation.

Although Sei is able to complete his work, he is not making progress recognizing initial and final letter sounds. His teachers have noticed that he does really well during class, but the next day he would be incapable of recognizing the same sounds again, which indicates he might have difficulties retrieving information in his long-term memory. According to Medina (2008), in order to solidly register facts and events in the long-term memory, it is necessary to re-expose oneself to the information at intervals by talking or thinking about the subject. The right strategy is to explain this concept to Sei and encourage him to think about or share with other students, relatives, friends or teachers the letter sound he is working on. Throughout the day, he will describe how the sound is produced, how it feels like and what words start or end with that sound

to 6 people. Every time he does it, the listener needs to sign his homework sheet. This will foster responsibility for his own learning and give him an alternative to the traditional written assignments he struggles with so much. Nevertheless, the stumbling block is teachers' willingness to attend meetings on a student they feel is "a lost case" and prepare instructions that do not relate to their content area. Currently, the student is bringing his oral homework and shows more accurate letter-sound recognition. I have also attempted to incorporate TPR (total physical response) with the letter sounds. Even though he felt it was helpful, he revealed he felt awkward about them and was being teased by his classmates.

An unsuccessful strategy was to pair him up with someone that he felt comfortable with. His partner was in charge of writing and reading the instructional materials. Nevertheless, due to lack of social skills and erratic mood, his partner decided to cease volunteering. He felt that his task demanded too much time and he was afraid he would fall behind himself. I then assigned a seat closer to the front for closer monitoring by the teacher. At the beginning of each class, I read the worksheet with the tape recorder on. If Sei forgets the instructions or cannot read the words, he can play it back and proceed with his work. This turned out to be more effective as it keeps him on task and, more importantly, does not demand so much from the instructor and peers. Keeping him on task has also helped his behavioral issues.

### Lesson Plan

The main objective of this lesson plan is to make adaptation in order to address Sei's needs. It will also include cultural aspects and writing strategies raised in the previous courses of the "New Majority" cohort program between University of Maryland and Prince George's

County Public Schools. The lesson will be guided by SIOP to make sure strategies deemed beneficial to Sei are included.

This lesson provides a snapshot of a project in which students were supposed to email a local council member following his presentation on his experience as an immigrant in an American school and his painstaking efforts to finish college. In their email, students will express appreciation to the council members for the opportunity to present and describe their transition to a new culture. The language objective is to use the past tense in the affirmative, interrogative and negative forms.

Sei would feel more integrated if he did work similar to his classmates' rather than being given an alternative assignment. Instead of writing his email, he will record his voice in an email format. This adaptation seems more fitting because his speaking is well developed and he learns computers skills with ease. In this process, he will be required to utilize his self-monitoring skills to describe past events with the simple past tense.

# SIOP® LESSON PLAN

Date: \_\_\_05-01-08

Grade/Class/Subject: \_\_\_ESOL 1

Unit/Theme: \_Email writing      Standards: ESOL 1 (3.4.2)

Content Objective(s): \_\_Students will write in appropriate email format in order to describe their transition to a new country/culture.

Language Objective(s): \_\_Students will write sentences in the simple past tense 70% correctly in order to describe, ask a question or negate.

<p>Key Vocabulary</p> <p>Verbs in the infinitive and simple past forms</p>	<p>Supplementary Materials</p>
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<u>SIOP Features</u>		
<p>Preparation</p> <p>___ Adaptation of Content</p> <p>___ <b><u>Links to Background</u></b></p> <p>___ <b><u>Links to Past Learning</u></b></p> <p>___ Strategies incorporated</p>	<p>Scaffolding</p> <p>___ <b><u>Modeling</u></b></p> <p>___ Guided practice</p> <p>___ Independent practice</p> <p>___ Comprehensible input</p>	<p>Grouping Options</p> <p>___ Whole class</p> <p>___ Small groups</p> <p>___ Partners</p> <p>___ <b><u>Independent</u></b></p>
<p>Integration of Processes</p> <p>___ Reading</p> <p>___ <b><u>Writing</u></b></p> <p>___ Speaking</p> <p>___ Listening</p>	<p>Application</p> <p>___ Hands-on</p> <p>___ <b><u>Meaningful</u></b></p> <p>___ <b><u>Linked to objectives</u></b></p> <p>___ Promotes engagement</p>	<p>Assessment</p> <p>___ Individual</p> <p>___ Group</p> <p>___ <b><u>Written</u></b></p> <p>___ Oral</p>

## Lesson Sequence

**Brainstorming:** teacher makes a list of topics brought up by the council member in his presentation and elicits possible topics students can share in their email.

**Teacher models the planning of the email using Inspiration®** (see appendix I). Students organize ideas with images and words. Sei uses speech-to-text feature available on the PC to write his ideas and support them with images.

**Drafting:** teacher models the drafting process. Students use a word processor. Sei records his email.

**Editing:** teacher models editing. Students reread their email to make any necessary changes in organization. Sei plays his email back and checks if the organization makes sense.

**Revising:** Teacher models the revising process. Students check for punctuation, capital letter and simple past tense. Sei plays the email back and focuses on simple past tense only.

**Publishing:** students use a checklist (see appendix I) to carry out peer review. Sei listens to his classmates' email by clicking on the text-to-speech feature and gives feedback only on the simple past tense. Sei sends his email.

Students receive feedback through a rubric (see appendix II)

The main reason for using speech-to-text and text-to-speech features is to engage Sei in the classroom activities so that he does not feel excluded from discussions and assignments. The success of this project will clearly depend on identifying human resources to support the learner. A key personnel who can train Sei to use the text-to-speech and speech-to-text features built in the Microsoft Office Word® (under tools>speech) is the school media specialist and the teacher. The student can meet her in the library during class to practice and train the voice recognition software. Further, a classmate who is knowledgeable about computers will answer minor queries and will also proofread what the program transcribes.

Speech-to-text software needs to be trained by prompting the user with a written passage. The user reads it into the microphone in order for the software to recognize the user's voice. This would present an obstacle for Sei as he is not a fluent reader. Even if someone tells Sei what to speak, he may not be able to pronounce the words correctly. Unless another person can train the software for him and still transcribe accurately or, alternatively, the software can learn the speaker's voice on the job, speech-to-text as it is at present may be a stumbling block for the student. Another problem is to monitor what the learner has dictated. Even if Sei uses text-to-speech to locate his mistakes, he may not be able to pinpoint what needs to be corrected due to his poor word recognition. Thus, I question how beneficial it would be to introduce this type of technology to poor readers.

On the other hand, voice email programs are self explanatory if the user has had experience using conventional email and recorders. Additionally, the application can be quickly and conveniently downloaded from the Internet at no cost ([www.handybits.com](http://www.handybits.com)). I estimate that it would take an hour for the staff to learn it and another hour to train the student.

Sei is not an email user but has probably had experience recording. Thus, I believe the difficulty level would be low considering he has somewhat developed computer skills. However, should he experience difficulty, the help section is only available in writing. Voice email would certainly help him to communicate with his teachers and classmates. He could even submit his homework orally by email. Obviously, this would depend on how much access he has to computers equipped with a microphone and a headphone outside of class.

The implementations described in this project were never attempted in a real classroom setting. Given all factors impacting the student's success, it would be reasonable to expect an increase of submitted assignments from last quarter's 13 to 25 by the end of this quarter. In fact, homework alone accounts for 8 of them.

As for behavioral issues, if the student feels more integrated as well as focused in class, his attitude towards his classmates will likely change. There will be considerably less negative comments about him and he will have more socially acceptable interactions.

This project attempted to present feasible adaptations for a student who has poor reading and writing skills. His IST files are still sitting on someone's desk waiting for closer examination as I type this. It is extremely challenging for teachers to accommodate students who cannot function in a classroom where most work requires writing and reading. Technology can be of support. Nevertheless, it is still unclear what technologies are most effective for students who in the same situation as Sei.

## References

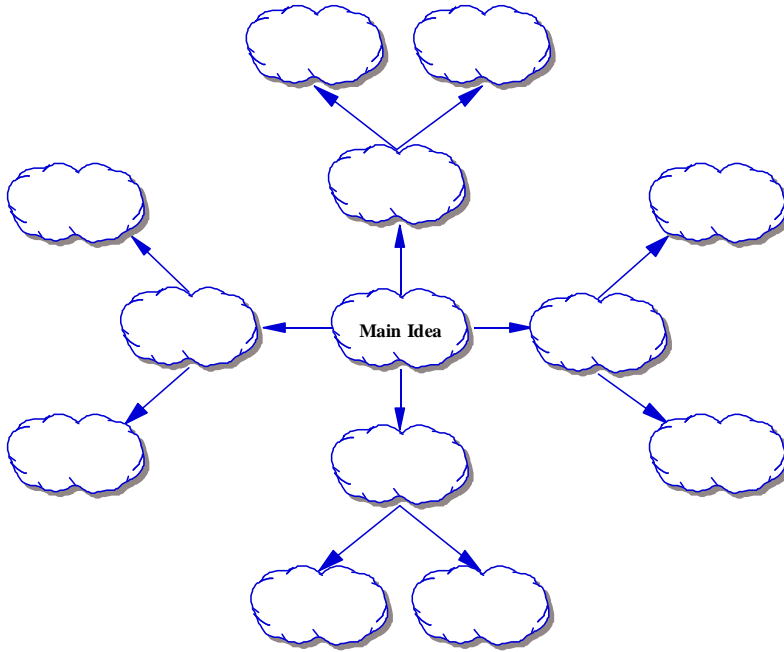
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Appendix I



**How to use this template**

1. Start with a central idea and enter it into the symbol labeled "Main Idea."
2. Using key words to represent thoughts, brainstorm ideas and enter them into the symbols that branch from the central idea.
3. Add symbols as necessary using the RapidFire™ tool or the Create tool.
4. Show relationships between branches with textured lines and colors.

**Benefits of using the Idea Map template**

Idea mapping helps students explore an idea freely without the constraints of a superimposed structure. Moreover, a visual environment promotes making new connections and insights in a way that linear text does not. Switching to Outline View, however, allows students to arrange ideas in a more conventional, hierarchical manner.

My name: .....

My partner's name:.....

Checklist

All sentences have a period, question mark or exclamation mark.

Yes no

All sentences start with a capital letter

Yes no

The past tense form is correct in all sentences.

Yes no

Comments: .....

.....

## Appendix II

### Emailing the Council Member

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Teacher Name: **Ms. Ribeiro**

Student Name: \_\_\_\_\_

CATEGORY	4	3	2	1
<b>Writing - Organization</b>	The email has a very clear beginning, middle, and end.	The email has a clear beginning, middle and end.	The email has a somewhat clear beginning, middle and end.	The email does not have a clear beginning, middle and end.
<b>Writing - Mechanics</b>	Capitalization and punctuation are correct throughout the email.	There are 1-2 capitalization and/or punctuation errors in the email even after feedback from a classmate.	There are 3-4 capitalization and/or punctuation errors in the email even after feedback from a classmate.	There are several capitalization or punctuation errors in the email even after feedback from a classmate.
<b>Writing - Grammar</b>	There are no verb tense mistakes in the email.	There are 1-2 past tense mistakes in the email.	There are 3-4 past tense mistakes in the email.	There are several past tense mistakes in the brochure even after feedback from a classmate.

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