EDUC 621 Case Study Assignment Guidelines

To demonstrate your understanding of Mel Levine’s neurodevelopmental constructs, you will be asked to do a case study of a person in terms of the constructs. A rubric for this assignment is provided.

You will describe the person you choose in terms of academic and other out of school areas. In other words, you will describe the person in terms of academic performance and diversity: socioeconomic status, race, learning preference, other disabilities, etc.

Additionally, you will critically analyze the person in terms of each of the neurodevelopmental constructs: attention, remembering, skill, understanding, output, and adaptation.

There will be a great deal of discussion and modeling done in class to ensure that you are clear as to what is expected in this assignment.

Upon completion of this case study, please submit it in Live Text for me to grade. As always, e-mail me if you have any questions. Good Luck!
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**SAMPLE STUDENT ASSIGNMENT**

February 27, 2012

Case Study

The student that I have chosen to do my case study on is Genesis. Genesis is a four year old student in the four year old preschool classroom at Main Street Elementary. Genesis will be turning five on April 5. Genesis lives in a small house on the outskirts of Lake City. She has a large yard and a small patio area. Genesis has her own room and is expected to clean or maintain her own room. Genesis lives with her mother, grandmother, and one year old sister. Genesis is of average weight and height. Genesis’s mother is in her mid twenties. Genesis’s family is in the lower economic range, but her mother always makes sure that Genesis has what she needs for school and other areas. Genesis receives free lunch at school. Her mother goes to school during the day and works on days that she is not at school. After school, Genesis goes to a local day care center and is picked up by her mother at 5:30 pm.

Genesis’s mother brought her to the school for testing when she was two years old. After testing, Genesis was denied for services but was brought back when she was three. In her three year old test, she was put in a twice a week speech class. When starting four year old preschool, Genesis continues to receive speech service twice a week. Genesis has the ability to pronounce the sounds needed to talk but has a stutter that prevents her from communicating clearly. In the classroom, the teachers and
students have trouble understanding her most of the time. After six months of treatment, Genesis has improved greatly and communicates much more clearly without stopping to finish words or sentences.

When Genesis started school, she was very low and scored a four on the Dial three test. The average four year old score in our classroom was 17 – 24. Genesis had a low vocabulary and even lower knowledge about letters, numbers, or shapes. After Genesis was taught the proper ways to say sounds, she started to communicate better. Genesis does extremely well in small group and now is performing average.

Weak Attention Controls

In the classroom, Genesis has to be reminded several times during activities to pay attention and listen for steps or directions. She has very weak processing skills. In the classroom, she process little to nothing and can not focus on a chose topic for more than four minutes. With Genesis’s production, she does not have trouble starting to do work but it takes her a really long time to complete work. She loves to learn and wants to, but her attention on one topic is short. She does not show sign of weak mental energy; at nap time, she sleeps without stress and wakes rested and ready to go. On the carpet, she has trouble keeping her body under control. She does not intentionally put her hands on or fall over friends but it happens several times a day. When walking through the school or classroom, Genesis walks into poles and falls over students, furniture, or her own feet.

Reduced Remembering

When remembering, Genesis does really well when she focuses. When asked a task, she can remember several steps. But when carrying out tasks, Genesis has to be reminded of what she is doing. Just by saying her name, she jumps back to what she needs to be doing. With her short term memory, she shows attentional dysfunction. Genesis loses track of things that she has been asked to do. On most days, Genesis can be given one direction and still has to be reminded to complete the task. When asked the task, she can repeat exactly what you said and then refocus to continue. When on the carpet, Genesis has to be redirected several times to remember the material.

Chronic Misunderstanding

Genesis shows slow data processing. When in small group, I have to repeat concepts several times in several ways for her to catch on. But when she has it, she really understands things. When Genesis is communicating, she gives excessive amounts of information. When called on, she will have a piece of her story that relates to the book or answer, but she will give her whole life story. When Genesis came into school, she did have weak language processing. She had a very low vocabulary and when talking, she pronounced words wrong. After several weeks of speech, Genesis is being taught the way to say different sounds. Now many of the students and both of her teachers can understand her in the classroom. Genesis does well with concrete concepts. She does better when she can touch, see, and feel her learning. She has weak processing concepts and has no sense of a page. When writing her name, the G will take up the whole paper or the G might even be bigger than the paper. She does extremely well with picturing words, picturing shapes, and imagining scenes when reading. She does
well with these; if she can control her attention while performing them. I believe that Genesis would do better in these areas if she did not have slow data processing and excessive top-down or bottom up processing.

Deficient Output

Genesis does not show hesitation when she talks because of a lack of vocabulary but because she has the stutter. When she is speaking, she shows low ideational density. She will talk with a one word answer and her sentences are very simple. When she does start talking, she will go on forever but it is mostly repeated ideas or sayings. Genesis has trouble with large motor control and fine motor control. When coming in, Genesis had trouble going up stairs without help and could not hold a pencil or press down hard enough the make a line on the paper. She has trouble keeping up with most materials and will somehow lose her papers from the carpet to the table or book bag. When in centers, Genesis will bounce from one center to the next and shows no awareness of time in any way. Genesis also has a hard time retrieving things out of her head.

Genesis does extremely well with critical thinking and math problems. After learning about numbers, she actually helps many lower students in this area. She is great with all types of math concepts like pattern recognition and continuing a pattern that is already made. Lately, she has been making her own patterns. When counting, Genesis does have to be reminded to slow down or look at what she is counting. She has a tendency to skip over items or assign two numbers to one item.

Delayed skills

Genesis has many delayed skills in reading. Most of these skills lack because of her speech. She has trouble listening for different sounds or paying enough attention to words to hear the differences in the sounds. Genesis has trouble with spelling because her stutter hinders her from hearing all the sounds in the words. Most times, she will not hear the beginning of a word but with help can hear the ending. Genesis has major difficulties when it comes to writing. After gathering enough gross motor skills, Genesis has just begun to develop fine motor skills. She can now hold a pencil and even write her name where others can comprehend it. Writing for Genesis is also difficult because of her spatial awareness.

When writing about a book read, she can draw many things from memory as long as she was focused during the read aloud or activity. In math, Genesis does not show much trouble. She does great with remembering the shapes and facts. When counting, she always remembers to put the items in a straight line before counting.

Poor Adaptation

Genesis shows no signs of poor adaptation. Every morning, she runs to me and gives me a great big hug. When joking, she is always the student that wants to stay at school over night. When leaving for the weekend, she always tells her mother she wants to stay. Genesis never complaints about being overly sick at school or show signs of bodily preoccupation. She does not show any noncompliant behaviors. In the classroom, Genesis is an amiable student. She gets along well with all of the students
and many of the students love to play with her on the playground. Genesis does not show any signs of motivational loss. She has a high self-esteem and a great relationship with all four teachers in the room. She does not neglect school work but has to be reminded to complete her work.

Plan

I have three main areas of focus for Genesis; spatial awareness, fine motor, and attention. I believe that without spatial awareness, Genesis will continue to have problems with a sense of where things are on a paper. With reading and writing, you have to follow a certain line or pattern. Genesis has trouble walking without running into things or tripping over nothing. In class, I include many activities that are focused on Genesis and other students that have low spatial awareness.

The first strategy I have included is room roaming. During our morning music time, I have encouraged the children to move/roam under, around, over, and behind places in the classroom to music. This has helped Genesis and other students will low spatial awareness to be aware of what is around them. After many of these types of activities, Genesis can now write her whole name on the paper without running out of room or off the paper. Genesis has also shown great improvement in the hallways because she has not ran into anymore poles. Activities like this one have greatly improved her sense of space and awareness of things around her. I will also begin to include many activities where she can throw items back and forth with a partner. I am hoping to put many partner activities in where she can become aware of the people around her.

The second strategy I put in place has helped Genesis with her gross motor skills. On the playground, I have begun to encourage Genesis to take the stairs on the equipment one foot after the other and play on the two different balance beams. We have begun to play physically challenging games like wheelbarrow, tag, and tug a war. These games have helped Genesis develop stronger gross motor skills. I know that these games and activities are working because Genesis can now carry her lunch tray without dropping it and swing a bat without letting it go.

The third strategy that I have implemented to help Genesis is fine motor production. In the classroom, I have included many games that encourage Genesis to use her fine muscles. These games will include puzzles, bead work, cutting table, finger paint, and clay work. I have also begun to give Genesis smaller pieces of paper to write her name. This strategy is working the best because Genesis can now write her entire name without help and fit it on one piece of paper. She can now zip, button, and hook her clothing without help. I will continue to add new fine motor activities in my daily routines to help Genesis and students like her.

The fourth strategy that I have implemented with Genesis will help her with attention. During read alouds and activities, I have begun to place Genesis near one of the teachers or myself. With Genesis close to me, I can notice when her mind begins to wander off and redirect her. This strategy works better than Genesis away from the teacher but it does not work as well as I would have hoped it
would. Beginning soon, I would also like to provide her with a tangible item to hold while listening. I want to get her to a place where she can redirect herself. I will also begin to put students near her than focus extremely well and they will redirect Genesis as well when she touched them or wanders off. Hopefully these new ideas will continue to help Genesis with her attention.

The fifth strategy that I will implement into my classroom to help Genesis will be more small group practice. With Genesis, she does much more work in a ten minute small group activity versus a twenty minute whole group lesson. In small group, we can work on spatial awareness, fine and gross motor skills, and attention. In these small groups, I would love to include students that are lower in math. Genesis is good with helping other students that are lower in math concepts. In small groups before, I have noticed how Genesis has fewer opportunities to wander with her attention. During centers, I will begin to pull the students four at a time. I hope in this small group time, I can review major classroom topics like counting, cutting, reading, writing, and sciences.
Adrianna is a young 6 year old in first grade. She is over a year and a half below grade level in reading and math based MAP tests, Reading A-Z text leveling, and teacher made assessments. She does an excellent job working one on one with a teacher, but small group and whole group is a challenge for her. She isn’t a behavior problem at all. She is very quiet and almost shy to the point of you never know she’s in the room. Her hearing was checked and it tested normal. Her biggest problem is focus. She will look at me while I teach, but if I ask her what I said, or what we are talking about, she doesn’t have any idea. She has to be taught everything at least twice, so I have her in a preview group and sometimes I have to pull her again to reteach. She was put in tier 2 by our Student Intervention Team because her MAP scores were in the bottom 10% in Math and Reading. Her intervention teacher had her working on Fast Forward, but had to drop her down to a pre-K level because she wasn’t being successful at anything she tried.

Out of School and Socioeconomic Status

This student lives with her mom and grandma. She is an only child, and she is a free lunch student. Her mom works at night, but it is a minimum wage job. Dad lives in New York, but tries to stay involved with her. Grandma basically raises her. From the papers that mom filled out at the beginning of the year, she had a normal pregnancy and normal birth. There haven’t been any major accidents in Adrianna’s life. I wasn’t able to find out about any environmental elements such as exposure to toxins. I do think that mom might have a personality disorder. You never know if Adrianna’s mom is having a good day, or bad day. Grandma is illiterate and does her best to help her with homework. I’ve spoken with her mom about Adrianna’s focus problems and she agrees that there is a problem and that she and
her mom see it at home, but she **won’t give permission for screening**. Her mom was very upset when she found out that she was going to be in a group getting extra interventions. She didn’t want her in the group and blamed me for giving them Adrianna’s name. I explained that this was based on her test scores and not on anything that I said about her. I did explain to her that this couldn’t hurt her daughter, that it could only help her. She informed me that her daughter didn’t have mental problems and she didn’t want her in the group. She kept saying this even after I explained to her that this wasn’t what this meant.

**Weak Attention Controls**

- **Weak Mental Attention**
  - Do not see any problems.
    - She stays alert.
    - She will participate when prompted and directions are repeated multiple times.
    - I don’t see any problems with sleep imbalance.
    - Performance is basically the same unless we work one on one and then she normally does a wonderful job. Performance on everything else is very low to none at all.
- **Processing**
  - She has trouble processing anything I say.
  - She also has serious problems focusing.
- **Production**
  - She has a very low reinforceability.

**Reduced Remembering**

- **Short Term Memory**
  - She doesn’t have attentional dysfunction.
  - She does have weak processing. (See Above)
• She cannot paraphrase.

• Doesn’t enter new information into short term memory. She will know it right now, but in 5 minutes when she has to do it on her own, she can’t remember anything.

• Even though I’ve taught memory strategies, she doesn’t use them.

• **Active Working Memory**
  
  • Has serious problems maintaining active memory.
  
  • She loses track very easily so everything has to be repeated multiple times.
  
  • She doesn’t answer questions from texts very well. She doesn’t remember what is read the sentence before. She only remembers the last thing said.
  
  • She forgets what she is writing about and starts writing random ideas because she knows she is supposed to be writing something.
  
  • If she is working on more than 1 task, she will only do the last thing said. She does this even when you make her repeat the directions.

• **Problems with Long Term Memory**
  
  • Has trouble putting knowledge into long term memory.
  
  • She can draw upon some things stored in long term memory, but it takes an extreme amount of time before knowledge is in her long term memory.
  
  • Cannot categorize words or objects.
  
  • Has problems putting letters and numbers in order.

**Chronic Misunderstanding**

• **Weak Language Processing**
  
  • Her phonics are great because she knows most of her letter sounds.
  
  • Has trouble with Morphology because she can’t put the sounds together to make words.
She has problems with semantics because when you tell her something and ask her what it means, she can’t tell you. For example: “Adrianna, it’s recess time and it’s raining.” What does that mean? She tells me we need umbrellas because all she heard was it was raining.

Grammar is good when writing. She does phonetically spell words and she knows that a capital letter goes at the beginning of the sentence and some kind of punctuation at the end.

She doesn’t do well in conversations because she jumps topics so much. It’s almost like a stream of consciousness, so there isn’t any discourse.

- Incomplete Concept Formation
  - She will understand a concept if it is made concrete.
  - She has serious problems understanding abstract concepts.
  - She has processing anything that has more than 1 step.
  - Can’t have discussions because she gets off topic so easily.
  - Doesn’t understand non-verbal social cues. I can put my hand on her shoulder to get her to pay attention and that doesn’t do any good.

- Weak Spatial Processing
  - She can’t visualize words, picture shapes, imagine scenes when reading, picture how to do something, form images in her mind, or do arts and crafts activities.

- Slow Data Processing
  - She has extremely slow data processing.
  - She has a very small chunk size capacity because she can only remember about 1 thing at a time.

Deficient Output
• Language Production
  ○ She has weak language production. She does all of the following:
    ▪ Hesitates when speaking.
    ▪ Has low ideational density because she answers questions with 1 word and can’t elaborate.
    ▪ She lacks cohesive ties because she speaks and writes with simple sentences overusing some basic high frequency words.

• Weak Motor Production
  ○ I don’t see any problems with gross motor, fine motor, or graphomotor skills.

• Organizational Behavior
  ○ The only problems seen with this are prospective retrieval because it take 10-20 seconds for her to retrieve any information out of long term memory and integrative because she can’t multitask.

• Problem Solving
  ○ Has trouble in math. (Deciding whether to add or subtract.)
  ○ There isn’t any critical thinking. The only questions I can get her to answer are basic knowledge level questions.
  ○ She also had trouble at the beginning of the year with her personal needs. She went through a two month period where she wet herself 1-2 times per week. Now every morning I go over bathroom procedures with her.

Delayed Skill

• Reading
  ○ Has really good phonological awareness.
- Doesn’t have discourse comprehension
- Active working memory is very small.
- Doesn’t have automatization.
- Does do well with paired associations such as letter sounds.
- Can call sight words, just can’t use them in a sentence.

**Spelling**
- Does great with phonological awareness and graphemic retrieval.
- Doesn’t do well with segmentation, rule recall, attention to detail, semantic networking, retrieval memory, and has a low reading ability.

**Writing**
- Does a wonderful job spelling high frequency words. Has some problems spelling words phonetically.
- Does a great job with her letter formation.
- She also does a great job on the mechanics of writing such as a capital letter at the beginning, a period at the end.
- She has problems generating and organizing ideas.
- She has trouble writing in different formats. Whatever she writes is normally not on topic and has nothing to do with anything we talked about that day. It is neat and most of the words are spelled correctly because she only uses high frequency words in simple sentences.

**Math**
- She does great on addition and subtraction as long as she has a long time to do the problems, (About 2 min. per basic addition or subtraction problem) and manipulatives.
It took her a long time to understand measurement because she had problems remembering the new vocabulary.

We haven’t done geometry yet, but what I’ve seen during calendar time and morning work is that she can name shapes and that’s about it.

Basically, she can add and subtract.

She seems to like it and doesn’t seem concerned or stressed about doing it.

She doesn’t do well problem solving.

**Poor Adaptation**

- School Related Sadness
  - Not seen.

- Bodily Preoccupations
  - Not seen.

- Noncompliant Behaviors
  - Not seen.

- Social Inability
  - Very shy with peers and adults. Always whispers when talking to someone.

- Motivational Loss
  - Not seen.

**Prescriptive Plan**

- Auditory and Visual Training Activities

- Memory Games

- Get her tested to see if she has an auditory processing deficit.
- Have her sit at the front of the room.
- Model and teach clear communication skills.
- Continue to work in small group with her.
- Have her repeat directions to me and a partner.
- When she can’t answer questions, ask someone else, but make her repeat.
- Continuously question to build understanding.
- Pre-teach her and then have her try to explain it to someone else.
- Give her graphic organizers when she writes to help organize her writing.
- Have her read the topic to write about and then read what she wrote to make sure they match.
- Have her draw a picture about a topic and then have her write the sentence using the drawing to help her remember.
- Have her work in an intervention group on the program Fast Forward to build focus.
- Make sure she continues to have manipulatives in math.
- Have a problem of the day so she can practice problem solving.
- Use high frequency word games to help her remember words and to transfer them to her reading and writing.
- Ask her comprehension questions throughout reading a story.