"Differentiated instruction is an approach that enables teachers to plan strategically to meet the needs of every student. It is rooted in the belief that there is variability among any group of learners and that teachers should adjust instruction accordingly" (Tomlinson, 1999, 2001). The idea behind differentiated instruction is based on the idea that all students learn in different ways that can be included in instruction. The goal is to help students become engaged and learn. In order to do that, their own self-efficacy needs to be related to repeated success in the subject taught. "Self-efficacy is born only when any student encounters something that student believes to be out of reach, only to find that he or she had what it took to overcome what seemed impossible" (Tomlinson, 2005, p. 13). This is one area that teachers can control in their classroom, unlike many other issues, and it can be sufficiently addressed through the use of differentiated instruction.

However, Carol Ann Tomlinson, stresses that "differentiation is not an instructional strategy" (2000). It is a "philosophy or a way of thinking about teaching and learning that embraces students as individual learners with individual needs" (2000). In any case, it is recommended by Sternberg and Zhang (2005, p. 252) since "Teaching should be differentiated to help each child capitalize on strengths and compensate for or correct weaknesses."

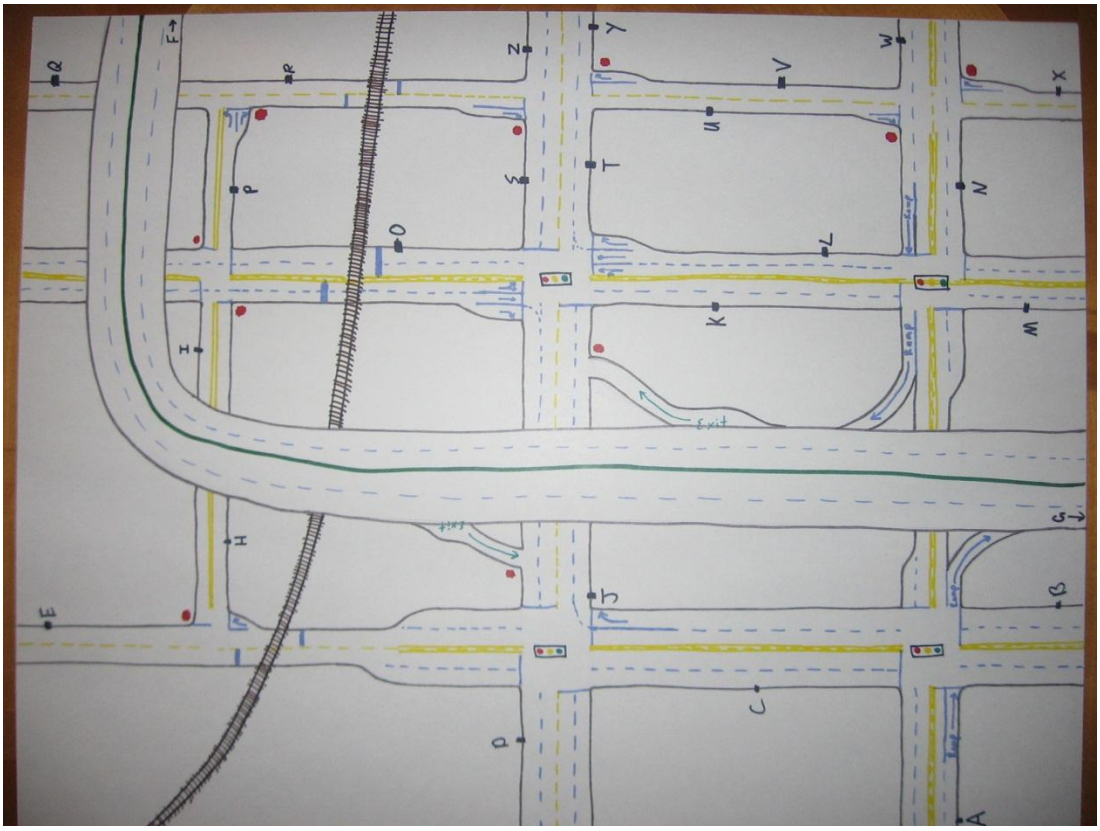
"There is no single formula for differentiation. It begins when a teacher takes an honest look at the diversity of learners in the classroom, accepts responsibility for the success of each of them" (Tomlinson, 2005, p. 13). In the same article, Tomlinson outlines seven necessary steps in order to administer differentiated instruction. They are to "pre-assess students at the outset of the year", "pre-assess at the outset of each unit", "meet with small groups in class", "use multiple presentation/teaching modes", "scaffold reading success", "use differentiated homework" and "encourage learning and expressing learning in varied ways" (2005, p. 13-14). As it happens,

these very steps should direct the instruction in class that meets the needs of the variety of students in the classroom.

For the purposes of this project, two differentiated instructional strategies will be used for the case study student. The lesson that will be described in detail is a combination of the use of a participatory simulations (not computer based) and graphic organizers/flow charts. Both of these methods were chosen since the student exhibited a good deal of oral comprehension of English but lacked the vocabulary knowledge that can be expressed in writing. The purpose of this lesson was to allow the student to be able to describe events in the simulation orally (his strength) but then process the logical sequences with the graphic organizer by writing the events utilizing the "Series of Events Chain" (Hall, T. & Strangman, N., 2002, p. 3). Even though there is only a single student that is being worked with in this project, it needs to be understood that this kind of understanding of the student was necessary in order to determine how to develop differentiated instruction.

Before we continue, it is necessary that we understand the rationale behind the design of this lesson. The student is a nineteen year old gentleman that has only lived in the United States for about two years since coming over from Afghanistan. He has only seven years of education from Afghanistan and has learned to speak English with a significant degree of proficiency. However, his weaknesses are related to his ability to read and write.

His current goal is to be able to acquire a driver's license and find a job. Since he is too old to take driver's training, he must take a written assessment. While he can converse adequately, writing and reading using common terms and phrases related to driving are difficult for him. After practice using many of these terms and using them in appropriate situations, a simulation was set up where he would have to use these very terms and phrases. A map of a fictional city was created with a variety of roads and intersections. See the picture on the next page:



In this simulation, the student would randomly choose two points on the map (a starting point and end point). Then he would describe the path he must take to get from the starting point to the end point. In that path, there are a variety of steps that are necessary to make (i.e., changing lanes, merging, stopping at the stop sign, etc.) along with a random event or two created by myself (i.e., a school bus stops with overhead red lights blinking, emergency vehicle sirens are heard, etc.) and the student had to describe every event that takes place and the necessary action he must take.

To allow him to use his strength in discussing what to do; I wanted him to talk to me about what he would do as a way of processing. When he is sure of what to do for each step, I had him write each series of event along with his choices using the "series of events chain." . The main reason why I wanted him to list the series of events was to get him to practice writing his thoughts on what he would do. A flow chart can "be a very effective tool for improving

vocabulary knowledge" (Hall, T. & Strangman, N., 2002, p. 4). Normally flow charts, like the "series of events chain", are applied to story lines in order to organize what is happening. In this case, it was modified so that this student was writing the series of events based on the decisions he would make when driving. The writing performed was reinforced by his ability to communicate in alternate ways first when he could not think about what to write. Allowing alternate ways of communication is another way of differentiating instruction to fit the needs of this student.

The simulation was chosen for the reason that I was not going to have him use my car. Simulations have been used for decades as a learning device. The use of simulations in instruction can be traced to the use of simulation games for "speech-communication curriculums" (Chartier, M, 1973) utilized in the 70s. This particular form of simulation is "participatory simulation" where students "act out the roles of individual elements of a system and then observe how the behavior of the system as a whole can emerge from these individual behaviors" (Wilensky, U. & Stroup, W., 2002, p 2). Of course, I am working with a single student instead of "students." It is also worth noting that this article eventually discusses participatory games that use a program like "Hubnet" that I won't use but this article brings to light the importance of using simulations in instruction.

In any case, I wanted him to be put into a situation where he would be allowed to practically apply rules of driving in a variety of situations. This simulation does just that. This simulation is also an alternative to common assessments that ask questions and require a suitable response. As he is growing in his ability to communicate, working with a map in this simulation puts the student as close as I can get to the real thing just short of using computer virtual reality (which would be ideal in the best situations). He will write his responses but it will be reinforced by his ability to communicate what he would do in alternative ways to writing.

Evaluation of this student's performance was based on his understanding of what to do with a series of events by communicating this orally and in writing. Since he will be describing what he does and the decisions he makes through the use of the "series of events chain", I have the ability to evaluate him both orally and in writing for each individual event. Both methods of evaluation are of equal value. Special attention for the written portion will take place as spelling and grammar are still necessary. A scale of 1 to 5 will be given as an evaluation of his abilities for each part where 1 indicated minimal proficiency and 5 indicates highest possible proficiency. Comments are made in order to justify the reasoning behind the rating. The rubric for evaluating this student's performance is on the following page.

Rubric for the Driving Assessment

Scale for each assessment is a 1 to 5 scale with 1 "below proficiency" and 5 "highly proficient".

Sequence of events	Oral Assessment	Written Assessment	Comments
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

The first day that I implemented this simulation, I chose to model how to put together the "series of events chain" to this student. After explaining the rules of the simulation for him to follow, we went with an example path on the map. I had him control the car and tell me what he would do. While he explained it orally, I wrote down the series of events for him so that he had a good idea on what should be expected and how discussing what to do played a role.

After modeling one example path on the map, he performed the next path and now had to also write what to do for each event. In this case, he is totally responsible for taking the initiative to discuss what to do and to also write the events that take place with the decisions he makes for each event. I had him perform this task on two different routes on the map. In his final day of tutoring, I will assess him on all of our sessions by performing the same task in this simulation with the multiple routes chosen and will evaluate him using the rubric provided in the following page. He will tell me what do but he will not receive feedback from myself as I want him to demonstrate how well he can communicate through writing.

What worked really well in this lesson is that all parts of the map are familiar to him to a certain degree. He understood lane changes and about slowing down before turning and a variety of other things. He also communicated these very things clearly to me in a way demonstrating his understanding. Since there is more than one way to get to a certain location, he demonstrated finding alternatives that might make sense for other reasons not thought of before. This simulation provided realistic situations and made him consider realistic options that are key to driving. This simulation did not funnel the thinking of this student in a way where it might be seen as lacking choices for him.

The only problems that took place were related to the restrictions within this simulation. The simulation does not cover all possible circumstances that might take place while driving. There are also errors on the map as I was the creator and forgot significant parts of roads like

"left turn only" lanes at intersections. For reasons like this, evaluation of his driving knowledge through this simulation will be limited. Other issues are related to how to assess this student in the written portion. It was difficult to find the best method of assessment as determined by how strict I would be in regards to his spelling and grammar. In so many cases, he performed brilliantly in the oral portion but had many issues with writing what to do. The last issue with this lesson that I noticed was that I was never truly hands-off in my involvement. I had to track where he was going and tried my best not to provide feedback that might alter his decisions but it was complicated due to this fact.

The main principle in using the Universal Design for Learning is to give all students equal opportunities to learn. When reflecting upon this very lesson, it was clear to me as to why I chose not to have my student read the book from the Secretary of State and be provided with a bunch of questions relating to the literature. Through my assessment of vocabulary and terminology used in driving, I was able to determine his strengths orally but also his weaknesses in communicating through reading and writing.

Using the Universal Design for Learning is guided by three main principles: "Provide Multiple Means of Representation", "Provide Multiple Means of Action and Expression", and "Provide Multiple Means of Engagement" (CAST, 2011. p. 5). While work with vocabulary was done prior to the simulation, the simulation provided another mean of representation. In providing multiple means of expression and action through the simulation, the student was able to express what he did know in regards to rules regulating driving. This makes sense since "learners differ in the ways that they can navigate a learning environment and express what they know" (CAST, 2011. p. 5). Finally, I was able to provide multiple means of engagement through work with the vocabulary prior to the simulation. I work with spelling, oral recognition and pronunciation of words and terms often associated with driving to see this student's strengths

and weaknesses as well as determine which tasks he was most engaged with. This is why I put together the simulation using a road map of a made up city. It seemed apparent that I needed to put this student in situations where he can communicate through a variety of means of what to do when driving.

Because I was able to incorporate the principles of UDL for the simulation and prior lessons, this student grew tremendously in his ability to communicate what to do on the road. In addition to communicating to me, he also made huge strides in communicating through means that are more difficult for him, like writing. These skills will be very important as he will be asked to become a responsible driver someday in the future and good communication is absolutely vital. Besides, writing is a skill that he will be using for the rest of his life.

Much of what I did to produce this lesson is unique and valuable. I probably won't be tutoring many students in the future for driver's education but the process that I took in order to develop instruction to meet the needs of this one student will be transferrable to future classrooms with many students. Creating simulations is not new to me; I've been making them before. One example is the class-wide game of "Clue" that used deductive reasoning that can utilize such tools like graphic organizers and flow charts. However, each new situation requires that I look at the unique circumstances that should direct my instruction and lesson design. This lesson fully satisfies the philosophy behind UDL and will continue to be a framework for future classroom instruction and practice with such principles will help me grow as a teacher.

Resource List

CAST (2011). *Universal Design for Learning Guidelines version 2.0.* Wakefield, MA: Author.

Chartier, M (1973). *"Simulation Games as Learning Devices: A summary of Empirical Findings and Their Implications for the Utilization of Games in Instruction."* Paper prepared for Workshop on Simulation Games, American Baptist Seminary of the West and Holy Names College.

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Tomlinson, C. (2001). *How to Differentiate Instruction in Mixed-Ability Classrooms* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

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Sternberg, R. J., & Zhang, LF. (2005). "*Styles of thinking as a basis of differentiated instruction.*" Theory Into Practice, v. 44 n. 3, p. 245-253.

Wilensky, U. & Stroup, W., (April, 2002). *"Participatory Simulations: Envisioning the networked classroom as a way to support systems learning for all."* Presented at the Annual meeting of the American Educational Research Association, New Orleans, LA