Digital Humanities   Research Projects and Grants

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Diverse Learners: Explorers, Problem Solvers & Dot Connectors

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My overarching goal for my grant work was to 'increase opportunities for dot connection' for my students. Two projects, integrating technology to provide new forms of engagement with content sometimes perceived as dry and difficult, were created.

The focus course was CPSY 1001 Diverse Learners and Their Families, Part I. This course is traditionally taken by all students in the elementary and special education major as first semester freshmen. Some secondary/special education majors also take it, but they are often sophomores or juniors. The course focuses on developing an understanding of special education law, services, and diagnostic categories such as emotional disorders, sensory impairments, speech and language impairments, and traumatic brain injury. Students complete the second half of the course in the spring semester with a focus on families, the IEP process, and the remaining diagnostic categories addressed by IDEA.

Project #1: Special Education Law Case Study or "If at first you don't succeed, try, try again."
Round 1:
- The program, Twine, was selected as the means of delivery for a special education law case study. Traditionally the case study is presented as a paper and pencil assignment, having students work in small groups to discern the challenges and issues with the case. I wanted to see if a different delivery of the case would increase the depth and breadth of conversation; specifically, would they make more connections between the dots of the case?
- Twine is an electronic decision tree product supporting opportunities for our students to explore 'what if's' options.
- Detailed instructions about how to work with the Twine case were provided, along with step-by-step directions about their work in pairs and then teams of four to review their decision paths and case content discoveries.

What happened?
- ✓ The students were vocal about their dislike of not having a clear 'ending' to the case study. They wanted to know 'the answer.' The format, providing multiple paths to explore the story, seemed to make that ambiguous ending a larger issue than one I've experienced in the past with the paper and pencil format.
- ✓ There were numerous examples of misinterpreting some information in the case. This might be due to a limited, still developing knowledge base and/or having difficulty 'connecting the dots' between key points.
- ✓ All but one group picked the same entry point into the case; seeking foundational information from the mother. This was a positive and appropriate beginning. Later interpretations of what the mother 'should have done' were not as positive or appropriate within the context of IDEA special education law.

✓ When asked how they felt about the experience, the class overwhelmingly suggested that I provide more 'hints' or clues to help them focus on the essential points in the case because it feels like new and developing knowledge for them.

Round 2:
Concerned that the class did not seem to fully understand the value of a case study in helping to understand the link between theory and practice, I created a second opportunity to look at a case.
- I used "One Notebook" to create a class notebook. I set up tabs for Content and Collaboration.
- I located a new special education law case study and entered it on the Content tab. I 'rechunked' the case, dividing some paragraphs into smaller units, to allow students the opportunity to focus on key concepts. In essence, students were seeing an electronic version of a traditional case study.
- Under the collaboration tab I created four groups and posted four points for consideration.
- Each student received an invite to the class notebook and was able to view the case study and enter information in their collaboration group.

What happened?
✓ The students worked in groups of four and as I listened, the conversations appeared to be more on-target than the prior week.
✓ When debriefing about their observations and understandings of the case study, they shared the following:
    o About 70% liked the visual of Twine better
    o The remaining 30% said they liked the traditional layout of the case study in the One Note version, it was easier for them to consider the material.
    o Uniformly, they all agreed that having some guiding questions was helpful.
    o Suggestions—consider using Twine again, but perhaps try the second case and insert some questions as guides.

What did I learn?
➢ I was looking for deeper questioning on the case study and thought the delivery mode might help to support that 'dot connection.' The reality might be that the foundational knowledge is too new and 'fragile' for significant critical thinking, thus the delivery model is less important than the scaffolded supports within it.
➢ We talk about UDL (universal design for learning) in this course and the three principles include providing multiple means of presentation, engagement, and assessment. Neither delivery model was a homerun for all students. This is a reminder that next year I should consider multiple methods of presentation with equal levels of scaffolding within.

Project #2: <u>Using Policy Map for a deeper dive into the numbers of persons with disabilities served in New Jersey</u>.

- Policy map, a free data mapping tool offered via the SHU library, was selected as the tool to help my freshmen elementary/special education majors deepen their awareness of the number of students receiving special education services within New Jersey.
- Traditionally, prevalence data (national and state) is shared via the textbook and sometimes the National Center for Educational Statistics (https://nces.ed.gov/datatools/https://nces.ed.gov/datatools/). The 'numbers,' of persons receiving special education services can seem disconnected and abstract to new education majors.
- Detailed instructions about how to work with Policy Map were provided along with step-by-step directions and questions about the data they were investigating. We held the class in Space 154 and that collaborative setting influenced my work group decisions.

What happened?

- ✓ Space 154 has two large LCD screens at two collaborative work settings as well as high tables and chairs for additional group work. I offered the following to students—those working at the LCD screen tables could work as teams of 4 and project their emerging work on the screen. For those sitting at the high tables, they could work in teams of 2 or 4.
- ✓ Students had little difficulty following the step-by-step guide to using policy map and locating the educational demographics we were working with. The biggest 'technical' challenge was that the sensitivity of the mousepads on many of their laptops made it hard to manipulate the map. Fortunately, Veronica Armour was with us and she was able to offer a mouse to those who requested one.
- ✓ Students did ask questions of me throughout the class, in their small groups, most often having to do with the population of students in the special education schools they were examining.

What did I learn?

- ➢ The students verbally shared that they liked being engaged with the information, more than reviewing it via their text or in a large class discussion. When asked for suggestions about this project for next year, they added: (i) offer the use of a mouse upfront; (ii) consider ways to prime their thinking (my phrase) about what they might look for in the data.
- ➢ Reviewing the written work associated with the activity, 3 out of 4 groups made a simple but important observation; the census and school data showed that when there was a rise in the poverty level in a county, the number of students on free and reduced lunch increased. Only one group asked the follow up question (in their paper), what entitles someone to a free and reduced lunch.
  - o Each group tried to make connections between the demographic data in a county and in the special education school. Sometimes they were incomplete interpretations, but the effort to connect points was evident as they were asked to look for them via the written assignment sheet.

- ➢ Next time, I'll do the following:
    - ○ Review, in a brief discussion prior to the start of the activity, the reasons why the population of a private school for children with special needs might consist of persons who do not live immediately in that town (or county).
    - ○ Add the NCES website into the mix, this would allow them to compare/contrast data sources about the school demographics
    - ○ Ask them to research, online, the criteria for a Free and Reduced Lunch
    - ○ Have them visually present their comparison findings for the private school and county demographics (e.g. pie chart) and verbally report their observations.
    - ○ I would limit the number of devices between a pair or else they seem to focus on their own screens versus talking to each other