

UDL and Accessibility Strategies in the Classroom Using Faculty Learning Communities

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AHEAD: Accessing Higher Ground

Westminster, CO

November 20, 2019

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Who am I?

- W. Scot Atkins, Ed.D.
- Associate Professor, NTID Business Studies
- Teach Management and Entrepreneurship
- Co-PI for NSF Award: Accessible STEM Instruction with Deaf Students: Supporting Faculty In Pedagogical Exploration and Innovation.



Mapping Today's Session



1. Frameworks:
Universal Design for Learning and Faculty Learning Communities.

2. Our Project:
Faculty Exploration, Innovation, and Access Strategies.

**Pause
for
Reflec
tive
Questi
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3. Case Studies of Faculty Strategies:
Creation of Strategies for Inclusion in the Classroom

4. Discussion and Reflections.
Faculty and Student Mentors reflect on experience.

5. Take-aways and Implications of Project.



Collaborative Research: Accessible STEM Instruction with Deaf Students: Supporting Faculty in Pedagogical Exploration and Innovation Award Number:1625581; Principal Investigator:Sara Schley; Co-Principal Investigator: Scot Atkins; Co-Principal Investigator:Stephanie Cawthon; Organization:Rochester Institute of Tech; NSF Organization:DUE Start Date:09/01/2016; Award Amount:\$443,200.00.



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Our Project: Goals

- 1. Improve resources available** for faculty who teach DHH students in mainstream settings **by developing and creating Accessibility Toolkit (ATK).**
- 2. Create training environments** where faculty are encouraged to experiment with and **innovate new resources and strategies for accessible and inclusive pedagogy.**
- 3. Improve the sustainability and expansion of these practices** via multifaceted dissemination efforts.

End Goal is to develop Accessibility ToolKit (ATK)

- Website
- Resources
- Strategies
- Case studies
- <https://www.rit.edu/academicaffairs/tls/accessibility-tool-kit-atk-10>

The screenshot shows a web browser window displaying the RIT Teaching and Learning Services (TLS) website. The URL in the address bar is <https://www.rit.edu/academicaffairs/tls/access-and-inclusion-project-flc-year-1-case-studies>. The website header includes the RIT logo and navigation links for About TLS, Course Design, Course Development, Course Delivery, and Faculty Connections. A large banner image shows a classroom setting with a 'BLOG' overlay. Below the banner, the main content area features a blog post titled 'Access and Inclusion Project FLC Year 1 Case Studies'. The post text states: 'The faculty who participated in the NSF IUSE grant-funded Access and Inclusion Project have reported back on their strategies and experiences. As we gather more information, these case studies will be made more robust, but for now, here's a sample of the strategies implemented by the Access and Inclusion faculty in the 2016-17 academic year.' Below the text is a table with columns for Class, Modality, Instruction Format, and Strategy. A 'RECENT POSTS' sidebar on the right lists several articles, including 'Call to Join a Spring 2019 Teaching Circle' and 'Call to Form a Teaching Circle in Fall Semester 2019'. The Windows taskbar at the bottom shows the search bar and various application icons, with the system clock indicating 7:01 PM on 7/10/2019.

Framework: Universal Design for Learning (UDL)

- **Provide** flexibility in ways information is presented;
- **Provide** flexibility in ways *students respond* to or *demonstrate* knowledge and skills;
- **Provide** appropriate accommodations, supports, and challenges;
- **Reduces** barriers in instruction;
- **Maintains** high achievement expectations for all students, including students with disabilities and students who are limited English proficient" (p. 122 Statute 3088).



Framework: Faculty Learning Communities



Our Project: Faculty Learning Communities

Collaboration:

- Pair of faculty facilitators with expertise in classroom access and diverse students
 - One DHH, one hearing – with varying content background.
- 5-8 faculty participants each semester
- 5 DHH student mentors (paid)

Our Project: Faculty Participants

- Agree to participate in groups for at least one semester to learn new practices and skills.
- Learn access practices and how to respond to diverse classroom communication needs
- Explore challenges and solutions, UDL
- Develop and implement strategies
 - ▶ Safe place to explore new ideas

Deaf and Hard of Hearing Student Mentors

- The DHH students in this project came with different communication preferences and educational backgrounds. More importantly, they came with differing learning styles and needs
- Students observe classrooms and give immediate feedback to faculty on challenges they see in the classroom, and on implementation of the accessibility strategies
- They become part of the solution.

Deaf and Hard of Hearing Student Mentors

- **12 student mentors**, from 9 colleges at RIT
- **Majors:** Biotechnology, Criminal Justice, Independent Study, Business, and Biomedical Science
- **Mainstreamed and Deaf school backgrounds**
- At the last FLC, two mentors preferred **ASL/English interpreters** and 3 mentors preferred **speech-to-text real-time captioning**.

Themes from 5 semesters worth of Faculty Learning Communities

- Altering the Classroom Space
- Changing Class Assignments
- Introducing new Classroom Tools



“Engaging Students in Discussions” was a Common Thread throughout the Themes

Reflective Questions

What does accessibility or inclusivity mean in your context?

Is accessibility an important concern for your classroom, why? or why not?

What types of challenges would you face in implementation?

What type of support would you need to initiate this?

Case Studies: Three Faculty Cases

- Faculty 1
 - Teaches Mechanical Engineering in the College of Science and Technology.
 - 1 year of experience at RIT with 6 years of total teaching experience.
- Faculty 2
 - Teaches Software Programming at the College of Computer Science.
 - 3 years of experience in teaching.
- Faculty 3
 - Teaches Statistics in the College of Science.
 - 16 years of experience at RIT.

Case #1: The Challenge

- Professor's Challenge in the Classroom: the students' ability to produce high-quality written and oral deliverables.
- Professor's Goal: Increase student engagement during presentations and increase quality of communication.
- Typically, the professor required a 20 minute oral presentation at the end of the semester

Case #1: Strategy

- **Developed strategy to employ a poster session instead of a presentation to improve engagement in class**



Results of Case #1

- Students were highly engaged in the poster session. In the past, students would have to listen to 300 minutes worth of oral presentations.
- Employed peer editing as part of the process. Increased the quality of the project and grades improved.
- One written assignment conducted before the poster session.
- This was a benefit for all students, hearing, deaf and hard of hearing.
- Led to further exploration of strategies by the professor, including the application of an in-house grant.

Case #2: The Challenge

- Professor's Challenge: There was a lack of verbal communication between students of varying communication preferences. It is hard to get these students to verbally communicate with one another for group work. This is important because this is a software class.
- Professor's Goal: To see more interaction between students even though the interaction between the faculty and his students was great.

Case #2: Strategy

- **Explore the use of a platform or software solution to help promote interaction between students for team projects.**



Case #2 : Process and Results

- Assigned the use of Slack and Trello platforms for computer coding and project management for teams. Both platforms employ the use of chat boxes for communication.
- Student mentor notes, “I think FLC is a great influence on (Professor)’s teachings. FLC clearly has taught him a lot and made him more of an effective teacher.”
- Professor reports that students were highly engaged on their group projects and more communication occurred.

Case #3: The Challenge

- Statistics professor wanted more group discussions to solve statistics questions in the classroom. In the past, students were given handouts and worked from the handouts. This resulted in minimum interaction and eye contact.
- In addition, there were only 2 ASL interpreters for a large number of DHH students in the class, so it was not feasible to have an interpreter for each group.
- Professor's goal: To create more opportunities for group problem solving of complex statistics equations.

Case #3: Strategy

- Employ the use of rolling whiteboards for group problem solving discussions.



Case #3: Process and Results

- Each small group had their own rolling whiteboard for in-class group problem solving and the students worked on problem(s) on the whiteboards.
- The professor was able to monitor the progress of each team by looking around the room and jump in as needed. There was an increased amount of interaction among everyone in the groups and this required a different type of communication.
- There was a marked increase in the amount of interaction among students from different backgrounds and an improvement in the understanding of the material.

Reflections from Faculty and Student Mentors



Reflections from Faculty

- **“I told the students up front this is to hopefully improve the learning environment. I felt confident in doing this because I had a team of experts (DHH students and other faculty) that I could bounce off. It minimized the risk”**

Reflections from Faculty

- **“I do expect that my awareness for the multitude of factors that can either inhibit or enhance deaf students’ classroom access has been forever heightened”**
- **Overall, faculty felt that participation in the FLC was helpful and inspiring, citing examples of how their own pedagogy was improved by the experience..” (Marchetti, C. et al, 2019)**

Reflections from Student Mentors

- **“Because I was not a student in the class being observed, I was able to offer an outside perspective of how deaf people may experience the class”**

Reflections from Student Mentors

- **"It helped opened up my mind some more about what happens in the classroom, I guess. I notice more what the teacher does and helped me to develop the skills to be able to provide feedback to the teacher if I notice something that may need to be changed in the classroom. I have more of a voice now and I can give feedback to the teacher .."**

Reflections from Student Mentors

- **" it (the experience) helps give me clarity into everyone's learning styles. For example, some students prefer to focus on reading, and others focus on visual based methods, yet others learn more from hands-on approaches. For example, I am more of a hands-on learner. So, it's about learning about the different styles and helping me to think in those terms. "**

Discussion

- **Changing one's teaching approach is a challenge for many faculty- requires a shift in attitudes, knowledge and skills. This requires a degree of “self-reflection” (Keiny, 1994; Guskey, 2002; Lee, Cawthon & Dawson, 2013).**
- **When faculty and students provide their perspectives in a shared approach, this has the effect of “multiplying perspectives” (Cook-Sather, 2014).**

Discussion, continued

- **Implications for other marginalized groups who may have specific learning needs in the classroom. Student-faculty partnerships help generate inclusivity in the classroom (Cook-Sather & Des-Ogugua, 2018).**
- **Student mentors develop other skills through this process (self-advocacy, negotiation, etc.).**

Questions for you:

- What applications do you see for this type of forum for faculty?
- How will you be able to apply this at your university?
- What do you think would encourage more faculty at your university to participate in this type of forum?

Conclusion

- Faculty Learning Communities with the use of student mentors has proven to be highly effective in helping instructors to develop better access in the classroom.
- This year, we will be focusing on developing articles for dissemination and on the development of the Accessibility Toolkit which you could access.
- Look for more information through the Accessibility Toolkit!

Thank you!!!

Contact me for more information:

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