**Project Description**

Oftentimes working in different spaces of education and children’s technology, you will be asked to pinpoint and answer important big research questions. Now it’s your turn to put your researcher hat on!

Drawing from course readings, course documentaries, course lectures, and guest lecturers, **you will define a research question inspired by our guest lecturers and develop a research plan and approach to be used to best answer your question**(\*\*you will not be conducting any research, just designing the question and approach)

The ultimate goals of this project are:

* To gain hands-on experience defining research questions that are important to answer for the future of the field of children’s technology
* To learn how to best develop a research plan considering all the steps of the process from design to implementation
* To apply all our course learnings to a hands on project that can be used in future professional pursuits

**Project Details**

Throughout the semester we have had amazing guest lecturers who have all spoken on their experiences working in different facets of education, media, etc. and how they create or utilize technology.

For each guest lecturer reflection, you were asked to identify one interesting research question you would want to investigate when it comes to children’s technology.

 For this project you are going to choose one research question inspired by one guest lecture to focus on. As a reminder, below are the guest lecturers we have had:

* + Donna Mitroff spoke on her experiences working with Mr. Rogers and children’s content
  + Joey Chapman spoke on her experiences working in Special Education and how she utilized technology
  + Jen Sethaseng spoke on her role as a Principle and how she decides on what technology to invest in
  + Amanda Richardson spoke on her experiences transitioning from the classroom to working in ed tech as a UX Designer
  + Chloe Kehllner and Mikaela Demartini spoke about their experiences using technology with kids and families in the hospital setting
  + Lily Jones spoke about her experiences designing K-12 Curriculum For Ed-Tech
  + Jessie Hopkins spoke about her experiences working in the content development space
  + Sharon Rylander spoke about her experiences working as a children’s user researcher
  + Cathy Tran spoke about her experiences working as a children’s user researcher
  + Ingrid Simone spoke about her experiences working in the children’s content space
  + Theresa Manteiga spoke about her experiences working as a market researcher in the tech space

**What questions will you want to answer? (\*\*Please also answer other questions that come up for you during the process)**

Guest lecturer: Joey Chapman

Research Question

**Why is the guest lecture area you picked interesting to you?**

Learning styles and ability vary so much with children, especially when it comes to special needs. Determining how students with special needs are evaluated and classified has interested me ever since, and even since before, I had a joint PE class with a Life Skills (Special Education) class in my senior year of high school.

**Why did you decide on this topic?**

I had previously corresponded with Joey about how evaluations take place, so I already had some information on the topic.

**What about the guest lecture inspired you to want to learn and explore more?**

Joey’s enthusiasm for working with the students she works with was infectious. Also, I could see the masked disappointment on her face after she ended her guest lecture, opened the Zoom call for questions, and we didn’t have any. I imagine she might get that sort of non-response from people often, with Special Education making most people just uncomfortable enough not to want to ask a question that would offend her or her students, so she was able to mask the disappointment well, but in looking forward to her guest lecture, of which I’m not sure how many or how often she has done to people outside of her field, she was probably imagining based on our course topic that we would have a lot of interest and follow-up questions. I did, but wasn’t able to verbalize them at the time, which might have been the case for others of us as well, so I decided to follow up with her via email. She was of course, being Joey, very excited to respond to my questions.

**What is the research question you are interested in answering?**

Would it be helpful as a Special Education Assessment evaluator to have an app or online platform you could use on a tablet which guides you through the process of evaluating a student’s eligibility for Special Education for the first time and subsequent times? Or would such an app or online platform hinder the process of being present for the evaluation with the students?

If one already exists for your state or school district (such as the INSIGHT Portal for Washington State), what improvements do you imagine would be most helpful to such an app or platform? What already works well when using such a portal?

**Why did you choose this research question?**

The evaluation process seems long, technical, and somewhat complicated, as can be seen from this \*\*\*\*\*\*\*\*\*instruction manual for the Washington Access To

Instruction & Measurement (WA-AIM)\*\*\*\*\*\*\*. Simplifying or displaying it better if possible seems like it could reduce the strain on a group of teachers who already perform a job on a daily basis that isn’t easy.

**Why is your chosen research question important to answer?**

Finding the answers to the research question and subquestions could improve the process of learning disability evaluation, potentially making it more accurate and standardized, easier to schedule, and easier to accomplish multiple times for a given student throughout their education .

**How will answering this question benefit the field of child development, education, technology etc.?**

Having a functional app that can help paraeducator evaluators to do their jobs could provide them with the tools to more fluidly and accurately evaluate students for disabilities and special needs. Having a working product could also facilitate standardization across states and globally for such evaluations, rather than relying on documents, which naturally vary based on local policy.

**How could you apply your potential research findings to a future career direction, continued studies etc.?**

Findings could lead to further questions about how to improve the app or online platform. It could also help to show as evidence that I am familiar with the area of technology as it relates to learning disability, even if not working directly with those with learning impairments.

Research Approach/Plan (Parts of Research Design & Implementation Loop)

Answering the following questions requires understanding of the Testing Implementation & Feedback Loop (11/28/2022 Lecture as well as lectures before then)

**Number of participants, age range, demographics etc.**

25-50 participants

There would be no specific age range, but meaningful results would require that participants be members of Special Education Assessment Evaluation teams, with a focus on the Special Education Teachers who carry most of the responsibility for evaluation and documentation of results, but also including other members of such teams, like School Principles and School Psychologists, the important part being that they have had experience with being a part of the Special Education Assessment process at least once, ideally multiple times)

Varying years of experience as Special Education Assessment evaluator:

0-2 years

3-5 years

6+ years

Participants will ideally work in different states in the United States, since different states have different policies, standards, and processes regarding Special Education Assessment. If an app were very successful, international possibilities could be further down the road, but this is unlikely given the multiple challenges involved (language, international policy/standards/process differences).

**What are your *research goals*?**

The goal is to determine effectiveness of an app versus other methods of Special Education Assessment evaluation.

It will also be useful to find out if there is a difference in perceived usefulness of an app versus other methods between different experience levels of evaluators.

**What *research methods* would you use?**

Running a survey seems to be the most appropriate form of research for the early stages, based on how the basic central research question itself began branching into more and more follow-up questions.

**What *key stakeholders* will you be working with when it comes to this research?**

Design team

UX team

Product Management team

Special Education Assessment Evaluation team (Student Study Team):

General Education Teacher

Parents of students being evaluated using the Special Education Assessment

Special Education Teacher (a.k.a Resource Teacher) (always part of evaluation team)

School Principal

School Psychologist (always part of evaluation team)

School Speech and Language Therapist (if needed)

School Intervention Teacher (if needed)

School Counselor (if needed)

The students themselves who are evaluated using the Special Education Assessment are not key stakeholders that I would be working with directly when it comes to this research, at least in this initial phase of the research, but they are still definitely key stakeholders in the issue, if not the primary key stakeholders, since it is their education that this sort of app would affect the outcome of. They could be a part of the equation that I or my research team would work with if a product were much further along in development and actually being used for beta testing purposes in real-life evaluations.

**Why would these stakeholders be invested in answering this question?**

Design team: Are there any visual or auditory features that are detracting from app usability? How could those be improved?

UX team: How can the app be improved? What features need to be added?

Product Management team: Is this product even worth developing? How many users might be in the market for a product like this?

Special Education Assessment Evaluation team: This kind of app could make the process of evaluation easier, or could make it harder and more convoluted than it already is.

**How might they apply possible findings to their practice?**

Design team: Chane font size, colors, background colors, icons.

UX team: Add new features, rearrange layout for usability.

Product Management team: Request funding for more research and iterations, or cancel the project to use research resources on more needed products.

Special Education Assessment Evaluation team: Use the app for real-life evaluations of students, and for coordinating who needs to be where and when, who needs to sign off on what, and at what point in the process to do that, or not use the app at all.

**What *assets* will you need to run this research?**

I will need email correspondence or other online communication with members of Special Education Assessment Evaluation teams to provide a link to the survey.

**What kind of *recruitment strategy* would you need to best answer your research question? (what key things would you need to keep in mind with your approach)**

Special Education Assessment evaluators are busy scheduling evaluations already, since they need to have multiple other people present as evaluation witnesses. Because of this, it would put extra strain on them to schedule time to observe the process or try the app. It would also be unreasonable to ask them to try the app for an official process such as this before the app were at an appropriate level of readiness.

With the proper steps having been taken to approve app testing by state and/or other agencies, for a real-life scenario, it could be an option for later iterations of the app. It could also be an option with similar steps taken to ensure the video release to observe recordings of evaluations as they are performed currently.

**What would be your *research setting*?**

The minds and survey responses of the surveyees for now, but more specifically in how they think about Special Education Assessment evaluators in public and private school settings, elementary through high school. They could respond to the survey in whatever setting would be most convenient for them.

**What would your *testing script* look like?**

Survey:

In what state do you currently work in education?

In what school district(s) do you currently work in education?

What is your role or job title in education?

How long have you been in this role?

Does your state, school district, or other educational administrative body use a specific technical term for what in this survey will be referred to as a Special Education Assessment?

Have you ever been a part of a Special Education Assessment team?

How many times have you been a part of a Special Education Assessment team (i.e. for how many individual assessments)? If a specific number is not known, for how many years and for approximately how many assessments per year have you been a part of Special Education Assessment teams?

What role(s) have you performed on Special Education Assessment teams?

Does your state, school district, or other educational administrative body use a technology tool such as an app or online portal for Special Education Assessment?

If you do not use an app or online portal currently:

Do you think it might be helpful as a Special Education Assessment team member to have an app or online platform you could use on a tablet that guides you through the process of evaluating a student’s Special Education needs for the first time and subsequent times?

Do you think such an app or online platform would hinder the process of being present for the evaluation with the students?

What would you want to see included in an evaluation app or online platform?

If you do have an app or online portal currently:

Is the technology tool in the form of an app, in the form of an online portal, or in another form? If it is in another form, please specify.

For the following questions, the term “app” will be used to refer to the technology tool, in whatever form it takes. If your technology tool is not an app, please still answer them as they would instead relate to the technology tool you use.

What is the name of the app?

How long has the app been in use by your educational organization? (If it has been in use since before you began your role as a Special Education Assessment evaluator, you may state that).

Describe the workflow of using the app. For example: What steps are involved? What tabs, pages, or sections of the app are there to navigate between?

How easy is the app to use on a scale of 1­ to 5? (1 being very difficult and 5 being very easy)

What are the most convenient aspects of using the app?

What improvements do you imagine would be most helpful to such an app?

Is there a section that guides you through how to conduct the Special Education Assessment?

Is there a section of the app dedicated to scheduling the multiple people involved in an individual Special Education Assessment?

Is there a section for documentation for an instance of an assessment?

Are you able to switch between working on multiple students’ assessments, or do you need to fully process one student’s assessment before moving on to another student’s?

**How would you approach best *tracking and analyzing your data/findings*?**

I would input responses into a spreadsheet and color code them to analyze emerging patterns.

**How would you *document, report*and best *convey* your findings to key stakeholders?**

I would create a slide deck with or web page with key findings from responses, using some of the highlighted sections from the spreadsheet.

**If there were *additional phases of research* your initial research could potentially influence, what could those possibly be?**

With the proper steps having been taken to approve app testing by state and/or other agencies for a real-life scenario, this could be an option for later iterations of the app.

Before that point, it could also be an option with similar steps taken to approve the video release to observe recordings of evaluations as they are performed currently.

**What issues, roadblocks, challenges do you potentially see arising?**

Not being able to recruit enough participants could present a challenge.

Not getting enough variation in experience level for meaningful comparisons could also hamper research, although not crucially.

If there is already a highly effective app that is being widely used, there might not be demand for such an app. However, if there are already apps in use, finding out from surveyees how effective they are and how they could be improved could be useful.

Information Security: information privacy policies may prohibit student data from being on an app or tablet if not secured.

Reflection

**What biggest learnings did you gain from completing this assignment?**

I learned about the kinds of further questions that stem from an original research question. I also learned what to do as far as methodologies with branching research questions and how to think about potential roadblocks to the research process ahead of time.

**What was challenging about this process?**

Starting out was the hardest part, and I think that’s because we are creating the setting. In a real research setting, the research questions I think would form more naturally. Once started, the process did flow and went pretty smoothly.

**Is there anything you would change if you approached this project again?**

If I were to approach this project again, I would do more preliminary research. I did do some, but there is always more to do and further and deeper to go. That initial step is what helps crystallize and clarify the research question(s) and that’s where everything else comes from.

Other Reflections

I noticed that the list of eligibility categories for learning disabilities that Joey sent me (at least for California) seems to be somewhat incomplete. I’m not an expert in this field, but the list includes:

Autism

Deaf-blindness

Deafness

Emotional Disturbance

Hearing Impairment

Intellectual Disability

Multiple Disabilities

Orthopedic Impairment

Other Health Impairment

Specific Learning Disability (SLD)

Speech Language Impairment

Traumatic Brain Injury (TBI)

Visual Impairment

It is strange to me that there are separate categories for “Hearing Impairment” and “Deafness,” and one for “Visual Impairment,” but none for blindness, even though there is one for “Deaf-blindness,” which is the concurrent condition.

This makes me wonder if there are any other categories or distinctions that someone more expert in the field of learning disability would notice. I suppose that “Specific Learning Disability (SLD)” could be used for anything that doesn’t fall under the other twelve categories, but it seems like it would be useful to have more common learning disabilities as further options.

This reminds me of the different Student Learning Styles (10/19/2022 Lecture), but it’s sort of the opposite in a way. I wonder if, as the education world begins to recognize more common ways that students learn, instead of thinking of everybody’s learning styles as individual specific beyond a few limited options, as it’s been thought of in the past, it will simultaneously recognize more common learning disabilities that prevent learning by certain channels, instead of similarly viewing it as individual-specific beyond a few limited options. It appears from the list Joey sent me that this process is already unfolding with the number of categories that already do exist, which is good to see.

In the vein of Vygotsky’s Cognigitive Development Theory (10/10/2022 Lecture), I wonder if there could be developed a Cognitive Non-Development Theory that would take into account all these different possible factors that can impede learning and cognitive development in a reductive feedback loop.

This ties back into the very common theme, voiced by Snitker in “User Research with Kids,” multiple authors in “Exploring key issues in early childhood and technology,” that you can have a plan when it come’s to working with children, but you need to be flexible to be able to work with their needs and learning styles and abilities.

A fitting Fred Rogers quote also comes to mind: “You are a very special person. There is only one like you in the whole world. There's never been anyone exactly like you before, and there will never be again. Only you. And people can like you exactly as you are” (“Won’t You Be My Neighbor?”).

Accessibility, inclusivity, and acceptance of all people are apparent themes of the direction that society, especially the culture of the youth, which drives the change in society, are moving, despite the many challenges we all face in the digital era, as is apparent in “Childhood 2.0.” What will Childhood 3.0 look like? How can we help drive change to make it better for all children, regardless of learning ability?

**What would you like to learn more about when it comes to the space of research for the educational, child development, technology fields?**

For each of these fields, how business relates to them and what kinds of business terminology is similar between them and different between them is something I’d be interested to learn more about. Sharon, Theresa, and other guest lecturers have mentioned that business fluency is key in order to present research findings to executives and other groups of stakeholders.

**Requirements**

* Students must present and turn in a presentation**by 12/12 at 5:30pm**
  + You will **not** present your entire project, you will just give a brief (2-4 min) overview and review a few questions with the class **on 12/7**:
    - **Why is the guest lecture area you picked interesting to you?**
  + Learning styles and ability vary so much with children, especially when it comes to special needs. Determining how students with special needs are evaluated and classified has interested me ever since, and even since before, I had a joint PE class with a Life Skills (Special Education) class in my senior year of high school.
    - **Why did you decide on this topic?**
  + I had previously corresponded with Joey about how evaluations take place, so I already had some information on the topic.
    - **What about the guest lecture inspired you to want to learn and explore more?**
  + Joey’s enthusiasm for working with the students she works with was infectious. Also, I could see the masked disappointment on her face after she ended her guest lecture, opened the Zoom call for questions, and we didn’t have any. I imagine she gets that sort of non-response from people often, with Special Education making most people just uncomfortable enough not to want to ask a question that would offend her or her students, so she was able to mask the disappointment well, but in looking forward to her guest lecture, of which I’m not sure how many or how often she has done to people outside of her field, she was probably imagining based our course topic that we would have a lot of interest and follow-up questions. I did, but wasn’t able to verbalize them at the time, which might have been the case for others of us as well, so I decided to follow up with her via email. She was of course, being Joey, very excited to respond to my questions.
    - **What is the research question you are interested in answering?**
  + Is it helpful as a paraeducator evaluator to have an app or online platform you could use on a tablet that guides you through the process of evaluating a student’s learning disability(ies) for the first time and subsequent times? Or would such an app or online platform hinder the process of being present for the evaluation with the students?
  + Would it be easier, less distracting, or otherwise better to simply fill out a paper copy of the form?
  + Or would it be easiest and least distracting to simply conduct the evaluation from memory? Is the process reasonably memorizable with 100% accuracy? What are the consequences of missing a step in the evaluation?
  + What would you want to see included in an evaluation app or online platform?
  + If one already exists, what improvements do you imagine would be most helpful to such an app or platform?
    - **Why did you choose this research question?**
  + The evaluation process seems long and complicated. Simplifying or displaying it better if possible seems like it could reduce the strain on a group of teachers who already perform a job on a daily basis that isn’t easy.
    - **Why is this research important to answer?**
  + Finding the answers to the research question and subquestions could improve the process of learning disability evaluation, potentially making it more accurate and standardized, easier to schedule, and easier to accomplish multiple times for a given student.
    - **What was your approach to researching?**
    - Determine demographics that would be useful to gain data from
    - Split long research question into survey
* Students must answer all outlined prompts and questions from sections listed above
* Students must reference at least 4 class readings/videos, 3 lectures, and one guest lecture

**What Do I Expect to See in Your Presentation?**

* Answer *all* questions listed above
* Thoughtful analysis and presentation tying in readings, class lectures, applicable guest lecturers, various observations and personal experiences if applicable. This exercise should make you ask questions and explore various ways to think about things. With your presentation, I encourage you to bring your open questions to class for all of us to discuss
* Be creative with the way you put your presentation together. Have fun with this!!
* Keep in mind that this could be a great start to research you may want to conduct in the future.
* This a great start to a project you can include in your professional portfolio