Research as transformational experience:
What students gain from research assignments
The Assessment Seminar

• **Round One** - 96 first / second-year students

• **Round Two** - 30 third-year students

• **Round Three** - 96 final-year students

• **Round Four** – 111 first-year students
The Difference Time Can Make

1\textsuperscript{st} and 2\textsuperscript{nd} years:
Research=library, prior knowledge
Novice understanding of information

3\textsuperscript{rd} and 4\textsuperscript{th} years:
Research=original work, new knowledge
More expert use of information

Research≈Transformation
The Difference Time Can Make

1\textsuperscript{st} yr:
“I know going into it kind of what my point of view is, and then you look for articles and other sources that kind of fit.”

4\textsuperscript{th} yr:
“The ability to ... intelligently differentiate good research from poor research, and how to compile that into my own opinion. How to take many different views, and come up with sort of my own”
Rewards for Research

• Extraction

• Learning

• Transfer/Transformation

• Joy/Passion
Extraction

• “It feels like they’re just like, ‘OK, here’s this paper’ ... ‘Do this, find your articles, and back up what you’re saying,’ and you don’t even know what you’re saying.”

• “So really it feels like I’m regurgitating research. None of it is really my writing.”

• “The more deep comprehensible stuff that they like really want you to find, I had troubles pulling that out.”

• *Scholarship as Conversation* – novices feeling excluded
Learning

• “As much as I hate them it’s been papers hands down. With all of the research and referencing and that, it definitely expands your knowledge bubble huge.”

• “But you do learn, and you’re never going to forget that stuff because you go into it”

• *Information Creation as a Process* - students as producers
Transfer

• “And I like being kind of more knowledgeable about it so I can harp all of my friends and stuff for having unprotected sex.”

• “I still use my research methods ... to know how it’s scholarly and all that stuff... just really finding resources that I can turn to even if I don’t know something.”

• *Information has Value* – solves problems
Transformation

• “I thought that our justice system was stupid but then I actually did a paper on it and it helped me to learn there are reasons why some people can’t be sentenced to like, life or something.”

• “There’s different kinds of feminism and I kind of discovered what type I most fit with. I discovered that I thought I could change things through media and communication”

• Scholarship is a Conversation – students affected by/join the conversation – also #critlib
Joy/Passion

• “I love doing research, which is why I am in History. ... the information you learn from papers are amazing”

• “Like, the research is actually fun; I have fun learning this”

• “I never knew how much I liked research before I came to the university. Just doing all these different assignments, I’ve found that I just love to learn”

• Research as Inquiry (?):- curiosity
Frames/Threshold Concepts

Authority Is Constructed and Contextual
Information Creation as a Process
Information Has Value
Research as Inquiry
Scholarship as Conversation
Searching as Strategic Exploration

*Some statements may be pre-threshold
Notes on Activity

Participants reported out from their readings of students’ statements, identifying a number of Frames/Threshold Concepts, words in italics are from the quoted statements, BUT – I got caught up in the discussions and so didn’t take everything down.

“being able to see things, not only from just a completely different perspective” authority is constructed and contextual
“smart people out there and they said some really fantastic things and people tend to forget about these people and what they said.” authority is constructed, information creation as a process
“I became more curious about things. So I don’t let some stuff pass by me that I think are interesting.” research as inquiry, contributing to scholarship as a conversation

“And it just opened up this huge, wonderful sack of worms that I just couldn’t get enough of and yea” Open to passion, research as inquiry, information has value, searching as strategic

“But, um, another course that I had didn’t have material, so that’s when it was different because it was mostly case studies. And so the words used within class like verbally were difficult because the whole class seemed like they were (—) knew what the teacher was talking about and I had no idea what that word meant. So that’s when it was hard. “
“I: Was there anything that you developed to help you with that?”
“P: Um, I think it was mostly researching it and kind of just talking about what you knew and just avoiding that vocabulary so you wouldn’t get marks off for not knowing what it meant. So just using what you knew rather than what they were saying” Scholarship as authority - taking authority from other people in class – then figured out place, and research as inquiry
“You read it over multiple times and then you go to different sources and find what the heck he is talking about so you are going to have to read like four or five times and go other places and get information.”
“I= What kind of other places?”
“P= As simple as Wikipedia to as complex as a mineral database to figure out what the hell is going on.”

Scholarship as a conversation (where level of knowledge of language limits participation)

Research as Inquiry

P: “Yeah, um, we do have a term paper and we had to pick a case study for it. And the case study I picked, I like can’t understand half of the words. But I talked to my dad about it because he was a biology major, I think, and he sort of read it and was like yeah, this and this and this, which really helped.”
“I: Yeah, for sure. And that’s the only thing you’ve kind of (—) maybe the language is the only thing you really struggled with?”
P: “Yeah, the language is weird.”

Scholarship as a conversation (where level of knowledge of language limits participation)

There were some statements around Searching is Strategic, mostly referring to an interaction at the refernece desk or in clas whre a library person demonstrated the major and minor arcana of searching, e.g.

“I’d say at the library, people at the help desk when you can’t find a book or you don’t know what kind of symbols or key words to type in like in your search bar to find a resource that you need. It’s real helpful when they show you how to do it and all the little tricks, what you need to click on to find what you need.”

Notes from the discussion that I cannot link to the discussion:

‘Research’ and ‘knowledge’ are also constructed and contextual

Comments related to sales and costs may indicate that information has value
Ideas and Action

• Students appreciate ‘going deeper’
• Students appreciate becoming experts, sharing knowledge
• (Some) students enjoy challenging their own perceptions
• (How) Does this fit with the Framework?
• How can we foster better research experiences?
In a final discussion we talked about how we might translate knowledge from this project into Assignments and Teaching

Insights from participants:
We need to realize that students may not be comfortable challenging their perceptions – emotion/affective issues need to be recognized (for more on this see Perry’s stages of development; Magolda; Kuhlthau)
What can they talk about - internalization and readiness to interact with new ideas

We need to develop assignments that work with where students are, understand their position

Start with research as exploration
Metacognition – culture of undergrads – fostering reflection and highlighting process are important
Exploration – find a source, then scholarly material, i.e. find a popular article then try and track back to scholarly article about the study.
Thanks and Reflections

First – I’d like to thank the participants for their enthusiastic delving into the student statements, and for their insights and ideas – happy to continue the conversation if you’d like to get in touch – mmacmillan@mtroyal.ca.

Some people asked for more information about the study that generated the data I’m using – It’s the MRU Assessment Seminar and more info than you could ever want can be found here. [http://www.mtroyal.ca/ProgramsCourses/FacultiesSchoolsCentres/TeachingLearning/assessmentseminar/index.htm](http://www.mtroyal.ca/ProgramsCourses/FacultiesSchoolsCentres/TeachingLearning/assessmentseminar/index.htm)


It was fascinating to hear what you found in the comments – I am gratified that I am not alone in seeing more than one frame even in some of the briefest statements. It was also interesting to see that others saw different frames than I had – does point to the need to find a partner or two in further research along this line!

Thanks again, and thanks to the WILU 2015 organizers who did a fabulous job!

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