

LOEX 2009 – Albuquerque, NM. Friday, May 1, 2009

Many paths, one journey: mapping the routes to information literacy

Margy MacMillan (Mount Royal College) mmacmillan@mtroyal.ca

The I-SKILLS Résumé project

The project is a long-term study, now extended to ten years, of the information skills and knowledge of journalism students. The I-SKILLS Résumé tool was designed to encourage students to reflect on and articulate their information skills, both as to foster meta-learning, and to help them prepare for interviews, develop portfolios, etc.

The research project was developed to answer a number of questions about the tool itself – was it easy to use, was it useful, and about students' information use – what did they consider to be information tools/skills, did the skills develop over time, and if so, how, what, if any, effect did integrated information literacy sessions have, etc. I had not anticipated that students would indicate as much as they did about where they learned information skills. Not all did so clearly, but some made definite links between particular classes, assignments, experiences and people from which or whom they learned. For the students, I think the process of completing the résumés encouraged them to see how work, personal interests and formal classes all contributed to their learning. More about the project can be found in "Open Résumé," cited below, and on my website: <http://www2.mtroyal.ca/~mmacmillan/research.htm>.

The process

Students were asked to fill out an initial I-SKILLS Résumé in November of their first year, after they had had some information literacy sessions integrated into a number of journalism courses. These were emailed back to the student in subsequent years for updating. Not all students who started the program completed it, and those who did sometimes neglected to send in their résumés. At the end of five years, I received a six-month leave to process and analyze the data. To do this, I adapted the phenomenographic approach Christine Bruce used in her landmark study: *The Seven Faces of Information Literacy*. I highly recommend her work to anyone interested in qualitative research. The analysis involved reading through the résumés, iteratively developing and coding categories of statements, and looking for patterns, convergences, differences and other interesting bits that jumped out. This form of study allowed me to recognize and track both the individual experiences of students and trends that occurred over time.

The results:

Looking at a single cohort of 44 students who enrolled in the program in 2005, I observed the following trends on where/how students gained information literacy skills:

Self – 13 responses, most in 1st year, 5 changes

- Self-teaching on search engines such as Google, Yahoo etc
- Self-teaching (2) natural curiosity (3) analyzing info and details is pretty much a hobby of mine

People - 4 responses– profs, relatives, librarians.

- I already had some research skills...mainly taught me by my cousin, a computer technician

Communication/Journalism Classes - 41 responses, 19 in first year + 10 changes

- I often use the reverse phone look up you taught us in first year
- I've done library sessions in acom 2207, acom 2211, acom 2231 and all were helpful. I will admit I only used google (and the like) before these sessions but now I have a broader knowledge of what there is to search on the internet (2) the research classes have only helped me define those skills ..okay at doing this before last year but have definitely improved since taking classes with you....You refreshed my memory in 3345 (3) have been able to find articles for psych and polisci classes this semester because of what you have taught me. many research sources I learned about were also helpful on my dfs
- I have done library sessions on finding the validity of websites, on finding information on writing and other works of communication scholars and have learned about the world of blogs. The before-mentioned skills have been acquired through acom classes. (3) Early on in journalism library classes showed how to find good articles; however I never really found practical use for that knowledge. Last semester I was suddenly hit with an influx of essays to do, and all required sourcing from scholarly journals. My instructor refreshed my knowledge on how to find articles in acom 3383.

Other classes 28 responses – 18 first year, 5 changes - most referenced their English composition course., others included history, sociology, archaeology and astronomy + 2 previous post sec, 2 mentions of high school

- also took polisci/media course learned a lot about govt. and different websites,...Geography also helped finding information using the internet and demographics
- Specific library sessions which introduced the skills of general searching in the specific field. Eg Biol 2231 introduced publish experimental data and scientific studies

Communications Work (including work on the Journal, DFS work, other relevant work) 11, 5 changes from yr. 2-3

- the experience of being an active working journalist for the Journal has taught me about searching for press releases and important contact info... actual work experience is invaluable...in terms of developing my research skills over the past few years, i think they have developed mostly through necessity working as a journalist
- Fact-checking for the Journal has polished my info skills
- searched many govt. websites and searched extensively on the internet for story ideas and sources while at the Metropolis leader
- Acom 3325 researching relevant info to prove a point in editorial;

Hobbies/Personal Interest - 16 – including 6 changes

- ...avid hockey fan therefore, finding info such as hockey stats... I've become pretty good at finding

Other results

Many of these are reported at great length in “Watching Learning Happen,” cited below. An analysis of the résumés of all the students who submitted more than once showed change along three main lines – location of information (the range of tools students used, and the sophistication with which they used them increased over time), use of information (as students moved through the program, they linked information skills more explicitly to journalism skills) and subject knowledge (students broadened the areas they felt comfortable researching). These changes occurred in response to the factors we've seen in the exercise today, and also to the information environment and changes in the curriculum. Other interesting numbers:

- 65-84% of each cohort include books
- 75-91% include articles
- 75-93% include web searching (but fewest mentions of Google in 2007 cohort)
- Articles and web showed most changes over time

What it means for teaching

Information from the résumés has helped me improve my teaching, target the workshops to what students really need, and collaborate with faculty in the Journalism department. I now want to leverage students' experience in searching for their personal interests to map those skills to academic and professional needs.

I would like to encourage you to use the I-SKILLS Résumé, and I'd be really interested to discuss results with you! Please stay in touch, and feel free to contact me if you have any questions about the tool, the data, the research project, the weather in Calgary, anything at all, really....mmacmillan@mtroyal.ca 403-440-6135.

References

- Bruce, C. (1997). *The Seven faces of information literacy*. Adelaide: Auslib Press.
- MacMillan, M. (2009). Watching Learning Happen: Results of a Longitudinal Study of Journalism Students, *Journal of Academic Librarianship*, 35, (2), p. 132-142 (includes an extensive literature review).
- MacMillan, M. (2005). Open Résumé: Magic Words for Assessment. *College & Research Library News*, 66, (7), p. 516-520.

many paths, one journey

mapping the routes to information literacy



Roadrunner seen at Rio Grande Nature Center

Margy MacMillan

Mount Royal College

LOEX 2009, Albuquerque

May 1, 2009

many paths, one journey

What we'll do in the next hour

- Very **brief** introduction to the research project
- Work with data based on materials from the project
- Discuss benefits and challenges of qualitative data

(you'll get a handout at the end with more information, I promise!)

The I-SKILLS Résumé Project

Goals

- Encourage reflection and articulation
- Observe changes in skills and knowledge
- Observe what students considered to be information skills

Evidence of where learning occurred was a bonus

The I-SKILLS Résumé Project

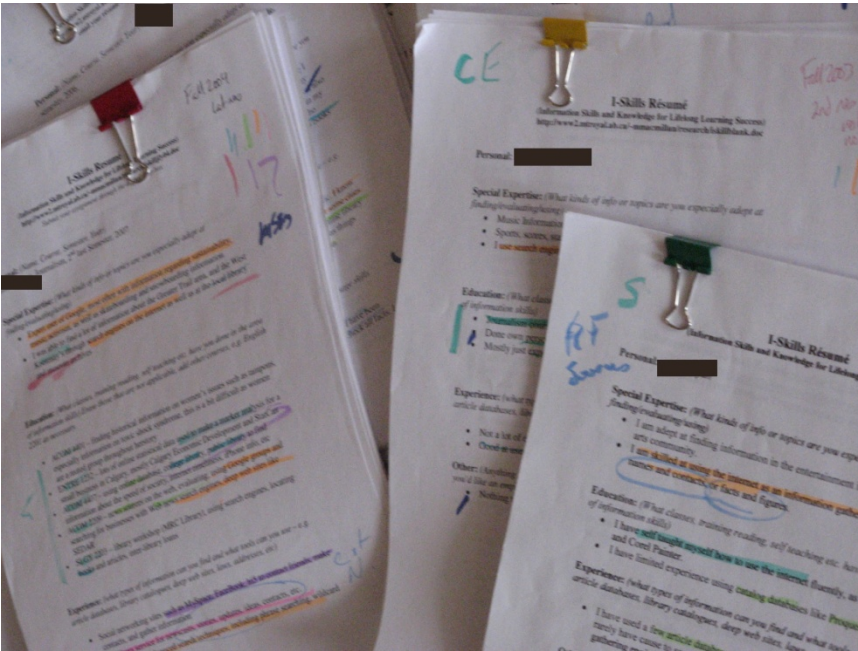
The journalism program at Mount Royal was a three-year Applied Bachelor's degree that included two Directed Field Studies.

- 5 years
- 178 journalism students
- 306 résumés

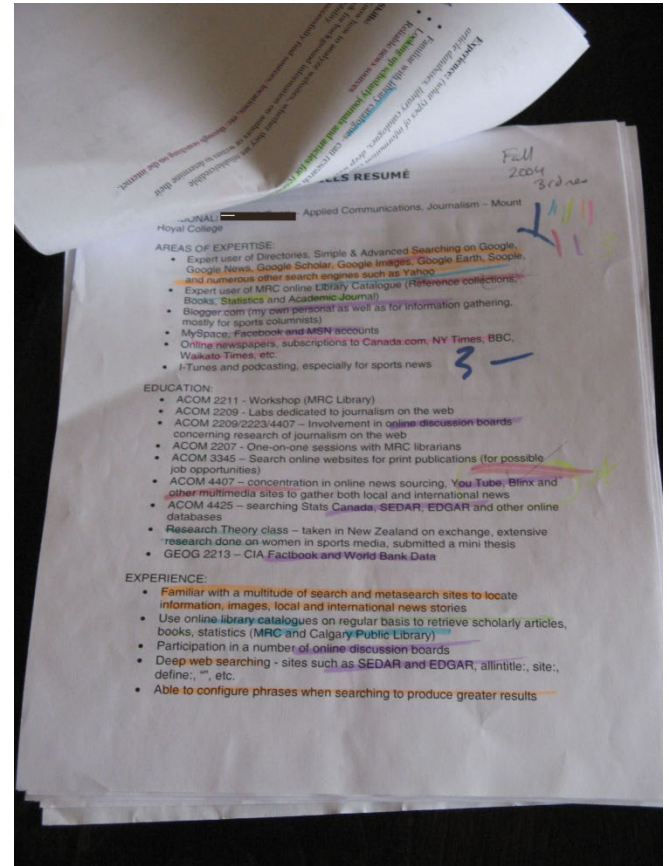
The Result:

Piles of data!

How to make sense of it?



Did you know highlighters came in at least 16 colours?



Things you need to know

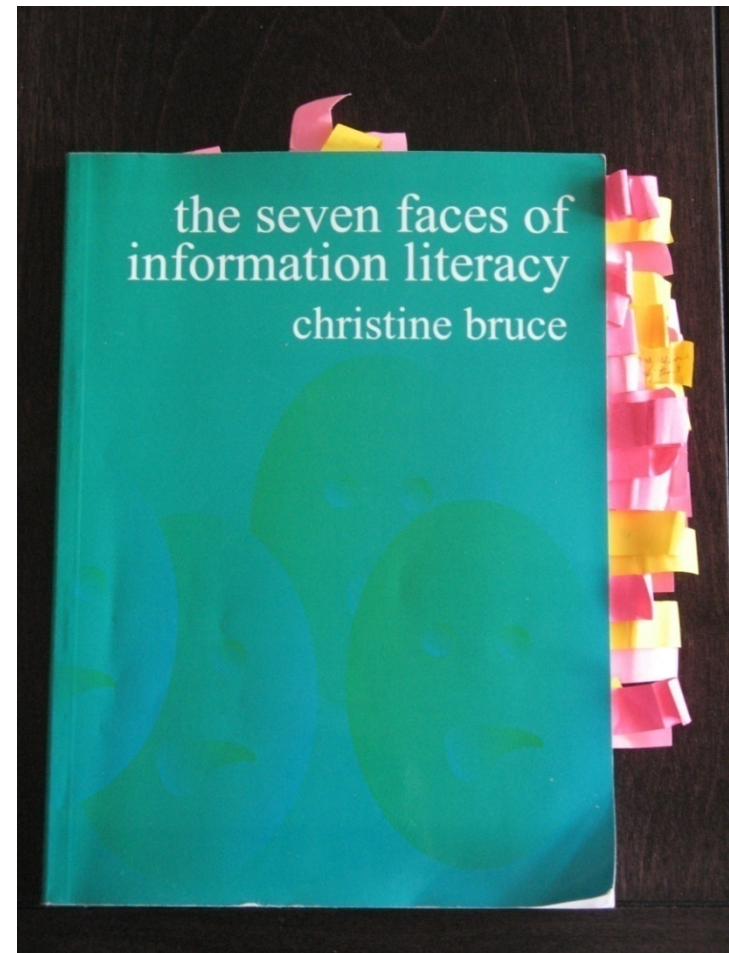
- DFS=Directed Field Study – a paid internship
- The Journal is the community newspaper published by the program
- ACOM 3327 is the course where the Journal is produced
- At Mount Royal first-year courses used to be given '2000' numbers e.g. 2207

Everyone worked very hard



Turning data into knowledge

- Valuing individual experiences – a mindset
- Categorizing experiences to see trends
- Focusing on specific aspects – e.g. changes, technology, source of knowledge



Codes for “Work/DFS”

2,3	found info on joint replacements, RM house for stories 3) I have found a lot of useful info while on my dfs about the health of people in the capital region, as well as info about fires
2,3	Fact checking for the Journal has polished my info skills 3) I did a dfs at the real estate board ...where I had to fact check every article, sidebar and all the me
3	ACOM 3327 newsroom skills self teaching
2	ACOM 3327 researching numerous sources online
3	being a student - great deal of perks...developed skills on dfs ability to look up law cases and legislative cases through various govt. records websites, way of learning about people in the community
2	ACOM 3337 news writing course that involves stories with research
3	searched many govt. websites and searched extensively on the internet for story ideas and sources while at the Gotham leader

Your thoughts?

- The students appeared to be honest
- Could ask students follow-up questions to get more detail or a better understanding of what they meant to overcome vocabulary challenges/interpretation issues.
- Look at surveys in information-seeking behaviour field for wording of questions or prompts
- Could ask them to provide an example of how/what they used
- Could ask them to turn in evidence as well to see if they really know what they think they do
- Could **ask** them to state explicitly where they learned things – would provoke deeper reflection (side note – students whose first submission is a deep reflection get even deeper over time.)

Your thoughts, continued

About qualitative research....

- Have a partner – another set of eyes is always good
- Have a rubric – to improve inter-rater reliability (Even if it's a really long rubric it would be helpful, but one page would be great)
- Could database rubric scores – use Likert scales develop quantitative data based on scores
- Need to be aware of biases – get away from personal biases – not putting too much of self into the interpretation – (it's really easy to fall in love with your data)
- Could teach others to use rubric to score more data – maybe a sliding scale showing closeness or distance in relation to librarian goals

Your thoughts, continued

Other questions to ask

- Questions relating to affect – (I haven't yet developed this as a category – but it would be interesting to look, and to ask about this in other ways.)
- One student noted external sources, not internal skills as only source of growth
- Open ended questions produce interesting data
- (from one group) – Could ask what do they see as gaps/what do they want/need to learn
- Seeking help from a person – studies on how scientists find info (and Christine Bruce's work) place value on using other people - not valued by most assessment tools which place emphasis on independence.

Your thoughts, continued

- Could ask “How would you word this on your résumé” and give suggestions to prompt more thoughtful reflection (side note – quotation from John Dyer: “Understanding comes at the point of articulation”)
- Could work with students on portfolio pieces demonstrating research skills,
- Could use PbWiki for multimedia portfolios

Interpreting the data

- What to with ‘hockey’ – information skills from leisure pursuits/personal interest – different motivation – searching for self – not trying to please an instructor – more persistence?
- Can also learn to evaluate when searching for personal interest

Thank you!

Thank you for your thoughtful contributions. I hope you had as much fun at the session as I did.

Please make sure you pick up a handout.

Available at

<http://www2.mtroyal.ca/~mmacmillan/research.htm>

Margy MacMillan

Mount Royal College

LOEX 2009, Albuquerque

May 1, 2009