

**Seton Hall University**

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# Ecology, Information Literacy and Bernard Lonergan: A Librarian Immersed

Lisa M Rose-Wiles, *Seton Hall University*



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# Praxis Pilot of Advanced Seminar on Mission .. Spring 2013

**Mission:** to engage Seton Hall faculty and administrators in a process to develop educational support designed to apply the mission of the university to their disciplines, through a method which connects the disciplines to each other, to an integrated understanding of knowledge, and to the Catholic Intellectual Tradition.

**“forge a framework for interdisciplinary cooperation”**

**Goal:** To utilize the Generalized Empirical Method (GEM) to help participants to apply this method to their disciplines/professions.

16 participants (faculty & admin); 10 continue as “GEM Fellows”

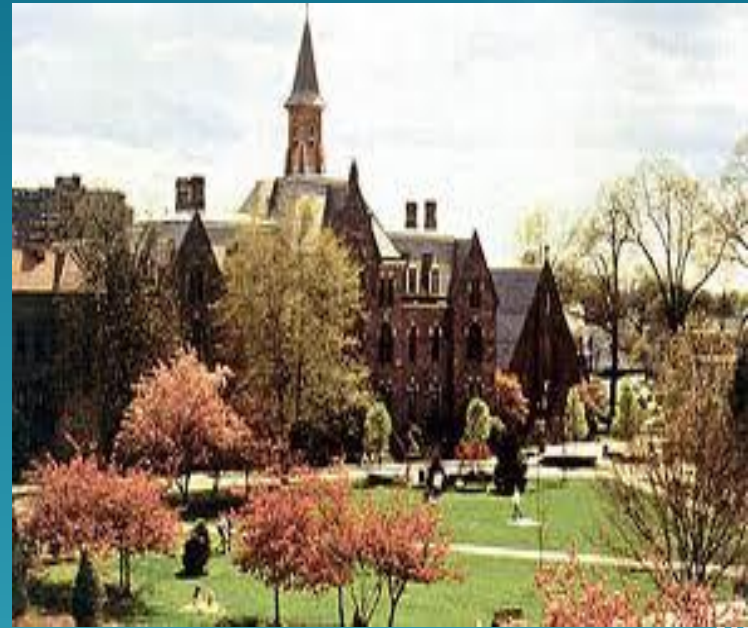
# Bernard J. Lonergan (1904-1984)

Catholic philosopher and theologian whom *Newsweek* cited as among the finest philosophical thinkers of the twentieth century."

His monumental work *Insight: a study of human understanding* (1957) strives for a comprehensive view of human knowledge and understanding

... and develops the Generalized Empirical Method (GEM)

# Bernard Lonergan and Seton Hall University



*Bernard J. Lonergan Institute, Seton Hall University*

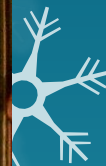
# Generalized Empirical Method

So what does GEM have to do with us and information literacy?

- Experiencing (data, images, senses) Information resources
- Understanding (questions for intelligence, confusion, doubt **insight**)
- Judging (truth, relevance, appropriateness)
- Deciding ... what to do, how to proceed
  - Typically a recursive and reflective process ...
  - *Sounds a bit like Carol Kuhlthau doesn't it?*



# 2013 "GEM Fellows"



# Applying the Method (ATM)

- The “end product” for our 2013 Praxis pilot – a proposal to “apply the method” (GEM) in our discipline or work.
- Mine was to partner with Praxis teaching faculty to integrate a GEM approach to information literacy into existing classes (with a forward glance that this might help us get what we really need, an information literacy credit bearing course!)
- The first class was BIOL 3241 “Ecology and Stewardship” with Dr. Marian Glenn (recently “information fluency infused” and cross-listed as a core curriculum course) in fall 2013.



# Some other influences

- My recent publication with Melissa Hofmann: *Still desperately seeking citations: undergraduate research in the age of web-scale discovery*. *Journal of Library Administration* 53.2-3 (2013): 147-166.

*Students really REALLY don't know how to do research!*

- Push for assessment: campus-wide (Middle States); assess effectiveness of library instruction and “information fluency infused” classes.

Both Marian Glenn and I were in groups that had assessment grants

- And – I was a behavioral ecologist in my past life!

# Ecology and Stewardship

Course aims and objectives: Students examine the inter-relationship of organisms with their environment, including the influences of human activities .... through reading, research, class discussion, field experiences and contemplative exercises.

Major assignment: Journal a semester long project (observation in a chosen “sit spot”). The journal records sense experiences and the questions that arise from them, and serves as the foundation for two research essays.

Two class sessions and one 3 hour weekly lab, 28 students.

# Guiding questions (from course syllabus)

## **How do you identify, find, understand, evaluate and use information?**

- How can new information be incorporated with personal observations and analysis to create a deeper understanding of ecology?
- What strategies are used in a well-developed research process?
- How is information structured and what resources are most appropriate for different stages of the research process?
- How does the practice of Bernard Lonergan 's GEM principles contribute to insightful learning?

# ***what did it take to be "embedded"?***

## **The short answer: "being there & being involved"**

2 formal library presentations (each about an hour)  
preceded by a long PowerPoint on Blackboard.

Attended most weekly labs (and one field trip)

With our TA, participated in lab exercises and discussions,  
informally or as moderators / small group leaders.

On Blackboard as "instructor", available via email and for  
individual 'help sessions' in the library

Grading – Nature essays 1 & 2 and annotated bibliography

# The grading rubric for essay #1

Topic	0	1	2	3
<b>Use of scientific sources</b>	No references cited	no scientific refs but others	at least 1 science ref + others	>=2 scientific ref + others
<b>For each scientific source</b>	Not relevant to the topic	Relevant but not integrated into the essay	Relevant and integrated, but not cited	Relevant, integrated and cited
<b>Body: Information properly referenced;</b>	No bibliography and no citations in text	No citations in the text OR no biblio	Correctly cited in text	Correctly cited in text and correctly formatted in biblio
<b>Introduction lays the path from experience to understanding</b>	No introduction	Intro presents their observations	Intro presents observations and questions	presents their observation, question and theory/hypothesis/methodology
<b>Body engages the topic with sufficient detail, explaining the material</b>	Body not related to question/topic	body is superficial description or report related to the question	body includes detailed description with good evidence of understanding and interpreting the data; AND clearly relevant to question.	body includes detailed description, evidence from multiple perspectives/appreciation of complexity, nuanced understanding of the data and relating to the question.
<b>Conclusion</b>	No judgment offered in response to the initial question	Judgment offered without evidence	Judgment offered with incomplete evidence pro and con	Conclusion responds to the initial question and sums up the evidence that addresses it, pro and con, concluding with a judgment
<b>Creativity</b>	No evidence of creativity	Creative title	Engagingly written w creative title	Elegant and engaging essay w creative title
<b>Grammar, spelling etc.</b>	paper lacks evidence of proof-reading	Numerous mistakes	Minimal editing needed	No or minimal copy editing needed



# A lesson learned from Essay 1

- students (mostly) found the required two or more scientific references, but actually relied heavily on “other sources” (undoubtedly found through Google). We gave students up to 2 chances to re-write and re-submit for final grade.
- For essay 2 (which required at least 3 scientific references), we added “you cannot cite a source unless you have an author and a date” – and no .com sites!  
**Ouch, painful!**
- We had a lot of class discussion about searching for, evaluating, integrating and citing sources!

# The hard evidence: Essay 2 vs 1.

Average score increased from 78% to 84%.

The difference was not statistically significant on ANOVA repeated measures ( $F = 3.03$ ,  $p = 0.095$ ,  $df = 23$ ).

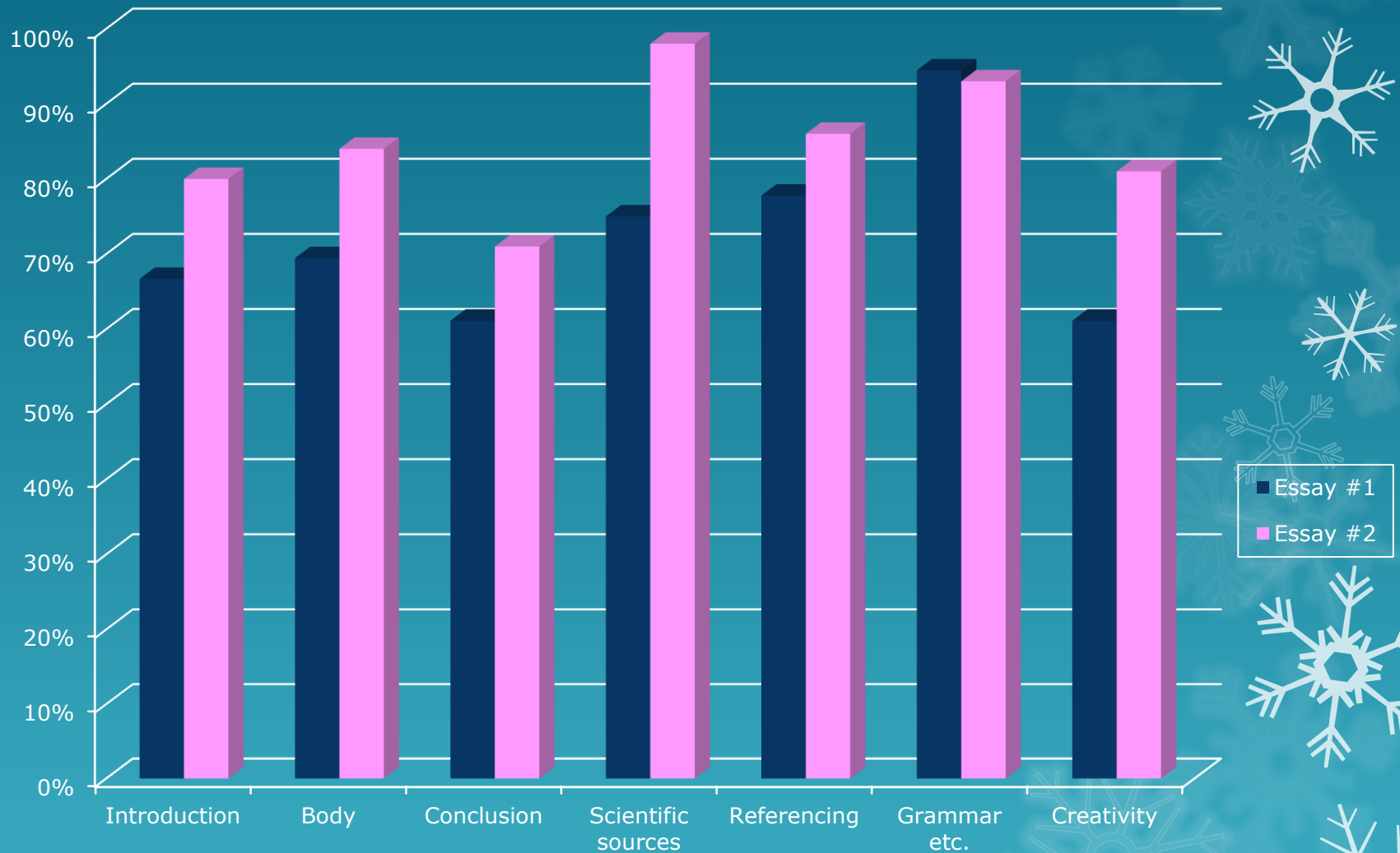
Improvement was not “across the board”: 3 did not submit essay #2, 8 had lower scores (average 9%), 1 was the same and 15 improved (average 13%)

Most improved areas: (having) scientific sources and creativity

Least improved: spelling and grammar, integrating sources.

Note: we definitely graded harder on the 2<sup>nd</sup> essay.

# Nature essay #2 vs. #1.



# So how well did we do?

- In general, moved from begging / cajoling / threatening students to get off Google and use the library resources

To

- Critiquing higher level skills of how to smoothly integrate and cite sources, how to “use your own words” and paraphrase instead of quote.

And

- Being more picky about citation style, spelling, grammar, flow etc. (and grading harder).

# Lessons learned

1. Surprise! Most students don't know how to do research. And say they've never been taught.
2. Many struggle with finding library resources. Even with our "single search box" (EDS) it can be complicated, challenging, frustrating. (Google is much easier)
3. Many struggle with scientific articles –find them hard to read and understand. (another reason they like Google)
4. Most don't take in much from one shot library sessions; reinforcement, practice and feedback are crucial.
5. Some "not very good" students write the most creative and insightful essays.
6. It's amazing what you discover about students when you become part of their class!



# Next mission ..

- This semester Dr. Glenn and I are tackling General Biology (BIOL 1201) with 3 lab sessions, hoping to capture science freshmen (and others) early in their academic journey.
- Next semester we hope to try working with Honors students.
- Two more librarians are joining Praxis this year. The work shall spread.
- If there were only world enough and time ...

# Acknowledgments

“Gem Fellow, Praxis Program of the Advanced Seminar on Mission, the Center for Vocation & Servant Leadership and the Center for Catholic Studies, Bernard J. Lonergan Institute at Seton Hall University. “



Thanks for your attention ..



# Thanks for your attention

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