

Research Proficiencies in Human Inquiry Applied to Doctoral Level Distance Education

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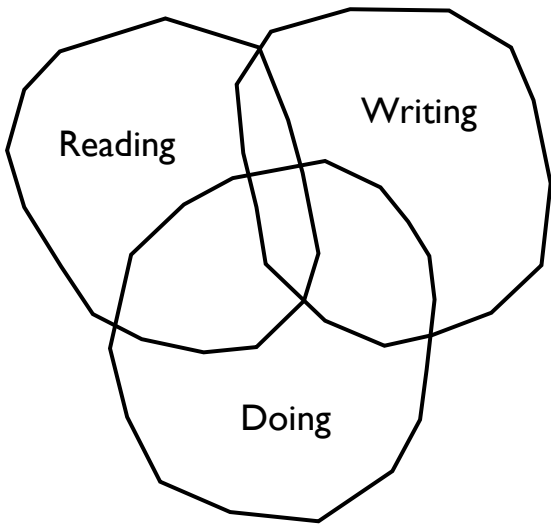


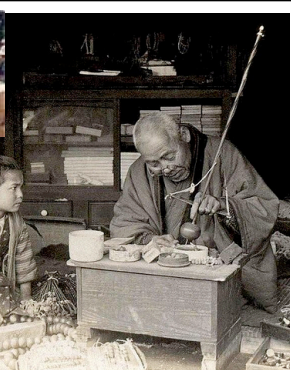
INTRODUCTION

- The purpose of this paper is to describe the development of a research competency based curriculum to enable doctoral level graduate students to do a dissertation.
- I convey the circumstances at my institution that led to this turn to a competency based approach.
- A skill set and curricular design have been implemented.
- A decade has past. Refinements continue.
- Outcome assessments have begun.
- This paper provides an account and status report.
- It conveys some directions being taken in the future.

General areas of research competency

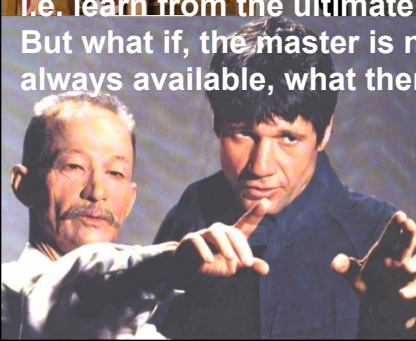
In 1999, our accreditation agency informed us we needed to do more. We interpreted the feedback that we had been teaching our students to read and write about research, but not sufficiently to do research prior to doctoral candidacy.





If you are going to learn to do research, the traditional model is observe and follow the master, i.e. learn from the ultimate expert.

But what if, the master is not always available, what then?



Research Competency

= performing a specific research task, action, or function successfully.

KNOW-HOW

(We asked the “know-how” question)

What do you need to know, that is,
what do you need to be able to do
to carry out research that leads
to completion of the final product
we call the doctoral dissertation?

• From the research literature, we know the model entails training and practice through a series of phases starting from wanting to know how, to doing the how of it expertly.

• We conceptualized doing well any research skill in terms of the five phases from novice to expert.

• But we described these 5 phases in terms of 4: acquiring, developing, becoming proficient, and mastering, since this language is favored by our accreditation agency.

Expert

Proficient

Competent

Advanced
beginner

Novice

When connecting the phases of mastery, novice to expert, to the idea of conceptualizing a research curriculum upon a research competency based model of graduate research training, the phases of one schematic easily translated to an equivalent one we used to further develop our research curriculum.

Develop

Become Proficient

Master

Acquire

Stages of learning by doing inquiry

CONVERGING

- Since founding of the university, a doctoral program consists of three stages:

Stage 1 = Pre Candidacy (courses)

Stage 2 = Qualifying for Doctoral Candidacy (exams)

Stage 3 = Doctoral Candidacy (dissertation)

- We saw the learning process of skill mastery spread nicely across these stages.
- The first stage is the time to acquire, develop, and become proficient at reading, writing, and doing research. Three sequential tiers of research courses were conceived for gaining research know-how.
- The second stage then is to evaluate the student (Tier 4) for readiness to do dissertation research (Stage 3, Tier 5).



Tier 5: MASTERING

Research know-how through doing dissertation research

Tier 4: Demonstrative PROFICIENCY

Qualifying for doctoral candidacy (to do dissertation research)

Tier 3: Becoming PROFICIENT

Research know-how through doing more pilot research

Tier 2: DEVELOPING

Research know-how through doing pilot research

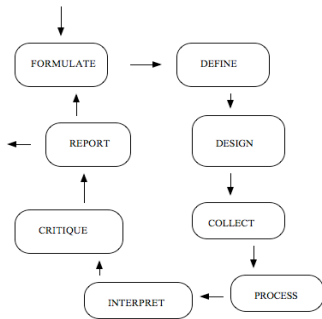
Tier 1: ACQUIRING

Research know-how through proposing research

INTEGRATION

Thus, the conceptual integration converged 5 tiers of sequenced research courses (we also refer to as the research curriculum or research sequence), 4 phases of skill building, and 3 stages of the graduate program into one confluent research enterprise in graduate education to enable students to do the dissertation.

But what of the specific research skills themselves?



THE GENERAL RESEARCH CYCLE

(c) Collier, A. (1993). *Human Science Research, A Systemic Approach to Disciplined Inquiry*. Seminar Supplement Walnut Creek, CA: HSR Seminars.

- There is a general skill set doing research with human beings.
- It tends to follow a reiterating cycle.
- The cycle can be described and understood in sociocybernetic terms.
- A general feedforward motion through the cycle occurs from exercising the skill set partly in solo and partly with others.
- Proceeding through the cycle involves continuous feedback loops between and among the various phases of the cycle.



COMPETENCIES FOR DISSERTATION RESEARCH

1. **Communication Format:** *To be familiar with the APA and dissertation formats used for writing and presenting research reports, theses and dissertations.*

2. **Abstracting:** *To be able to write an abstract of a research proposal and a research report in both APA and dissertation formats.*

3. **Information Search:** *To be able to conduct a search of information sources of a circumscribed subject domain, search the web, and use library resources effectively.*

4. **Critical Review:** *To be able to review critically a circumscribed body of published literature for the purpose of evaluating what is and is not known, and proposing a research question and a research project.*

5. **Question Formulation:** *To be able to focus an idea, question, problem, or issue in a subject domain and express the focus in terms of a researchable question.*

6. **Method:** *To be able to identify, discuss, and critique the principal features of a research project exemplary of a specific research tradition.*

7. **Process:** *To be able to identify the decisions to be made to carry out a proposed research project in a research tradition, and discuss and critique the process of conducting a research project typical of that research tradition.*

8. **Methodology:** *To be able to discuss and apply general concepts and principles of research methodology, such as validity, reliability, question formulation, design, observation, measurement, data collection, data processing, interpretation, and reporting, to a subject matter domain.*

9. **Method Selection:** *To be able to work the process of making the fit between the research question and the chosen research method to answer that question.*



COMPETENCIES FOR DISSERTATION RESEARCH

10. **Proposal Rationale:** *To be able to articulate and argue the reasons to justify a proposed research project.*
11. **Research Design:** *To be able to identify, discuss, and critique the appropriateness of the connections among the chosen research method, data collection, and data processing to answer the research question.*
12. **Research Plan:** *To be able to identify, sequence, discuss, and make the decisions necessary to carry out a research project.*
13. **Research Ethics:** *To be able to identify and discuss the issues, recommend precautions and procedures that will account for and protect those who will serve as the participants in proposed research, and know SIRB procedures.*
14. **Data Collection:** *To be able to identify, describe, and execute the exact procedures required to make observations and collect data needed to answer the research question.*
15. **Data Processing:** *To be able to identify, describe, and execute the exact procedures required to analyze and synthesize the data collected to answer the research question.*
16. **Interpretation:** *To be able to give meaning to the results of data processing in regard to the research question, the human experience, the research context, and the subject domain reviewed previously.*
17. **Reporting:** *To communicate the research project in a cogent, succinct, and systematic form that is in accordance with APA and dissertation formats and the research tradition it follows.*

Developed by the Research Committee of Saybrook Graduate School for application to the graduate programs, effective September 2000.

COMPETENCIES FOR DISSERTATION RESEARCH (revised, circa 2003)

1. **Abstracting:** Able to select and report the appropriate and essential information from the dissertation as an overview for the Abstract.
2. **Scoping Literature:** Able to evaluate and select appropriate content areas, information sources and depth of scope in reporting the literature relevant to the dissertation topic and question.
3. **Reviewing Literature:** Able to organize and review critically and professionally the literature presented in a manner that provides a clear background and basis for the purpose of the study.
4. **Questioning, and Formulating Purpose:** Able to articulate clearly the purpose and rationale of the study, and the idea, question, problem, or issue being addressed, taking into consideration relevant socio-cultural contexts and issues, contextualizing it in relation to humanistic psychology and/or the human science perspective.
5. **Selecting and Formulating Methodology:** Able to identify, describe and discuss the principal features of the methodological approach and specific research tradition being utilized, including epistemological and theoretical assumptions involved, and present the rationale for the selection of this approach to address the research question.
6. **Detailing Methods, and Executing Procedures:** Able to describe clearly and implement the methods and procedures relevant to the approach and research tradition being utilized including: selection of data sources (participants, existing textual materials, theoretical writings), data collection procedures (accessing, collecting, observing, recording data), data organization and analytic plan (process, design, meaning-making procedures for the data).

COMPETENCIES FOR DISSERTATION RESEARCH (revised)

- 7. Knowing Research Ethics:** Able to identify and address ethical issues relevant to the study and implement ethical standards to address them when applicable.
- 8. Analyzing, and Interpreting:** Able to select, describe, conduct, and evaluate the appropriate analysis for the data and question and interpret the results clearly and succinctly regarding the subject domain, and the human experience involved, in a manner consistent with the approach and standards of the tradition utilized.
- 9. Critically Evaluating, and Concluding:** Able to present and discuss clearly and succinctly implications and conclusions regarding the results, taking into account socio-cultural, theoretical and epistemological context and assumptions, alternative viewpoints, degree of generalizability, and strengths and weaknesses of the study, in a professional and scholarly manner.
- 10. Reporting:** Able to communicate the basis, understanding, and evaluation of the study in a cogent, succinct, well formulated and systematic manner, at the expected graduate level of written exposition and utilizing the professional standard of APA (or other approved) format for presentation.
- 11. Contributing:** Able to utilize original, critical and creative thinking to develop and implement a study that makes a meaningful contribution to the field in the area addressed, and that reflects and/or contributes to the humanistic perspective and values and/or the human science tradition.

Tier 5: MASTERING research know-how through doing dissertation research

1 Course: Disciplined Inquiry & Methods of Research V (Dissertation research up to 4 terms, orals to defend dissertation proposal and orals to defend full dissertation).

Tier 4: Qualifying by demonstrative PROFICIENCY for dissertation research

3 Courses: Disciplined Inquiry & Methods of Research IV (3 qualifying essays for doctoral candidacy plus orals on the essays).

Tier 3: Becoming PROFICIENT at doing pilot research

1 Course: Disciplined Inquiry & Methods of Research III (Research Practicum).

Tier 2: DEVELOPING research know-how through doing pilot research

1 Course: Disciplined Inquiry & Methods of Research II (Pilot research in one among several approaches of doing research).

Tier 1: ACQUIRING research know-how through proposing research

3 Courses: Disciplined Inquiry & Methods of Research I (Proposing research through circumscribed critical review of literature and posing researchable questions and procedures to answer the question posed), Library Competency (focused use of technology to access and retrieve resources and conduct searches).

Pre-candidacy Research Curriculum

TIER I: First Level Research Courses

(This level is about acquiring research competencies)

Information Competency and Library Use (1006)
Disciplined Inquiry & Methods of Research (1005)
Disciplined Inquiry & Methods of Research (1015)

TIER 2: Second Level Research Courses

(This level is about developing research competencies)

Experimental Research Methods (1030)
Qualitative Research Methods (1040)
Applied Program Evaluation (1050)
Case Study Research Methods (1140)
Action Research (1150)
Systems Research (1160)
Methods of Research in History and Philosophy of Psychology (1170)
The Descriptive Phenomenological Method (3130)

TIER 3: Third Level Research Courses

(This level is about becoming proficient in research competencies)

Research Practicum (1100)



Pre-candidacy Research Curriculum

TIER 1: First Level Research Courses

(This level is about acquiring research competencies)

Cohort type courses offered via Moodle learning platform to introduce approaches and traditions of human inquiry that are to become the inquiry foundation acquired for doing research in subsequent courses.

TIER 2: Second Level Research Courses

(This level is about developing research competencies)

Individualized and cohort options offered via Moodle platform in an approach and tradition of human inquiry that applies through pilot research the inquiry foundation acquired in the foundation (First Level) courses.

TIER 3: Third Level Research Courses

(This level is about becoming proficient in research competencies)

Individualized course offered to strengthen skills doing pilot research beyond second level courses toward proficiency to qualify for doctoral candidacy and dissertation research.





First Level Research Courses

Tier 1 - Disciplined Inquiry & Methods of Research (DI&MR)

[RES 1005]

(This level is about acquiring research competencies)

Unit 1: Introduction

Unit 2: Methodological Foundations: Positivism, Human Science,
and Postmodern Perspectives

Unit 3: Positivism and Quantitative Methods

Unit 4: Humanistic, Transpersonal, and Existential Research

Unit 5: Phenomenological Methods and Grounded Theory Research

Unit 6: Preliminary Research Proposal Development and Writing, and
Critical Thinking about Research

Aim: Research Focus, Critical Review, and Research Question.



First Level Research Courses

Tier 1 - Disciplined Inquiry & Methods of Research (DI&MR)

[RES 1015]

(This level is about acquiring research competencies)

Unit 1: Case Study Methods

Unit 2: Archival and Historical Methods

Unit 3: Organizational Systems and Action Research

Unit 4: Sociocultural Context, Perspectives, and Research

Unit 5: Research Proposal Development and Critical Thinking

Unit 6: Research Proposal Writing and Ethics


Aim: Refinements (research focus, critical review, and research question), Choice of Method, and Research Proposal.

Second Level Research Courses

(This level is about developing research competencies)

Individualized and cohort options offered in an approach and tradition of human inquiry that applies (through pilot research) the inquiry foundation acquired in the foundations (First Level) courses.

Required: One 3 unit course to be designed and approved by the instructor in any one of the following:



Experimental Research Methods	Qualitative Research Methods
Applied Program Evaluation	Case Study Research
Action Research	Systems Research
The Descriptive Phenomenological Method	Spiritual Inquiry
Arts Based Inquiry	Narrative Inquiry
Auto/biography	Auto/ethnography
Collective and Transformative Inquiry	Ethnography
Methods of Research in History and Philosophy of Psychology	
Research Methods to Develop Community	Grounded Theory Research
Other	

Third Level Research Courses

(This level is about becoming proficient in the research competencies)
Individualized to strengthen skills doing more pilot research beyond second level courses toward proficiency to qualify for doctoral candidacy and dissertation research.

Required: One 3 unit course to be designed and approved by the instructor in any one of the following:



Research Practicum

Note: May be continued mastery of the approach and tradition chosen to meet the second level requirement or learn another approach and tradition.

Tier 4 - Disciplined Inquiry & Methods of Research IV (DI&MR)



Qualifying for Candidacy Essay 1: The course engages the student in writing a critique essay of a completed dissertation with particular attention to its methodology. [RES 9010]

Qualifying for Candidacy Essay 2: The purpose of the course is to write an essay that entails an exploration of an area of research interest to demonstrate proficiency in research competencies to undertake a dissertation. It can explore any focus of interest within the program taken, manifest in a constructively critical review of relevant theoretical, empirical, and historical literature on the selected topic. [RES 9020]

Qualifying for Candidacy Essay 3: The purpose of the course is the same as the other two essay courses. This course requires another content oriented essay. The third essay must be clearly different and distinct from Essay 2. [RES 9030]

Qualifying for Candidacy Exam: The three essay courses are to provide three written scholarly demonstrations of readiness for admission to doctoral candidacy. Completion of the Essay Stage occurs by a successful oral exam session on the three essays, any connection they might have with Pre Candidacy courses taken, and articulating an idea for a possible dissertation.

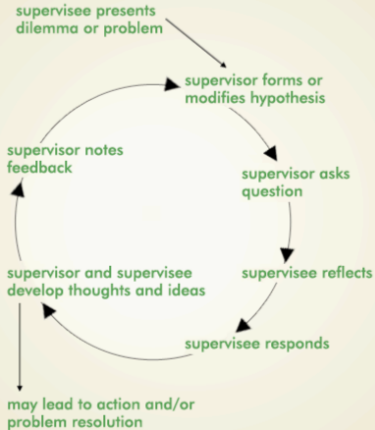
Mapping 11 Research Competencies Across 5 Tiers

TIER:	1	2	3	4	5
<u>Research Competency</u>					
ABSTRACTING	A	D	DP	P	M
SCOPING LITERATURE	A	D	DP	P	M
REVIEWING LITERATURE	A	D	DP	P	M
QUESTIONING, & FORMULATING PURPOSE	A	D	DP	P	M
SELECTING & FORMULATING METHODOLOGY	A	D	DP	P	M
DETAILING METHODS & EXECUTING PROCEDURES	A	AD	DP	P	M
KNOWING RESEARCH ETHICS	A	AD	DP	P	M
ANALYZING, & INTERPRETING		AD	DP	P	M
CRITICALLY EVALUATING, & CONCLUDING		AD	DP	P	M
REPORTING		AD	DP	P	M
CONTRIBUTING		A	DP	P	M

1 = DI&MR I 2 = DI&MR II 3 = DI&MR III 4 = Qualifying 5 = Dissertation Research

A = Acquire D = Develop P = Become Proficient M = Master

The circular process of supervision



- Underlying all that we do, it is important to emphasize that in the delivery of research courses, at the heart of the processes of skill building toward competency, is the learning loop that is the interpersonal relationship between the student inquirer and faculty supervisor.
- The cybernetic loop of feedback means learning and improving by doing research, trial and error, self-corrective practice, and guidance.
- The intentions are know-how in each of the 11 core areas of research competency.
- These intentions have informed us to design course objectives and activities to promote research competencies at all 5 tiers of the research curriculum.

Looking Ahead


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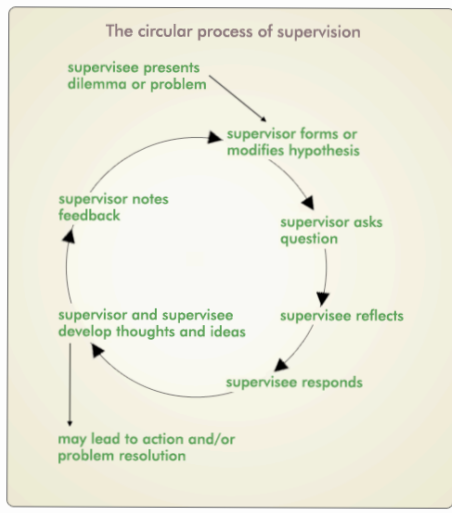
more attention on 2 aspects



Assessment

Working with the Director of Institutional Research and Outcomes Assessment, our intention is to know, through unobtrusive qualitative and quantitative means:

- student rates of successful completion of the doctoral programs
 - student rates of attrition
 - educational effectiveness at each tier and by means of each research course
 - strengths and weaknesses of each research competency
 - critical locations in the skill building process for each research competency
 - effective pedagogy and supervision
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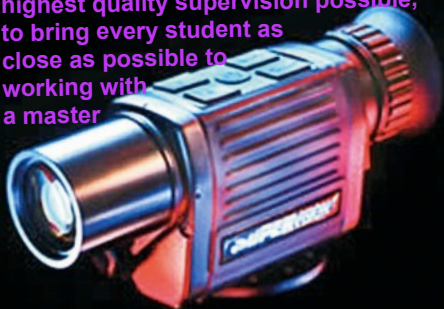


Quality of supervision

We want to know in detail how the progression occurs in the research courses, what is working well in our case, and what needs to work better.

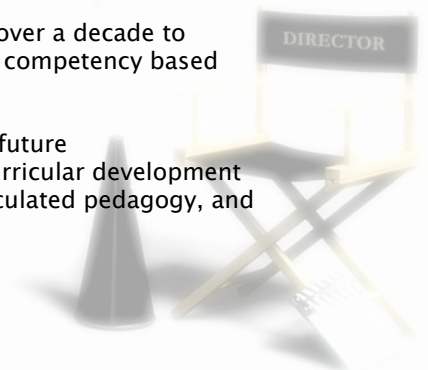
Our horizon:
superVision =

highest quality supervision possible,
to bring every student as
close as possible to
working with
a master



Conclusion

- graduate research training has become an integration of a research model, research skill building process, inquiry process, curricular design, pedagogy for supervision and supervisor development, and an unobtrusive evaluation system.
- it has been a unique experience over a decade to develop and implement a research competency based system.
- but now and into the immediate future implementation must shift from curricular development to more inclusive assessment, articulated pedagogy, and quality supervision.



Discussion





T h e E n d

Thank you for being here.

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