Measuring Skill Outcomes:
A Strategy for Credentialing Gerontologists

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Measuring Skill Outcomes

BACKGROUND

Professionalizing Gerontology

Accrediting academic Gerontology programs.

Credentialing gerontology program graduates.

Promoting the employment of credentialed, professional Gerontologists.

Professionalization of Gerontology Model

Academy

Community

Public perceptions, expectations

Increased student demand

Increased resources

Accredited programs

Credentialed Gerontologists

Employed professionals

Enhanced program quality

Improved quality of care

Why NAPG Credentials Gerontologists

In response to student demand for independent credentialing that legitimizes and differentiates the education of Gerontology program graduates from those who call themselves "Gerontologists" after attending little more than a weekend workshop.

NAPG
in a Nutshell

National Association for Professional Gerontologists
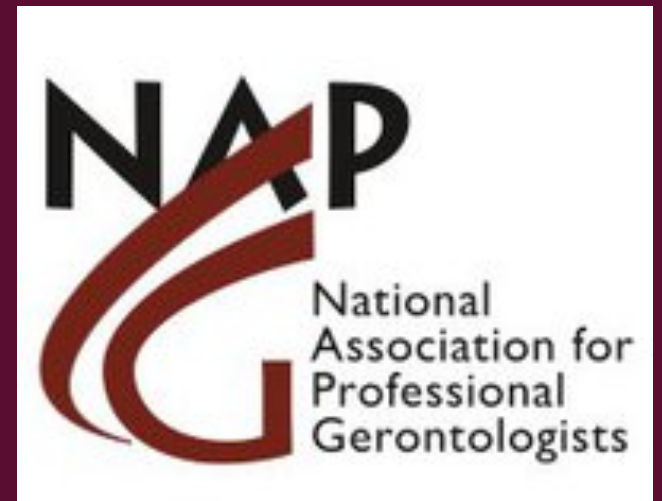
Founded in 2005 as a non-profit 501(c)3 organization

200 + credentialed members in 30 states, five countries

Members are credentialed based on completed course work and "bio-psycho-social" exam

Visit us in Confluence Ballroom (exhibit area), Booth 2
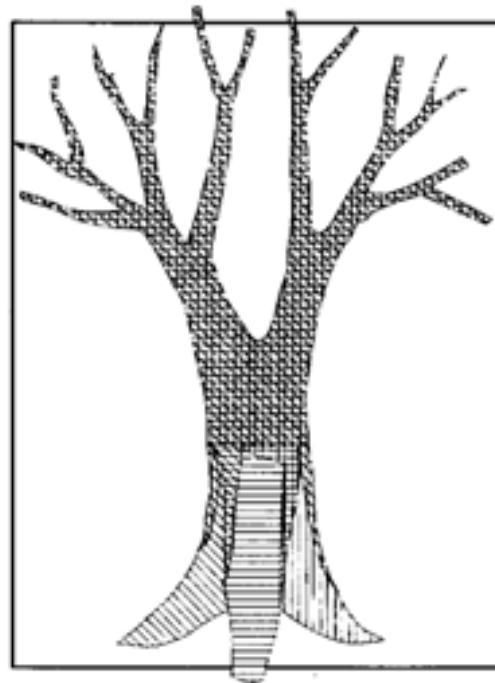
www.NAPGerontologists.org

Present Study's Purpose

To develop NAPG's capacity to credential Gerontologists based on skill outcomes or competencies.

Specifically, to develop a method for reliably measuring competencies.

Core Principles and Outcomes

OF GERONTOLOGY, GERIATRICS AND AGING STUDIES INSTRUCTION

PAMELA F. WENDT   **DAVID A. PETERSON**   **ELIZABETH B. DOUGLASS**

Wendt et al. Program Orientations

Liberal Arts

Professional

Scientific

Wendt et al. Domains

- Structure/Contexts/Heterogeneity
- Concepts and Theories Used to Study Aging
- Stability and Directions of Change
- Ethical Issues
- Scholarship and Research
- Application/Practice

Examples of Skill Outcomes

Identify current ethical issues in the field of aging.

Relate personal, social and/or professional value systems in research and practice.

Behave ethically in relation to clients, colleagues and the profession.

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METHODS AND PROCEDURES

Basic Procedure

Operationalized 18 skill outcomes (i.e., Competencies) from Wendt, et al. into essay questions.

Developed a scoring rubric for each essay question.

Trained three evaluators (authors).

Evaluators independently scored essay questions using scoring rubrics.

Respondents

49 students enrolled in SFSU Master of Arts in Gerontology Program.

45 are women

Age (n = 47)	Semesters in formal GRN training (n = 49)	Years worked with older adults (n = 49)
M = 39 Range: 20-65	M = 2.4 *Range: 1-9*	M = 8 *Range: 0-30*

Data Collection

Four rounds of administering essay tests to SFSU Master's students

Two Wendt et al. Domains (with skill Outcomes) tested per round

Three separate SFSU GRN classes

Fall, 2012; Spring, 2013; Fall, 2013 semesters

Data Totals

63 papers

400 essay answers

Scoring

Two Sets

Two Scoring Rubrics

Two Sets

Set 1

Sampled five papers per round.

Set 2

Remainder of papers from that round.

Two Rubrics

Original Rubric

Ordinal-level scores

Excellent = 4

Good = 3

Fair = 2

Poor = 1

No response/unrelated = 0

Two Rubrics

Revised Rubric

Continuous-level scores

Values ranging from 0 to 5 depending on

PRESENCE
or
ABSENCE

of a scoring element

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RESULTS

Rates of Inter-rater Agreement for Scores in Each of Two Sets

Set	*n* essays	Rates of Agreement			% Agree
		Zero	2 Raters	3 Raters	
First	125	15	71	39	88
Second	275	11	156	108	96
% Agree		6	57	37	

Results from One-way ANOVA for Inter-rater Differences in Mean Scores
BY SET

Set	Source of Variability	SS	df	MS	F	p
1	Between raters	7.31	2	3.66	2.45	.09
	Within raters	555.55	372	1.49		
	Total	562.86	374			
2	Between raters	2.17	2	1.08	.76	.47
	Within raters	1165.79	821	1.42		
	Total	1167.96	823			

Rates of Inter-rater Agreement by Rubric Type/Level of Measurement

Rubric	*n* essays	Rates of Agreement			% Agree
		Zero	2 Raters	3 Raters	
Original	172	18	99	55	90
Revised	228	8	128	92	96
% Agree		6	57	37	

Results from One-way ANOVA for Inter-rater Differences in Mean Scores
BY RUBRIC

Rubric	Source of Variability	SS	df	MS	F	p
Original	Between raters	6.08	2	3.04	2.32	.10
	Within raters	672.02	513	1.31		
	Total	678.10	515			
Revised	Between raters	.61	2	.30	.28	.76
	Within raters	741.97	681	1.09		
	Total	742.58	683			

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DISCUSSION and CONCLUSIONS

Reliability

"Training" period between sets was very useful to establish rater agreement.

"Revised" scoring rubrics superior to "Original" rubrics, regarding ease of development, rater training, rater agreement and continuous level of measurement for future analyses.

400 essay answers sufficient to test reliability

Generalizability

Basic method of operationalizing competencies into essay questions, creating scoring rubrics, and rater training can be applied to other domains/competencies in addition to Wendt, et al.

Scoring method to assess competency (unlike self-evaluations or instructor evaluations using a Likert-type scale) can be used by "third party" evaluators.

This method of competency-measurement could be an effective program "exit exam."

Next Steps

Identify partners for testing construct validity of these or other competency domains.

Identify partners for developing scoring rubrics for students at other educational levels (e.g., associate arts or certificate levels).

Phase in this form of assessment for NAPG credentialing purposes.

National Association for Professional Gerontologists

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