

In Search of a Second Generation EDD Persistence Model

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About the Research



{ Second Generation EdD
{ Persistence

⌘ **Doctoral Persistence** – “the continuance of a student’s progress toward the completion of a doctoral degree” despite the numerous challenges faced.

(Bair, 1999, p. 8)

The Persistence Problem: Definition



The Persistence Problem: Definition of the Second Generation EdD

- ⌘ The Second Generation Programs (EdD) or professional doctorate in education prepares educators for:
 - ⌘ the **application** of appropriate and specific practices,
 - ⌘ the **generation** of knowledge for practice,
 - ⌘ the **stewardship** of the profession.

The Persistence Problem: Definition of the Second Generation EdD

The Persistence Problem: Definition of the Second Generation EdD

Characteristics of second generation programs

Emphasis on research in practice

Mentors are faculty who practice and value all four areas of Boyer's scholarship.

Larger cohorts of candidates are accepted into these programs on an annual basis.

Admissions criteria consider practical experience and non-cognitive measures in addition to traditional measures.

Courses wed research and practice.

Dissertation research is rigorous, theoretically grounded. Research methodologies are used to innovate and solve problems in a practice setting

Graduates become advanced practitioners

(Agyris & Schon 1996;
Galassi & Brooks, 1992;
Pery, 2012)

Any doctoral program = “high risk” strategy



Brailsford, 2010, p. 15

The Persistence Problem



& 40% to 60% of doctoral students drop out

& Attrition rates for EdD programs are as high as 70%

(Bowen & Rudenstine 1992; National Center for Educational Statistics 2000; National Science Foundation [NSF] 2009; Nettles & Millett 2006; Sowell 2008; Terrell 2005; Terrell, Snyder, & Dringus 2009; Wao & Onwuegbuzie 2011)

The Persistence Problem



& **Online and limited resident doctoral programs report attrition rates 10% to 20% higher than traditional programs.**

(Rovai, 2002; Terrell 2005; Terrell, Snyder, & Dringus 2009)

The Persistence Problem

Part 1: The Entry Stage

Part 2: The Knowledge and Skill Development Stage

Part 3: The Consolidation Stage

★ *Part 4: The Research/Scholarship Stage*

Part 5: The Completion Stage

The largest degree of attrition in a doctoral program occurs during candidacy.

(Grover, 2007; National Science Foundation, 1998; Rockinson-Szapkiw, Spaulding, 2014; Tinto, 1993)

The Persistence Problem

- ⌘ In *The Research and Scholarship Stage*
 - ⌘ Transition from student to researcher.
 - ⌘ Transition “from being a consumer of knowledge...to creator...”
(Gardner, 2008, p. 328)
 - ⌘ Required to demonstrate the ability to independently design, conduct, analyze, and present research,
 - ⌘ which is difficult and unlike any academic task that they have done previously.

(Rockinson-Szapkiw & Spaulding, 2014, Introduction)

The Persistence Problem



⌘ The cost

⌘ Universities

- ⌘ Economic
- ⌘ Credibility
- ⌘ Federal funding & Accreditation

⌘ Doctoral Candidate

- ⌘ Personal
- ⌘ Professional
- ⌘ Economic effects

(Bowen & Rudenstine 1992; National Center for Educational Statistics 2000; National Science Foundation [NSF] 2009 ; Nettles & Millett 2006; Sowell 2008; Terrell 2005; Terrell, Snyder, & Dringus 2009; Wao & Onwuegbuzie 2011)

The Persistence Problem

⌘ With high EdD attrition rates and high cost, especially in the research and scholarship stage, program administrators and faculty **need to:**



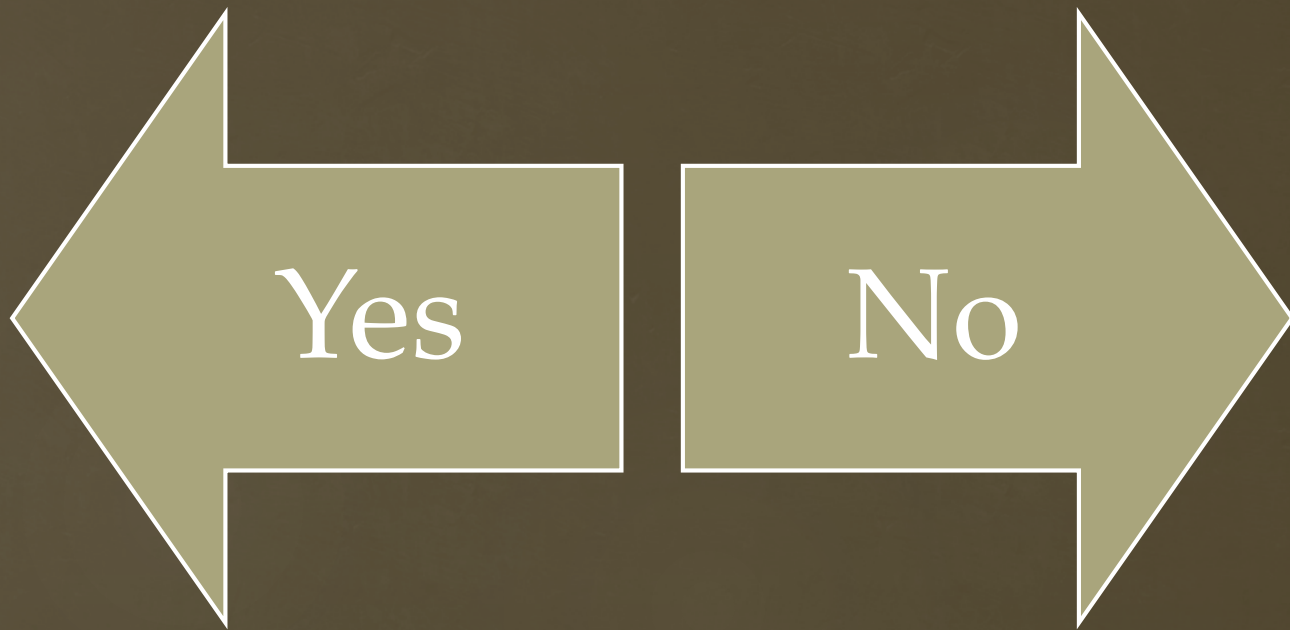
- ⌘ Understand the factors that significantly influence online doctoral persistence
- ⌘ Identify ways to foster doctoral persistence.

The Persistence Problem



Persistence... haven't
we been researching
that for decades?

About the Research



About the Research



- ⌘ The current state of research:
 - ⌘ Residential Students
 - ⌘ Undergraduate Students
 - ⌘ Doctoral Student Research, has been
 - ⌘ Qualitative
 - ⌘ and Anecdotal

(Ivankova & Stick, 2007; Terrell 2005; Terrell, Snyder, & Dringus 2009; Wao & Onwuegbuzie 2011)

About the Research

“the process of student retention differs in different institutional settings, residential and non-residential” ...undergraduate, graduate, and doctoral.

-Tinto, 2006-2007 p. 4

About the Research

- ⌘ Build and test a distance education, second-generation EdD persistence model
 - ⌘ Grounded in persistence models (e.g. Tinto, 1975, 1987, 1993; Bean & Metzner, 1985)
 - ⌘ Consider the unique characteristics of online/limited residence students and programs
 - ⌘ Consider the unique skills, knowledge and support needed for various doctoral program stages.

The Persistence Problem

Lovitts (2001) in her classic study on doctoral attrition found that

- ⌘ Over 50% of dropouts cited academic or institutional reasons
- ⌘ 20% of dropouts cited financial reasons
- ⌘ 20% of dropouts cited personal or environmental reasons
- ⌘ 10% of dropouts cited miscellaneous

Institutional and Integration factors exert more influence on doctoral persistence than student characteristics!

The Persistence Problem

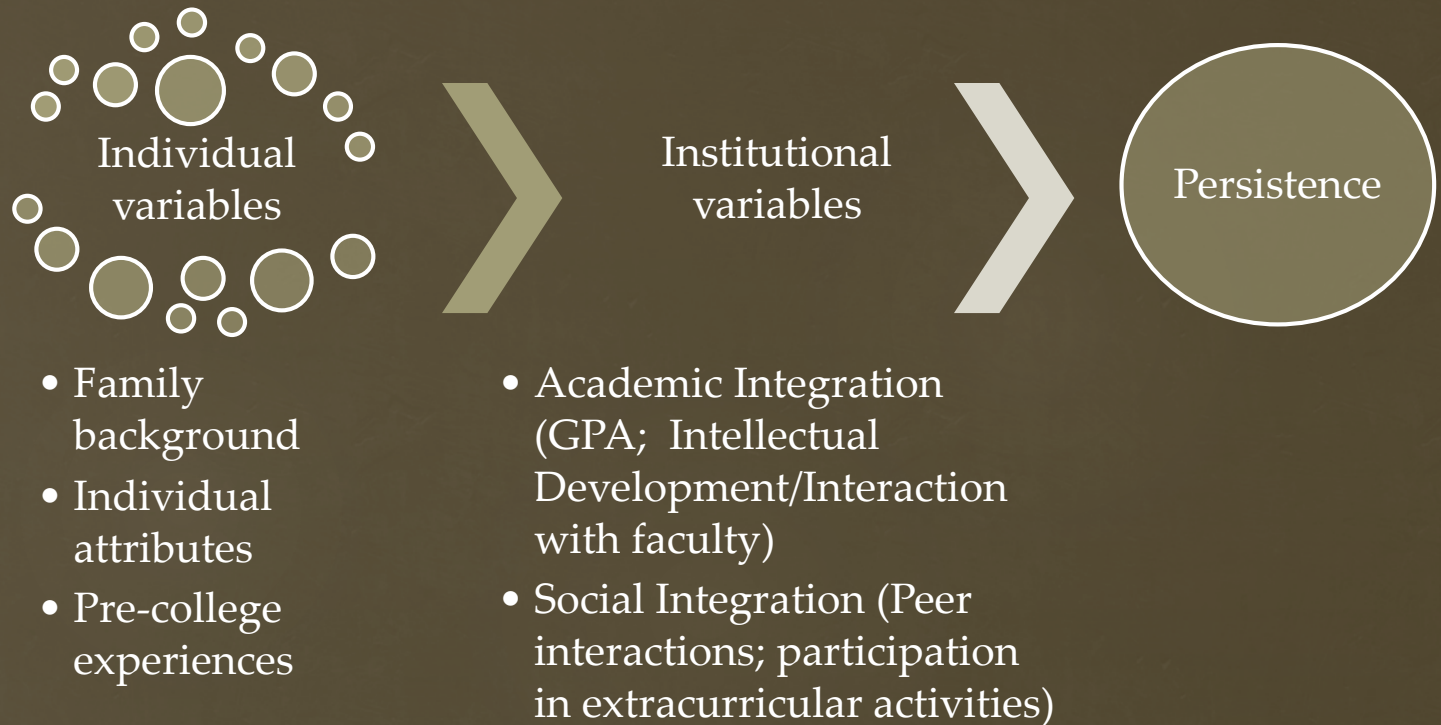
Persistence Models... or the attrition models

{ Empirical and Theoretical
Literature

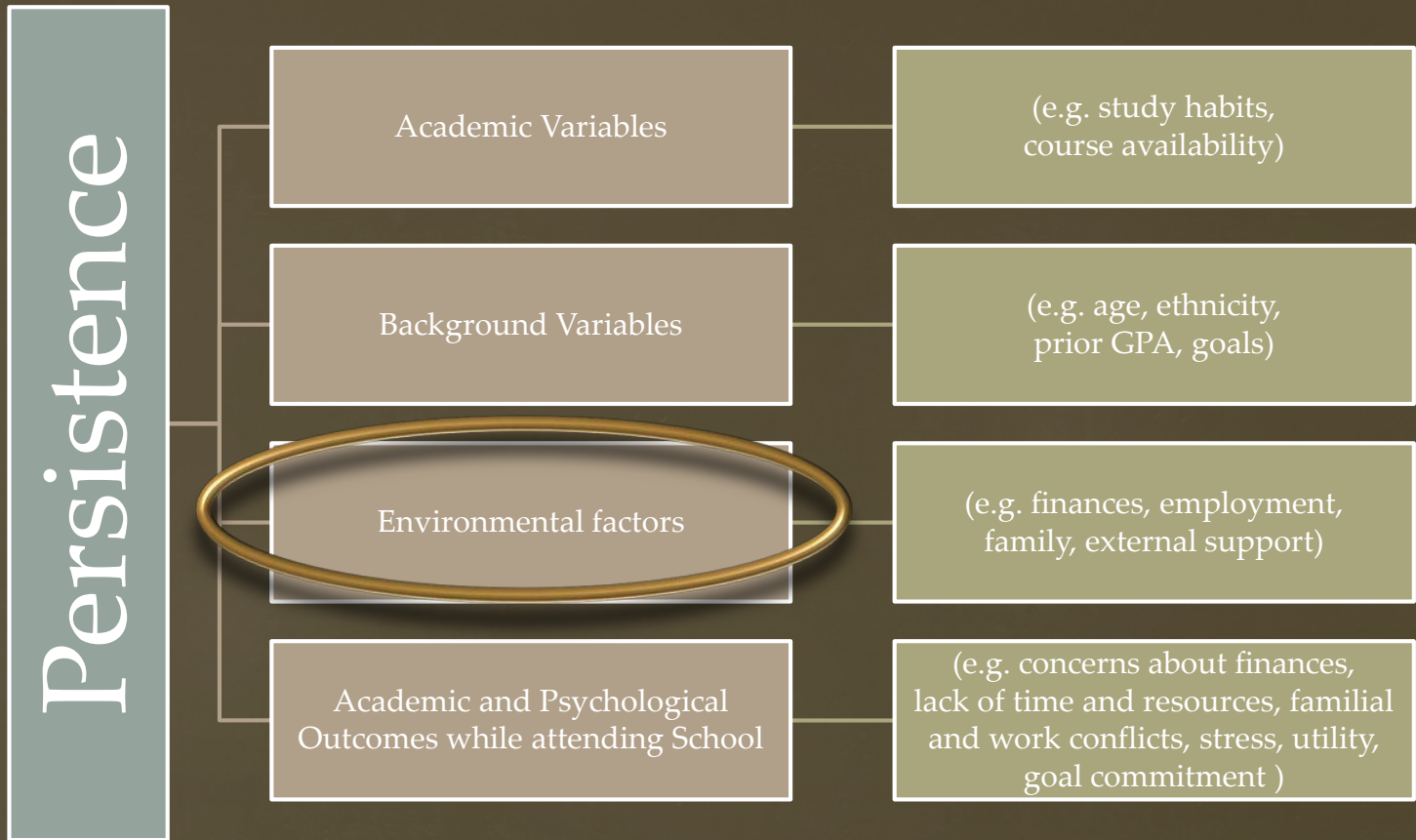
⌘ Persistence is “shaped by the **personal and intellectual interactions** that occur **within and between students and faculty** and the **various communities** that make **academic and social systems** of the institution.”

(Tinto, 1993, p. 231)

Persistence Models: Tinto's (1975, 1993) Student Integration Model

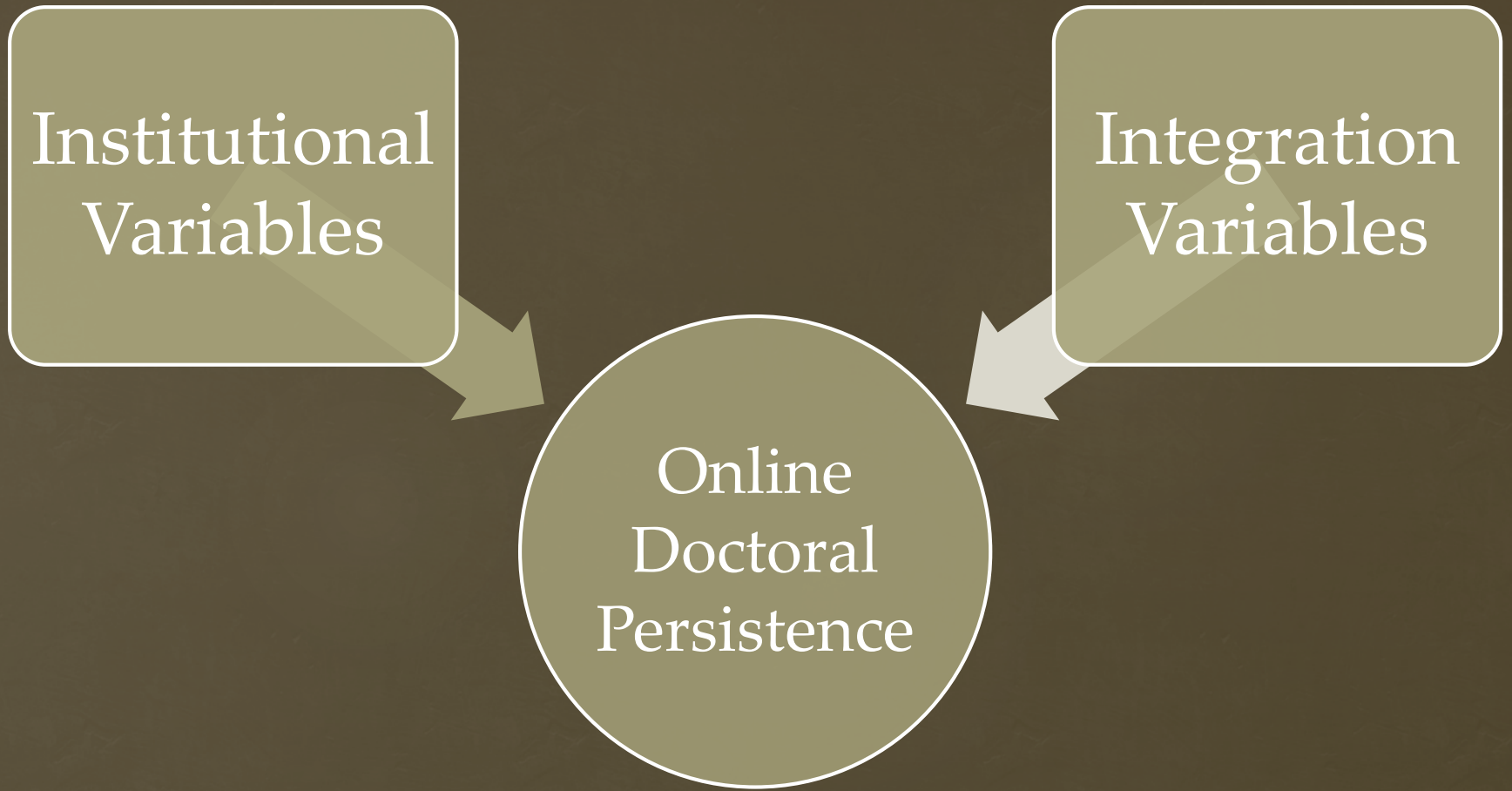


Persistence Models: Tinto's (1975, 1993) Student Integration Model

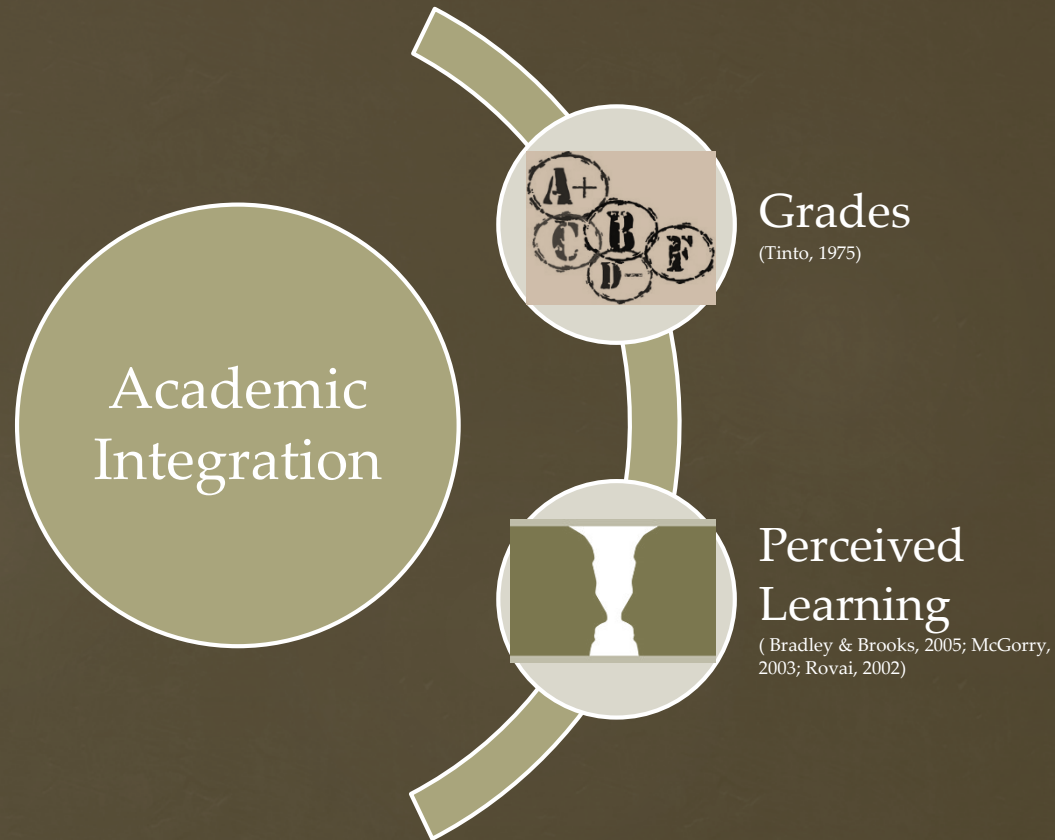


Bean and Metzner's (1985) Student Attrition Model for the Nontraditional Commuter Students

Persistence Models



Persistence Models



Persistence Models

⌘ Academic Integration

- ⌘ The satisfaction with learning and academic program (Rovai, 2004)
- ⌘ The academic “fit” between the program and student (Hoskins & Goldberg, 2005)
- ⌘ 4 questions related to satisfaction with learning and program fit

Persistence Models: Doctoral Education

Girves & Wemmerus, 1998; Rockinson-Szapkiw, Spaulding, Swezey, & Wicks, 2014; Rovai, 2002; Strayhorn, 2005; Terrell, Synder, & Dringus, 2009; Tinto, 1997; Wao & Onwuegbuzie, 2011

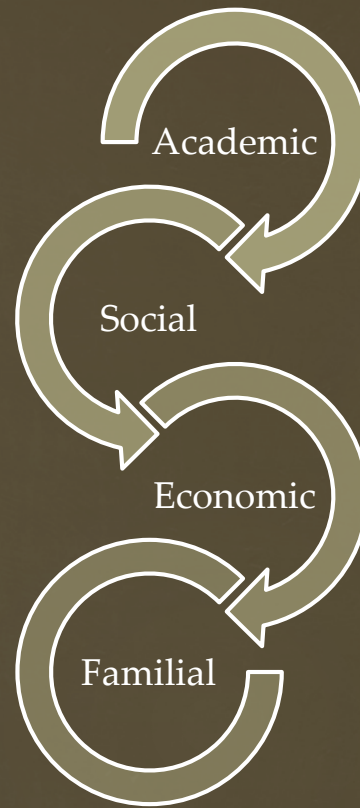
⌘ Social integration

- ⌘ Feeling a sense of connection and community with faculty and peers
- ⌘ Doctoral Student Connectedness Scale (DSCS) (Terrell, Snyder, & Dringus 2009)

Persistence Models: Doctoral Education

Girves & Wemmerus, 1998; Rockinson-Szapkiw, Spaulding, Swezey, & Wicks, 2014; Rovai, 2002; Strayhorn, 2005; Terrell, Snyder, & Dringus, 2009; Tinto, 1997; Wao & Onwuegbuzie, 2011

Integration



Girves & Wemmerus, 1998; Rockinson-Szapkiw, Spaulding, Swezey, & Wicks, 2014; Strayhorn, 2005; Tinto, 1997; Wao & Onwuegbuzie, 2011

Persistence Models: Doctoral Education

⌘ Economic integration

- ⌘ “degree to which student’s financial needs are met while pursuing the doctorate” (Wao & Onwuegbuzie, 2011, p. 117).
- ⌘ 3 questions related to financial strain, stress, and need

Earl-Novell, 2006; Girves & Wemmerus, 1998; Lovitts, 2001; Strayhorn, 2005; Wao & Onwuegbuzie, 2011

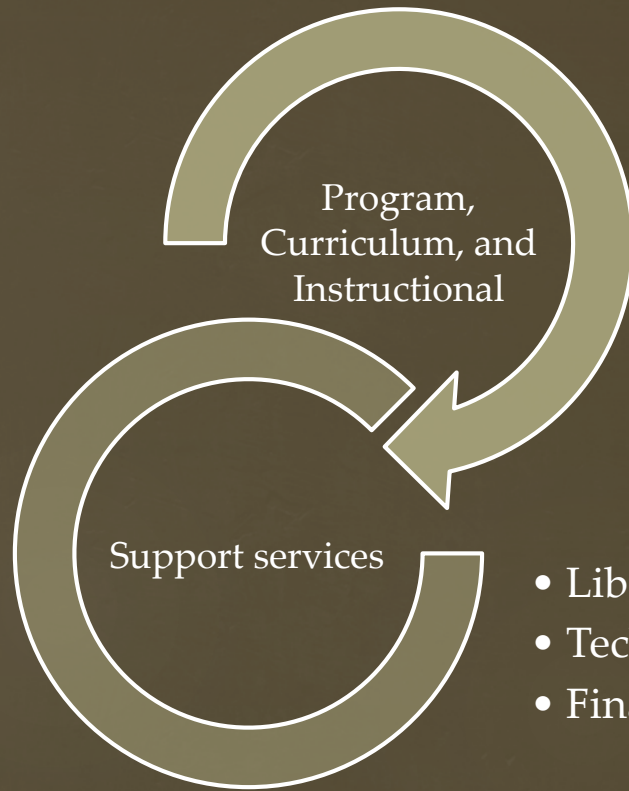
Persistence Models: Doctoral Education

⌘ Familial integration

- ⌘ “the degree to which the candidate’s sense of connectedness with family members is met while pursuing the doctorate”
- ⌘ “this concept not only includes the maintaining of familial relationships and relatedness (a sense of belonging and care) but also includes the “fit” between the degree and family values.” (Rockinson-Szapkiw, Spaulding, Swezey, & Wicks, 2014, p. 196).
- ⌘ One survey question

Persistence Models: Doctoral Education

Institutional



- Quality
- Preparation for the Dissertation Process

- Library
- Technology
- Financial

de Valero, 2001; Golde & Dore, 2001; Hoskins & Goldberg, 2005; Jimenez, 2011; Spaulding & Rockinson-Szapkiw, 2012; Tenenbaum, Crosby, & Gliner, 2001

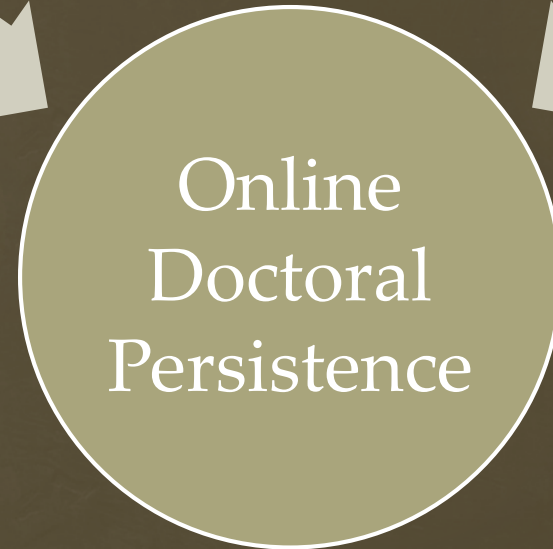
Persistence Models: Doctoral Education

Institutional Variables

- Program, Curriculum, & Instruction
- Support Services

Integration Variables

- Academic
- Social (Faculty & Peer)
- Economic
- Familial



Persistence Models

- ⌘ A predictive, correlation research design
- ⌘ Logistical multiple regression (LMR)
- ⌘ To examine how distance education EdD persistence can be explained by the linear combination of institutional and integration variables.

Design & Analysis

The Study

{ Methods & Results

- ‡ 148 doctoral candidates
- ‡ Enrolled in an distance education EdD program
- ‡ Completed an online survey while participating in a prospectus development course between Spring 2014 and Summer 2014.



Participants & Setting

↳ Ethnicity:

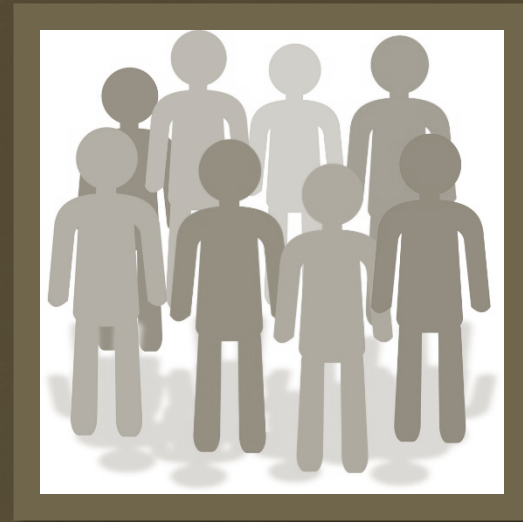
- ⌘ 116 (78.3%) Caucasian
- ⌘ 24 (16.2%) African American
- ⌘ 4 (3%) Asian
- ⌘ 3 (2%) Latino
- ⌘ 1 (less than 1%) was American Indian

↳ Age:

- ⌘ from 20 to 69
- ⌘ majority reported their age range as
 - ⌘ 30-39 ($n = 52$, 35.1%)
 - ⌘ or 40-49 ($n = 53$, 35.8%)

↳ The majority of the participants were

- ⌘ Female ($n = 101$, 68.2%).
- ⌘ Married ($n = 122$, 82.4%)
- ⌘ Employed full time ($n = 133$, 89.9%)
- ⌘ Participants were employed in the field of education as K–12 teachers, K–12 administrators, school psychologists or social workers, counselors, or university/college staff, faculty, or administrators.



Participants: Demographics

⌘ Doctoral persistence = enrollment and completion of the dissertation proposal courses (EDUC 989a, EDUC989b, EDUC 989c) the semesters following the dissertation prospectus class (1= completion, 0= withdrawal or fail)



Instrumentation:
Criterion Variable

Predictor	Constructs	Question or Instrument	Question Scale	Question Range	Empirical or Theoretical Support
Institutional Variables					
Financial Support		Do you receive grants/scholarships that partially cover your tuition costs (grants, scholarships, tuition waiver, Federal Work/Study, graduate/teaching assistantships, etc.)?	Yes, full remission tuition (2) Yes, partial tuition support (1) No (0)	0-2	Bean & Metzner, 1985; McAlpine & Norton, 2006 (D)
Support Services		How satisfied are you with the support services offered (e.g., library, advising) while pursuing your EdD.?	Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied	1-5	Bean & Metzner, 1985; Braxton, Milem, & Sullivan, 1998; Tinto, 1975
Program, Curriculum, & Instruction	Curriculum for dissertation preparation	How well did the courses you took during your EdD program prepare you for successfully completing your dissertation?	Very well Well Fair Poor Very poor	1-5	Bean & Metzner, 1985; de Valero, 2001 (D); Jimenez, 2011(D); Tinto, 1975
Cronbach's coefficient alpha was adequate, at .64	Clarity of expectations and organization	(R) How clear have the faculty and the online resources been in detailing what you need to do in order to be successful in dissertation?	Very unclear Somewhat unclear Neutral Somewhat clear Very clear	1-5	Garrison, Anderson, & Archer, 2000 (DE); Song, Singleton; Hill, & Koh, 2004 (DE); Wasburn-Moses, 2008 (D)
	Facilitation	In general, when you receive evaluative feedback from dissertation instructors (e.g. research consultant, committee) how useful has it been in determining how to improve?	Very often Somewhat often Sometimes Rarely Very rarely	1-5	Garrison, Anderson, & Archer, 2000 (DE); Wasburn-Moses, 2008 (D)
	Direct Instruction	In general, rate the quality of instruction you have received about your dissertation?	Very quality Quality Neutral Poor quality Very poor quality	1-5	Garrison, Anderson, & Archer, 2000 (DE); Wasburn-Moses, 2008 (D)

Integration Variables

<p>Academic Integration</p> <p>Cronbach's coefficient alpha for these items was .82, indicating good reliability.</p>	<p>Satisfaction with quality of faculty help</p>	<p>How satisfied are you with the quality and level of instrumental help (e.g., coaching, challenging, critical feedback for dissertation improvement, encouragement of productivity in terms of publishing and presenting), psychosocial help (e.g., counseling, role modeling, empathizing), and networking assistance (e.g., helping students makes connections in the field, serving as a professional reference) you have received from faculty during your EdD program?</p>	<p>Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied</p>	<p>1-5</p>	<p>Earl-Novell, 2006 (D); Hoskins & Goldberg, 2005 (D); Spaulding & Rockinson-Szapkiw, 2012 (D); Tinto, 1997; Wao & Onwuegbuzie, 2011(D)</p>
	<p>Satisfaction with curriculum</p>	<p>How satisfied are you with the courses you took while pursuing your EdD?</p>	<p>Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied</p>	<p>1-5</p>	<p>Bean & Metzner, 1985; Tinto, 1975; Wao & Onwuegbuzie, 2011(D)</p>
	<p>Satisfaction with curriculum for dissertation preparation</p>	<p>How satisfied are you how the courses you took while pursuing your EdD prepared you for dissertation?</p>	<p>Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied</p>	<p>1-5</p>	<p>Bean & Metzner, 1985; de Valero, 2001 (D); Jimenez, 2011(D); Tinto, 1975; Wao & Onwuegbuzie, 2011(D)</p>
	<p>Satisfaction with overall program experience</p>	<p>How satisfied are you with your overall satisfaction with the EdD program?</p>	<p>Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied</p>	<p>1-5</p>	<p>Bean & Metzner, 1985; Wao & Onwuegbuzie, 2011(D)</p>
	<p>Concern about academic performance</p>	<p>(R) How often are you concerned about whether you can successfully complete your dissertation?</p>	<p>Very often Somewhat often Sometimes Rarely Very rarely</p>	<p>1-5</p>	<p>Wao & Onwuegbuzie, 2011(D)</p>

Social Integration: Faculty Cronbach's coefficient alpha = .93	Faculty connectedness	Doctoral Faculty Connectedness Scale, 9 item faculty subscale (Terrell, Snyder, & Dringus 2009)	Strongly agree Agree Neutral Disagree Strongly disagree	9-45	Garrison, Anderson, & Archer, 2000 (DE); Rovai, 2002 (DE); Terrell, Snyder, & Dringus 2009 (D); Tinto, 1997
Social Integration: Student Cronbach's coefficient alpha = .96	Peers connectedness	Doctoral Student Connectedness Scale, 9 item peer subscale (Terrell, Snyder, & Dringus 2009)	Strongly agree Agree Neutral Disagree Strongly disagree	9-45	Garrison, Anderson, & Archer, 2000; Rovai, 2002 (DE); Terrell, Snyder, & Dringus 2009 (D); Tinto, 1997
Economic Integration Cronbach's coefficient alpha = .70	Financial stress	(R) How often do you worry about having enough money to meet your and your family needs?	Very often Somewhat often Sometimes Rarely Very rarely	1-5	Bean & Metzner, 1985; Earl-Novell, 2006 (D); McAlpine & Norton, 2006 (D); Rockinson-Szapkiw, Spaulding, Swezey & Wicks, 2014 (D); Wao & Onwuegbuzie, 2011 (D)
	Financial strain	How difficult is it for you or your family to be able to handle college costs?	Very difficult Somewhat difficult Neutral Somewhat easy Very easy	1-5	Bean & Metzner, 1985; Earl-Novell, 2006 (D); McAlpine & Norton, 2006 (D); Rockinson-Szapkiw, Spaulding, Swezey & Wicks, 2014 (D); Wao & Onwuegbuzie, 2011(D)
	Financial need	(R) Considering on your current financial situation, how inclined are you to take on additional work in order to pay bills?	Very Somewhat A little Not vary Not at all	1-5	Bean & Metzner, 1985; Earl-Novell, 2006 (D); McAlpine & Norton, 2006 (D); Rockinson-Szapkiw, Spaulding, Swezey & Wicks, 2014 (D); Wao & Onwuegbuzie, 2011(D)
Familial Integration		(R) How much do aspects of your family life and connection with your family suffer because you are a doctoral candidate?	Very much Much Some Little Very little	1-5	Rockinson-Szapkiw, Spaulding, Swezey & Wicks, 2014 (D)

Variable	Yes	No
Persistence (Criterion)	112 (75.7%)	36 (24.3%)
	<i>M</i>	<i>SD</i>
Financial Assistance	.38	.62
Support Services	4.33	.72
Program, Curriculum, & Instruction	16.28	2.54
Academic Integration	19.29	4.53
Social Integration: Connectedness to faculty	36.53	7.87
Social Integration: Connectedness to other students	35.32	7.60
Economic Integration	9.12	2.78
Familial Integration	3.22	1.18

Results: Descriptives

Linearity &
Multicollinearity

- ... correlation analyses.

**No major
violations**

Normality &
Outliers

- Examination of residuals did not fit the model. Upon close inspection, the cases were retained in the analysis as ZResid values did not raise major concerns. As such, the analysis was conducted with all 148 cases.

Results: Assumptions

The entire model, including all the institutional and integration variables, significantly predicted whether an online EdD student would persist in the dissertation phase of his or her program, $X^2(8, N = 148) = 104.99, p < .001$

- According to Cox and Snell (1989) *R* Square and Nagelkerke *R* Square, respectively, the model accounted for between 50.8% and 75.8% of the variance in online doctoral persistence.
- The model correctly classified 93.2% of the cases.

Results: Entire Model

Predictor Variable	B	S.E.	Wald	df	p	Odds Ratio	95% CI. For EXP (B)	
							Lower	Upper
Financial Support	.994	.793	1.571	1	.210	.703	.571	12.799
Support Services	1.070	.519	4.245	1	.039	.343	.124	.949
Program, Curriculum, & Instruction		.170	.161	1.102	.001	.294	.863	1.626
Academic Integration	.340	.112	9.192	1	.002	1.405	1.128	1.751
Social Integration: Faculty	.119	.060	3.857	1	.050	1.126	1.000	1.268
Social Integration: Student	.063	.049	1.642	1	.200	1.065	.967	1.173
Economic Integration	-.020	.168	.014	1	.906	.980	.705	1.363
Family Integration	.959	.391	5.998	1	.014	2.608	1.211	5.618

The Results

Note. * $p < .05$, ** $p < .01$

Implications
{



↳ **Support Services**

- ⌘ Support personnel (e.g., advisors, librarians, writing and statistics coaches) who are available during non-traditional business hours (i.e., evenings and weekends).
- ⌘ Well-established online communication systems and up-to-date resources that are easily accessible anytime and anywhere

↳ **Academic & Social Integration**

- ⌘ Regular communication and timely feedback
- ⌘ Faculty-led virtual CoPs or research collaboration ★
- ⌘ Social media and collaborative conferencing system integration
- ⌘ Systematic research training through the program

↳ **Familial Integration** ★

- ⌘ Family orientation ★
- ⌘ Social media or collaborative technology integration (e.g., wikis, Facebook, Twitter).

Practical Implications



☞ Faculty Connectedness

- ☞ What is the role of a faculty member during the dissertation process?
- ☞ What role did your chair and committee play in your dissertation process and successful degree completion?

Practical Implications

Questions
&
Answers

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Contact Information

⌘ References available upon request.

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References