

Identifying Disciplinary Peers:

Pairing Faculty
across Fields of Study



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Purpose

1st... Identify disciplines that share similarities

- research practices
- teaching practices
- perceptions of student engagement in academic activities

2nd... Develop a method for grouping disciplines

- in FLCs or research circles
- for targeted trainings or workshops
- when reporting discipline-based findings



The Result

To create field/disciplinary comparisons that:

- ✓ appeal to faculty at a single institution
- ✓ appeal to both interdisciplinary and disciplinary-based groups interested in teaching and learning
- ✓ provide an approach to presenting campus assessment data to faculty groups



Literature Review

Discipline

- a means of membership and identification within the academic profession (Clark, 1987)
- “...usually reflects the values and norms held by its constituent individuals or dominant groups”
(Nelson Laird, Shoup, Kuh, & Schwarz, 2008, p. 472)
- Research, teaching, and learning may vary by discipline
(Becher, 1989)
- Lack of understanding outside of primary field (Becher, 1989)
- “Academic Tribes” (Becher, 1989; Greenhalgh, 1997)



Disciplinary Classification Systems

- **High & Low Paradigmatic Development**
(Braxton, Olsen, & Simmons, 1987)
- **Approaches to different academic tasks**
(Biglan, 1973a, b)
- **High & Low Consensus**
(Braxton & Hargens, 1996)



Information Source: FSSE

Faculty Survey of Student Engagement (FSSE)

Survey designed to complement NSSE and to measure faculty expectations for student engagement in educational practices that are known to be empirically linked with high levels of learning and development

2010 administration

- more than 19,000 faculty from 154 institutions
- extra set of items on “Peer Comparison Fields”
 - 38 (4-year) institutions
 - 4,652 faculty respondents



“Peer Comparison Field” Items

Please list and rank the 3 fields against which your field should be compared based on:

- Research and other scholarly activities
- Faculty teaching practices
- Student engagement in academic activities

[write-in responses]



Method

On each of the three measures, we...

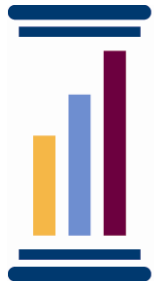
Coded responses into 84 disciplinary categories

Selected top 2 fields chosen by faculty in each discipline

Identified “pairs” – fields that selected one another

Removed any pairs based on 5 or fewer respondents

Identified pairing strengths



FSSE

faculty survey of
student engagement

Terminology

- **Disciplinary Pairs**
(consensus between 2 disciplines)
- **Disciplinary Clusters**
(consensus among 3+ disciplines)
- **Pairing Strengths**
 - Tight: $\geq 40\%$ agreement by at least one discipline
 - Loose: 26-39% agreement by at least one discipline
 - Tentative: $\leq 25\%$ agreement by both disciplines



Results

- 52 disciplinary pairs across all three categories
- 2 disciplinary clusters within individual categories
- Pairing consistency
 - ✓ across certain measures
 - ✓ With Biglan's (1973) categories:
hard—soft, pure—applied, life—non-life



Results

Pairing Strength	# of Pairs	# of Clusters	Research & Scholarly Activities
Tight	7	--	
Loose	6	1	
Tentative	5	--	

Faculty Teaching Practices	Pairing Strength	# of Pairs	# of Clusters
	Tight	7	--
	Loose	7	1
	Tentative	3	--

Pairing Strength	# of Pairs	# of Clusters	Student Academic Engagement
Tight	4	--	
Loose	11	--	
Tentative	2	--	

Tight Selections – Measure 1

Research & Other Scholarly Activities

PRIMARY FIELD

SELECTED PAIR

Accounting

Finance

Anthropology

Sociology

Biology

Chemistry

Chemistry

Biology

Criminal Justice

Sociology

English

History

Finance

Economics

History

Political Science

Language & Literature

English

Management

Marketing

Marketing

Management

Tight Selections – Measure 2

Faculty Teaching Practices

PRIMARY FIELD

SELECTED PAIR

Accounting

Finance

Anthropology

Sociology

Biology

Chemistry

Chemical Engineering

General/Other Engineering

Chemistry

Biology

Earth Science

Biology

Finance

Accounting

History

Political Science

Marketing

Management

Tight Selections – Measure 3

(Perceptions of) Student Academic Engagement

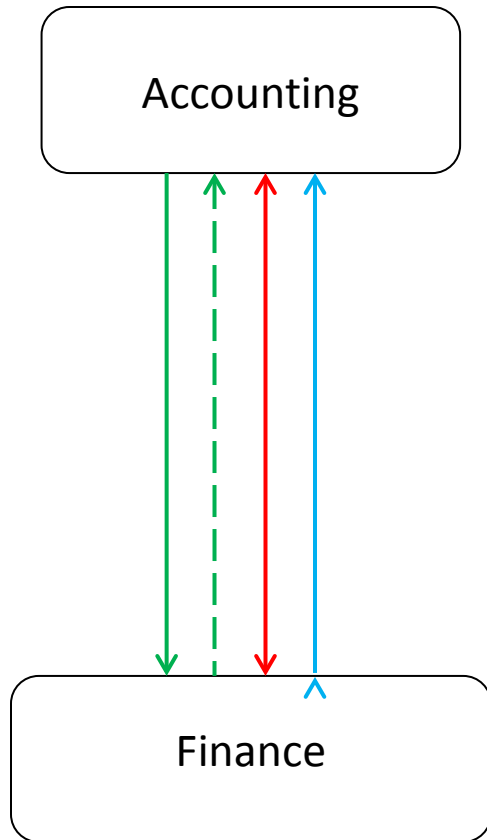
PRIMARY FIELD	SELECTED PAIR
Accounting	Finance
Biology	Chemistry
Chemical Engineering	General/Other Engineering
Chemistry	Biology
Earth Science	Biology
Management	Marketing
Marketing	Management
Theatre	Music

All Tight Selections

Pair	Research/Scholarly Activities	Student Academic Engagement	Faculty Teaching Practices
Accounting → Finance	✓	✓	✓
Anthropology → Sociology	✓		✓
Biology → Chemistry	✓	✓	✓
Chemical Engr. → General/Other Engr.		✓	✓
Chemistry → Biology	✓	✓	✓
Criminal Justice → Sociology	✓		
Earth Science → Biology		✓	✓
English → History	✓		
Finance → Economics	✓		
Finance → Accounting		✓	✓
History → Political Science	✓		✓
Language & Lit → English	✓		
Management → Marketing	✓		
Marketing → Management	✓	✓	✓
Theatre → Music		✓	

Example Tight Pairing

Biglan Dimensions: Soft—Applied—Non-Life



1. research and scholarly activities
2. teaching practices
3. student academic engagement

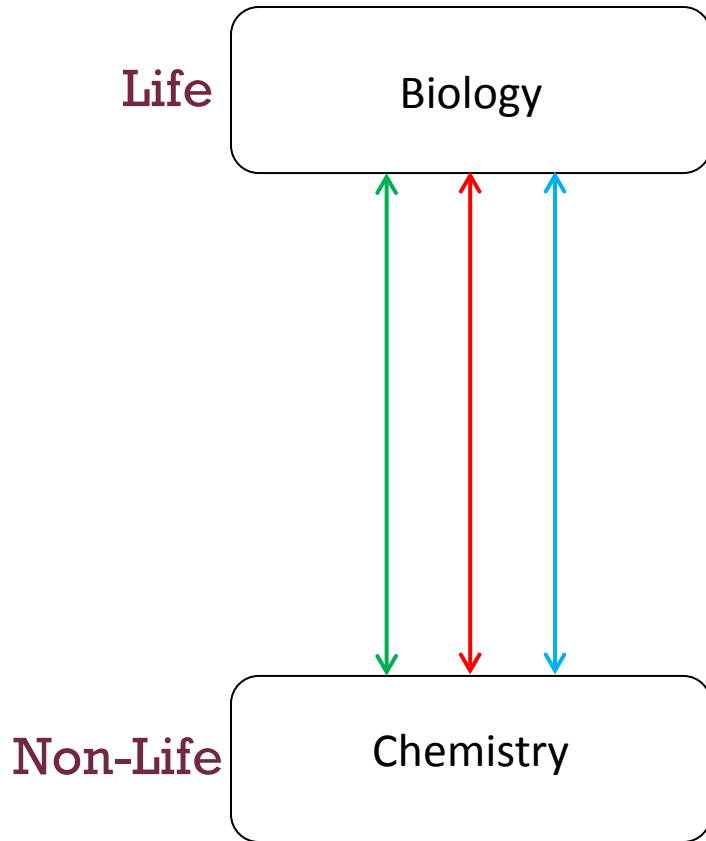
Tight pairing ($\geq 40\%$)

Loose Pairing (26% - 39%)

Tentative Pairing ($\leq 25\%$)

Example Tight Pairing

Biglan Dimensions: Hard—Pure



1. research and scholarly activities
2. teaching practices
3. student academic engagement

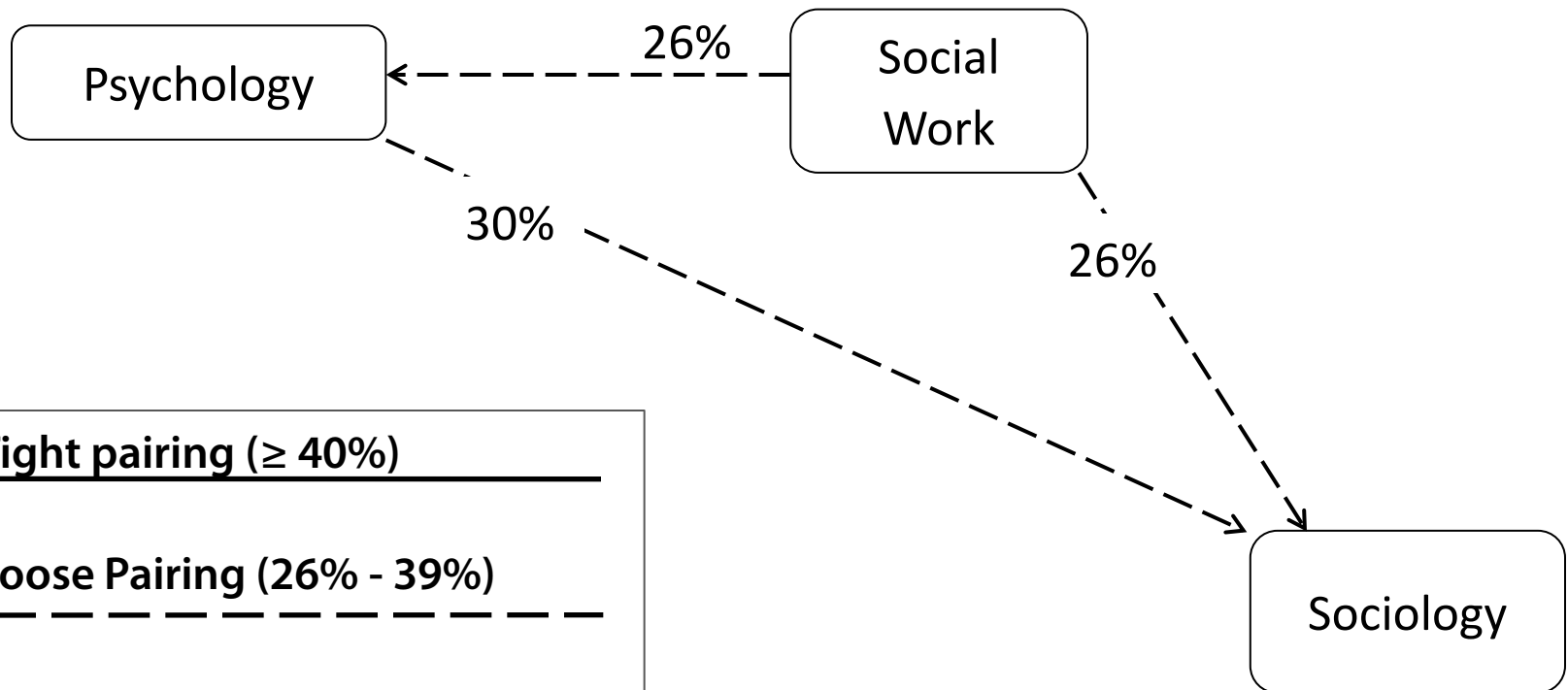
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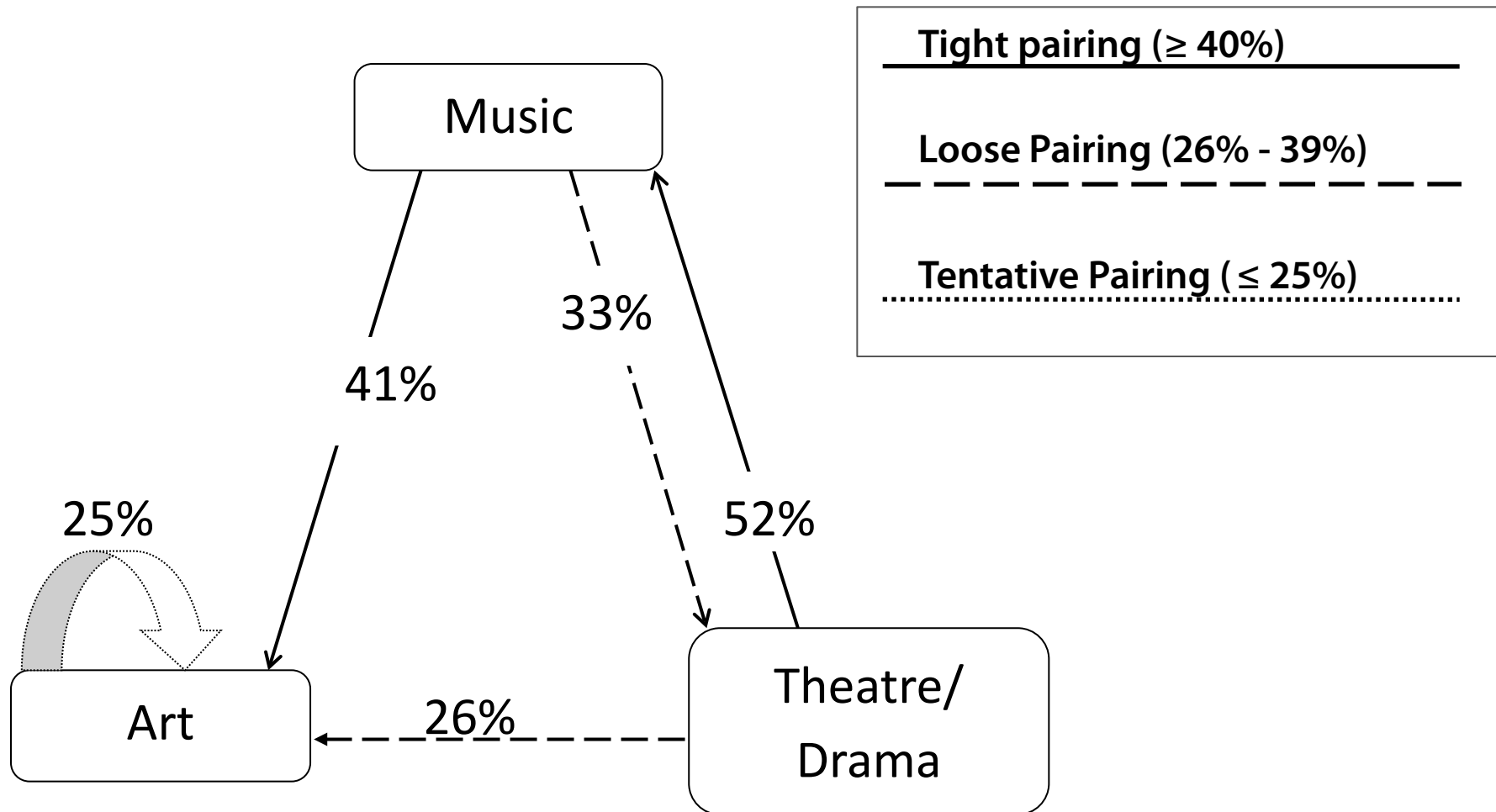
Disciplinary Cluster – Measure 1

Research & Other Scholarly Activities



Disciplinary Cluster– Measure 2

Faculty Teaching Practices



Lessons Learned

- When choosing comparison groups, faculty choose others that are like them
- Perceived similarities between fields match on two of Biglan's dimensions
- Perceived similarities permeate Biglan's third dimension: life-nonlife



Future Research

- Further test peer field pairings and clusters by exploring FSSE responses by discipline
 - to core survey items regarding participation in scholarly activities and perceived importance of student engagement in various activities
 - to FSSE scales regarding the use of particular teaching techniques
- Analysis on survey items regarding cross-disciplinary research and teaching
- Revisiting “pairing” definitions



Questions and Comments

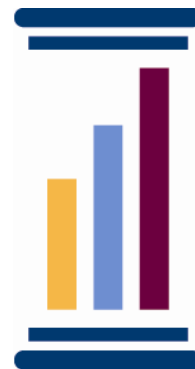
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