



Quantifying the Academic-Practitioner Gap: How Small Businesses React to Academic Articles

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Nothing Works and No One Knows Why: Regarding the Academic-Practitioner Gap
Lauren N. P. Campbell & Steven Zhou (Co-Chairs)



The Academic-Practitioner Gap

“A common interpretation of the divide between theory and practice, regardless of the field, refers to the dichotomy between two cultures. On one side are the researchers, intent on the rigors of sound academic research but divorced from the ongoing concerns of practice, and who are dismayed about the fact that practitioners are not reading or using their research results. On the other side are the practitioners, concerned with relevance in terms of bettering their practice but not interested in theoretical reasoning, and who claim that research results do not address existing problems and practical needs” (Belli, 2010, p. 2)



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The Academic-Practitioner Gap

- Only 13% of articles on the gap are empirical, most editorials (Bartunek & Rynes, 2014). Of the empirical articles...
- Academic-oriented journals focused on different *topics* compared to practitioner-oriented journals (Deadrick & Gibson, 2007)
- Executive ratings on *relevance* of leading management journal articles were only weakly correlated ($r = 0.20$) to weighted citation count (Baldrige et al., 2004)
- Reviewer feedback from academics and practitioners on the same article only weakly correlated ($r = 0.19$; Nicolai et al., 2011)



Are We Too Focused on Big Businesses?

We propose that a **primary contributor** to the academic-practitioner gap is the fact that leading I-O research tends to focus on phenomena and data found in **big businesses**, which are potentially **irrelevant and/or impractical for small businesses**.

SMALL BUSINESSES, BIG IMPACT.



Sources: Small Business Administration and U.S. Census Bureau

Source:
<https://reformparty.org/small-business-and-the-american-worker/>

Table 1*Occurrence of Small Business Mentions in Top I-O Psychology Journal Articles*

Journal	Articles Collected	Articles Matched	Percent
Journal of Applied Psychology	5303	7	0.13 %
Journal of Business and Psychology	1371	2	0.15%
Journal of Management	2189	8	0.37%
Journal of Occupational Health Psychology	853	2	0.23%
Journal of Organizational Behavior	2058	4	0.19%
Journal of Vocational Behavior	3259	5	0.15%
Leadership Quarterly	1354	0	0.00%
Organizational Behavior and Human Decision Processes	2086	1	0.05%
Organizational Research Methods	676	0	0.00%
Personnel Psychology	1750	7	0.40%

Notes. Multiple occurrences within articles were only counted once. Articles matched are the number of articles matching a search pattern of “small?business*”, “small?firm*”, “small?compan*”, or “small?enterprise*” where ‘?’ is a placeholder for any single non-letter character and ‘*’ is a placeholder for any series of zero or more letter characters.



Why? Irrelevant Theories

- Misalignment between theories and concepts studied in academic papers versus actual areas of interest among practitioners
- Especially relevant considering the day-to-day needs of small business owners and managers, which likely differs in practice from leading/managing a large organization
 - Examples: leader social networks, multi-team systems



Why? Impractical Recommendations

- Lack of practical applicability of I-O/management theories
- Lack of resources (time, money, etc.) in small businesses



Preliminary Evidence

- 474 articles downloaded from five years of publications in JOM, LQ, JOB, JAP, and PPsych with keywords “teams” or “leader*”
- 75 articles rated by 79 small business owners and managers (acting as SMEs)
 - Note: majority were from large organizations, none had any focus on small businesses
- SMEs rated the abstracts and practical implications sections for writing quality, effectiveness of the recommended practices, ROI, and open-ended comments

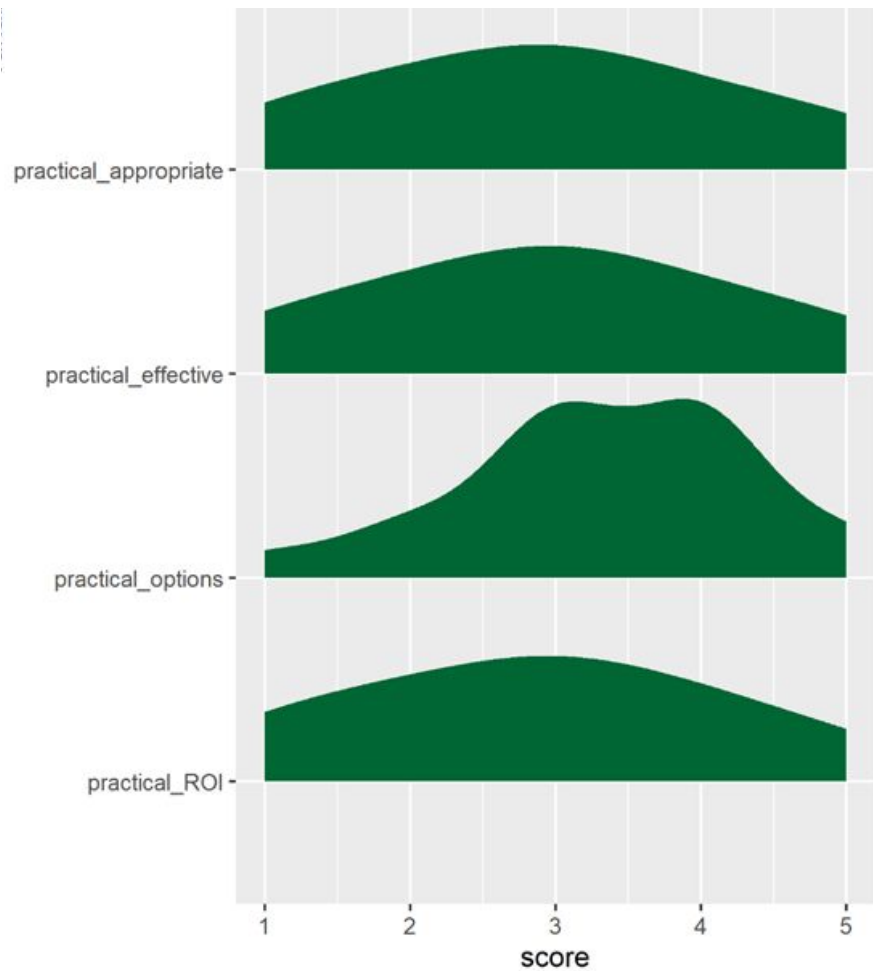
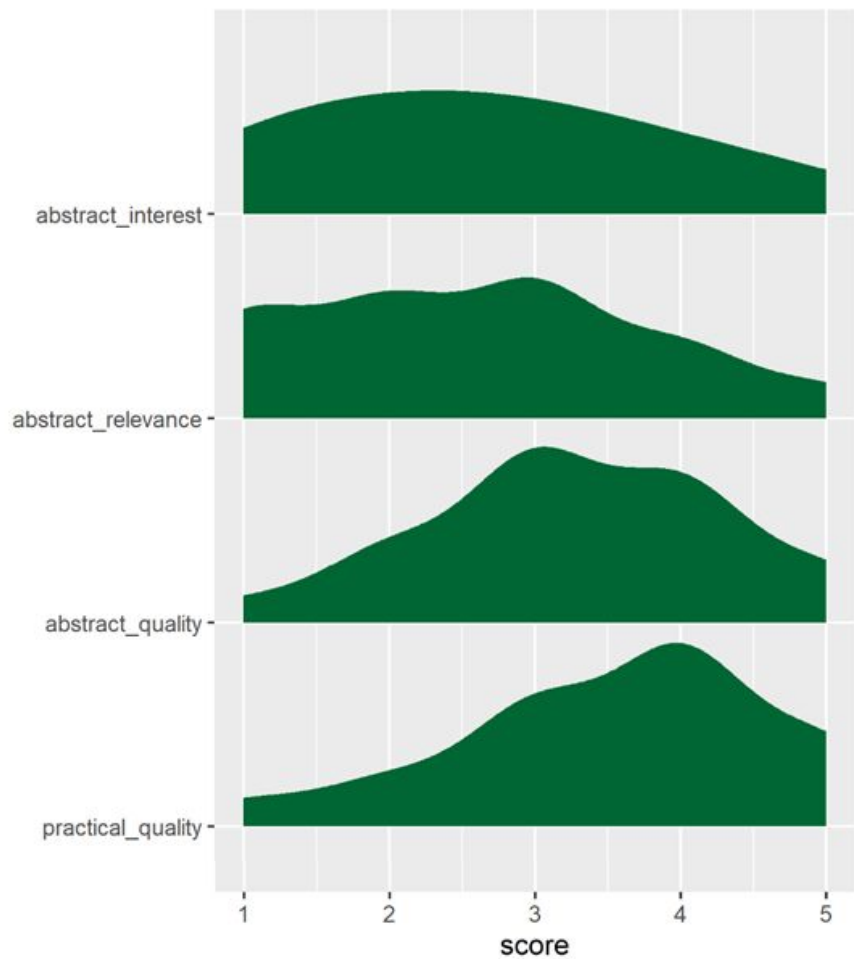


Table 2*Descriptive Statistics of Survey Data*

Variable	Mean	SD	% answering 4/5 or higher on Likert scale	% answering 2/5 or lower on Likert scale
abstract_interest	2.66	1.25	25.88%	48.25%
abstract_relevance	2.58	1.20	22.81%	48.25%
abstract_quality	3.29	1.03	42.54%	21.05%
practical_quality	3.54	1.09	57.33%	16.00%
practical_appropriate	2.91	1.26	31.11%	37.33%
practical_effective	2.96	1.24	32.44%	35.11%
practical_options	3.34	0.99	46.67%	17.33%
practical_ROI	2.87	1.24	31.11%	38.22%

Using NLP^a to Convert Text into Data

We had two sources of text that could have *possibly* been explored

Article Abstracts and Implications



Participants Rating Justification



^a *Natural Language Processing* (NLP) is a computer-assisted approach to analyzing **language** data (e.g., text, verbal, non-verbal) generated by humans (Liddy, 2001)—teaching computers to analyze text in a way that is meaningful to people.

Quick PSA

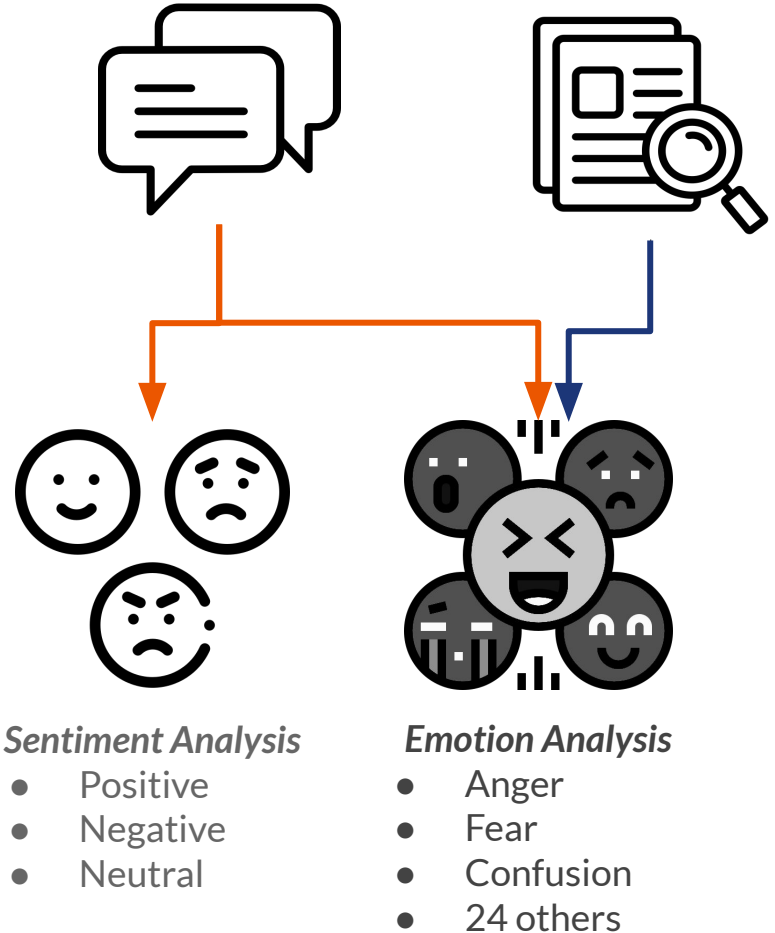
Don't know what to do with that valuable text data?





Use a *fine-tuned* transformer!

They are actually more accessible than many people think. **No text preprocessing, labeling, or extra data collection necessary!**



Convergence between SME Rating Justifications and Most Notable NLP Metrics

Table 4a

Correlation Matrix Between SME Likert Ratings and SME Comment NLP Scores

Variable	practical_ appropriate	practical_ effective	abstract_ interest	practical_ options	abstract_ quality	abstract_ relevance	practical_ ROI
Sentiment Scores							
Sentiment Negative	-0.33***	-0.32***	-0.45***	-0.49***	-0.36***	-0.46***	-0.32***
Sentiment Positive	0.33***	0.34***	0.40***	0.45***	0.36***	0.42***	0.33***
Emotion Scores							
Emotion Annoyance	-0.23**	-0.21**	-0.38***	-0.34***	-0.31***	-0.36***	-0.24**
Emotion Caring	0.23**	0.19**	0.30***	0.30***	0.29***	0.39***	0.27***
Emotion Confusion	-0.25***	-0.24**	-0.33***	-0.37***	-0.32***	-0.39***	-0.21**
Emotion Disappointment	-0.22**	-0.25***	-0.24***	-0.33***	-0.27***	-0.29***	-0.20**
Emotion Embarrassment	-0.29***	-0.20**	-0.34***	-0.31***	-0.22***	-0.27***	-0.21**
Comment Mentions							
Coded Confusing	-0.17*	-0.14	-0.30***	-0.25***	-0.32***	-0.27***	-0.13
Coded Impractical	0.06	0.03	-0.06	-0.04	-0.09	-0.10	-0.04
Coded Irrelevant	-0.16*	-0.19*	-0.15*	-0.16*	0.04	-0.21**	-0.17*
Coded Not Novel	-0.11	-0.10	-0.14	-0.06	-0.18***	-0.15*	-0.06

Some Top Comments by Emotion

NLP Emotion	Exemplar Comments
Annoyance	This text is giving me a headache. I simply cannot comprehend what the author is trying to convey. The language in the article sort of sounds clinical and authoritative, but as far as I can [tell] it makes no sense.
	This article is too laced with too much technical jargon to be of any interest or use.
Caring	The writing was clear and helpful
	Very helpful. I plan to be much more mindful to consider the impact of our language on an employee's voice. Everyone wants to be heard, recognized and feel included. I found the applications relevant to our work situation and easy to implement immediately.
Confusion	I don't really understand what this is talking about
	it is too confusing for the average person to read
Disappointment	I didn't find this article very helpful because it lacked clarity. It was difficult for me to follow which made me lose interest in wanting to read more of a future article.
	This article is poorly written and at first glance looks to be the work of a high school student attempting to write an academic paper; there's no substance, and all conclusions

Some Top Comments by Emotion (cont.)

NLP Metric	Exemplar Comments
Embarrassment	I feel like this is an awkward article because it focuses on people judging by appearances and assumes that across the board.
	if you treat people like trash it does them harm and hurt stuff on many levels
Positive Sentiment	I loved this article. It was written in a very easy-to-follow manner. I liked how each paragraph focused on specific topics which made it very interesting to read.
	I find the article is incredibly interesting as it brings awareness to the effects COVID-19 has brought to the workplace.
Negative Sentiment	This was kind of a bunch of gibberish to me. I did not enjoy it.
	I found this abstract to be extremely difficult to read and even more difficult to comprehend. It presents as academic gibberish. It is not helpful in any way.

Too Long Didn't Read (TLDR)

These results suggest that **abstracts** written to appear more optimistic, exciting, caring, embarrassing (ಠ_ಠ), and describe more realization were perceived as being higher quality.

However, this pattern is not seen in the **practical implications**—for example—more “exciting” practical implications sections did not receive higher quality ratings.

Article Section Emotion Predicting Overall Quality Rating Total by Section

<i>Emotion</i>	Abstract	Practical Implications
Caring	0.289*	0.301*
Embarrassment	0.251+	0.578**
Excitement	0.216**	-0.133
Optimism	0.493**	—
Realization	0.454***	-0.370**
N	75	75
Adj R ² of Top 10 Emotions	0.825	0.786

Note. Standardized regression weights based on top 15 emotions. “—” means emotion was not one of the top 15 best predictors for that section.

+ indicates $p < .10$. * indicates $p < .05$. ** indicates $p < .01$. *** indicates $p < .001$.

Making Sense-timent of it All...maybe

While the abstract ratings are relatively straightforward, it appears that the practical implications may have another added layer—that is—
“who is a part of the problem and who is a part of the solution.”

For example, if the implications section comes across as highly “disapproving”, those it’s disapproving of (e.g., employees, managers, organizations) matters, especially given our sample. Although this seems obvious now, it was something overlooked at first.

Average Beta for Top 5 Article Section Emotions

Section/Emotion	Average β
<i>Abstract</i> ^a	
Embarrassment	0.70
Fear	-0.69
Disgust	-0.64
Optimism	0.53
Sadness	0.44
<i>Practical Implications</i> ^b	
Embarrassment	0.74
Disgust	-0.54
Grief	-0.40
Amusement	-0.30
Disapproval	0.30

^a Based on averages across Article Interesting + Article Relevant

^b Based on averages across Practically Appropriate + Practically Effective + Practically Best Option + Practically Return on Investment



Qualitative Coding

- Confusing
- Irrelevant
 - “I think small companies don't need to worry about this stuff yet. People are not suing them to death”
 - “Most leadership roles in our organization are predetermined. I'm not sure how this information could be used to better identify leaders in the interview process.”
- Impractical
 - “The information is useful, just not pointing towards a solution”
 - “I don't have the money to hire many leaders right now.”
- Not Novel
 - “There is nothing here that any marginally competent manager doesn't already know”
 - “Hire coaches to increase team performance is not exactly rocket science or particularly helpful for small businesses with tight budgets”

Table 4b*Correlation Matrix Between SME Comment NLP Scores*

Variable	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Sentiment Scores											
8. Sentiment Negative	–										
9. Sentiment Positive	-0.82***	–									
Emotion Scores											
10. Emotion Annoyance	0.70***	-0.59***	–								
11. Emotion Caring	-0.58***	0.55***	-0.43***	–							
12. Emotion Confusion	0.52***	0.49***	0.31***	-0.45***	–						
13. Emotion Disappointment	0.72***	-0.57***	0.62***	-0.47***	0.20***	–					
14. Emotion Embarrassment	0.69***	-0.62***	0.65***	-0.46***	0.27***	0.56***	–				
Comment Mentions											
15. Coded Confusing	0.44***	-0.36***	0.49***	-0.31***	0.56***	0.29***	0.31***	–			
16. Coded Impractical	0.19***	-0.17**	0.14**	-0.08	0.00	0.12*	0.12*	-0.04	–		
17. Coded Irrelevant	0.32***	-0.27***	0.14**	-0.16**	0.01	0.34***	0.15**	-0.13**	0.04	–	
18. Coded Not Novel	0.02	-0.08	0.01	-0.04	-0.03	0.07	0.04	-0.05	0.08	-0.03	–



Invitation for Debate

Dr. Spencer Greenberg recently coined the phrase “importance hacking,” which he described as “a result that is actually not interesting, not important, not valuable — but you somehow make it seem that way to a reviewer so they’re convinced that it’s interesting enough to get published” (Inbar & Tullett, 2022, 32:18-32:33).

Is this importance hacking? Join the discussion!



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