

How to write the Engineering Education Paper Abstract

Content of the Abstract should be:

- Concisely summarizes the entire project
- 200 to 400 words
- Project background, context
- Hypothesis
- Study design
- What was learned
- Statement of conclusion

First 2 sentences:

Background:

- One sentence of what is known prior to this publication
- One sentence of what knowledge gap this paper is filling

Example sentences: 1st two sentences

Background: In recent years, technological innovation and entrepreneurship have been emphasized in engineering education. There is a need to better understand which individual- and contextual-level factors are related to engineering students' entrepreneurial intentions.

Sentence 3-4

Purpose/Hypothesis: *is a proposed explanation for a phenomenon*

- Purpose answers the question *What is the outcome of this research*
- One or two sentences

Example (this is written as a “purpose” not a hypothesis)

This study explores individual and contextual predictors of entrepreneurial intent among undergraduate women and men in engineering and business majors. Entrepreneurial intent is defined as the personal importance that students ascribe to starting a new business or organization.

Sentences 5-6

Design/Method

- One or two sentences
- Scope of study
- Mention of method type (mixed method, exploratory, etc...)

Example

The participants included 518 engineering and 471 business undergraduates from 51 U.S. colleges and universities. We examined relationships first by discipline and then by gender in each discipline using regression models with interaction terms.

Sentences 7-9

Results

- A few sentences to summarize research findings
- *Evaluated* data is presented
- Specific relationships that were found should be mentioned here

Example (this abstract is from Gilmartin et al., J. Eng. Educ. 2019;108:316–336.)

Innovation orientation and participation in entrepreneurship activities tied to intent more strongly for engineering students than for business students; in contrast, being at a research institution and selection of novel goals tied to intent more strongly for business students than for their engineering peers. Among engineering students only, being able to switch gears and apply alternative means for reaching one's goal in the face of setbacks was positively related with women's entrepreneurial intent but not with men's.

Final Sentences

Conclusions

- Restate the results but statements are less specific, more broad
- Can include a statement of recommended future study

Example

Entrepreneurial intent is a function of individual-level characteristics and academic and social contexts, with some degree of discipline-specific effects. Diversifying the community of aspiring engineering entrepreneurs is a critical issue that merits attention by the engineering education community.