

### **Rubric for Research Abstracts**

	5	3	1
Theoretical Framework:	Described specifically	Described semi-specifically	Not described
Research Contribution:	Described specifically	Described semi-specifically	Not described
Description:	Context, motivations, accomplishments specific	Context, motivations, accomplishments semi-specific	Context, motivations, accomplishments not described
Relevance:	Clear and specific	Described mostly in general, but applicable terms	Not described
Track accuracy:	Appears to be strong full- paper submission	Could be either full or WIP	Appears to be Short/Work-in- progress submission

#### Contribution:

Each abstract must briefly state the specific research contribution of the paper. Contributions may be made in various forms, but they should answer questions such as the following: What are the research questions that were addressed? What results have been found? How do the results build on prior research?

#### **Description:**

In this section, the authors describe the context for the research, motivations for the research, prior research related to this research, a brief synopsis of the methodology, what results have been obtained, and what remains to be done. Ideally, the authors would highlight the research findings and methods, include a clear statement of implications for educational practice, the certainty to which the research suggests the implication, and the actor(s) and action(s) implied by the findings.



# Rubric for Research Submissions (full paper)

Full Paper

**RESEARCH category** submissions should position the current research in relation to related and prior work, showing the need for a new or enhanced approach. A high rating in this evaluation category indicates that a paper has a sound theoretical and empirical structure in terms of identification of the problem, design of solution/investigation, methods used during data collection, and an empirically-based final analysis.

The criteria for full papers in the research category are the following:

- How does the work advance frontiers in education within the context of FIE?
- To what extent are the practices described in the paper innovative, leading-edge, cutting-edge?
- Does the work demonstrate knowledge of related work and discuss the relevance of the submission's contribution in the context of the prior literature in the field and other relevant areas?
- Does the work demonstrate scholarly quality as evaluated on the strength of its methodology, the quality/depth of its theoretical foundation, and the quality/depth of its analysis and related discussion?
- To what extent is the paper professionally written? All papers must be submitted in English.

	5	4	3	2	1
summarize how this submission describes	and useful description of relevant pedagogical theories	description of relevant	description of relevant pedagogical theories	description of the relevant	Very limited description of the relevant pedagogical theories
Contribution: Rate and summarize how this	•	novel and/or practical extension of	somewhat minor addition to pedagogical	of pedagogical research; not very	Incomplete or very limited description of pedagogical research.
Significance: Rate and summarize how this submission is important and makes an important contribution to engineering education.	Very important; of broad and/or significant impact		and/or	Limited; Some interesting points	Very limited contribution
Relevance: Rate how and explain how the work advances frontiers in education within the context of FIE.	Highly relevant	appropriate and well	Appropriate and reasonably focused	Somewhat relevant, but not focused	Not relevant
		appropriate			Very difficult to understand



	1	1	1		
Context: Rate the effectiveness of relating this work in demonstrating a strong knowledge of related and prior work. Rate and include specific suggestions of missing literature.	of related work that		Incomplete, but useful references to related work; reasonably connected to the contribution	Incomplete references and/or connection to the submission's contribution	Little or no reference to related work and/or context is disconnected to the submission's contribution
Scholarly Quality: Rate and summarize how the submission demonstrates appropriate rigor and reflective depth when outlining the novel practice at their and other institutions. A high impact paper in this category is one that develops new and intriguing insights in the context of ongoing research, and/or presents preliminary analysis of empirical data.	strong, theoretical foundation is good, and analysis/discussion are of high quality	Relevant theory and method are applied with some limitations	The submission uses theory and analysis methods though details are unclear in places	Theoretical underpinnings are weak and there are flaws in argument/analysis	The research appears to be poorly structured and the analysis/argument is hard to interpret
REVIEWER'S CONFIDENCE: Please indicate your level of expertise related to the content of this submission.  OVERALL EVALUATION: This	Expert Accept	High	Medium  Accept with revisions	Low	None Reject
should reflect the combination of the individual section's evaluations.			1641210112		



# Rubric for Research Submissions (short paper)

**Short Paper** 

**RESEARCH category** submissions should position the current research in relation to related and prior work, showing the need for a new or enhanced approach. A high rating in this evaluation category indicates that a paper has a sound theoretical and empirical structure in terms of identification of the problem, design of solution/investigation, methods used during data collection, and an empirically-based final analysis. Short paper (i.e., Work-in-Progress) research category submissions should focus on the methodology used, potential hypotheses, and what remains to be done. The "*Work in Progress:*" phrase should be the first words of the abstract.

The criteria for the short papers in the research-to-practice category are the following:

- How does the work advance frontiers in education within the context of FIE?
- To what extent are the practices described in the paper innovative, leading-edge, cutting-edge?
- Does the work demonstrate knowledge of related work and discuss the relevance of the submission's contribution in the context of the prior literature in the field and other relevant areas?
- Does the work demonstrate scholarly quality as evaluated on the strength of its methodology, the quality/depth of its theoretical foundation, and the quality/depth of its analysis and related discussion? Work-in-Progress papers should introduce new ideas and encourage a discourse that can potentially advance the field in some way.

To what extent is the paper professionally written? All papers must be submitted in English.

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Theoretical Framework: Rate and summarize how this submission describes the theoretical framework relative to its contribution to engineering education.	useful description of relevant	Accurate and worthwhile description of relevant pedagogical theories	Some useful description of relevant pedagogical theories	Incomplete, vague or unsupported description of the relevant pedagogical theories	Very limited description of the relevant pedagogical theories
Research Contribution: Rate and summarize how this submission describes the research contribution relative to engineering education.	description of pedagogical	Somewhat novel and/or practical extension of pedagogical research.	A distinct, if somewhat minor addition to pedagogical research.	Limited description of pedagogical research; not very original, extensible or novel.	Incomplete or very limited description of pedagogical research.
Significance: Rate and summarize how this submission is important and makes an important contribution to engineering education.	Very important; of broad and/or significant impact		Some impact and/or significance	Limited; Some interesting points	Very limited contribution
Relevance: Rate how and explain how the work advances frontiers in education within the context of FIE.		Clearly appropriate and well focused	Appropriate and reasonably focused	Somewhat relevant, but not focused	Not relevant
Language and Expression: Rate and assess the	exemplary use	Good, appropriate as is	Reasonable, may need some revision	Poor language, unlikely that it can be	Very difficult to understand



organization, language and English expression used in the submission.	quality of the			sufficiently improved	
summarize the effectiveness of relating the contribution of the work to salient related and/or prior work.	Excellent knowledge of salient related work that effectively relates to the contribution	Sufficient knowledge of salient related work that relates to the contribution	useful references to salient related work; reasonably connected to the	references to salient literature; weakly connection to	Inaccurate or no reference to salient work and/or context is disconnected to the submission's contribution
REVIEWER'S CONFIDENCE: Please indicate your level of expertise related to the content of this submission.	Expert	High	Medium	Low	None
OVERALL EVALUATION: This should reflect the combination of the individual section's evaluations.	Accept		Accept with revisions		Reject