AAEE Conference Paper Review Criteria

General Criteria

Criteria	Education Research Papers	Academic Practice Papers	Theoretical Papers
1. Focus of the Paper	The paper clearly describes the research question OR hypothesis and explains the implications of the project for engineering education research or practice.	The paper focuses on an aspect of academic practice, including the goals or intended outcomes, and explains the implications of this work (e.g. consideration of whether the findings could be applied elsewhere, or how the work reflects on existing literature in the field).	The paper draws on disciplinary literature and experience to identify a problem or gap in knowledge that can usefully be addressed with theory.
2. Relevance	The paper clearly relates the work undertaken to relevant discussions in the engineering education literature and other disciplinary literature as required; and describes its contribution to these discussions.	The paper relates the work done to existing relevant published literature and establishes the significance of the academic practice to engineering education.	A clear description of the theoretical perspective, which guides the analysis and interpretation of the topic. An articulation of the significance of the discussion for the Engineering Education community.
3. Approach	The paper clearly describes and justifies the appropriateness of the overall approach, which could include designs, methods, theories and analytic processes; and discusses the limitations of the study or the change in teaching practice.	The paper describes and justifies the appropriateness of the overall approach, which could include designs, methods, conceptual frameworks and analytical processes that have guided the design, implementation and evaluation of the work undertaken.	Specific questions are posed which guide the analysis and interpretation of the topic.
4. Argument	The paper clearly presents novel ideas or results of significance to others that are supported by convincing evidence, and clearly reasoned, illustrating the connection between claims and evidence.	The paper reflects on the strengths and limitations of the work done, based on the initial goals and evidence from the evaluation process, and provides recommendations for academic practice.	Revised perspectives that are explicitly stated, along with their possible ramifications for practice and disciplinary knowledge.
5. Writing Quality	The paper is written in appropriate English language of a sufficient standard to enable the reader to make sense of it.	The paper is written in appropriate English language of a sufficient standard to enable the reader to make sense of it.	The paper is written in appropriate English language of a sufficient standard to enable the reader to make sense of it.

Education Research Papers

Criteria	Not Acceptable	Has Some Value	Excellent
1. Focus of the Paper The paper clearly describes the research question OR hypothesis and explains the implications of the project for engineering education research or practice.	No actual research study presented. Gap or problem not convincingly articulated. Too much reliance on personal experience.	The topic or questions asked about it are of restricted interest. The literature used is interesting but partial (i.e. partisan).	The research question posed allows for deep investigation of the topic. Implications for engineering education are interesting, relevant and well described.
2. Relevance The paper clearly relates the work undertaken to relevant discussions in the engineering education literature and other disciplinary literature as required; and describes its contribution to these discussions.	Important prior work not referred to. Description of the literature presented is unclear, does not translate jargon or relate well to the topic. No mention made of the contribution the work makes to the discussion in the community.	Some prior work described. Relevance for engineering education community vague or not well argued.	The paper provides an extensive and clear description of prior work in the field from within engineering education and broader fields. Relevance to the engineering education community well justified.
3. Approach The paper clearly describes and justifies the appropriateness of the overall approach, which could include designs, methods, theories and analytic processes; and discusses the limitations of the study or the change in teaching practice.	Overall approach is unclear and inconsistent. There is a lack of information about the processes used, and no limitations are discussed.	The overall approach is clear but basic. Some information about the process provided that allows the reader to follow what was done. Some limitations discussed.	The overall approach is clear and well justified. Methods used are well explained; allowing the reader to replicate what was done. Limitations are identified and discussed.
4. Argument The paper clearly presents novel ideas or results of significance to others that are supported by convincing evidence, and clearly reasoned, illustrating the connection between claims and evidence.	No or incomplete results presented. Poor and hard to follow argument presented linking results to process.	Results presented with some justification of how they were arrived at through the processes described.	Significant results are described. A well-reasoned argument is presented, linking the processes used to the results.
5. Writing Quality The paper is written in appropriate English language of a sufficient standard to enable the reader to make sense of it.	The paper has significant errors in English expression, spelling and/or punctuation that prevent the reader from understanding it. Tables and Figures are not referred to in the text or add no value to the discussion.	The paper has lapses in English expression, spelling and/or punctuation and/or is not structured in a logical way. The Tables and/or Figures have significant inconsistencies with the text or are not appropriately presented.	The paper is written in a clear manner with few typographical errors and structured in a logical way. The Tables and/or Figures are appropriately presented, clarify the discussion, and are meaningfully explained in the text.

Academic Practice Papers

Criteria	Not Acceptable	Has Some Value	Excellent
1. Focus of the Paper The paper focuses on an aspect of academic practice, including the goals or intended outcomes, and explains the implications of this work (e.g. consideration of whether the findings could be applied elsewhere, or how the work reflects on existing literature in the field).	Paper does not describe an aspect of academic practice or does not explain the implications of the study.	Aspect of academic practice not clearly described or goals/intended outcomes not clearly explained. The implications not clearly explained.	Clear description of an aspect of academic practice. The goals or intended outcomes of the study are clearly identified and explained. Implications of the findings of this work are clearly explained.
2. Relevance The paper relates the work done to existing relevant published literature and establishes the significance of the academic practice to engineering education.	Important prior work not referred to or no discussion of why this work is important for engineering education.	Some literature is presented, but does not clearly show how the work done relates to existing literature on this practice, or the work done has only limited applicability for engineering education.	The literature review shows how the work done either builds on or differs from the existing body of knowledge on this topic. The paper clearly shows why the engineering education community should be interested in this work.
3. Approach The paper describes and justifies the appropriateness of the overall approach, which could include designs, methods, conceptual frameworks and analytical processes that have guided the design, implementation and evaluation of the work undertaken.	There is no logical connection between the perspective/framework as described and later sections of the paper or there is no conceptual framework provided to explain what guided the design, implementation or evaluation of the work done. The design or implementation process is not described. There is no evaluation of the design or implementation process, or student feedback survey or subject assessment results are used as only evidence.	A guiding perspective/framework has been identified but not clearly described or linked to the change in academic practice or this link not clearly shown in the description and evaluation of the work done. The design and implementation process is described but some key elements are omitted or not clear enough to allow adoption and/or adaptation by others. The evaluation process is not clearly described or the type of evidence is not justified.	Clear description of the main aspects of the framework used and explanation of why this perspective/framework was used. Uses concepts from this framework in the description and evaluation of the work done. The design and implementation process is described clearly such that others could adopt or adapt the change in their context. The evaluation process is clearly described including the type of evidence gathered and a justification of why this evidence is relevant to evaluating how the work done has achieved its goals or intended outcomes. Any unintended outcomes that became apparent during implementation or evaluation are also noted.
4. Argument The paper reflects on the strengths and limitations of the work done, based on the initial goals and evidence from the	There is no discussion of strengths and limitations of the work done. No clear impact on academic practice demonstrated.	Strengths or limitations identified and discussed, or strengths and limitations identified but not discussed in relation to evidence from the evaluation process.	Strengths and limitations clearly identified and described relative to the initial goals and based on evidence from the evaluation process. Clear description of what has been

evaluation process, and provides recommendations for academic practice.		Limited description of what has been learnt through the design, implementation and/or evaluation of the work done and/or provides no recommendations for practice based on evidence from the evaluation process.	learnt through the design, implementation and/or evaluation of the work done and provides recommendations for practice based on evidence from the evaluation process.
5. Writing Quality The paper is written in appropriate English language of a sufficient standard to enable the reader to make sense of it.	The paper has significant errors in English expression, spelling and/or punctuation that prevent the reader from understanding it. Tables and Figures are not referred to in the text or add no value to the discussion.	The paper has lapses in English expression, spelling and/or punctuation and/or is not structured in a logical way. The Tables and/or Figures have significant inconsistencies with the text or are not appropriately presented.	The paper is written in a clear manner with few typographical errors and structured in a logical way. The Tables and/or Figures are appropriately presented, clarify the discussion, and are meaningfully explained in the text.

Theoretical Papers

Criteria	Not Acceptable	Has Some Value	Excellent
1. Focus of the Paper The paper draws on disciplinary literature and experience to identify a problem or gap in knowledge that can usefully be addressed with theory.	Important prior work, including historical studies, not referred to. Too much reliance on personal experience. Failure to identify competing explanations. Gap or problem not convincingly articulated. Application of theory not the most suitable approach (as compared with perhaps further data gathering).	The topic or questions asked about it are of restricted interest. The literature used is interesting but partial (i.e. partisan).	The literature review shows extensive understanding of the discipline and prior work done on the topic. The gap to be addressed is interesting, relevant and well-defined, as well as being likely to benefit from a theoretical analysis.
2. Relevance A clear description of the theoretical perspective, which guides the analysis and interpretation of the topic. An articulation of the significance of the discussion for the Engineering Education community.	Description of the theory is unclear, does not translate jargon or relate well to the topic. There is no logical connection between the theory as described and later discussion. No mention made of the implications of the discussion for the community.	Description of theory not entirely clear OR no connections made between described theory and topic of discussion. Concepts and procedures not consistent with the theory are included. Relevance for engineering education community tangential or not well argued.	The paper gives a clear account of the claims and concepts contained in the theory and how they will help address the gap or problem. The discussion then proceeds to use the theory's concepts and apparatus as described. The paper makes clear why the engineering education community should be interested in this discussion.
3. Approach Specific questions are posed which guide the analysis and interpretation of the topic.	Theory is explained but not used to ask or answer questions. It is not clear what the question is.	Questions or propositions about the topic are not consistently aligned with the theory.	Questions asked about the topic or propositions formulated about it use the concepts and apparatus of the theory. Those same concepts and apparatus recur throughout the discussion.
4. Argument Revised perspectives that are explicitly stated, along with their possible ramifications for practice and disciplinary knowledge	The insights arrived at have already been demonstrated elsewhere OR are not capable of stimulating new work OR are not well related to the gap originally identified.	The approach demonstrates some gain over present understandings but implications are not clear.	The paper provides fresh insights to the topic that could stimulate new research directions or academic practices. The paper includes suggestions for how its insights might be tested or applied or what further questions need to be asked.
5. Writing Quality The paper is written in appropriate English language of a sufficient standard to enable the reader to make sense of it.	The paper has significant errors in English expression, spelling and/or punctuation that prevent the reader from understanding it. Tables and Figures are not referred to in the text or add no value to the discussion.	The paper has lapses in English expression, spelling and/or punctuation and/or is not structured in a logical way. The Tables and/or Figures have significant inconsistencies with the text or are not appropriately presented.	The paper is written in a clear manner with few typographical errors and structured in a logical way. The Tables and/or Figures are appropriately presented, clarify the discussion, and are meaningfully explained in the text.