

# Response to Referees for FIE 2019 Paper #619 (1570524395): “A UK Case Study on Cybersecurity Education and Accreditation”

Crick/Davenport/Irons/Prickett

22 June 2019

## Summary

In general, alongside addressing the main points from the referees, the paper has been substantially restructured and refined for clarity of its main message, as well as overall presentation and readability. This has included a new title, refreshed abstract, restructured introductory section, restructured conclusions, as well as updating/tidying of the references.

## Referee 1

All addressed/no comments that require addressing in detail.

## Referee 2

All addressed/no comments that require addressing in detail.

## Referee 3

1. *“The research appears to be poorly structured and the analysis/argument is hard to interpret”.*  
A The paper has been re-written to make the structure clearer. In particular, the abstract has been updated to more succinctly provide the essence of the work; the signposting has been enhanced to better guide the reader; a research approach section to more clearly explain the approach followed has been added; the research questions have been made more precise to communicate the intentions more clearly; and the sections have been made more self-contained and logically structured to better support the reading of the paper in a non-linear manner.
2. *“The abstract is too long and could be made concise. For example, the 2nd paragraph can be avoided as the main idea has been conveyed in the 1st paragraph as well.”*  
A The abstract is now two paragraphs long and better represents the main thrust of the work.
3. *What do the authors mean by “There has been a recent international working group but this has yet to report.”*  
A In parallel to the research explored in the paper, there is a working group as part of the ACM conference series on Innovation and Technology in Computer Science Education (ITiCSE) intending to develop a taxonomy of cybersecurity education. This has been clarified in Section 1 of the paper.
4. *It would add more clarity to introduce what these terms DevOps vs DevSecOps represent in the paper. Also, please use the acronym GDPR after introducing it during the first usage such as General Data Protection Regulation (GDPR).*  
A Discussion related to DevOps vs DevSecOps has been removed, as well as the early section on GDPR. Abbreviations have adopted the style recommended throughout.

5. *There are repeated “and” in the sentence “In particular the expectation of Privacy by design...” Also, the “by” after “and” is not required.*

*Please consider rephrasing to “While both Privacy by design and privacy by default have been expected to be good practices”.*

A These sentences have been rephrased and other typographical errors addressed.

6. *Please rephrase the following statement “How might accreditation regard cybersecurity education, or help with it?” as the sentence structure doesn’t make much sense.*

A This has been rephrased to “*Can accreditation by Professional, Statutory and Regulatory Bodies enhance the provision of cybersecurity within a body’s jurisdiction?*” The other research questions have also been rephrased to improve the clarity by which the intentions of the research are communicated.

7. *It is not clear what is the message the authors are conveying in the 2nd paragraph? It lists three different web links and a reference. Also, the web links in 2nd and 3rd paragraphs could be moved to the reference and they could be referenced with a number in this paragraph. Again, please use the acronym KA after introducing it as Knowledge Areas (KA) at the first instance of use.*

A The authors apologise that these were note sections and should not have been present in the paper; these sections have been removed. The recommended approach to abbreviations has now been adopted throughout the paper.

8. *What is JHD? Please expand?*

A This has been removed this.

9. *Please expand OWASP.*

A Open Web Application Security Project has replaced the initial use of OWASP.

10. *The references to first author in the 2nd paragraph could be avoided and the sentence rephrased to highlight only the facts and not any personal experience.*

A The references to the authors has been removed throughout and any potential conjecture removed.

11. *What does “three accounted for the 36 of the 44” mean? Please clarify. I am assuming the 36 and 44 refer to number of universities. Please add that clarification, if it is so.*

A This did mean universities and has been updated to indicate this.

12. *“If there are only 82 instances of these fragments, how can 117 of them be verified?” Please add clarification to this discussion.*

A Typo on our part: this should have been 820, not 82.

## Referee 4

1. *“The problem is it is not a research paper in even the broadest interpretation of that sense. The RQs are invented based on topic areas the authors wish to riff on, only RQ3 comes (somewhat) close to a RQ with an associated presentation based on the literature and some analysis. The 1st 2 RQs, as well as the Introduction sections, are selectively argued, stream-of-consciousness almost writing. Entertaining, informative, arguable, debatable - but not research. No methodology is applied, no systematic review, etc. Instead a smattering of anecdotal information and quotes (and even more quotes in the footnotes) intended to convince the reader of a viewpoint that is never quite articulated clearly - until the end when it comes down to a small set of specific complaints about SQL Injection, XSS, and StackOverflow (which is overall a bit of a letdown as I felt as if this bloglike writing was building to a more impactful crescendo, some kind of kick-in-the-pants call to action for the community).”*

- A The paper has been revised to more clearly communicate the research approach employed, as well as the overall aims and intention of the paper (for example, new title, abstract and introductory framing). A research approach section has been added to further elicit the case study approach adopted. The research questions have been made more specific to more clearly communicate the intentions of the research. The writing style has been adjusted and a more formal approach taken. The conclusions have been extended and clarified.

## **Programme Committee**

All addressed/no comments that require addressing in detail.