**Reviewer Feedback Matrix with Authors’ Responses**

**Draw-a-Researcher article**

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|  | Reviewer B | Reviewer A | Response |
| 1. Does the organization of the manuscript and logic of arguments aid presentation of the research? | Acceptable | Strong |  |
| 2. Is the research innovative? | Strong | Acceptable |  |
| 3. Does the author follow APA style? | Acceptable | Strong |  |
| 4. Is the research grounded in a clear and well thought out conceptual framework | Weak | Weak | Added theoretical framework: Identity  Lines 52-81 |
| 5. Does the author adequately review appropriate empirical research, conceptual research, and theoretical perspectives in this area? | Acceptable | Acceptable |  |
| 6. Has the author presented a rich and nuanced review of extant literature? | Strong | Acceptable |  |
| 7. Is the methodological approach appropriate, given the espoused purpose of the research? | Acceptable | Weak | Added literature to establish the methodological approach and use of visual data  Lines 144-199 |
| 8. Is the research design well-articulated and executed? | Weak | Acceptable | Revised the Research Methods section  Lines 144-305 |
| 9. Are limitations thoughtfully addressed? | Weak | Weak | Added Limitations section  Lines 456-478 |
| 10. Does the author clearly articulate data collection and analysis procedures? | Weak | Weak | Clarified and expanded section on data collection and analysis  Lines 253-309 |
| 11. Does the data analysis clearly flow from the articulated conceptualization? | Weak | Weak | Revised data analysis  Lines 271-309 Lines 310-363 |
| 12. Are all claims supported by appropriate evidence? | Acceptable | Acceptable |  |
| 13. Are conclusions and implications reasonable and, where appropriate, connected to existing theory and research? | Weak | Acceptable | Revised Conclusion section to (a) connect results to theoretical and research literature, (b) highlight significance, (c) note implications, (d) make suggestions for future research, and (e) offer recommendations for practice.  Lines 479-568 |

CONSTRUCTIVE CRITICISM FOR AUTHOR(S):

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| 1. This manuscript explores doctoral students perceptions of themselves as researchers at the beginning of their first year and at the end of their second year of doctoral training.  The use of student drawings and narratives about the drawing represents an interesting research approach, although I have some questions and concerns about the methodology. | Revised the Research Methods section. Provided a stronger rationale.  Lines 144-305 |
| 2. The manuscript introduction provides a good overview of the challenges experienced by educational doctoral students in developing a researcher identity. The authors provide a sound rationale for assessing the development of research identities among doctoral students as a basis for program modifications. |  |
| 3. I suggest that knowledge of students’ self-perceptions as researchers at the beginning of the program may be valuable, moreover, in allowing the faculty to design activities for specific individuals or cohorts to more effectively promote their researcher identity. | Expanded explanation of identity theory:  Lines 36-132  Added literature on use of identity theory with doctoral students in particular:  Lines 144-155 |
| 4. The participants were nine members of a 12 student doctoral cohort. Three students were excluded because they did not complete both sets of drawings and related narratives. The authors should explain why that was so, as the reason for their failure to complete the drawings may limit the generalizability of the method or the findings. | Explained missing data  Lines 460-467 |
| 5. An adaptation of the Draw-A-Scientist Test was used as a data collection tool. The authors claim that the drawings represent students’ self-identities as researchers. Although this inference can be made from a drawing of oneself, it should be acknowledged that this is an interpretive leap. The theoretical basis for this inference and some theory or research supporting that interpretation should be cited. | Explained link between identity theory and visual data.  Lines 144-199 |
| 6. More specifics on the instructions given to students in completing the drawings and in the narrative inquiry should also be included. Was the narrative inquiry a personal interview or in written form? If oral, who conducted the interviews and were the interviews recorded? | Provide more specifics  Lines 254-270 |
| 7. What methods were reported for coding in the literature and are there any reports for inter-rater reliability? The authors mention that they developed a coding scheme similar to the methods used in the Draw-A-Scientist Test, so it would be important to know more about the reliability and validity of the original coding scheme. The authors should report what is known and, if not provided in the literature, should state this as a study limitation. | Added information about coding the visual data  Lines 315-320 |
| 8. With regard to the current study, the authors should indicate the number of raters that coded the interviews, how many raters coded each drawing, and how any inconsistencies across raters were resolved. The authors should include more detail on the process and procedure for analyzing the narrative data. | Added information about coding the visual data  Lines 315-320 |
| 9. With regard to the results, the drawings were coded for the elements of the drawings, which were organized into categories. The authors also report on the participants’ perceptions of their images and provide two very interesting examples of the drawings and narrative of two doctoral students. The authors conclude that the drawings moved from general and abstract to concrete and explicit and the ideas shifted form practical to specific. I am not sure that the examples illustrate these conclusions. It seems to me that later in the program students understood the complexity of the researcher role, but also understood how to better navigate that complexity, the steps that needed to be taken, and the potential societal benefits of research findings. These are my impressions from the two examples presented, speaking to the importance for the paper to provide a fuller explanation of the interpretative process. | Added another pair of drawings.  Lines 383-455  Integrated the results of our analysis of the narratives students wrote about the drawings with the drawings themselves.  Lines 383-455 |
| 10. With regard to the conclusions of the paper, I agree with the authors concerning the value of understanding students’ evolving perceptions of themselves as researchers and the potential of drawings to inform this process.  They speak of this as a powerful process. I think that statement requires more support. Powerful in what ways, how demonstrated in this study? It seems to me from the evidence provided that the drawings were a useful way to assess student’s perceptions and elicit their narratives about their process of change. The authors mention that they developed a checklist from the coding scheme. Again more detail needs to be provided to understand this process. | Added many more details about the analysis of the drawings. Using a newly created rubric, we reanalyzed the drawings using a rubric designed specifically for images of being a researcher.  We expanded the analysis to include more categories. We dropped the idea of using body elements because it seemed more germane to focus on which elements actually relate to the image of being a researcher.  Creation of the scoring guide  Lines 279-309  Analysis of drawings using scoring guide  Lines 315-363 |
| 11. Also, I do not see how the body elements or the categories informed the interpretation, which seems to be based more on the narrative interpretation.  An analysis of the pre-post elements by themselves, for example, might yield different interpretations—less self gender-identification, fewer eyes and head, fewer smiles, no heart at post-test. | See our note for Item 10 above.  We re-evaluated the drawings and learned so much more. |
| 12. In sum, I found this to be a well-written and interesting study. However, the authors need to provide more detail in a number of areas to support their use of the measure and their interpretation. In the conclusions, they should also note the research limitations and the need for further research. For example, did students’ drawings and narratives relate to students’ later ease, progress, to success in moving through the research/dissertation process? | Limitations  Lines 456-478  Recommendations for future research and practice  Lines 533-568 |