Reading Research Papers

This worksheet is designed to get you thinking about how to read research papers. We will focus on different parts of the paper and how you might critically reflect on each of these. It is important to remember that while research papers might follow a similar structure there are always differences based on the individual research methods used, and the overall aims of the research.

Critical reflection is a "meaning-making process" that helps us set goals, use what we've learned in the past to inform future action and consider the real-life implications of our thinking. It is the link between thinking and doing, and at its best, it can be transformative (Dewey, 1916/1944; Schön, 1983; Rodgers, 2002). Without reflection, experience alone might cause us to "reinforce stereotypes…, offer simplistic solutions to complex problems and generalize inaccurately based on limited data" (Ash & Clayton, 2009, p.26). Engaging in critical reflection, however, helps us articulate questions, confront bias, examine causality, contrast theory with practice and identify systemic issues all of which helps foster critical evaluation and knowledge transfer (Ash & Clayton, 2009, p. 27).

https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/planning-courses-and-assignments/course-design/critical-reflection

This worksheet is based on existing materials developed by the University of Guelph: https://www.lib.uoguelph.ca/sites/default/files/student_worksheet.pdf

First you should read the paper.

Then, in the sections below you should answer the questions, taking care to use your own words unless you are specifically asked otherwise.

The Problem	
What is the problem being addressed?	
Has any evidence been provided to confirm that this is, in fact, a problem?	

Motivation	
Why is this problem worth solving?	
Has any evidence been provided to confirm the impact that the problem is having?	
What would change if this problem is solved?	

Solution	
What solution was presented to solve the problem?	
Has anyone else tried to develop or use a similar solution? How does the solution in this paper differ from others?	

Steps to the solution	
What steps were taken to develop the solution?	
How were participants involved in this process?	
Are there any limitations to this method that has limited the development of the solution?	

Evaluation	
How do we know if the solution solved the problem?	
Give an overview of the methods used in the evaluation?	
Are there any limitations of these methods that can lead to unreliable results?	

Evaluation	
How did the authors analyse their data? Are there any limitations of this analysis?	

Contributions	
What was the "gap" in the research that the authors were trying to fill by doing their study?	
What are the contributions of this paper to the research literature?	
What was the conclusion of the study? Does it match the contributions as specified by the authors?	

Bonus section: Venue and Authors	
Where has the paper been published?	
What do you know about that venue? Who else publishes there? Is it reputable?	
Are there other publication venues with similar or related work?	
What other work does the author do? Who else do they work with?	