

## Introduction

- Physician Assistants (PAs) are interdependent, semi-autonomous medical practitioners with varying levels of background knowledge based on their area of practice. PAs have a low population density in Canada due to the novelty of the profession and demand in rural regions(1).
- Constructivism style problem-based learning takes advantage of a learners previous knowledge and is an effective strategy in other medical learners. Constructivism has students take ownership of their learning and guides their learning through self-directed big-picture goals and experimentation(2).
- Cognitive Integration is the process of closely linking theoretical knowledge with practical situations, and has been shown to improve student knowledge retention(3).
- Communities of Practice reinforce constructivism and continuing education by introducing peer-to-peer knowledge translation and interpersonal challenges(4).

## Methods

- An electronic learning management system was selected in order to reach the maximum number of PAs, despite the low population density and often busy schedule.
- A needs assessment survey was completed of the existing community of practice that exists on Facebook and is curated by the Canadian Association of Physician Assistants.
- Quantitative data was provided to a group of paediatric emergency medicine attending physicians, fellows, and PAs for development into a flipped classroom model.
- A focus group of PAs and PA students with interest in paediatric emergency medicine completed several flipped classroom sessions. Opportunities were given for feedback at the end of each session. Feedback was immediately integrated into the program by facilitators using the AGILE framework.

## Results

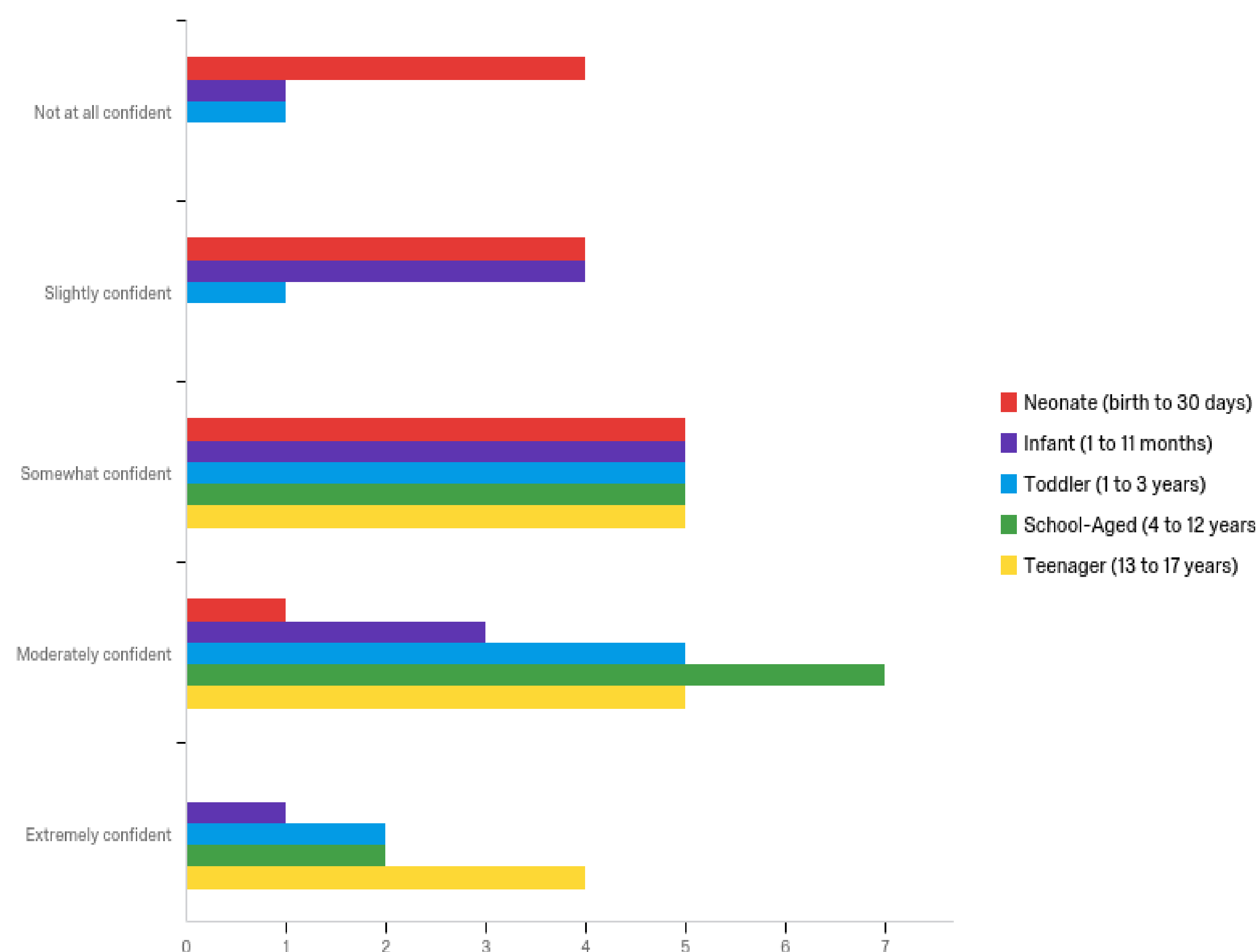


Fig 1. Confidence of PAs in the management of paediatric patients by age of patient.

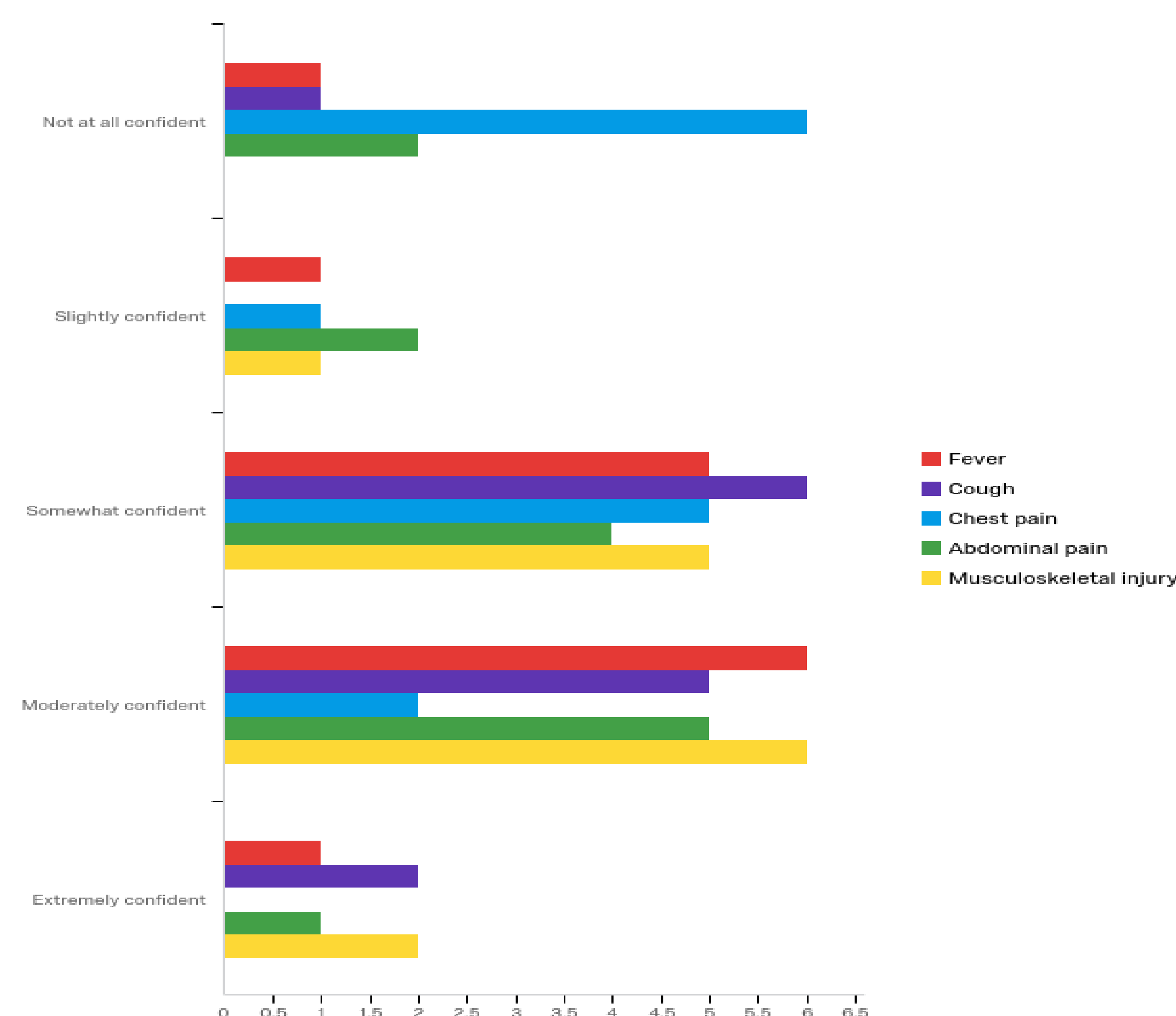


Fig 2. Confidence of PAs in the management of paediatric patients by common chief complaint

## Workflow



- Flipped classroom acts as 'equalizer'
- Cases presented with material for cognitive integration

- Synchronous online classes with expert facilitators guiding students through cases



- AGILE process allows for integration of student feedback into platform

- CoP allow informal education through case sharing
- Fosters collegiality and continuing education

## Discussion

- PAs required unique learning solutions compared to other medical professions due to the heterogeneity and scarcity of the population.
- A combination of andragogic educational techniques may be used to optimize PA learning.
- Further exploration and development of PA post-graduation education is warranted.

## References

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4. Powell K, Cody K, Kalina J. Cognitive and Social Constructivism: Developing Tools for an Effective Classroom. Education [Internet]. 2009 [cited 2019 Mar 24];130(2):241-50. Available from: <https://docdrop.org/static/drop-pdf/ConstructivismDay1-In36v.pdf>