

Computing Outreach Literature Review

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OVERVIEW OF LITERATURE REVIEW PROCESS

Is there a long-term impact on participants in computing outreach activities?

Identify sources of quality and date range to consider

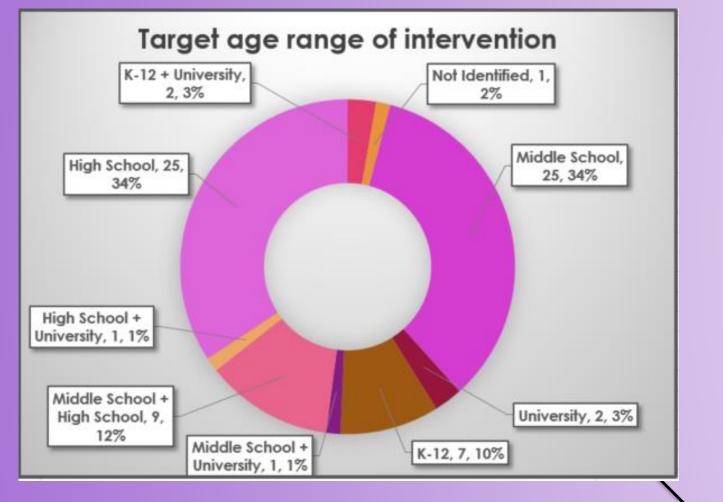
ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE), IEEE Frontiers in Education (FIE), Innovation and Technology in Computer Science Education (ITiCSE), International Computing Education Research Workshop (ICER), Taylor & Francis' Computer Science Education, and ACM Transactions on Computing Education for the years 2009-2014 inclusive

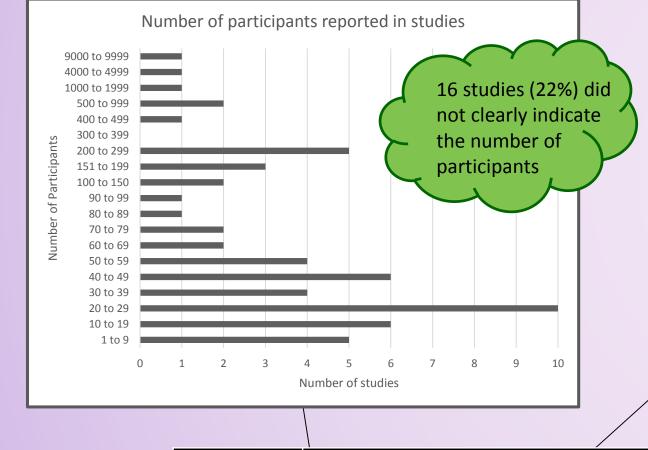
Examination of articles

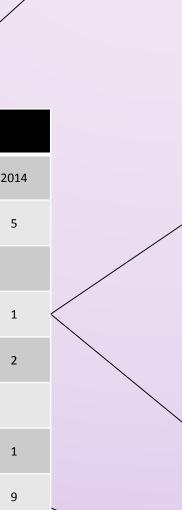
3672 total articles

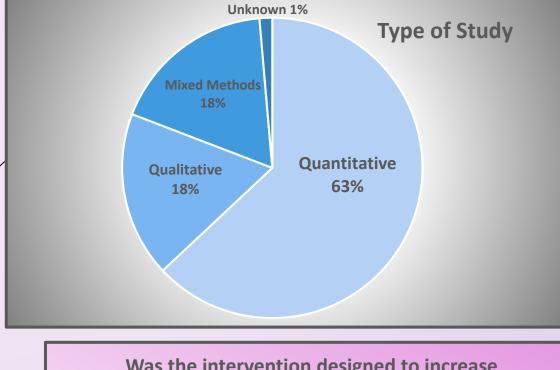
- 3571 not relevant (no keyword matches)
- 101 articles fully analyzed
- 28 lacked evaluative component
- 73 articles summarized

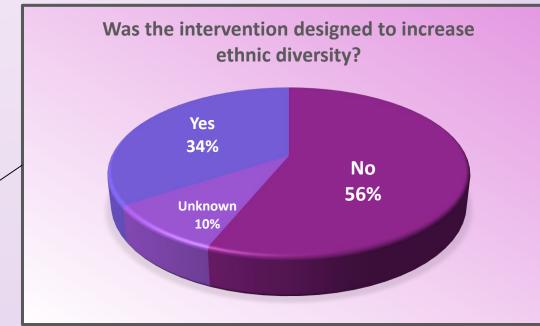
SUMMARY OF RESULTS



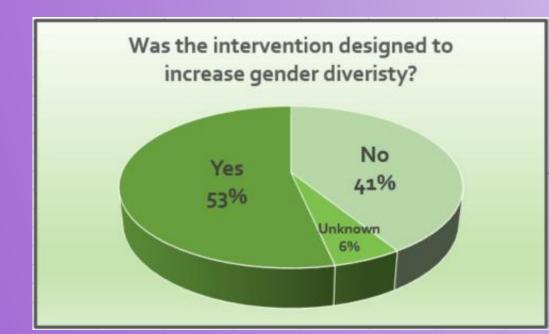


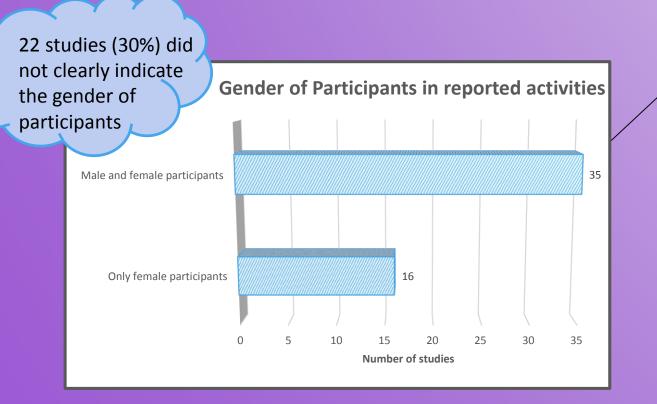


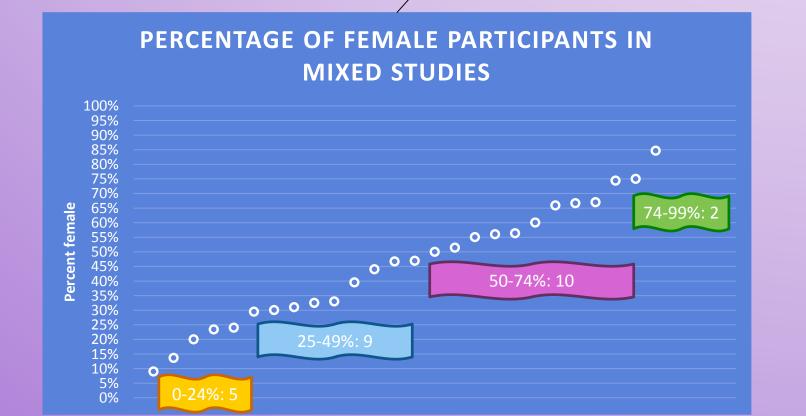


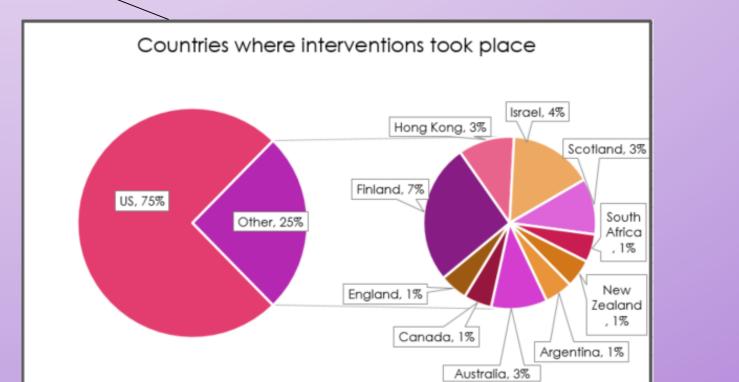


Ethnicity of Participants in Study	
All minority participants	2 (3%)
	[both studies were exclusively Hispanic/Latino/Latina participants]
Mixed ethnicities that included	25 (34%)
minorities	[The following ethnic categorizations were indicated by the researchers: American Indian or Alaskan Native; Asian; Asian/Pacific Islander; Black or African American; Filipino; Hispanic, Latino, Latina;
	Multi-racial; Other]
No othnicities provided	16 (620/)









Additional Observations

- > Total number of longitudinal studies: 7 (9.5%)
- All but one of the studies did data collection
- What types of data were studied/analyzed?
 - Indication of computing as a possible career choice and/or course of study through survey responses or increase in enrollment numbers (17 – 23%)
 - Attitudes about computing, perceptions of computing, relevance of computing to them or society (39 – 53%)
 - Self-efficacy about computing ability (8 11%)
 - Participant use of computing concepts covered throughout the intervention (6 – 8%)
 - Participant knowledge of computing concepts (12-16%)
 - Participant satisfaction/reactions to intervention (14 – 19%)
 - Did not indicate what was assessed (2 2%)
- No adverse or negative reactions to interventions reported. Essentially, no failures.