

Assignment # 2

"Middle School Students' Teaching Practices and Preferences:

Re-examining gender differences"

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In the article “Middle School Students’ Teaching Practices and Preferences: Re-examining gender differences”, Miller et al. attempt to examine the historical gender differences in access, use and knowledge of computer technology among American youth and suggest that the gaps are reducing radically.

In a research study, they surveyed 512 middle school students (11 to 15 years old) from eight public and private schools in Houston, Texas area. In order to obtain a diverse representation from all ranges of socio economic status, a stratified sample was recruited from one of the three economic groups in near equal gender based on the free/ reduced lunch percentage of the school population. The students were tasked to complete a 68 item questionnaire including closed and open ended questions during a science or computer technology class. The questionnaire was compiled after a series of small student focus groups and covered three main areas:

1. Self-perception of computer skills and their acquisition
2. Exposure to technology at home and at school
3. Media style and content preferences

Based on the self reported survey findings, the authors concluded that the gender gaps in technology outcomes were fading owing to the increased presence of the World Wide Web in American schools and homes.

In order to support their claim, Miller et al. provide valuable references from existing research followed by details and findings of their academic study in a well structured, intuitive scholarly writing that is indeed impressive to read. Reflecting on the article, I agree with the over

arching conclusions although I have concerns over the accuracy of findings and ability to generalize them for the whole American youth.

Miller et al. appear to have used stratified sampling in their study; however, they fail to clarify if they in fact used a random sampling technique like table of random numbers to select the sample or merely recruited students on convenience basis. If it was the latter, the results may not be generalized for the total population (Gay, Mills, & Airasian, 2009, p.134) and therefore one is forced to question the validity of the conclusion.

Further, there are certain limitations of self report measuring instruments that need consideration. As it is subject to bias, it is possible that the self report survey conducted in science or computer technology class may have led students to submit a common, socially acceptable response set which may have skewed results (Gay, Mills, & Airasian, 2009, p.153). It may very well be that the students responded as being more technologically savvy believing that it was what the researchers implicitly desired. Miller et al. could have overcome this issue by keeping the survey anonymous and conducting it in a non-technical environment.

Moreover, the terminology used in survey questions was very broad and could mean different things especially viewed from the adolescent lens of the young students. For instance asking them if they knew how to use a computer is a bit vague; in broad terms, even a 5 year old would know how to 'mess with it'. Students' dilemma is further confirmed when Miller et al. found that they typically completed the 68 item questionnaire within 30 minutes which doesn't seem to be long enough time to do reflective thinking on each question.

Miller et al. explore the topic from multiple dimensions uncovering the gender differences in approach, behaviour and preferences towards technology. It is interesting to find

the gender divide in approach towards computer technology where females perceive technology as a means to an end and males on the other hand see it as the end itself. This biological difference makes one speculate if this gender divide will ever converge.

References

Miller, L. M., Schweingruber, H., & Bradenburg, C. L. (2001). Middle school students' technology practices and preferences: Re-examining gender differences. *Journal of Educational Multimedia and Hypermedia*, 10(2), 125-140.

Gay, L.R., Mills, G.E., Airasian, P. (2009). *Educational Research: Competencies for analysis and applications* (9th ed.). Columbus, Ohio: Pearson.