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Straight from the girls: The importance of incorporating the EDGE Design Attributes at exhibits

by

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ABSTRACT

This paper describes a follow-up focus group study for the larger Exhibit Designs for Girls’ Engagement (EDGE) project. Grounded in Culturally Responsive Pedagogical theory (CRP), the project aimed to understand the relationship between female responsive designs and girls’ engagement at STEM exhibits. After developing a Female-Responsive Design (FRD) Framework and conducting a large-scale study to determine the most important design attributes for engaging girls at exhibits, the final step involved a qualitative investigation into those design attributes. Four focus groups with 22 girls total explored 8–13 year-old girls’ exhibit experiences and discourse. Participants were videotaped while using four exhibits, half of which incorporated the EDGE Design Attributes. Focus group results replicate the quantitative study: participants had a largely positive response to the EDGE Design Attributes and evinced greater engagement when the attributes were present at exhibits. As expected, girls’ responsiveness to the design attributes varied—aligning with the CRP approach and highlighting the important fact that not all attributes will work for all girls. To share girls’ voices more broadly with practitioners we provide direct quotes for each design attribute. Finally, of the kinds of learning expressed, girls more often practiced scientific skills by repeating or varying activities at the EDGE exhibits. The results of this study, and the larger project, provide evidence that CRP works well when designing for females and serves as a valuable theory for creating museums that are truly inclusive.

Key words: girls, equity, gender, STEM, engagement, museums, informal science education, interactive exhibits