The scientific research and education communities have long had the goal of advancing the public’s understanding of science. Informal science education is a powerful mechanism for shaping human conduct, enhancing quality of life, and advancing the public’s understandings and values regarding science. Guided educational tours (that present science content) provide visitors with unique opportunities to observe and discuss scientific phenomena in the field. Available empirical research related to learning science from guided educational tours is, at best, limited. Research leading to the development of effective guided educational tours that present and interpret scientific information is of interest to both non-profit and commercial tourism and recreational activities with their increasing levels of participation. This research draws on prior research in the areas of informal education, public understanding of science, and cognitive psychology. The research was based on The Contextual Model of Learning (Falk & Dierking, 2001), which illustrates how learning is conceptualized as a contextually driven in order to gain meaning about the world. The research was driven by questions that focused on learning within the context of a selected guided educational tour. The multiple methods phenomenological research relied on two data sources: 1) a questionnaire (quantitative) and 2) in-depth interviews (qualitative). The questionnaire responses and in-depth interviews focused on revealing visitor’s understanding and
values regarding the science content presented during the tour. Research questions regarding personal contexts and participation in the sociocultural and physical contexts of the guided tour were also investigated. Results support the positive influences of the tour when personal, social and physical contexts for scientific content are examined. This study includes in-depth examinations of the tour visitors’ experiences. Additionally, the research provides a unique perspective on the role of the typical tour visitor’s scientific understanding of physical geography prior to the tour and the social construction of new understandings as a result of participation on the tour. This study concludes that educational tourism has a promising future as a provider of experiential science learning through engaging participants in out-of-school informal science education.