This paper addresses the issue of how research methodology can be developed for the specific needs of research into information exploration behaviour, based on a four year program of research on individual strategies in information exploration. We propose a meta-experimental framework where research is carried out through a dynamic interaction between what and why questions, and between confirmatory and exploratory analyses. This approach preserves many of the advantages of formal experimentation, while permitting a more holistic examination of phenomena that is characteristic of ethnography. The application of the metatheoretical framework is illustrated in three case studies that examined new information exploration functionalities and interfaces and their relationship to expertise and exploration strategy.