## Online Learning Journals as an Instructional and Self-Assessment Tool for Epistemological Growth

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## **Abstract**

This study looked at the instructional and assessment effects of using learning journals in three distance asynchronous computer conferencing courses (n=18, n=16, n=17). The instructor used a design-research methodology: each iteration of the course involved modifications to how learning journals were used based on analyses of the responses and results from the preceding course. Modifications included: a) use of orienting questions; b) question content, c) journal assessment and d) amount of scaffolding. Protocols were analyzed with a view to characterizing students' epistemic cognition from two perspectives: belief mode (rationalist epistemology, self analysis, norms of inquiry to defend competing beliefs) and design mode (knowledge building epistemology, collective responsibility, norms of inquiry to support idea improvement and explanatory coherence). Changes in metacognitive reflection and learning journal activity were related to measures of learning. As a pedagogical tool, learning journals with directed questions (scaffolding) encouraged self-awareness of learning and epistemological reflection.

## Theoretical Rackground