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Constructing Meaning through Class Discussions

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Introduction

Dole et al. (1991) wrote that older learners like beginners bring their experiences and prior knowledge to the classroom, arguing for a view of the learner who is active in the learning process, in contrast to a behaviorist view which stresses repetition and automaticity. The purpose of this research was to investigate the role of reflection in meaning-making negotiation in the university classroom. In the present study, the dynamics of reflective practice were examined through the framework of cognitive and biofunctional approaches to learning. The specific research questions of the study were the following:

1. Do constructivist and biofunctional frameworks jointly provide a new lens with which to observe reflective teaching and learning practices?
2. Is there evidence that the practices adopted by one teacher fostered reflective learning, and if so what were those practices?

Method

Twenty-two students and their instructor in a first year writing class at a major research university in the southern United States participated in this study. Data were collected through videotaping of classroom discussions, document analysis, and informal interviews with the instructor. The video recordings of classroom discussions were coded and categorized using constant comparison (Glaser & Strauss, 1967).

Results

Through data analysis, the following themes emerged: (1) prior knowledge, (2) symbolism in literature, (3) confronting knowledge, (4) use of metaphors, and (5) authentic examples. Data were also quantified according to the number of *why* or *what* questions the instructor raised. Analysis of the videotapes revealed 90 of these questions in the discussions.

Discussion/Conclusion

The findings indicate that the instructor's probing questions were important. The questions encouraged more dialogue in the classroom. The instructor consistently sought to expand on learners' participatory experiences within the classroom. These questions go to the core of creating a teaching environment where students focus their attention on ways to expand, create, and refine their understanding of a particular

subject. Probing questions eliciting prior knowledge and experience helped students develop more understanding in the discussions

Iran-Nejad (1992), Heflich and Iran-Nejad (1995), and Iran-Nejad and Gregg (2001) argued for the application of biofunctionalism in the classroom through reflective teaching practices that encourage cross-domain integration, facilitate mind changing, and create a wholetheme environment characterized by seamlessness (see Iran-Nejad, 1994; Iran-Nejad, McKeachie, & Berliner, 1992). The themes in this study supported these recommendations. The instructor encouraged students to rethink their understanding by asking probing questions and by having students restructure their learning. The use of metaphors facilitated cross-domain integration. Convincing support was found in this study to suggest that constructivist and biofunctional frameworks for teaching and learning can increase classroom reflection and higher order thinking among university students. The stimulation of prior knowledge, reflection, discussion, and knowledge restructuring in students results in classrooms where learning is active, authentic, and meaningful.

References

- Dole, J., Duffy, G., Roehler, L., & Pearson, P. (1991). Moving from the old to the new: Research on reading comprehension instruction. *Review of Educational Research*, 61(2), 239-264.
- Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Publishing Co.
- Heflich, D., & Iran-Nejad, A. (1995). *Reflective educational practice from the perspective of wholetheme constructivism*. (ERIC No. ED393851)
- Iran-Nejad, A. (1992, November). *An overview of the problem of relevance in education*. Paper presented at the annual meeting of the Mid-South Education Research Association, Knoxville, TN. (ERIC No. ED356568)
- Iran-Nejad, A. (1994). The global coherence context in educational practice: A comparison of piecemeal and whole-theme approaches to learning and teaching. *Research in the Schools*, 1, 63-76.
- Iran-Nejad, A., & Gregg, M. (2001). The brain-mind cycle of reflection. *Teachers College Record*, 103(5), 868-895.
- Iran-Nejad, A., McKeachie, W., & Berliner, D. (1990). The multisource nature of learning: An introduction. *Review of Educational Research*, 60, 509-515.