Staff Development Guidelines Reaffirmed: A Response to Fonzi

Additional research substantiates the claim that not all adults function at the formal operations stage all the time, justifying use of experiential learning for inservice workshops.

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Fonzi challenges us by questioning two generalizations we presented, namely (1) ". . . that it appears that a higher portion of adults than formerly thought may be operating at what Piaget calls the concrete operational stage rather than formal operations stage of intellectual development" (p. 376) and (2) that the work of the Rapoports and of Allen Tough "suggests that adults prefer to learn in informal learning situations where social interaction can take place among learners" (p. 377). She also argues that traditional information assimilation approaches to staff development are more efficient than experiential approaches.

Cognitive Development

While empirical evidence about cognitive development in adults and its implications for professional development is primitive, the body of knowledge in this area is growing rapidly. When we first presented our view of adult cognitive development, we believed the evidence adequate to support our first generalization. McKinnan's research (1976) suggests that fewer first-year college students, who are generally regarded as adult learners by researchers, perform abstract cognitive functions than implied by Piaget's work. Since we first made this point, other studies with similar findings on adult development have come to our attention. For example:

- In a cross-sectional study of formal operations in females from 11 to 54 years of age, Tomlinson-Keasey (1972) found that 32 percent of college women and 46 percent of older adult women (mean age of 54) did not perform at formal operations level. Of those performing at formal operations level, only 23 percent of the college students and 17 percent of older women performed at the highest stages, leading Tomlinson-Keasey to conclude that "attainment of the highest stages of formal operations was rare and seemed to depend on available structures, experiences, use, and possibly even preference" (p. 394).
- Bender and Milakofsky (1982) found that as many as 55 percent of college chemistry students failed to perform at the formal operational level and that there was a significant positive correlation between cognitive development and achievement. Based on their findings they recommended, among other things, that instruction be modified to de-emphasize formal operational tasks (p. 213).
- King (1977), after examining the intellectual development of a sample of adolescents and young adults, noted that as many as half of the respondents who could perform at formal operations level on one task could not do so on a different task.
- Review of research on cognitive development by Papalia and Bielby (1974) and Blasi and Hoeffel (1974) suggests that large numbers of adults do not function all the time at the formal operations level described by Piaget.
- Other authors reviewing research on adult development based on theoretical models other than Piaget's report findings that suggest many adults function at less than the highest levels of cognitive development (Oja, 1980; Santmire, 1979).
- What does this additional evidence lead us to conclude? It reaffirms what we asserted earlier:

> It appears that a higher proportion of adults than formerly thought may be operating at what Piaget calls the concrete opera-

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tional stage rather than the formal operations stage of intellectual development. This suggests that direct and concrete experiences where the learner applies what is being learned are an essential ingredient for inservice education. Abstract, word-oriented talk sessions are not adequate to change behaviors (Wood and Thompson, 1980, p. 376).

Experiential Learning

As with cognitive development in adults, research in the area of experiential learning is somewhat limited. We acknowledge, as Fonzi points out, that experiential learning techniques take more time. The issue, however, is not how long experientially-based staff development takes, but whether it results in changes in professional behavior and increased effectiveness of educational programs and practices.

In their research summary on staff development, Joyce and Showers (1980) report that presentation of theory in form of verbal descriptions, readings, lectures, films, and discussions rarely results in acquisition of new skills or changes in educational practice. But they do report that experiential techniques such as practice under simulated conditions, structured feedback, and on-the-job coaching are powerful, effective techniques for achieving improved classroom practices.

Fonzi criticizes the clinical workshop examined in the Wood and Neill study (1978) because that workshop lasted two weeks. Yet she fails to acknowledge that the study revealed significant, positive changes in participants' perceived competencies and attitudes.

Other studies indicate experiential learning techniques have an important impact on attitudes. Research by Janis and King (1954) revealed that role playing was a powerful technique in producing attitude change. Further, they found that the greater the active involvement, the greater the impact (King and Janis, 1956). More recently Bem's (1972) research indicates that direct experience can be a powerful force in shaping attitudes. If attitudes affect whether people use what they have learned in inservice training sessions, and it is generally conceded that they do, then we have another strong reason to use experiential learning in staff development programs.

In her efforts to discount the effectiveness of experiential learning, Fonzi points out Coleman's observation that some participants in experiential activities are not able to derive general principles from these experiences that could be applied to other situations, but she fails to mention Coleman's observation that these same participants could behave in new ways using skills learned in such experiences (Coleman, 1976). The inability to generalize from their experiences for use in unfamiliar situations is typical of individuals performing at concrete rather than formal operations levels of cognitive development. The fact that participants in experiential activities learned new ways of behaving even though they were unable to formulate such generalizations is further evidence of the effectiveness of experiential learning situations.

Certainly, we would not suggest that presenting information through traditional methods as part of staff development is without value. While reading, listening, and discussing are all appropriate activities and serve important functions such as building awareness and increasing some forms of knowledge, used alone they are inadequate for the task of preparing educators to improve programs and to change practice in schools.

Informal Settings

Finally, Fonzi argues that we presented insufficient evidence to support the belief that adults prefer to learn in informal settings where social interaction can take place among learners. It is true that neither Tough nor the Rapoports make such literal generalizations in their writing. We do, however, believe that their research supports our position and that careful examination of their work will lead logically to a similar inference by others.

Closing Comments

We believe even more strongly in the potential of experiential learning to change and improve the quality of educational programs, but we welcome critics who would enter into dialogue about the efficacy of staff development and school improvement techniques. We would ask, however, that such dialogue or criticism suggest alternatives for improving staff development and not serve as a rationale for retreat from promising staff development practices, or continued use of outmoded and ineffective approaches to inservice education. EL

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