Chapter Fifteen

COMPLEXITY SCIENCE AND THE CITE COHORT

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1. INTRODUCTION

In this chapter we use two general questions to frame our analysis of complexity science and its contribution to the ways in which we think about and make sense of our work within CITE: (1) What is significant about cohorts in teacher education?; and, (2) How might complexity science inform our understanding of cohorts in particular, and of teacher education programs in general? We argue that the use of a cohort-type structure in a teacher education program provided us with the type of flexibility and potential for improvisation that allowed us to address the perennial problems of program fragmentation both within the campus-based courses and between the campus experiences and the field-based experiences. In order to better understand our own teaching and learning practices in this community setting we sought an analytic framework that emphasized the importance of the learning potential of the collective as opposed to just the learning potential of the individual and we argue that complexity science, with its ecological emphasis on learning systems, is such an analytical framework. Through the analysis of narratives emerging from our own practices we endeavour to illustrate five features of complex learning systems germane to teacher education that have been proposed by Davis and Sumara (2004). We go on to generate a further five propositions about the role and value of cohorts in teacher education that we have generated from considerations of our own practice as viewed through the lens of complexity science.


Bullough et al. (2001) recently commended the increasing use of cohorts in teacher education and reminded us that the cohort concept has received significant endorsement within the educational community over the past two decades (Mather & Hanley, 1999; Holmes Group Report, 1986; Goodlad, 1990). However, Bullough Clark, Wentworth, and Hansen (2001) note that “despite what appears to be a growing interest in the cohort idea and expansion of the practice, there have been remarkably few published studies” (p. 98). While some literature does exist, it generally addresses practical issues related to cohorts (Fenning, 2004; Peterson et al., 1995; Seifert, & Mandzuk, 2004). Others have pointed out some of the problematic aspects of cohort groupings (Sapon-Shevin & Chandler-Olcott, 2001). The article by Bullough et al. (2001, p. 99) sought to “deepen the understanding of the strengths and weaknesses of cohorts primarily from the teacher education students’ perspectives.” Using a grounded theory approach, they developed categories and themes from observation, survey, interview, and sociogram data generated over the course of their cohort students’ professional year in education. Their analysis highlights “evidence [that] supports the value of cohorts in teacher education as a means of providing beginning teacher support, enhanced opportunities to learn from other beginning teachers, and realizing that learning to teach is a community responsibility” (p. 101). They also note that although cohort organization has great educative potential, “this potential is not realized simply by administratively shuffling students into groups…structural changes to teacher education like cohort organization must be complemented by efforts to alter common-sense conceptions of teaching” (p. 109). We are encouraged by the similarity between their findings and the issues that we have documented in CITE in recent years (Erickson et al., 2004); the similarity suggesting that our respective experiences with cohorts in teacher education are comparable. However, in responding to the call by Bullough et al. (2001) for more substantive research on cohorts, we deliberately attempt a broader analysis in this article of the cohort concept itself; a move beyond thematizing the particulars to theorizing the practice of cohort use in teacher education.

To do this, we sought an analytic framework that emphasized the importance of the learning potential of the collective as opposed to enhancing the learning potential of the individual, an approach that is promoted by other group-based approaches to teaching and learning such as cooperative learning (Johnson & Johnson, 1991). Hence, in our earlier analyses (Erickson et al., 2004, in press) we drew upon Lave and Wenger’s (1991) “community of practice” concept and Scardamalia and Bereiter’s (1992) “knowledge building community” approach. However, the philosophical traditions from which these two approaches arise, with rational and structural underpinnings, do not