Enmeshing Interruption in Assessment of Teacher Education

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In his paper, "Beyond Teaching Methods: A Complexity Approach", Bernard Ricca adopts a complexivist perspective, conceived around the ideas of *growth*, *mutual interactions*, and *non-linear connectedness* to critique current methods used in teacher education and to offer some alternative approaches supported and inspired by complexity theory. In discussing complexity approaches to teacher education, Ricca also, of course, addresses the question of what complexity approaches to classroom teaching might include, as teacher education and the education of students are themselves non-linearly connected, mutually influential and grow together. The critique of teaching methods of planning, curriculum design and assessment for teachers to use in school settings (if such settings are acknowledged as complex) that Ricca offers here are also, therefore, problems for teacher educators in curriculum design, planning and assessment of teacher education courses.

I read this paper immediately following attendance at a course for teacher educators focused on how to interpret the new "Professional Standards for Teachers" that are being introduced in the UK from September 2012 (Department for Education, 2012), and was struck by the relevance of Ricca's arguments to the problems we were encountering in relating the standards by which UK teachers are assessed for Qualified Teacher Status (QTS) to some complexities of teaching and learning to teach. In this meeting, a document had been produced in which the new Teachers' Standards had been mapped on to the Office for Standards in Education's (OfSTED) inspection criteria for what constituted good, satisfactory and outstanding trainee teachers. In discussing this document, the conversation highlighted how the focus and approach to teaching encapsulated in the standards was oriented towards the impact and responsibility of the individual teacher to enable the students to reach desired outcomes. We also noted an increasing expectation that trainee teachers will be creative, adaptable and innovative as they move from satisfactory to outstanding, with an apparent sense of "learn to do it right", first, and *then* "it is alright to experiment". This reflects the linear, mechanistic direction of influence from the subject discipline *through* the teacher and *to* the student which Ricca problematizes using complexity's notions of mutual influence and non-linear connectedness. However, although it was clear in our discussion during that

meeting that the mechanistic approach to teaching apparent in the Teachers' Standards fails to capture the real complexity of teaching, learning and teacher education, the question remains as to how we, as teacher educators, could engage creatively with such complexity-reduced standards and criteria to create some new possibilities for teacher education. Although Ricca offers much more to unpack and explore in relation to this topic, in the following discussion I consider in particular Ricca's concept of "enmeshing" combined with Biesta's "pedagogy of interruption" (2006) in order to consider how complexity approaches to teacher education "beyond methods" might enable assessment of beginning teachers in the context of mechanistic external standards.

Assessment of beginning teachers "enmeshed" in complex systems

One element of Ricca's paper that triggered a different way of thinking for me was the idea that "… complex systems in relationship to one another are often *enmeshed* with each other" (this volume, p. 38), arguing that "[i]n enmeshed complex systems each exists simultaneously 'inside' the other. The temptation, and the commonplace practice, has been to focus on only one component at time, but that approach is not amenable to the systems we are now considering" (this volume, p. 39). In terms of teacher education, Ricca employs this notion to consider an aspiration of complexity-inspired teacher education "beyond methods", showing how the complex systems of student, teacher and discipline may become "enmeshed" through mutual interactions and resulting alignment rather than the linear mediation of an established disciplinary canon by the teacher for the student. This is important in the context of assessment because the suggestion is that such enmeshing may *in passing* mean that students acquire the knowledge or skills codified in a set of standards without these standards being the pre-defined outcome or goal. This is an interesting idea to unpack further in relation to assessment of teacher education and in relation to the concept of emergence in complexity theory.

The idea that beginning teachers need to become enmeshed with/in the discipline of education and the classroom/school systems in which they are practicing sits closely, as Ricca identified, with Lave and Wenger's theory of legitimate peripheral participation in communities of practice (Lave & Wenger, 1991), which has been well taken up within the teacher education community. It can also be tied to some perspectives on Activity Theory (e.g., Beswick, Watson, & De Geest, 2007; Postlethwaite, 2007) though the concept goes beyond these as the enmeshed systems can no longer be seen or analyzed as distinct or separate. The effect of this is that any attempt to assess the new teacher cannot *in principle* separate the new teacher from the discipline of education or from the school and classroom learning systems of which they have become a part. This brings me back to one of the problems discussed in the meetings I described earlier in this paper – how to standardize assessment of new teachers given the vastly different contexts in which each student teacher is working and learning? For example, what does "manage classes effectively, using approaches which are appropriate to pupils' needs in order to involve and motivate them" (Department for Education, 2012, p. 9) *mean* for different teachers, in different schools with different classes? The concept of enmeshed systems therefore highlights one problem for assessment in teacher education stemming from the *relational* aspect of complex systems. A further problem of assessment highlighted through a complexity-informed critique of mechanistic approaches to education (such as the one offered by Ricca) in relation to standardized and outcomes-based assessment stems from the *temporal* aspect of complex systems, which is linked to the concept of growth in Ricca's conceptualization of complexity. Since growth (or emergence) occurs in complex systems in ways that cannot be predicted (see Osberg & Biesta, 2008), the idea of planning for particular outcomes against which learning can be assessed is problematic as there is no way of knowing in advance what the outcomes of

complex learning interactions will be. Although it may be the case that where student, teacher and discipline become enmeshed, mutual influence of these systems and resulting alignment may mean that assessment *also* aligns with the learning that has taken place in a "happy by-product" (this volume, p. 43), it remains the case that growth of interacting or enmeshed complex systems is unpredictable and how to manage assessment therefore remains problematic.

Ricca offers two examples of potential resolutions to the problem of assessment which he argues are more commensurate with a view of students as complex systems. The first of these is dynamic assessment (taken up in UK schools within Assessment-for-Learning or AfL) where assessment is ongoing and real-time and is used to constantly monitor and guide teaching. The second is the use of teachers' professional judgment based on strong enculturation in the discipline combined with careful reflection to respond to the mutual influence of discipline and student. In the context of teacher education, these arguments suggest the need for ongoing and responsive assessment of beginning teachers by professional educators reflecting carefully on the beginning teachers' growth as a teacher within the systems with which they interact. This seems sensible, and ties closely with my own experience of working with beginning teachers where my perception (and, of necessity, judgment) of the new teacher *and* their classroom *and* my own teaching and understanding of education are developed through this work. However, whilst both dynamic assessment and professional judgment do offer ways of being responsive to unpredictable or emergent growth as the student and discipline interact and (hopefully) enmesh, it is still possible to see these two styles of assessment *also* working in mechanistic, outcomes-based ways. No matter how tight the feedback loop or how well-enculturated into the discipline the teacher is, a focus on a pre-defined and predicted outcome or standard against which to assess is still possible.

It appears necessary, therefore, for assessment in complex systems (including teacher education) to require a deliberate, conscious attempt to be responsive to the emergent and unpredictable *at the same time* as bearing in mind any standards against which particular outcomes may be assessed. This means careful and deliberate use of reflection explicitly oriented towards emergent as well as mechanistic learning to support creative agency in classroom practice, rather than teachers feeling that such aspects of educational activity are less valid and can only be done once the main activities of education are achieved. In the context of the standards and criteria for teachers, this means that it is necessary for new teachers to be supported in such use of reflection throughout, rather than it being seen as a trait only of the "outstanding" trainee teachers and not those who are simply "satisfactory". An understanding of reflection as *relational* and *interactive* rather than individual and mechanistic ties together with a complex notion of mutual influence in the interacting/enmeshed systems of new teacher, classroom, school, discipline and expert teacher. Use of reflection in this sense enables us to reconsider the position and purpose of assessment. From a complexivist perspective, learning becomes a starting point for further growth and emergence rather than an end point; and reflection-as-assessment becomes a form of feedback about the complex learning systems, which is an exploration of what is currently known to form a ground for the exploration of the unknown. In this way, teacher educators may work with beginning teachers and their students to engage in a relational process of reflection-for-learning as *both* an interactive and active process *and* as a form of ongoing assessment, rather than reflection in teacher education programmes being simply a personal process of reflection against pre-defined goals or standards that form the ultimate assessment in a mechanistic, non-complex sense. It is in relation to this idea that the notion of interruption becomes important, alongside the idea of relationality, in developing a complex pedagogy for teacher education.

Relational reflection within a "pedagogy of interruption" in teacher education

Ricca's paper explores a number of ways in which complexity theory enables an approach to teacher education that moved "beyond methods", and in the preceding discussion I have considered the problem of assessment of beginning teachers in the context of the mutual influence of the complex systems within which a beginning teacher may be engaged, focusing in particular on the idea of relational reflection within "enmeshed" systems as an alternative form of assessment. I now want to expand this idea in a new direction through consideration of Biesta's concept of a "pedagogy of interruption", which I believe is relevant for a complexity approach to education and teacher education and which plays with the concept of enmeshed systems in, I think, interesting ways. The work of both Osberg and Biesta (2007, 2008), and Davis and Sumara (2006) identify education with emergence, and as a result offer heuristics for action in educational settings. Osberg and Biesta focus on distinguishing between actions in educational settings such as schools that they deem truly educational, in the sense that they enable something new to emerge, and actions that are occupied with non-educational activities they term enculturation[1] (and which remain tied to linear and reductionist practices of education). The responsibility of teachers is moved away from planning and teaching in ways that enable students to reach particular goals and instead becomes one of working within their relationships with their students to challenge them with new ideas – with "difference" – to enable them to come into presence as unique human subjects. Edwards neatly summarizes the practice Osberg and Biesta are advocating as "… practices of constant experimentation in response to others rather than aimed at fulfilling ultimate purposes as ends" (Edwards, 2012, p. 159). This pragmatic approach to education is labeled a "pedagogy of interruption" in Biesta's work (Biesta, 2006) and later a "pedagogy of invention" in their joint work (Biesta and Osberg, 2007).

Adding such a perspective to the discussion offered by Ricca suggests that as well as maintaining an awareness of the mutual influence and non-linear connectedness of the interacting, enmeshed systems which may grow together, it is the responsibility of the teacher educator to use ongoing reflection-as-assessment within interactions to consciously interrupt mechanistic, iterative orientations towards learning particular skills or content that meet pre-defined goals. This notion of interruption links neatly to the concept of improvisation discussed by Ricca, who highlights the responsibility of the teacher to ask "What more?" and to suspend judgment and to do something helpful in response to what emerges from the students, by suggesting that interruption might constitute one form of educationally helpful response. Such a pedagogy also suggests that it is important that some difference in perspective is possible between the different actors (or complex systems) within an educational relationship. Biesta perceives education as occurring in this "gap" between teacher and student, or in the "space of emergence" as Biesta and Osberg term it, and points out that within this gap, *both* teacher and student are changed through engaging in an educational relationship. A corollary of this is that enmeshing of the systems of discipline, student and teacher, for example, to the point where the systems cannot be *distinguished* would be problematic, as there would be no "space of emergence". Enmeshed systems therefore need to remain distinguishable, if inseparably interconnected, for education, defined as emergence, to take place. In the context of teacher education, a common experience is that of the student teacher who tries to develop themselves as a "copy" of the experienced teacher with whom they are working, which often leads to difficulties all round as this is

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[1] Enculturation in this sense is a little different than the sense of enculturation into a discipline which Ricca uses in his paper, where it has a greater sense of mutual growth rather than adoption of an individual into a wider culture in a mechanistic sense

ultimately an impossible task. A complexity-informed notion of a pedagogy of interruption would argue for both beginning and experienced teacher in this situation (and teacher educator, if that is a separate role) to use reflection to interrupt such practices and try to exploit *differences* in potentially creative and productive ways in order to enable new ideas and practices to emerge. Assessment in such an example would also then move away from trying to identify how well the new teacher was taking on the practices of the expert, and become, through reflection, a starting point for new possibilities.

A complex response to standards for new teachers

I began this short contribution by relating a conversation between teacher educators about the new standards for teachers introduced in the UK and the questions raised about how these standards may be used to educate and assess teachers working in the real world of education. Returning to this conversation, what responses might those of us engaged in the conversation develop using insights from complexity theory such as those discussed in Ricca's paper and in my preceding paragraphs? Such benchmark standards cannot be seen purely as goals against which assessment and reflection occur in linear, mechanistic ways. Mutual influence, interconnectedness and growth (in unpredictable and emergent ways) mean that such an approach to assessment is impossible to maintain in complex systems without removing or ignoring their complexity, due to the combined relational and temporal nature of complex systems. How, then, might standards be used, and what would assessment of new teachers look like? In the same way that teacher education "beyond methods" means that teacher education courses need to encourage teachers to pay attention to complex responses, so (of course) must the teacher education courses themselves. In this context, a complex reading of relational reflection can contribute to assessment of teacher education in interconnected systems. Ricca highlights the importance of clinical experience (teaching placements) in teacher education, in particular to enable teachers to become part of the complex learning systems of education and develop skills of improvisation and "playful experimentation". This is something with which I wholeheartedly concur, and I believe the notion of a "pedagogy of interruption" in teacher education highlights the need for this experience to include relational reflection in ways that *interrupt* mechanistic practices (even "best" practices) in responsive and creative ways. This highlights the importance of varied experiences to support new teacher education[2]. Assessment of teacher education that takes this into account would therefore use any external "standards" within an interactive, dialogic process of reflection not as linear goals to be met but as objects for discussion, interruption, subversion, critique and emergence. The hope would be that through such a process, appropriately recorded as necessary, the benchmark standards can be met and seen to be met, while resisting such standards becoming a linear or mechanistic driver of complexity reduction, but instead part of the complex process of learning to teach "beyond methods".

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[2] In the UK, there is a move within government to site teacher education wholly within schools without University-based teaching, and I would argue that notion of interruption suggests that interaction between both makes for a richer educational experience overall – though what form that interaction might take is an open question.

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