Educational Resilience in the Digital University

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Introduction

Research on the digital university has introduced the concept of 'resilience' to explain students' practices. However, this usage is inconsistent and remains disconnected from previous research.

This paper provides a critical review of educational resilience and develops a new theoretical framing to reconnects this with work on the digital university.

The development of resilience as a concept

The concept of resilience emerged in fields such as medicine to explain the apparent psychological 'invulnerability' of exceptional individuals, whether recovering from trauma; from high-risk groups achieving better than expected outcomes; or who adapt positively in spite of stressful experiences (Waxman *et al,* 2004: 41).

This psychological model proved useful within sociology. For example, Werner & Smith's seminal longitudinal cohort study on Kauai focused on those "exposed to poverty, biological risks, and family instability, and reared by parents with little education or serious mental health problems – who remained *invincible* and developed into competent and autonomous young adults" (Werner & Smith, 1982: 3).

However, subsequent work moved away from ideas of 'invincible' individuals, viewing such classifications as unhelpfully absolute, hiding variations in degree; kinds of risk; environmental influence; and developmental (Rutter, 1993).

Educational interest grew from concerns about a paradigm that framed groups of learners as 'at risk' (from issues such as poverty, drug use or sexual abuse). Resilience researchers challenged the evidence base and deficit model associated with a risk orientation, along with blanket interventions focusing on avoidance rather than preparing learners to face challenges (Brown, 2004). Further, 'at risk' students were "often those whose appearance, language, culture, values, home communities, and family structures […] do not match those of the dominant culture, suggesting that ideological factors may be implicated in the construction or application of the concept of risk" (Howard *et al,* 1999: 308).

To escape this framing, researchers explored 'protective factors', identifying the influences of institutional and social contexts (Henry & Milstein, 2004). This resulted in interventions to build students' resilience, such as building close social bonds; valuing education; encouraging supportive, low-criticism interactions; setting high but realistic expectations for success; and ensuring that individuals had access to the resources required for their basic needs (housing, health case, *etc*).

However, concerns about learners' apparent passivity in such accounts led to a further re-focusing on active individuals. For example, Silva & Radigan (2004) developed "an agentic model of resiliency development", using structuration

theory to explain their interview-based fieldwork on pupils' identity formation. Their model proposes an acting, intentional subject intervening in a potentially malleable world – although they note individuals are not always be in this state, and that institutional interventions can encourage them towards it.

Resilience and Higher Education

Whilst prior work focuses on school-age individuals, similar concerns and protective factors have been identified for Higher Education. Barnett (2007), for example, describes the 'fragility' of students' will to learn (p24-5), the importance of self-belief (p58-9) and how risk-averse pedagogies hinder students' capacity to take important developmental risks (p143-5).

There are further parallels with research into participation and retention (e.g. Tinto, 1997). A central tenet of this work is the value of students' social and academic integration (Bergman *et al*, 2014: 600), echoing conclusions about resilience and cultural fit. Other similarities include associations between persistence and higher socioeconomic status, ethnicity, parental education and family support; and the value of interventions such as supportive peer groups or institutional financial aid, faculty support and active learning.

Within research on the digital university, the primary conception of resilience has been systemic. Weller & Anderson (2013), for example, focus on institutional responses to "the digital challenge" (Weller & Anderson, 2013); no mention is made of students. Ross *et al* (2013: 52) draw on Weller's work, but redefine resilience as "the ability to navigate conditions of complexity and change […] this mostly means that the student keeps going and successfully achieves the qualification sought". Here, recommendations focused on supporting students as they joined the programme, inviting them back if they grew distant or alienated, and valuing their perspectives to keep them engaged.

However, no explicit connection has yet been drawn between such work and studies of resilience in schools. In the next section, a theoretical framing will be developed that helps to build such links.

Resilience as heterogeneous re-engineering

Resilience research continues to focus on overcoming challenges, but has moved from assumptions about stable characteristics of individuals, through concern with environmental influences and towards concerns about agency in a potentially malleable world. This framing offers the possibility of connecting resilience to work on the digital university that has foregrounded sociomaterial concerns (e.g. Ross *et al*, 2013; Gourlay & Oliver, 2013).

Sociomateriality pays explicit attention to the things as well as the people that constitute successful educational practice (Fenwick *et al*, 2011). Moments of failure are important, revealing how taken-for-granted elements (people or things) enable success (e.g. Latour, 2005: 81). Within this account, challenges can be understood as either failing to enrol entities (or keep them enrolled) within an actor-world (Callon, 1986: 25). Resilience, then, becomes the successful response to such breakdowns – re-engineering the network, either re-enrolling the errant entity or creating alternative networks that bypass it.

This framing allows the re-interpretation of prior work on resilience, for example in terms of how easily entities can be enrolled; the value of social bonds when enrolling individuals; how supportive interactions permit alternative networks; how high expectations require the rehearsal of translation and enrolment; and ensuring that educational aspects of networks are not undermined by a lack of resources for basic needs.

Further, this reconceptualization bridges the individual and institutional accounts of resilience. The principle of punctualisation establishes that the actants could just as easily be an institution as an individual (Law, 1992).

Conclusion

Whilst resilience is an evocative term, it would be more valuable if current usage were reconnected with previous definitions and evidence. This would generate implications for student retention and persistence, and grounds discussions in prior evidence. The sociomaterial perspective developed here advances this discussion, offering a new theoretical framing of student practices within the digital university.

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