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Overcoming Inertia in Medical Education

Navigating Change with Adaptive Reflection

AKADEMISK AVHANDLING

som för avläggande av medicine doktorsexamen vid Karolinska
Institutet offentligen försvaras i Samuelssonsalen

Fredagen den 10 juni, 2011, kl 13

av

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Stockholm 2011

Abstract

Overcoming Educational Inertia: Navigating Change with Adaptive Reflection

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Introduction: Medical education continually demonstrates difficulties in keeping up with and preparing students for the evolving demands of patients, practice, and society. This is not due to a lack of effort: Change without reform runs rampant. Analyzing these efforts reveals a tendency to fragment and focus on planning and designing solutions, i.e. content. However, content is only one of the three ingredients identified as essential to successful change by the strategic management literature. Attention needs to be paid to the interaction between content, context, and the change process. The conventional approaches to change employed in medical education are mechanistic and based on linear process thinking unsuited to the complexity of the context. The aim of this thesis is to explore how knowledge from change management can be applied to understand and facilitate the process of improving medical curricula.

Methods: Study I, a conceptual analysis of peer-reviewed articles of Linköping Health University's successful change effort, employed a strategic management framework to understand curricular innovation. An abductive action research approach was then used to understand the challenge of change in medical education by participating in the facilitation of change. The experience gained was formulated as a question-driven, facilitator-led planning and implementation process, Adaptive Reflection (AR). AR was subsequently tested and evaluated in Study II, III, and IV. Study II, an explanatory case study, used a complexity framework to explain how AR helped participants develop three undergraduate medical school courses at Karolinska Institutet (KI). Study III, an explanatory multiple case study, used thematic analysis of 17 semi-structured interviews with participants from two AR interventions in four psychiatric residency courses in Sweden. Study IV used content analysis to explore how 13 undergraduate nursing students at KI experienced the process of creating web-based continuing professional development courses with the help of AR.

Findings: Knowledge from change management was used to understand how Linköping Health University used the threat of closure as an opportunity to innovate their curriculum (I). They collaborated outside the boundaries of the medical school, created a unique strategic profile, and used it to develop interprofessional training and create exceptional utility for their graduates.

When Adaptive Reflection was used to facilitate curriculum change, a complexity framework analysis showed how interaction and reflection were encouraged and power gradients mitigated (III & IV). The juxtaposition of outputs from the different AR steps made explicit contradictions in desired learning outcomes and behaviors (II). This led to self-organization and the emergence of new curricula.

In terms of output generated from AR, three courses mobilized an improvement effort, participants took over the facilitator's role, and the process spread to and triggered another course to start their own (II). A pre/post AR comparison (III) found reductions in lecture time, more learner-centered multimodal activities, which were explicitly aligned with clearly defined learning outcomes that included ethical aspects and addressed patient concerns.

In terms of how participants experienced the AR process (III), they described: a) a strict structure that paradoxically felt free; b) ploughing ahead; c) collaborative and creative; d) validating and participative. When nursing students worked with AR (IV), they described their experience as a journey from chaos to confidence which led to the acquisition and development of new ways of working, new competencies, new ways of viewing the group, and increased feelings of self-efficacy.

Conclusions: The AR process proved effective in changing medical curricula. The changes occurred through local dialogue as participants answer the AR questions. Instead of focusing on content, the content emerged through a reflective process that respected the complexity of the context.

Keywords: Adaptive Reflection, Complexity, Action research, Change management, Medical curriculum development