

Developing Innovation in Education: A Disciplined Undertaking

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(This paper is based on a presentation, "Creativity and Innovation in Education: Moving Beyond Best Practice," at the 2007 Australian Council for Educational Leaders conference.)

Current school improvement practices improve a school but don't always improve learning in the school. From this, serious disparities develop between different groups of students. In addressing the issues facing schools, an innovative spirit seems to be absent. Policy makers and system administrators are often wary of innovation in education.

Engaging the teaching profession in innovation can provide improvements that penetrate classrooms and develop necessary practices within a culture of continuous improvement. There is an increasing awareness that cultivating innovation as part of systemic reforms and engaging teachers in the development of innovation is an essential part to improving learning outcomes for all students.

Problem with reviewing for improvement

Schools and education systems operate very much within a globalized environment with nations' education systems being compared through international testing, such as the Program for International Student Assessment and Trends in International Mathematics and Science Study. There has also been a rise in government testing of key areas, such as literacy and numeracy.

This desire to improve standards has led to a raft of national policies, systemic reforms and initiatives largely involving greater external accountabilities, a focus on student performance, the development of teaching standards, prescription of practices and school review and improvement processes.

These reforms and initiatives have resulted in improvement of the learning outcomes for many students, but they have also resulted in some unexpected outcomes, including:

- Plateaus in student performance in literacy and math, after some initial gains.
- A "deprofessionalization" of teachers, as many see themselves as implementers of policy reforms and initiatives determined outside the classroom.
- The development of a culture of dependency, in which school leaders and teachers look to others to provide direction and solutions to the issues facing school education.
- Pragmatism, which is focused on immediate and short-term improvements, usually related to the political cycle.

- Identification of best practices that become prescribed practice, and isomorphism across systems whereby schools, while being good schools, start to look the same.

Seeing with fresh eyes, asking new questions

Schooling at the start of the 21st century requires a new “imaginary.”² Stephen Heppell says we can’t use the thinking and solutions we used in 1996 to solve the problems facing education today.³ Hedley Beare argues that the present educational imaginary seeks to provide public assurance from an education system that is obsolete.⁴ It is a system based on agrarian cycles and models of industrialism. It is often said that schooling is about 21st century learners being taught by 20th century teachers often in 19th century buildings and rooms.

There is a challenge for teachers to see the situation with fresh eyes and to engage in looking at what is possible, what is probable and what is preferable for schooling in the future. Teachers will be crucial in shaping the desirable futures for teaching and learning. This will require conceptualizing teaching as the learning profession in which teachers engage in problem identification, problem solving, analysis and research within the context of the classroom. This learning needs to be focused on:

- Professional needs of the teacher.
- Improved learning opportunities and outcomes for all students.
- School improvement needs and goals of the school.

This requires teachers to learn from, with and on behalf of each other through networked communities of learning, thus building professional knowledge and capacity of individuals, schools and systems.⁵

Doing so will also require leadership that shifts from a “me and my school” approach to a “we and our school approach.” This will require leadership that crosses site boundaries. There are initiatives such as England’s Specialist Schools and Academies Trust’s “Family of Schools”⁶ and of the Specialist Schools and Academies Trust/International Networking for Educational Transformation’s “Raising Achievement, Transforming Learning,”⁷ which adopt a “for schools, by schools” approach.

This new imaginary, which sees teaching as the learning profession, requires some key paradigmatic shifts:⁸

From	Toward
Pragmatism	Philosophical enquiry

Culture of dependency	Culture of professional authority
Communities of practice	Communities of learning
Collaboration	Networked learning
Reforming schools and systems	Evolving schools and systems—transformation

The rise of creativity

Creativity is required to bring new thinking and solutions to the problems facing education and to engage in professional and system learning. Creativity involves seeking and discovering new perspectives, which requires a problem-solving capacity and capability. For teachers, this involves engaging them in problem identification and problems solving through generating, testing and developing ideas.

Creativity involves the ability to synthesize, or what Albert Einstein called “combinatory play,” which is creating new combinations by drawing on data, perceptions and practice.⁹ To engage in such creativity requires self-assurance and the ability to take risks. It requires a passionate interest and self-confidence.¹⁰ This creative work can be subversive, disrupting existing patterns and thought (a theme explored by C.M. Christenson¹¹). Creativity is necessary if we are to “see with fresh eyes.”

Ken Robinson has argued that environments need to be created in which every person is inspired to grow creatively.¹² This is true for teachers. Robinson identifies two features, aptitude and passion, and two conditions, attitude and opportunity. The features reside with the individual. The conditions can be created through policy and by system leaders.

Creativity is necessary for innovation, and innovation, by its nature, is a creative endeavor. There is a significant difference between innovation and systemic attempts to improve by building on good practice. Innovation is a creative response rather than an adaptive response.

Innovation—a disciplined undertaking

In the same way that creativity requires discipline, the same is true for innovation. The Innovation Unit,¹³ a liaison for public services that supports innovation in schools and children's services, describes innovation as “the successful exploitation of new ideas.”¹⁴ It identifies different types of innovation: those involving entirely new ideas, others involving the reworking of old ideas, and those involving the transferring and embedding of existing ideas into new settings.

This leads to the development of innovation that is similar and near to existing

practices (incremental innovation), or innovation that is far from existing practices (radical innovation).¹⁵ Innovation doesn't mean a lessening of standards. It is a creative and imaginative undertaking requiring disciplined thinking. Innovation is disciplined when it is:

- Focusing on improving learning opportunities and outcomes for all students.
- Clearly thought out and planned, requiring study and analysis of the situation and problem identification.
- Creating new synthesis by generating, exploring and developing ideas.
- Evidence-based, not just data-driven.
- Closely monitored.

To do so requires management of the scope of innovation; prioritizing of the areas requiring attention; networking ideas, people and learning; quality assurance of ideas; careful planning; risk analysis; trying things out on behalf of the profession; close monitoring and evaluation; and processes to capture knowledge.

Through communities of learning and networked learning, those involved in innovation are accountable to the profession and the public.

Principles of teacher-led innovation

The framework described earlier is underpinned by a set of principles for engaging teachers in disciplined innovation. These principles were identified as part of the Churchill Fellowship project. Teacher-led innovation has the following characteristics:

- Has a strong moral purpose.
- Is focused on students, their needs and aspirations.
- Is undertaken on behalf of the profession.
- Is oriented toward learning (student, teacher and system learning).
- Has clarity of purposes and goals linked to the professional needs of teachers, the broader needs of the profession and the school's improvement agenda.
- Builds on and develops professional knowledge.
- Is an integral part of the professional life and work of teachers.
- Is most effective when context based and develops teachers' knowledge, skills and understandings as learning professionals.
- Takes a "what's next?" approach.

- Involves networked learning to build professional knowledge, such as innovation creativity and quality.
- Needs to be closely monitor and is evidence based, adopting a development and research approach, ensuring data (in its broader sense) guides decision making and continuous improvement.

Teacher leadership of disciplined innovation

The following have been identified as requirements for successful teacher leadership and engagement in disciplined innovation:

- Building the capacity of teachers to effectively engage in improving their practice.
- Developing sustainable cultures of continuous improvement.
- Valuing philosophical enquiry to inform thinking and practice.
- increasing school autonomy and teacher authority for improvement
- Reclaiming teacher professionalism within a public accountability framework.
- Engaging teachers in school improvement in professionally meaningful ways.

This will require focus on:

- Developing a learning orientation with teaching as a profession and across education systems (nationally and internationally).
- Building teacher capacity to problem identify, problem solve, analyze, synthesize and do research from within the context of their classroom.
- Engaging teachers in school improvement through developing and innovating good practices.
- Establishing networks of learning moral purposes.
- Developing “next practice”—practice that is beyond best practice and might shape future practices.
- Building professional knowledge.
- Transferring new professional knowledge to other sites and teachers so it becomes new professional practice.
- Identifying and developing the most creative, innovative and ingenious teachers.

Developing innovation in education raises some questions. Should the teaching profession engage in innovation? Does the teaching profession want to engage in innovation? Can the teaching profession be trusted with innovation? How can more powerful models of teaching and learning be uncovered through innovation? How might you use your expertise to contribute to the development

teaching as the learning profession?

The answers to these questions lie with the profession.

References

1. Andrew Fraser, "Creativity and Innovation in Education: Moving Beyond Best Practice" Australian Council of Educational Leadership conference presentation, Sydney, Australia, 2007.
2. Hedley Beare, "How We Envisage Schooling in the 21st Century: Applying the New 'Imaginary,'" Specialist Schools and Academies Trust, 2006.
3. Stephen Heppell, "'Next' Practice" podcast, www.innovation-unit.co.uk/images/podcasts/nextpractice/heppell.mp4.
4. Hedley Beare, "How We Envisage Schooling in the 21st Century: Applying the New 'Imaginary,'" *Specialist Schools and Academies Trust*, 2006, pp. 12-16.
5. National College of School Leadership, Networked Learning, www.ncsl.org.uk/networked-index.htm.
6. Specialist Schools and Academies Trust, www.specialistschools.org.uk/default.aspx.
7. Specialist Schools and Academies Trust/International Networking for Educational Transformation Australia, "Raising Achievement, Transforming Learning," www.sstinet.com.au.
8. Andrew Fraser, "Teacher-led Innovation and Development to Improve Professional Practice, Churchill Fellowship Report, 2006, p. 33.
9. Richard Florida, *The Rise of the Creative Class*, Pluto Press, 2003.
10. Margaret Boden, *The Creative Mind: Myths and Mechanisms*, Basic Books, 1990.
11. C.M. Christensen, C.W. Johnson and M.B. Horn, *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*, McGraw-Hill, 2008.
12. Ken Robinson, *The Element: How Finding Your Passion Changes Everything*, Allen Lane, 2009.
13. The Innovation Unit, www.innovation-unit.co.uk.
14. Ibid.
15. David Hargreaves, "Working Laterally: How Innovation Networks Make an Education Epidemic," Innovation Unit/DEMOS/National College for School Leader, 2003.

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