Evaluating innovative education practices impacts and systems diffusion approaches

OECD 'Innovative Efforts for Universal Quality Education'

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Dr Susanne Owen University of South Australia E: Susanne.owen@unisa.edu.au

& Dept for Education and Child Development (SA) Leader, Innovative Learning Environment (OECD) project

Innovation from across the globe!



Presentation Plan

- Short introductory video
- South Australia & Broader Innovation context
- SA Nature of Innovation
- Systems Diffusion
- Evaluation

Part 1: Video



Part 2: South Australian (SA) & broader context

180,000 birth-year 12 students in 1000 SA public sites: some autonomy

Melbourne Declaration: promoting equity & excellence; young Australians being successful learners, confident & creative individuals, active & informed citizens

 Changing big picture state & national political context for education

CONTROLLING SCHOOLING		ENRICHING SCHOOLING		DISCERNING SCHOOLING
Teacher centred Content oriented Subjects and classes Directive Exam assessment Lock-step progression Sorting and ranking Individual	Pedagogy	Student centred Self-directed Experiential Authentic Social Flexible Continuous assessment Skills upgrading	Pedagogy	Experience centred Team directed Problem oriented Virtual authenticity Multi connected Multi processing Authentic assessment Multiple literacies
Memory Replication Directed Competitive	Capacity	Critical thinking Problem solving Communication Collaborative Creative	Capacity	Inventive thinking Risk taking Ethical Results oriented Interactive

Worldwide context: Improve or transform?

- Knowledge is central in transforming societies/economies: humans underutilised
- New possibilities arising from ICTs
- Measuring learning outcomes is refocusing learning environment
- Traditional schools not delivering well for some students & groups
- Secondary student disengagement concerns: only 40% engagement by age 15 (Wilms, Friesen & Milton, 2009)
- Little higher order thinking, innovative & individualised learning (ICT) (OECD re TALIS research of 70000 teachers in 24 countries re 15 yr olds)



Need to go beyond school improvement: Disruption??Consider different endpoints???



Deep learning skills

Fullan & Langworthy (2013) Towards a New End: New Pedagogies for Deep Learning : 3

Character education: honesty, perseverance, self confidence, empathy, personal health & wellbeing, career & life skills

Citizenship: global knowledge, sensitivity & respect for other cultures, active involvement in addressing issues of human & environmental sustainability

Communication: oral, written, digital tools, listening

Critical thinking & problem solving: think critically to design/manage projects, solve problems, make decisions using various digital tools/resources

Collaboration: work in teams, learn from & contribute to learning of others, social networking skills, empathy in working with diverse others

Creativity & imagination: economic & social entrepreneurialism, considering novel ideas & leadership for action

Part 3: SA department: Nature of Innovation



- OECD Innovative Learning Environments project (ILE): 3 phases, 26 countries with 7 SA sites among 120 most innovative (OECD)
- 2011: SA education system recognised another 15 sites as significantly innovative (about 50% are disadvantaged)
- Essentially 'grassroots' innovation, with some central support

A New Language happening in Individual SA schools

Magpie' multi-age groupings River Murray enterprise business Graduate skills 'Tool sheds' Children's Parliament Deadly Designers' Studio 'Lady Gaga's shoes' & interdisciplinary themes Watering holes and campfire spaces Widening Horizons enrichment programs Teacher 'engagers' or learning advisers





DECD INNOVATIVE LEARNING ENVIRONMENT FRAMEWORK (draft updated 3/3/2014)_

**intentional & significant transformation in at least three of these broad areas

FAMILIES &

COMMUNITIES

ORGANISATION & PEDAGOGY**

e.g. New Groupings (educator & learner) Rescheduling time (flexible, personalised, rituals, distant/non formal) Student-centred Pedagogy & Assessment (inquiry/authentic, technology-rich, strong formative, remixing pedagogy)

CURRICULUM/CONTENT**

e.g. Interdisciplinary 21st Century Competencies Personal Learning Plans Values- Based Real life tasks

Essential Broad Innovation Characteristics and Principles Make learning and learner engagement central Assessment for and as learning, with strong emphasis on feedback

Be challenging for each learner but without excessive overload

Be highly attuned to learners' motivations and emotions Ensure learning is social and often collaborative

Be acutely sensitive to individual differences including prior knowledge

Promoting connectedness across activities and subjects, in and out of school

Risk taking, seeking multiple perspectives & in depth understandings

FAMILIES & COMMUNITIES

LEARNERS**

e.g. New Groupings eg multi-age Targeted Groups Active Learners Independent learners

Learning leadership as design & redesign Transformation Vision Change strategies Distributed leadership (incl students, partners)

Formative feedback to

educators/ learners/others

Risk taking & rule bending

EDUCATORS**

e.g.Educators: Coaching / facilitating/activating Teaching teams & distant teachers Community/expert/facilitators

RESOURCES**

e.g. Innovative Physical Space Community resources Innovative Technology Novel pedagogical eg enterprise

BUSINESS

Learning

- Academic
- Social/collaboration
- Citizenship
- Creativity/imagination
- Character/Resilience/ wellbeing
- Critical thinking
- Problem solving
- Communication

SCHOOL/PRESCHOOL NETWORKS & LINKS WITH OTHER LEARNING ENVIRONMENTS

FAMILIES & COMMUNITIES

PARTNERSHIPS

Evidence & Data About Learning & Innovation Effectiveness Learning logs/portfolios, Academic results, Attendance, Engagement, Student Behaviour Management

OTHER

CULTURAL

HIGHER EDUCATION

Alberton PS

Profile: 300 students: 80% + low socio-economic, 30% Indigenous

- 'Home classes' in R-7 multi-age groups
- Multi-age 'Discovery Time' each afternoon: multi-disciplinary choices, inquiry, staff prompting and questioning
- Daily balance/wellbeing activities after lunch
- Student Learning Plans within school-wide common theme/big question with integrated focus: developing skills for learning, communicating, assessing against agreed criteria, and linked to graduate outcomes
- Collaborative staff planning & team teaching & Staff tenet re expectations, attitudes
- Student voice committees & Children's Parliament in 8 Ministries
- Weekly reflection time journals mapping learning over several years
- Learning and learners as central focus
- Engaging learning environments: eg Aqua Science centre, 'the Shed' workshop, 'Deadly Designers' Studio', 'The Café'







Part 4: South Australian Systems Diffusion

"At a crucial turning point in global history, we have to make daring and disruptive changes, not incremental adjustments – but without abandoning everything we have valued and achieved in the past" (Hargreaves and Shirley, 2009)



Systems Diffusion Objectives for 2013-14

- build culture and use of more innovative practices through establishing a series of hosted site visits/learning programs to increase understanding of innovative practices and impacts on student learning and also supports interested others to become more innovative in their work
- support emerging innovation sites through small grants and practitioner action research skill-building and gathering of evidence about their innovative practices and the impact on teachers and leaders
- increase innovation learning through establishing an expanded Community of Practice, with members working together to share issues and disseminate ideas across the department and more widely and including through links established with broader professional, national and international partnerships and networks

Model of change & systems diffusion: 'Nested' community of practice + 'communities of interest': state office gives 'permission' to innovate (GELP, 2013: 97-98).

Part 5: Evaluation of mid 2013-2014 systems diffusion approach

To evaluate the impact of a systems diffusion approach strategies and specifically:

- To what extent has the department's innovation project and systems diffusion approaches such as the school visits/learning program and expanded innovation Community of Practice, increased understanding of innovation and contributed to a change in department culture?
- Has the practitioner action research approach built evidence-gathering skills about innovation impacts on teaching approaches and on student learning and wellbeing and also encouraged wider uptake of innovation practices and to what extent?
- What have been the strengths and challenges of the systems diffusion approach utilised by the department?

Evaluation process involved stakeholders such as Community of Practice and also included them in analysis process.

Traditional & innovative approach to evaluation

Objectives & key current innovation work

Objectives : Using 'nested' CoP model & focused on grassroots innovations:

*build systems innovation culture/capacity-building: hosted site visits for wider dissemination of practices & impacts
 *support emerging innovation sites with practitioner research skill building/evidence reteacher/student impacts
 * increase innovation learning through CoP & dissemination across DECD & more widely, with links and recognition also achieved within broader professional, national and international networks



& impacts; survey/interviews relate visit attendees uptake of innovative practices

Research methods

Exploring innovation' visits

- 'Exploring innovation' attendee numbers
- Tracking attendee sites through 6 monthly surveys (commencing at the point of registration) in regarding to changes relevant to innovative practices (thereby gauging extent and depth of diffusion)
- Community of practice discussion and follow up reports
- Attendee satisfaction surveys

Practitioner research

- attendance and survey feedback in relation to the initial training day
- submission of progress/final reports and conference presentations and website dissemination and feedback
- analysis of survey responses at project completion
- analysis of final research reports
- interviews with individual practitioner research leaders
- focus group discussions within the community of practice and other events in relation to learning and challenges.

Community of Practice (CoP) expansion and partner activities

- attendance at CoP meetings and/or responses indicating involvement
- survey/participant discussions at innovation CoP events
- interviews with a sample of newcomers/ established CoP members
- CoP activities with other partners, also contributions and feedback.

Findings

- 'Exploring innovation' learning program visits mostly fully booked
- Attendee written feedback identifies learning and future action
- Collated survey responses 3-9 months after a pre-registration survey show shift towards more innovative practices
- Practitioner action research project for emerging innovation schools: Changes evident in teacher practices and in student learning & new understandings of innovation & approaches for introducing further innovative practices in sites
- Community of Practice meetings/ communications for significantly innovative and emerging innovation sites regularly attended and highly supported & benefits of ongoing relationships and increased innovation understandings
- Some indications of impacts occurring with other internal and external networks and partnerships

Given limited staffing and uncertainties of the department context, particularly during 2013 and 2014, the innovation project objectives for systems diffusion were essentially achieved, with strategies being successful in contributing towards nurturing a culture of more innovative educational practices.

Examples of Practitioner Action Research Questions

- Renmark High School: How do 21st century pedagogies and integrated studies engage learners in the Middle Years?
- Ocean View College: How does a connective environment with 'bring your own device' impact on students study skills, engagement and learning outcomes in the Senior school?
- Unley High School: How can Secondary school teachers and students be encouraged to design learning tasks which are co-constructed?
- Hackham East Primary School: In what ways does online or face to face connective teacher learning effect their practice?
- Barossa cluster: How does the use of ICTs allow students with disabilities/dyslexia to show a deeper understanding of their learning?
- Felixstow Community School: How is authentic assessment created in learning stories with children, teachers and parents using digital and non-digital tools?
- Cowell Area School: How can we use the current model of Local delivery and blended learning to lead to the development of community ownership and a sustainable future for isolated students?
- Mark Oliphant College: What is young people's understanding of cyberbullying and the law and what happens in processes where they are involved in co-creation of curriculum?

Reports: <u>www.innovations.sa.edu.au</u> (see Practitioner Action Research reports)

Student results impacts

Ocean View: Year 11/12s 80% attendance increased to 83% & 87%

- Year 12 improved results improved: 50% more 'As' & 'Bs'
- Double number of students moved on to further study

Cowell cluster: Remote School cluster: Using technology regionally for senior secondary subjects for isolated students via blended learning & video conferencing: more schools involved, improved results

Renmark HS: Integrated subjects: more learning, more relevance Observations: students more focused & independent

Alberton PS: Improved engagement, reading & voluntary homework

Birdwood HS : Year 10 students do Year 11 and 12 state examined subject: many As & Bs scores; school closed 'time out' room; increased engagement; students in innovative classes improved literacy

Blair Athol North B-7: Increased student attendance & literacy scores, engagement (TfEL) CREATIVITY???? PROBLEM-SOLVING??? CITIZENSHIP??? Mostly teacher report 42% students in bottom quartile of socio-economic background

48% students in bottom quartile

33% students in bottom quartile

28% students in bottom quartile

58% students in bottom quartile



Value of Systems Diffusion Approach & Challenges for Innovation

- Efficiency and effectiveness of 'nested' innovation CoP approach and practitioner action research evident
- Hosted site visits created knowledge among the 'communities of interest' and contributed towards innovation culture building
- Department's innovation leader established some effective internal and external partnerships

Key challenges for SA innovation

Need more staff to build stronger internal links for wider innovation impact & building awareness of department's new leadership about innovation work and its impact on student learning

 Increasingly strong departmental commitment to an improvement agenda: clarification needed re innovation within context of new strategic plan

Systems Diffusion Evaluation: Mixing Traditional & Innovative Approaches

- Evaluation & innovation interlinked for individual sites & for system, with ongoing data collection

 (eg practitioner action research/hosted site visits feedback & systems diffusion evaluation)
- Focused on processes & outcomes, also impact (unintended/intended)
- Developmental evaluation (Patton): planned but iterative : looking forward and looking back (Earl & Timperly, 2014, pp. 9-14)
 eg two cycles of practitioner action research, progress & final reports, innovation criteria characteristics pre & post
- 2013-14 short term & 2011-2014 bigger picture longer term impacts & using evaluation to influence policy in changing context (Earl & Timperly, 2014, p. 15)

• Evaluation questions evolving with changing political context



- "Examples of success in education are very similar. They involve lifting expectations of what's possible [and].. having the courage to be creative and flexible in developing models that work in particular contexts, and being prepared to make and fix mistakes along the ways" (Mick Dodson, speech to National Press Club)
- The key to success is 'creating a knowledge-rich profession in which schools and teachers have the authority to act, the necessary knowledge to do so wisely, and access to effective support systems' (Schleicher OECD, in Caldwell and Harris, 2008)



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