



Children, Online Learning and Authentic Teaching Skills in Primary Education

Australian Research Council
LINKAGE Project PL0210823

The Project Partners

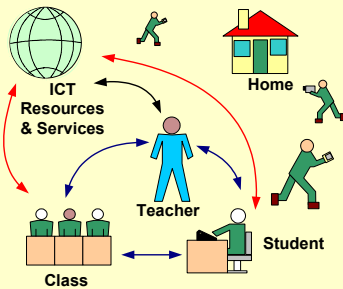
University of Tasmania and

- Catholic Education Office
- Department of Education
- Telstra

Project outcomes...

- Grounded Theory
- ICT, Literacy and Numeracy links
- Professional Learning

In an ideal world...



In-school Observations of 28 Classes in 16 Schools (so far)

Student COMPUTER USE

- Usually 2-4% of class time (or less)
- Most is for 'research': acquiring, processing & presenting information
- Many students not motivated by computers
- Out of school > in school for most students

Student ACCESS

- Student 'home' access often 90+%
- Teachers underestimate student access
- Complex issue: purpose, opportunity, permission, support, knowledge ...
- The digital divide (or just a lag?): urban/rural, ENI?

Withdrawal: use of ICT with limited facilities can place children 'outside the class'

While the class does aerobics



William has his turn on the computer



Teacher SUPPORT

- Educational: using ICT in class programs
- Technical: operating & trouble shooting IT
 - Everyone needs on-going support & direction
 - Collegial support network important
 - Own computer → opportunity to learn
- Development is often disruptive!!!

ICT & LEARNING STRUCTURES

# PCs	Learning Structure	Working Knowledge	Student Independence
1-3	Withdrawal from class	Low - Med	Medium
4-6	Group Rotation-1: Same task eg webquests	Medium (focused)	Medium
4-8	Group Rotation-2: Complementary eg group projects	Medium to high	Medium +
3 or more*	Integrated Project Individual group & class	Medium to high	High

Summary

- Many good things are happening
- But often patchy within class and school
- Difficult to sustain
 - Often situational
 - Lots of competition for attention, effort
 - Resource hungry: time, assistance, ...
 - Ambiguity, uncertainty re expectations...

Sample CASE STUDY

- Single stream school: simplifies many things
- School holds categorical position on ICT
 - ICT is a tool !!!
- Explicit pervasive shared values
 - Mutual respect, collaboration, learning
- Application: higher order thinking
 - Extensive collaborative learning

Case Study: IMPLICATIONS

- Focus on thinking and communication
- Students very conscious of processes
- Student skills develop quickly
- Students work from experience (real)
- Widespread sharing of experience
- PowerPoint and data projector are keys
- Collaboration reduces costs: less IT required – more sharing

CCCI

Classroom Computer Climate Index

CCCI Survey 2002

Responses from teachers of Yr 3,5,7

- In schools:
 - 306 from DoE Schools
 - 132 from Catholic Schools

Teachers

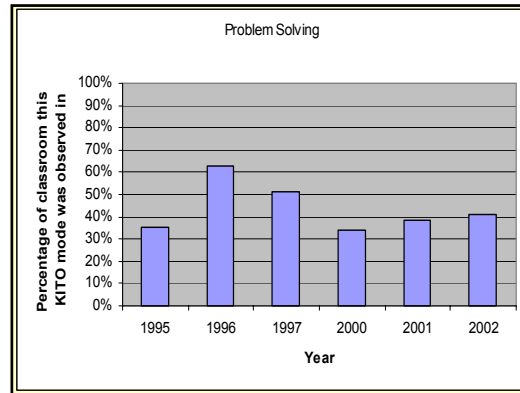
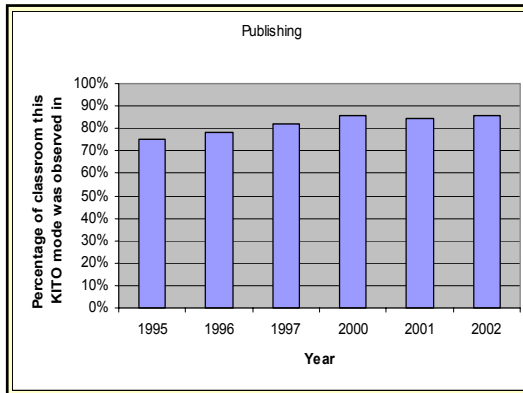
- ~60% had less than 10 hours of ICT PD
- Spent more time on ICT tasks than their students

Teachers have...

	All schools	DoE Schools
Computer at home	88%	88
Internet access at home	72%	73

Teacher estimates of student home access to:

	All Schools	DoE Schools
A computer	66%	62
The Internet	50%	45



Online learning

- 42% of classes were involved in one or more online learning project
- Average number of online projects per class

All Schools	DoE Schools
0.72	0.80

ICT reliability 2002

- Hardly any breakdowns 70% (48% in 2001)
- A complex issue: it means... *I can rely on being able to use the technology in the window of opportunity*
- Classroom PCs and peripherals are often the last items to be receive attention:
 - Screen settings, software configurations

Teachers see ICT helping...

- Students access, research & present and publish information: 75%
- Skill learning though skill development, personalised learning and widening learning opportunities: 71%
- Increased motivation 25%

Teachers see the future of teaching...

- 66% of teachers expect more use of ICT in class programs
- Needs better resourcing and to be kept in perspective: 44%
- Will facilitate connection between classes, schools and home: 25%
- Will foster student centred learning: 24%

Discussion of CCCI & in-school observations

Discussion Starter:

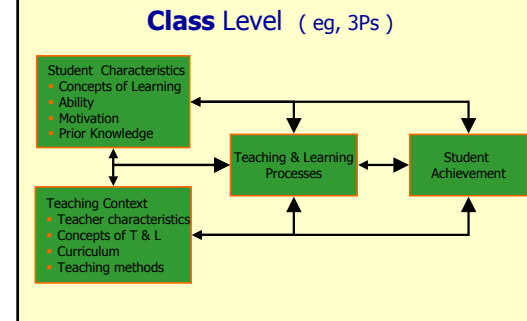
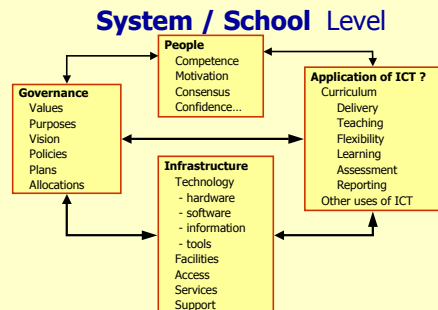
The use of ICT needs to be considered at all levels

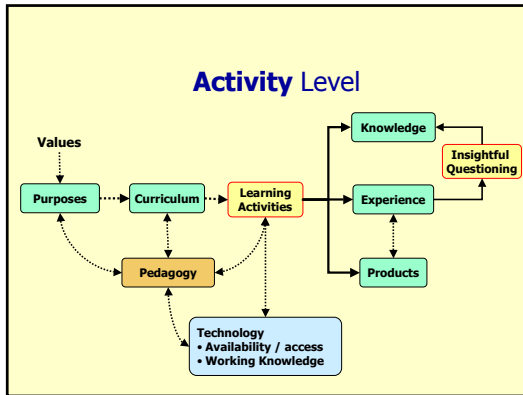
- *System/school → in terms of governance*
- *Classes → culture re teaching & learning*
- *Activities → teaching & learning*
 - *In relation to family & home*
 - *Linked by shared purposes, policies and practices*

Emerging Theory

3 Levels of Consideration

- System/school
 - Governance, provision, application
- Class
 - Values & purposes wrt. teaching and learning
- Learning Activities
 - Purposes → activities → products, experiences and learning (insightful questioning)



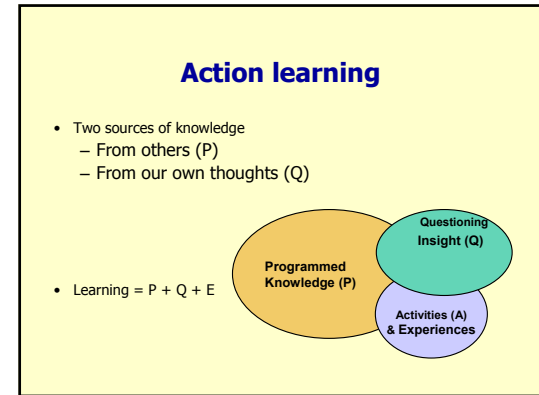


Alignment of Levels

Reporting / Planning

Level	Purposes	Policies	Practices
System/school	●		
Class			
T&L activity			
Other times & places			●

Supporting ●-----> Enabling



- ### Theory under development
- Pedagogy by design
 - Pedagogy as a process
 - Action learning
 - Episodes in teaching and learning
 - About technology
 - Working knowledge
 - People and technology

Development Projects

- ### Development Projects
- Focus: incorporating ICT into the primary or middle school classroom
 - Action learning projects (PD)
 - Knowledge and Insight
 - Action and experience

Possible Projects

- Action learning based Professional Development
- Governance, infrastructure & the use of ICT
- ICT and levels of thinking & learning
- Curriculum & ICT
- The use of ICT in project based learning

Other related initiatives by negotiation

1. Learning Objects Evaluation

- One Grade 5 & one Grade 9 class in a Department & a CEO school in Tasmania & Victoria
- Classes work through selected learning object on-line, in collaboration with partner classes
- All homes with PCs & internet connections
 - Telstra to provide connections
 - Utas to provide PCs as required
 - eMagine to host learning object
- Teachers evaluate object, implications of home...

2. Professional Learning (pilot)

- Up to 10 classes & schools
- Action Research Projects:
 - Focus: any aspect using the 3 Levels of Consideration
 - Review & Plan (Aug): schools workshops provided
 - Do & Study (Sept-Oct): schools undertake planned initiatives with support
 - Act & Share: schools extend their achievements (eg, in planning for 2004) and share their insights with other project participants (20 November)
- Support available: project team members and some relief

Contacts

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