

**THE eCONNECT AND LEARN
CURRICULUM CHANGE
IN TRINIDAD AND TOBAGO**

THE VOICE OF THE TEACHER

eCONNECT AND LEARN (eCAL) INITIATIVE

- A curriculum policy at the secondary level of education
 - the infusion of technology into the curriculum
- One-to-one computing initiative
 - Each student on entering the secondary system as a result of the SEA placement is given a laptop for use as a teaching /learning tool
- A major initiative of the current government:
 - a policy statement made in May 2010
 - a full-blown policy initiative implemented in 2010

GOALS OF THE eCAL INITIATIVE

- To enhance the learning environment for students in an ever-changing information age
- To improve the quality of instruction and support the infusion of ICT in teaching and learning and the development of 21st century skills in students
- To reduce the inequity in access to computers and information between the students from wealthy and poor families

GOALS (Cont'd)

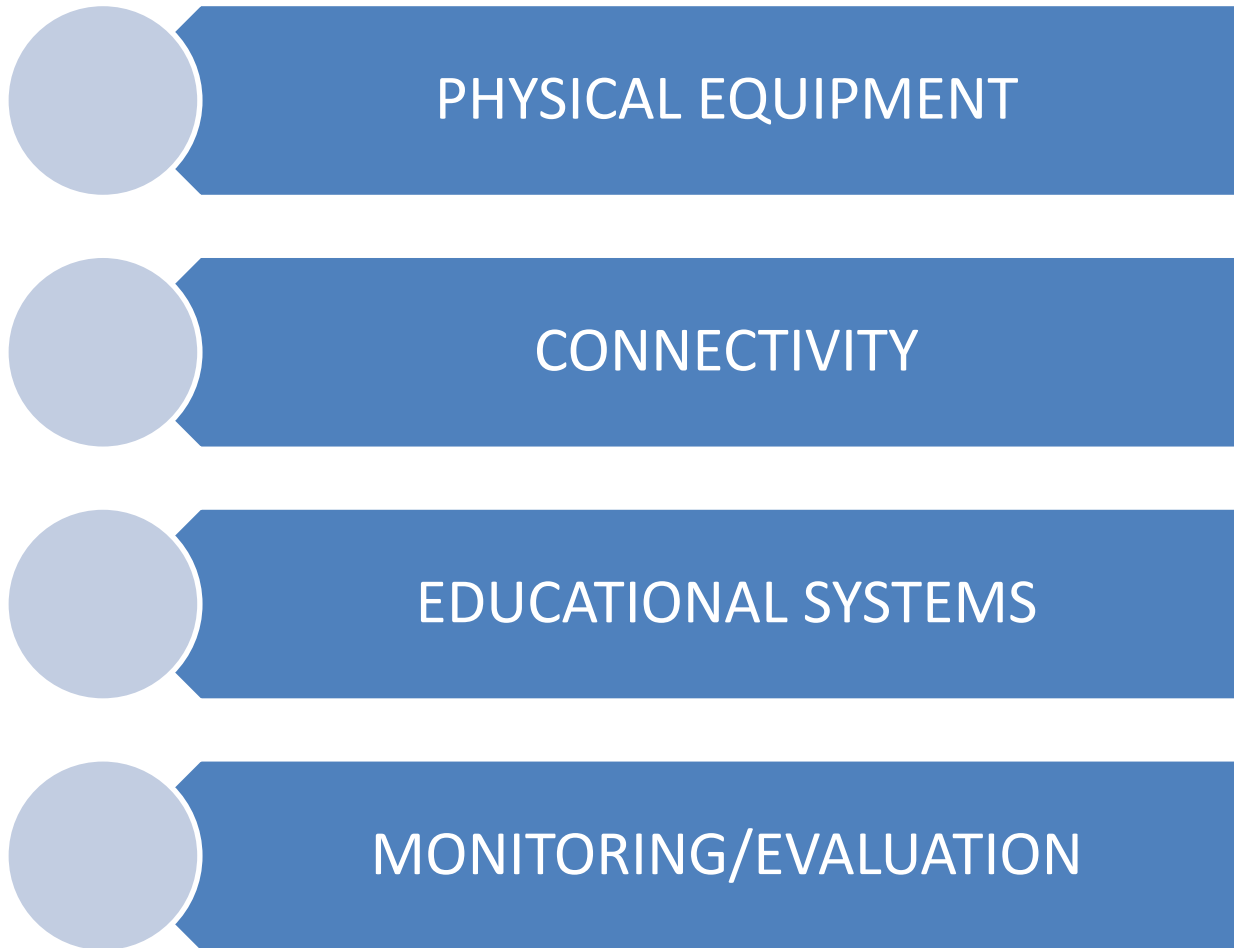
- To raise student achievement through specific interventions such as improving students' understanding through the use of education software
- To facilitate the development of collaborative teaching and learning between peers within the school, among schools and between teacher and student.

(The eConnect and Learn Programme Policy, 2010, pp. 3 -4)

POLICY LINKS

- There are elements of intertextuality among the eCAL policy and the following “policy” documents
 - the Target: 2015 Education for All (EFA) Action Plan (2007);
 - the Draft Policy For Information and Communications Technology in Education (2005) ;
 - the Secondary Education Modernisation Programme curriculum policy (2002)

MODULES OF THE eCAL INITIATIVE



EXPECTED OUTCOMES OF THE TEACHER TRAINING COMPONENT

- A cadre of teachers with the competencies to effectively infuse ICT into the teaching/learning process so as to greater facilitate student learning
- Improved quality of teaching
- Increased student learning
- Enhanced teaching skills among the existing professional core

(eConnect and Learn Initiative – Teacher Training Infusion of ICT into Curriculum Delivery 2010)

RATIONALE

- The E-Cal curriculum implementation initiative was introduced into the secondary school system in the Trinidad and Tobago context in 2010 in an attempt to improve student performance through the infusion of technology into the curriculum.
- The project is in its third year. However, to date, there has been no comprehensive, empirical study on teachers' concerns about the implementation of the E-Cal curriculum change in the Trinidadian context.

PURPOSE OF THE RESEARCH

The purpose of this qualitative case study is to examine the concerns of eight (8) teachers' in the St Patrick Educational District about the implementation of the eCAL initiative and to explore factors which influence teachers' concerns.

SIGNIFICANCE OF THE RESEARCH

- To capture pertinent details in regards to the implementation of the initiative.
- To help local policymakers and facilitators to develop effective strategies in the realm of curriculum implementation and change.
- To corroborate the corpus of literature on the management of change and add to the local knowledge base on curriculum implementation theory.

THEORETICAL FRAMEWORK

Concerns Based Adoption Model (CBAM)

“the essence of change inevitably zeroes in on teachers”

(Fullan, 2007, p. 1)

THEORETICAL FRAMEWORK

Concerns Based Adoption Model (CBAM)

- A conceptual model that describes, explains and predicts teacher concerns and behaviours throughout the change process.
- Three dimensions along which to collect information:
 - Stages of Concern
 - Levels of Use
 - Innovation Configurations

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THEORETICAL FRAMEWORK

Stages of Concern (SoC)

- *SoC is important because how teachers feel about and perceive a change will in large part determine whether or not change actually occurs in the classroom.*

THEORETICAL FRAMEWORK

Stages of Concern

A concern is:

“ the composite representation of feelings, preoccupation, thought and consideration given to a particular issue or task.”

(Hall, George,& Rutherford 1979, p. 5)

THEORETICAL FRAMEWORK

Stages of Concern

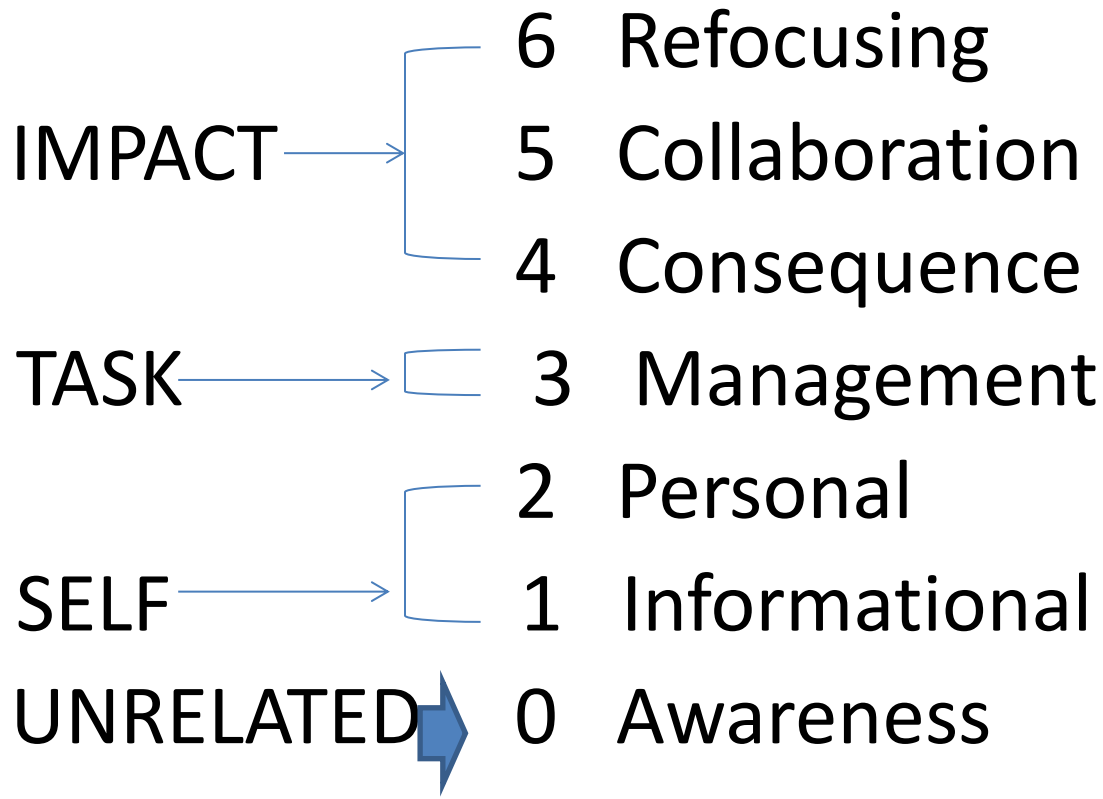
- Concerns move through four development levels: -
 - unrelated*
 - self*
 - task*
 - impact*

which encompasses **seven** distinct, but not mutually exclusive Stages of Concern (SoC)

THEORETICAL FRAMEWORK

Stages of Concern

CBAM Stages of Concerns



THEORETICAL FRAMEWORK

Stages of Concern

Typical Expressions of Concern about an Innovation

<u><i>Stages of concern</i></u>	<u><i>Expressions of Concern</i></u>
Stage:6 Refocusing	I have some idea about something that would work better.
Stage: 5 Collaboration	I am concerned about relating what I am doing with what my co-workers are doing.
Stage: 4 Consequence	How is my use affecting clients?
Stage: 3 Management	I seem to be spending all my time getting materials ready.
Stage: 2 Personal	How will using it affect me?
Stage: 1 Informational	I will like to know more about it.
Stage: 0 Awareness	I am not concerned about it.

Literature Review

- Educational Change (Fullan, 2007; Hall & Hord, 2011; Jennings-Craig, 2012)
- Positioning implementation in the Change Process (Fullan & Pomfret, 1977; Marsh, 1987; Synder, Bolin & Zumwalt, 1992); Fullan, 2007
- International empirical studies on teachers' concerns in relation to the integration of technology into the curriculum (Liu, Y. & Huang, C., 2005; Donovan, 2007).
- Empirical studies on teachers' concerns (locally) (Harry, 2008; DeLisle & Barrow, 2010; Barrow, 2011;).
- Factors influencing teachers' concerns about integration of technology into the curriculum (Reid, 1994; Anderson, 1997; Fullan, 2007; Hall & Hord 2011)

Methodology

Research Design

A qualitative case study since it attempts “to make sense or to interpret phenomena in terms of the meaning people bring to them” (**Denzin and Lincoln, 2000, p.3**).

Case studies have been proven to be particularly beneficial when studying educational innovations (**Merriam, 1998**).

Case studies allow collection of in-depth information using a variety of data collection methods (**Creswell 2009**).

Methodology

Data collection:

- Semi-structured interviews (adapted from SoC questionnaire, **Hall & Hord, 2006**)
- Open-ended concerns statement (**Hall & Hord, 2006**)

Methodology

Open Ended Concerns Statement

Respondents are asked to write a description of their concerns which is content analyzed.



Methodology

- **Purposive sampling** so as to provide a sample from which the most can be learned (**Merriam, 1998**).

SAMPLING

- PARTICIPANTS OF THE STUDY
- Ten (8) teachers who participated in the eCaL initiative
- TYPES OF SCHOOLS
- Denominational school
- Composite Secondary school
- Government Secondary School (former Junior Secondary school)

METHODOLOGY

Data analysis:

- Transcribing semi-structured interviews verbatim
- Reading through all the data (interview transcripts, and open-ended statements)
- Coding the data
- Generating themes
- Interpreting the data
- Writing rich thick narrative

(Creswell, 2007).

FINDINGS

STAGES OF CONCERNS

- The study revealed that teachers have more intense self concerns:
 - Self concerns – informational and personal
- than task concerns:
 - Task concerns – management
- Impact concerns were minimal:
 - Collaboration with colleagues

FINDINGS

STAGES OF CONCERNS (Cont'd)

- Themes identified in relation to self concerns:
 - Lack of information
 - Personal cost to the teacher
 - Teacher inadequacy
- Themes identified in relation to task concerns:
 - Time demands
 - Workload
 - Lack of resources
- Theme identified in relation to impact concerns:
 - Collaboration with other teachers (3 teachers)

SUMMARY OF FINDINGS

STAGES OF CONCERNS	VERBATIM
INFORMATIONAL	<p><i>I think maybe if I knew a little more about it, I would have been able to help them . I think maybe if I get someone to help me a couple of times maybe eventually I will learn too .</i></p> <p><i>Definitely more information about the change, more details about this..the content, skills...the change itself.</i></p>
PERSONAL	<p><i>... I don't think I have the technical skills if any problem arises. ... I may be able but I guess I am not confident as yet to ask the students to bring it.</i></p> <p><i>I wonder if I am using the technology adequately in delivering my lessons....whether I am behind in the developments of software in my subject area, that others are aware of that may make the task more effective</i></p>

SUMMARY OF FINDINGS

STAGES OF CONCERNS	VERBATIM
MANAGEMENT	<p><i>... it would take me three days, meaning a period, a next period and another period to get something done. So, unfortunately, I said I'm keeping back. I am keeping back the children from successfully administering the curriculum to them, so I decided to wrap it up. I decided to wrap it up.</i></p> <p><i>Managing the rest of the class while I am dealing with that one ... I found it difficult because when I am dealing with that one student, the rest of the class ... would do other things than the assignment, play their music, ... play their games...It is a whole tedious thing to do to manage them successfully to get them to do an assignment.</i></p> <p><i>Time to plan and implement lessons using laptops yet finish the curriculum is not enough...find that I have to rush through things...just too much work. Limited resources makes it worst.</i></p>
COLLABORATION	<p><i>there are times when I feel that I could work together with my colleagues to really do this better. I know it will help but it hard to do ...but would help for sure</i></p>

FINDINGS

FACTORS INFLUENCING TEACHERS

CONCERNS

- Data also indicated that the major factors which influenced teachers concerns were:
 - Infrastructure
 - Resources
 - Knowledge of the initiative
 - Teacher understanding and skill
 - Teacher training
 - Administrative support

SUMMARY OF FINDINGS

FACTORS INFLUENCING CONCERNS	VERBATIM
INFRASTRUCTURE	<p><i>...classrooms are not outfitted properly to have the laptops in the classroom so if we want to use the laptop we have to go to the demo room...because of the non availability of the plugs and all these things...you don't find the children picking up their laptops to do work.</i></p> <p><i>The availability of rooms to properly set up for such lessons may also be a factor.</i></p>
RESOURCES	<p><i>Need more equipment for implementation and other resources such as better lighting, desk area...smart classrooms.</i></p> <p><i>Teachers would also be concerned about the ease of obtaining various devices from the school such as laptops, projector, multi-media etc.</i></p>
KNOWLEDGE	<p><i>The rationale is unclear to me as I was not one of the original batch of teachers when the programme was implemented.</i></p> <p><i>Teachers are not fully educated about the program and therefore the aims may not be conceived as a priority in their lessons and planning</i></p>

TEACHER UNDERSTANDING /SKILL	<i>The management of both class and laptops and the additional information that teachers now would have to equip themselves with and present to the class.</i>
TEACHER TRAINING	<p><i>I feel we need to have more workshops on the use of laptops and not just people coming in and saying, well, you know, Ministry trying to do this. Come in and do a session with us. Actually give us the laptops and sit down with us and do a lesson and show us how you would implement a lesson using the laptop...Most times they talk and you doh really learn anything from it...We want to see the practicalities of it and how it will work out for us.</i></p> <p><i>The plan sounds good ... however it should be given more support through constant workshops.</i></p>
ADMINISTRATIVE SUPPORT	<i>There should be more all round support to both teachers and students.</i>

SUMMARY OF FINDINGS BASED ON TEACHERS' CONCERNS ABOUT THE eCAL INITIATIVE

DISCUSSION OF FINDINGS

- Teachers' concerns were in tandem with the corpus of literature
 - Teachers had a conglomeration of concerns but with varying degrees of intensity (**Hall and Hord, 2001**)
 - The findings support one of CBAM principles – people go through change at different rates and in different ways (**Hall and Hord, 2001**)

DISCUSSION OF FINDINGS

- Change is affected by the level of support given (**Reid, 1994**)
- Administrative leadership is essential to success of an initiative (**Hall and Hord, 2006**)
- Teacher characteristics (knowledge/skills) influence their stages of concerns (**Anderson, 1997**)
- Carefully crafted and administered training reduce teachers' resistance to change (**Fullan, 2007**)

IMPLICATIONS

- Teachers' stages of concern is a natural phenomenon of implementing a curriculum initiative.
- Continuous professional development is fundamental to successful implementation.
- The school context is critical to implementation and should not be ignored.

RECOMMENDATIONS

- Schools as the site of change should be made ready for the implementation.
- Teachers as frontline implementers should all be fully apprised of the initiative and their role in the implementation process.
- Interventions to facilitate change should be tailored to resolve the different concerns as they emerged.

RECOMMENDATIONS

- Training should be continuous and on-going; not one-shot and piecemeal.
- Training needs to be more hands-on, participatory and interactive.

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