Five Years into a Systemic Change Project
A Focus on Classroom Practice in Secondary Schools.

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The purpose of this paper, from a practical perspective, is to illustrate how educators in Ireland are building on and working to extend the knowledge of previous systemic change efforts completed or underway in Canada and Australia. Those previous projects in Canada and Australia being designed and implemented based on change research and focused on classroom practice (specifically instruction). From a conceptual perspective, the purpose of this paper is to first clarify and justify Ireland's Instructional Leadership Programme and its efforts at systemic change through the lens of Ellis' (2001) lens of Level III research, and Cuban and Usdan's (2003) and Sarason's (1990) argument that we have few examples of successful large-scale systemic change.

As you engage with this paper, keep in mind that our programme is not perfect; but it has endured and we are continually learning. We are also aware, that although titled 'Instructional Leadership', this should not be confused with advocating any particular style of leadership. We see this programme as a process that focuses on learning; a process that requires leadership from a range of different personnel, and in particular, teachers.

The second purpose is to analyze the 'bigger picture' of this Irish project (see www.instructionalleadership.ie) through Fullan's (2001) factors on the initiation, implementation and sustaining of change, as well as, Fullan's (2011) work related to the drivers of systemic change. Keep in mind that back in 1992 Fullan and Miles argued that the focus of change is the system but it is enacted locally. Also, keep in mind that we are not so much creating new knowledge as we are enacting what the educational community has known – often, for a very long time. For those of you who've worked to enact change over time, you understand that it's one thing to talk about change; another to implement it. This paper is about implementation.

To assist in analyzing the implementation of specific instructional innovations we employ Hord and Hall's (2010) work on the Levels of Use of an innovation (part of their Concerns Based Adoption Model). In terms of analyzing the quality of the 'learning opportunities for teachers and principals, we employ the research on peer coaching (Joyce and Showers, 1996, 2002; Showers, Joyce & Bennett, 1987; Bennett, 1987) and professional learning communities (PLCs) Defour, R., Eaker, R., & DuFour, R. (2005). Peer coaching and PLC's are two ways to impact the acquisition and transfer of learning.

The rationale for this paper is its focus on 'working at' impacting student learning through teacher learning focused on instruction and its connection to curriculum and assessment. Tangentially, as a rationale, we (as authors) must research our efforts to determine what is (and is not) working. For example Leithwood et al's (2009) ten-year study (in three countries) showed that extending/refining teachers' instructional repertoire had the largest impact on student achievement. The second largest impact was the principal's support of teachers working to extend their repertoire. That data guides our thinking and efforts around extending teachers' instructional repertoire while involving principals in the process.

To take this project to the level of impact then the unit of analysis for student achievement must be (idealistically) all educators in the system, not simply educators in the school or the classroom. We, as authors, clearly agree that the classroom is where the 'rubber hits the road'; however, involving a few teachers in a few schools or all teachers in a few schools is not 'the finish line'. The 'finish line' is an ideal that implies all students learning in an endless and collective effort to get all teachers in all schools to continually improve instructionally. That implies educators in the system creating a learning organization that can deal with the relentless press of change.
Currently, our take on 'change' is that 'educators in positions of influence' (with few exceptions) collectively prefer to write, research, and talk about the pieces of change rather than enact the 'puzzle' of change systemically over time … hence the lack of research on systems successfully sustaining change over time. Finland (Salhberg, 2011) and the Durham Board of Education (Bennett and Green, 1995) would be examples of those exceptions.

This paper has four sections. The first section provides a description of the demographic details of the study. This includes explaining how the project started, the key stakeholders, the project participants, and support/funding by the Ministry of Education. As part of that we also include innovative projects in Ireland that preceded this project but that parallel and connect to this project, such as team teaching (Murchu, 2011).

In the second section, we describe several key research lenses for understanding, analyzing, and critiquing the efforts of this Irish project. This section acts as an advance organizer for understanding our efforts in the first five years presented in section three. In this second section, we start by briefly describing the three levels of change described by Ellis (2001) to situate what we mean by systemic change. We do that because the concept of systems changing is complex and somewhat amorphous. Blumer (1954) would classify systemic change as a 'sensitizing' concept (as are the concepts of love, democracy, truth, and constructivism) in that we have no clear definition and will likely never have a clear definition or process for systemic change (which is probably a good thing). As authors, we are explaining our interpretation of the concept 'systemic change' as one interpretation not 'the' interpretation. We follow the above with a few brief comments from Cuban and Usdan's (2003) analysis of the failure of large-scale change in the United States.

The third section contains the qualitative impact data from teachers, principals, and administrative personnel. Here we explain why the qualitative data is key before extending the data collection to include quantitative data related to teacher and student learning. In addition, we also include what we think are the overall strengths and weaknesses of the project in the first five years. We conclude with insights into the next five years as we move towards building the internal capacity to embed or systematize

The fourth and last section describes the change process that has played out in secondary schools in Ireland over the last five years of the project. This includes examples of some of the instructional processes and instructional-processes-change rubrics. That description sets up our application of the rubrics and facilitates an understanding of what we are

doing ‘right’ and what we need to ‘re-think’. To finish the fourth section, we illustrate how the four drivers of change presented in Fullan’s (2012) paper relate to our work over the three years prior to Fullan’s publication (as well as to the systemic change efforts almost 25 years prior to Fullan’s, 2012 paper).

For a perspective on systemic change in Ireland, we will periodically connect key ideas from earlier large-scale systemic change projects, including the Durham Board of Education’s sixteen-year systemic change project to refine and extend teachers’ instructional repertoire (Bennett & Green, 1995). (Note that in their tenth year Durham educators won an award as one of the most effective school districts in the world by the Bertlesman Foundation in Europe – Fullan et al., 1996). Interestingly, ten years prior to that award, the Durham district was identified as one the worst school districts in Ontario by the Ontario Ministry of Education. How does a system of one-hundred and forty schools shift from worst to best in ten years…and lose it after sixteen?

Prior to starting section one, we want to acknowledge that extensive research has been completed over the decades on change at the ‘secondary school’. In 1986, seven years prior to Fullan and Mile’s (2003) article, Patterson, Purkey and Parker discussed the importance of systems in their text *Productive School Systems for a Non-rational World.* They noted that school staffs might ‘go it alone’ but argue that the power to make a difference is at the level of the organization.

Another example of systemic change is the found in the text ‘Instructional Leadership for Systemic Change: The Story of San Diego’s Reform (Darling-Hammond et al., 2005). The San Diego reform was considered one of the most ambitious in the state and perhaps the nation. After four years, they understandably still had a lot to do systemically; they had completed a lot of work at the elementary level, made a ‘dent’ in middle schools and were starting to make inroads at the secondary schools. That said, they did not provide insights into the content of their instructional workshops. Ditto in a much earlier study by Loucks and Melle, (1980). They focused on the three-year district-wide implementation of a science curriculum. Even earlier, we have Coleman’s (1966) study of 4000 elementary and secondary schools, and Rutter et al’s (1979) text titled *Fifteen Thousands Hours*. The issue of course is that although the researchers in those studies collected and analyzed data – they did not focus on the actual systemic implementation of instructional innovations over time.

Connecting to the idea of the relentless press of change, the eventual outcome for this project is to create a system that has the internal capacity to carry out and research its efforts at change. For example, one of the authors will be focusing her doctoral work on this project. Clearly, changing a few classroom or a few schools, for a while, is not, nor ever should be, the goal of an educational system. Tangentially, when key players leave a school (or even a system when systemic change is not done ‘right’) change often stops, shifts, or stagnates. (Note: we provide examples of, and reasons why, schools and districts stopped, shifted, and stagnated later in the paper.)

That said, as we focus on systemic change, keep in mind that we find that it takes about three to five years to change an elementary school, five to seven years to change a secondary school, and we are just starting to discover how long it takes to change a system. (As stated earlier, Durham's effort took ten years … and 'slowly dissolved' after sixteen.) Currently we are experiencing about eight to ten plus years to change a system. Our guess is that a country, such as Ireland, will take 15 plus years. Most districts stop too soon; they get to three to five years and it stops, in almost all cases because of the lack of wisdom at central office (be it the district, state/province, or country).

Section One: Project Demographics

In this section we start by describing the participants and those in the local education authority, Education Training Board (ETB) and ministry, Department of Education and Skills (DES) that directly and indirectly support the project. We then describe how the project was initiated and how it shifted into implementation.

Participants in the Study The Education Training Board, Ireland (ETBI) have been central to the process, and Cork EBT, in particular through Joan Russell (one of the authors) has driven the project from its commencement in 2008 . The DES provided initial funding to start the project and Finn Murchu (another author of this paper and a Senior Inspector) continues to work with the project and engage with other colleagues in the ministry.

The project is teacher-led rather than administratively or policy driven. Teacher leadership is key in understanding the context, success potential of the project.

Participants self select to be involved in the programme. In this phase, they are secondary teachers who teach students from about 14 to 18 years of age, as well as, principals and/or deputy principals. At the end of the first year of the project a steering committee was established to guide the programme. The committee continues its work, is chaired by Joan Russell and comprises of teachers and administrators. One of the authors, Finn Ó Murchú acts in an advisory capacity to the committee and they meet on a regular basis responding to emerging issues, initiating networks of interaction with others so as to graft onto national agenda items such as school self-evaluation and the promotion of inclusive learning.

As stated earlier, the teachers were originally from the ETB sector of education in Ireland but the programme has now extended to all three sectors of lower and upper secondary education, as well as, further education. Of those enrolled in both lower and upper secondary schools, 54% attend voluntary secondary schools, 30% attend vocational schools and 16% attend community and comprehensive schools. Nationally, the ETBI is a growing organization and currently has a role as provider in approximately 40% of all schools at lower and upper secondary level, and has begun to establish primary (elementary) schools.

Voluntary secondary schools are privately owned, in most cases by religious congregations, but are publicly funded. ETB schools operate under the trusteeship of the local ETB.

The Community and Comprehensive sector operate under the direction of the (DES) with the support of other trusteeships. The ETBI is a statutory authority providing education and training in accordance with the Vocational Education Acts (1930 & 2001) and the Education Act 1998. It also sits on the boards of management of the community school sector. A Chief Executive Officer (CEO) and an Education Officer (EO) head each of those VEC schemes and facilitate the promotion of initiatives locally, among schools within a scheme, or nationally between schools across a number of schemes. Each of Ireland's sixteen ETB schemes in the Republic of Ireland resemble the district model of North American educational organization, or Local Educational Authorities (LEA) in England, where the head of the ETB is similar to a superintendent, with powers to influence both school and classroom practice.

In Ireland, 99% of all sstudents attend mainstream schools, of which 722 serve the secondary sector and there is a considerable diversity of student profiles to be fouind in ETB schools. Of note within the ETB structure is the support such schools receive from the scheme's CEO and EO who have the advantage of working with schools that are not in direct competition with one another, thus facilitating initiatives at local and national level among the VEC schools.

Initiation The initiation of this project has two components. The first is the initiation of a more foundational or historical sense of where this project started prior to Ireland. The second is the initiation of the systemic change project in Ireland.

Initiation (1) Historically, the Edmonton Public School Board's Teacher Effectiveness Project in Alberta, Canada was the project that eventually led to the project in Ireland. Edmonton's project ran from 1982 to 1989. (Note: site-based school decision making started in Edmonton Public Schools and the project in Ireland is an extension of that project (see Caldwell & Spinks, 1988, for more information on site-based management). The project in Edmonton eventually involved 154 of 197 schools. The teachers came in teams with their principal from their schools for approximately 15 half-day workshops. The workshop topics related to instruction and classroom management. Two board consultants (Peter Smilanich and Bill Maynes) initiated the project, and in that first year, co-taught about twenty teachers and six principals. By the sixth year of the project, fifteen consultants each worked with about 35 educators. During the three weeks between workshops, each consultant would spend a half-day in each school observing teachers, at times co-teaching, in a peer-coaching process.

One of the authors of this paper (Bennett) was one of the first participants (coming with his school principal) and later one of the fifteen consultants in Edmonton's project. He also had just finished his Ph.D., a meta-analysis of peer coaching working with Bruce Joyce and Beverly Showers. As a result of Edmonton's project and his doctoral research, he was hired to assist in the design and implementation of the Learning Consortium

created by Michael Fullan (see Fullan et al, 1995) who was at the time Dean of the Faculty of Education at the University of Toronto), four directors of education in four larger school districts in the Toronto area and several faculty from the Ontario Institute for Studies in Education.

The Learning Consortium was created to value teachers as life-long learners from when they first came into the faculty to complete their Bachelor of Education to when they retired. The content for the work of the consortium was guided by and extended from the work in Edmonton Public Schools. The Learning Consortium was a partnership between the Faculty of Education at the University of Toronto, the Ontario Institute of Education, and four school districts. At the time, Fullan was the Dean of the Faculty of Education. Note that one of those four districts, ten years later, went on to win a 300 000 dollar prize from the Bertelsmann Foundation in Europe as one of the best school districts in the world. Durham educators were invited to Germany to work with educators from around Europe with a focus on the ideas and the process they created in their district. Since that time, approximately fifteen other districts in Canada and Australia have worked at creating systemic change with a focus on how curriculum, assessment, instruction, classroom management, change, and systemic change merge in the design of more powerful learning environments.

Initiation (2) In 2001, Finn attended the workshops in Germany that focused on the Durham Board's efforts at systemic change. And. in conversation with the other author of this paper, Joan Russell, designed a series of three workshops in 2008 around Ireland with key educators to discuss the possibility of a systemic change project with the ETB sector involving all sixteen ETBs in Ireland. The result was the creation of the first cohort of about 155 educators (teachers and principals) who attended six, three-day sessions over three years. The first cohort shifted the project into implementation.

The professional learning occurred (and continues to occur) at a location in the Carlow area. This site was selected for several reasons. First, it was reasonably central so that it minimalized travel time. Second, it was somewhat isolated so that those attending would stay in the facility to promote interaction over supper and in the evenings … the idea of incidental collaboration. Third, the time of year was a 'quiet time' for the hotel re bookings so the cost was reduced.

Implementation The first series of workshops started in 2009. One-hundred and fifty-five teachers and principals came in teams for a three-day workshop. The workshops involved the Skill Training Model (Joyce and Shower, 1980, 1982, 2002). That model involves the presentation of theory/information, demonstration, practice and feedback in the workshop. That workshop process was repeated later in the year and for the next three years. So this first cohort had eighteen days of workshops; two 3-day sessions a year for three years. This was later reduced to two 2 ½ days twice a year for two years. Teachers went back to their schools and initially worked in their classrooms, and with their colleagues who attended the workshops.

The topics for the workshops focused on a variety of instructional methods that the research directly or indirectly show impact student academic and social learning. Chart 1 lists some of the methods. For a more in-depth understanding of the topics see Bennett and Rolheiser 2000; Bennett 2011, 2013.

Chart 1. Partial List of Workshop Topics from work on Instructional Intelligence*

Instructional Strategies (most complex and most powerful): Concept Attainment, Concept Formation, Jigsaw, Academic Controversy, Team Analysis, 5 Basic Elements, Teams Games Tournaments, Mind Maps and Concept Maps

Instructional Tactics (mid complexity and moderate power): Place Mat, Think Pair Share, Four Corners, 2/3 Person Interview, Snow Ball, One Stray Rest Stay, Ranking Ladders, Fish Bone diagrams, Venn diagrams,

Instructional Skills (least complex and least powerful): Framing Questions, Wait Time, Responding to Students Responses, Sharing the Objective and Purpose of the Lesson, providing feedback

Instructional Concepts (can't do but must be invoked): safety, accountability, feedback, checking for understanding, guided and independent practice, modeling

Instructional organizers: Bloom's Taxonomy, Multiple Intelligence etc.

Classroom Management: Six genres of skills to respond to student escalation

*Note that the above are integrated and often occur at the same time or are stacked one after another – much more complex than it appears.

Importantly, teachers were asked not to go back and 'do' workshops or training for staff in their school until they 'played' with the innovations sufficiently that they felt they could share the innovation and effect it was having in their classroom. One common mistake principals make is to have teachers come back to school and have those teachers present to staff before those teachers have had the opportunity to 'play' with the innovation. Having teachers go back and work at the innovation first (with the support of the principal) allows other staff members to see examples of student work and to have their questions answered.

Section Two: The Change Research Guiding the Project

In this section we provide four research lenses that guide and or justify the implementation process of this project: (1) Ellis's work related to three levels of change;

(2) Fullan's factors that impact the initiation, implementation and continuation of change; (3) Joyce and Showers work on Peer Coaching as part of their Skill Training Model (note that this will also connect to the research and process of Team Teaching and Professional Learning Communities); and (4) Hall and Hord's (2006) research on the Concerns Based Adoption Model's with a specific focus on Level of Use of Innovation. (Hall and Hord's work is a dynamic extension of Francis Fuller's (1969) research on teacher concerns.

We finish this section by doing a post hoc analysis of our efforts based on Fullan's (2011) four drivers for change: accountability (vs capacity building); individual quality (vs group quality); technology (vs instruction) and fragmented (vs systemic). In addition, we discuss Leithwood et al's research related to the role of the school administration in the process of change.

Ellis: Three Levels of Change Ellis's (2001) work on the three levels of change acts more as the justification for the project, as well as, to situate what we mean by systemic change. Over the decades we have seen a shift from the classroom as a unit of analysis (e.g., Good & Brophy's, 1973 work in *Looking in Classrooms*) to the school as the unit of analysis (e.g., Goodlad's (1986) work in *A Place Called School* and Mortimore et al's 1988 work in *School Matters*). And now, the focus is more on the system as the unit of analysis (e.g., see Senge's 1990 work in *The Fifth Discipline: The Art and Practice of the Learning Organization,* and Fullan's 2005 work *Leadership Sustainability: System Thinkers in Action*). That said, although all three levels are 'worthy' of analysis, the problem is that when it comes to 'all schools' becoming learning organizations, district educators need to think and act systemically if they are to shift from a few classrooms in a few schools.

Anyone attempting to change a system knows that 'systems changing' is a complex and somewhat amorphous process. This is clearly sensed in the San Diego School District's Level III systemic change effort mentioned earlier (Darling-Hammond et al., 2005). Prior to the start of the project in Ireland, one of the authors had already been working at systemic change for over 30 years in Canada and Australia. In the nineteen districts attempting to enact Level III change, only eight would be considered effective; seven would be considered close but lost it and four were not able to sustain their efforts passed three years. As also stated earlier, in all the above cases, issues at central office resulted in the process stopping.

For example, in Tasmania, a state election in the seventh year of the process wiped out key players support for the project; in Prince Edward Island, a provincial early retirement package in the third year of the process wiped out key players at central office; in a smaller school district in central British Columbia, in the fourth year of the process, the superintendent left to be CEO of a much larger district (because of his district's success). Interestingly, the person they should have hired, from within, was not hired by the school board. That 'inside' person later went on to be a successful CEO in another larger district in central British Columbia. The common factor in the above situations was change at central office. Juxtapose that with twenty-four years as CEO in Edmonton Public

Schools; eleven at York Region District School Board; sixteen in the Durham Board of Education; and eight in the Medicine Hat School District … all successful projects.

We follow the description of the three levels of change with a few brief comments from Cuban's analysis of large-scale change in the United States.

Level I research refers to grounded, qualitative research designed to collect information with an idea that something is 'out there' but what that 'something' is … is unclear. For example, Gardner's (1985) work on Multiple Intelligence would be an example of the result of Level I research. Innovations often emerge from Level I Research. *Level II research* refers to the implementation of an innovation in a classroom to determine its effect. Those instructional innovations in Chart 1 would be examples of innovations that we implement in classrooms or in a school.

Level III research refers to the implementation of an innovation through out the system – it pushes for the integration of multiple areas of knowledge and it pushes for wide spread use that is embedded within the school and district culture. Ellis reports that Level III research is the rarest form of research. Why? We've found failure relates to our failure to sense the complexity and collaborative demands of change. Below is a quote from John Raulston Saul in his text *Voltaire's Bastards: The Age of Reason Gone Awry*.

> Thus among the illusions which have invested our civilization is an absolute belief that the solution to our problems must be a more determined application of rationally organized expertise. The illusion is that we have created the most sophisticated society in the history of man. The reality is that the division of knowledge into feudal fiefdoms of expertise has made general understanding and coordinated action not simply impossible but despised and distrusted. P.8

Our work in Ireland, works to integrate those fiefdoms of knowledge to parallel and extends the work in the Durham Board of Educations' systemic change process (a level III change effort), where in their tenth year they won an award as one of the best school districts in the world, (Fullan et al., 1996; Bennett & Green 1995).

The Instructional Leadership Programme in Ireland is an example of Level III research. This process is about how a system intersects multiple areas of knowledge. How do you change a country?

Fullan: Initiating, Implementing and Sustaining Change

The inquiry into the process of educational change and the importance of that inquiry has been recognized for over forty years. For example, the work on the importance of implementation is central to Fullan and Pomfret's (1977) research on the implementation of curriculum and instruction. In their writing they included studies on implementation that go back to 1971 (e.g., Cole, 1971). Fullan and Miles (1992) argue seven reasons change fails and offer seven suggestions for successful change (see appendix B). Miles and Huberman's work in *Innovations Up Close* is one of the first in-depth analyses of the

implementation of change. Hall and Hord's (2010) work on their Concerns Based Adoption Model (CBAM) provides insights into the intricacies of both how the innovation and teachers change.

Paralleling that forty years of inquiry is our collective failure (with a few exceptions, e.g., Darling-Hammond & Ancess 1995; **Elmore, 2009;** Bennett and Green, 1995) to systemically and effectively enact the knowledge gained from that inquiry. Perhaps our failure to effectively enact change systemically (as reflected in Cuban and Usdan's, 2003 work) is in part connected to our preference to research change, write about change, and do workshops on change rather than to collectively and effectively enact change systemically over time. Freire (2004) coined the terms 'praxis' which implies the interplay between reflection (research) and action (implementation). Freire argued that reflection in the absence of action and action in the absence of reflection are both untenable … we require both. Clearly, in terms of impact, failing to enact what is known about change is the same as not knowing about change. Why do research, if we are not going to act on it?

Fullan, 2001, describes the three evolving phases of change: (1) initiation (the decision made prior to starting), (2) implementation (actions being taken once making the decision to start), and (3) continuation (actions taken to embed and build internal capacity to not only sustain but respond to the never-ending press of educational change). Tangentially, Fullan states that "… all three phases should be considered at the start (p. 53)." Clearly the more clearly articulated the project is at the beginning the more likely it is to be successful.

In addition, Fullan describes key factors within each phase that provide a way of thinking and acting to increase the chances an innovation, in our case the project in Ireland evolves … effectively. From our perspective they are not a list of 'the' factors, but rather a 'wise' starting point. As part of that, we've identified additional factors and modified some of the original factors. Those modifications come from the authors of this paper being intensely involved with systemic change over the last thirty years.

Chart 2 below provides an overview of those factors in each of the three phases. Following the chart is a brief description of each of the nine factors. Note that each factor is far more complex and connected to the others than is communicated. For more information re most of these factors, see Chapters four and five in Fullan's (2001) *New Meaning of Educational Change*. We follow the descriptions with a draft rubric for assessing how well we've done on initiation and implementation as well as a brief discussion on each factor. Note: we've (respectively) made some changes from the original factors in Chart 2. Importantly, we are not yet at the stage of continuation (wide spread use) – even though we are working towards extending the project to the elementary teachers, we sense we are still about two years from this shift towards continuation and having the internal capacity to sustain change. The * indicate factors we refined; ** indicate factors we added.

Chart 2. Factors for Initiating, Implementing and Sustaining Change

Phase 1: Initiating (nine factors)

1. Quality of the innovation need, practicality*
2. Access to the innovation
3. Advocacy from central administration
4. Teacher and principal advocacy*
5. External change agents
6. Stakeholder pressure/support/apathy*
7. Policy funds for the innovation
8. Problem solving and bureaucratic orientations
9. Connecting to/respecting previous change efforts**

Phase 2: Implementing (six factors)

1. Power of the innovation**
2. Learning Process/Quality
3. Attention to Levels of Use from CBAM**
4. Building Connections with Stakeholders
5. Building Internal Capacity**
6. Researching the process and impact (qualitative)**

Phase 3: Continuation

1. Project is embedded in district culture - willingness to continue funding
2. On going support of the principal
3. Planning for staff turnover – [keeping key players]
4. Internal capacity to continue
5. On-going support of all stakeholders through policy and programs**
6. Researching and reporting on multiple aspects of the change project (qualitative and quantitative)

* refers to factors modified; ** refers to factors added

Below is a brief description of the factors in each of the three phases. A rubric follows each of the three phases. Please remember that those factors are much more complex and integrated than communicated below. For a more in-depth insight see chapters four and five in Fullan's (2001) text *The Meaning of Educational Change*.

Initiation

Quality of the Innovation Need, Practicality This factor refers to the effect the innovation(s) will have on student learning, as well as, the teachers' perceived sense that the innovation will make a difference in their classroom. If teachers do not see how the innovation will make a difference in their classroom … for them and their students, teachers are less likely to become and stay involved.

Access to the Innovation This factor relates to the existing network of 'knowledge sharing', networking, and collaboration. This connects to the extent teachers and school

administrators are encouraged and allowed to participate. It also refers to the support participants get that make participation possible – over time – not necessarily all at once

Advocacy from Central Administration Access to the innovation is determined by the support of central administration – without this support the innovation will not evolve. This is why bottom up change either works or not – eventually support from the top is critical – especially if the shift to continuation is going to happen.

Teacher [and principal] Advocacy* Support from the 'bottom' is critical; no amount of push from the top is going to make an innovation happen if teachers and school administrators are not supportive. The role of the principal is one of the single most powerful variables in impacting student achievement – second only to the teachers' instructional repertoire. This variable plays out even more importantly in implementation.

External change agents These individuals or individuals within organizations/foundations provide initial guidance and funding. Often these individuals/organizations/foundations emerge during the implementation as they begin to 'find out' about the project

[Stakeholder] pressure/support/apathy* This includes parents, teacher unions, faculties of education, etc. They support or resist the change effort

New policy and funds for the innovation This refers to voluntary or mandated projects/policies and the initial funding support.

Problem solving and bureaucratic orientations Districts/schools get involved for 'reasons' – more bureaucratic to more problem solving. This includes 'doing it because someone is paying for it' or 'doing it because it makes us look good' or 'doing it because of a perceived need' etc.

Connecting to/respecting previous change efforts History is important; valuing and connecting to previous change efforts is not only respectful, but it assists in pushing back against the belief that 'all this too shall pass'.

Below is a draft rubric of the factors affecting initiation. As stated above, remember that we've modified some of the factors in Chart 3.

Chart 3: Rubric on the factors that guide initiation (bold represents our level)

Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Quality of Innovation	little to no research support; not applied in other districts	some research support; applied in a few districts	Fairly extensive research support and is applied in a many schools in a few districts	**substantial research support; applied in numerous schools/districts**
Access to Innovation	not really considered	considered but limited	***considered and improving***	access for all educators
Ministry Advocacy	little to no	some support	***solid support from a***	solid support from

	support		***few***	most
Balance of top down bottom up support (teacher principal central office personnel)	little to no balance	emerging but not yet effective	***emerging and becoming effective***	effective balance of top down bottom up support
External Change Agents	little to no connection	some connections locally	***making connections within the country & international***	connecting locally nationally and internationally
Stakeholder support (other than ministry)	no stakeholder involvement	***1 or 2 others but minimal e.g., some university and teaching council support***	1 to 3 but increasing support	2 or more and considerable support
Funds for the Innovation	no to minimal funds	limited but enough built in to sustain the process	***substantial initiate the process and to build on initial efforts***	extensive to support the process as it evolves
Planning for Problem Solving	no built in time or opportunity not seen as important	beginning to take time but not seen important	***taking time and seen as important***	consistently taking time to problem solve
Connecting to Previous Change Efforts	no connections; not considered	***some consideration to some efforts***	clearly considered and connected	clearly considered and connected and documented

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Implementation

Project is embedded in district culture - willingness to continue funding Too often, funding is provided for a predetermined period of time. In the United States, funding usually exists for one to three years; the problem is that once funding ends so does the change effort. This is a key reason why long-term systemic change (five or more years) in the United States is so rare. Compare that to the Durham Board of Education's change effort – where in the tenth year they were awarded the Bertlesmann prize of 300 000 dollars as one of the best school districts in the world. Interestingly, ten years earlier, they were identified as one of the worst school districts of its size in Ontario.

On going support of the principal One of the most powerful determinants of whether or not an innovation will be implemented is the role the school administration (in particular the principal). The principal must attend the workshops with the teacher, and provide the support teachers need to implement the innovation back in the school. Leithwood et al's (2009) research in three countries over a ten-year period shows the principal is the second most powerful variable in impacting student achievement next to the teachers' instructional repertoire.

Planning for staff turnover/keeping key players The focus here is understanding the importance of retaining key teachers, principals, and central office personnel. We've seen

a number of change efforts crash as the result key teachers, principals, and central office personnel leaving. This includes situations where educators are making shifts within the district, not just out of the district.

Internal capacity to continue This factor deals with staff turnover and keeping key personnel. This is also critical for systemic change to shift to a collective ability to deal with the never-ending press of educational change. Change in classrooms, schools, and districts is so difficult to achieve and so easy to lose. Selecting teachers to do demonstration lessons, make videos, run workshops etc., is of utmost importance. In building the internal capacity to continue.

Researching and reporting on multiple aspects of the change project (initially qualitative shifting to merging qualitative and quantitative) Given we posit that one of the essential attributes of the concept of 'professional' is the ability to carry out and interpret research, this factor is central to understanding the extent to which the project is being implemented and the impact (qualitative and quantitative) of the project on educators and students. Key here is to not research the effect of instructional innovations on student learning until you've first assessed the teachers and students levels of use of the innovation, as well as, the 'power' (effect size) of those instructional innovations. Note that failing to attend to teacher and student skill level and instructional power represent two of the biggest missing thinks in assessing student learning.

Chart 4: Rubric on the factors affecting implementation (bold represents our level)

Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Power of the Innovation(s) (this refers to the effect size of each innovation on student learning)	little to no attention paid to power – most innovation have low power	beginning to think about power – and some innovations are more powerful	working at understanding power; a clear shift occurring towards selecting more powerful innovations	***clear understanding of power and educators consider power when making instructional decisions***
Learning Process/Quality (this refers to the effectiveness of workshops etc. re teacher learning and transfer of learning	little to no attention paid to process or how teachers learn and transfer learning	some attention paid to the process of how teachers learn and transfer learning – still a bit sporadic	***attention consistently paid to most variables related to how teachers learn and transfer learning***	attention consistently paid to most or all variables at a more sophisticated level of use
Attention to Levels of Use (CBAM)	little to no understanding of Levels of Use	beginning to talk about Levels of Use but not really acting on it	***talking about Levels of Use, beginning to use it to understand implementation***	understands and acts on Levels of Use – use it to understand implementation
Building Connections with Stakeholders	little to no connection with other	***beginning to make those connections and***	making connections, understands the	continuing to expand the connections; deeper understanding of the

	stakeholders	***sense their importance***	importance of the connections	importance
Building Internal Capacity to Sustain Change (Continuation)	little to no consideration	talking about it but not consistently acting on it	***really understands the importance; beginning to create opportunities***	created and continuing to expand internal capacity to sustain change
Researching the process and impact/presenting results	little to no attention paid to research	***talking about doing research; a few simpler action research studies being done***	***research is occurring, some graduate work/ action research; presenting at conferences***	action research, graduate research and external research being completed; presenting at conferences; publishing papers

Fullan's Four Drivers of Change Fullan (2011) provides information from a study of change in three countries focused not only on what districts do wrong in their efforts at systemic change, but also what they need to do right (the ideas in brackets below). The information comes from his analysis of work in three countries: Australia, England, and the United States. He provides that information in what he labeled the four wrong drivers for reforming systems.

1. accountability (vs capacity building)
2. individual quality (vs group quality)
3. technology (vs instruction)
4. fragmented (vs systemic).

What is clear from his paper is that (1) the need to build internal capacity, (2) the need to work collaboratively, (3) to focus on instruction, and (4) to make the change systemically are collectively critical. We will label those four 'needs' so as not to conflict with the four 'drivers'. Reflecting on those four 'needs', one of the authors has been focused on those needs related to systems changing since 1982 … and they are critical. Later in the paper we employ those four 'drivers' to assist us to get a sense of how we are doing on our systemic change project.

Joyce and Shower's (1980, 1982, 2002) work on peer coaching is part of their Skill Training Model. In that model, teachers attend in teams with their principal. In the workshop or course they receive information/theory, demonstrations, and the opportunity to practice and receive feedback. They then return to the school and support each other in their application. Note that peer coaching is the merging of all of those elements. The research (Bennett, 1987) shows that peer coaching has powerful effect on transfer of learning from a workshop to the workplace (especially for at risk teachers).
In the Irish programme, teachers came to the workshops in teacher/principal teacher teams. Approximately four months separated the first and second workshop in each of the two years. Given participants had four 2 1/2 day sessions, The process also involved expert coaching from their peers at other schools and from those presenting when they returned to share what they attempted, as well as, what worked and what did not work. Keep in mind that the processes of peer coaching is essential when school staffs are working to create Professional Learning Communities (PLCs).

Hall and Hord's (2010) evolving work on the Concerns Based Adoption Model (CBAM) particularly the Levels of Use of an Innovation was employed to provide a sense of wisdom for teachers to understand what to expect as they worked at implementing the instructional innovations. Key to this is the idea of the implementation dip (Mechanical level of use) where things will often get worse before they get better. That said, one thing we've learned is that the 'dip' does not go away; as teachers become more skilled and teach in more complex ways, the dip just becomes more complex. Interestingly, teachers look forward to the dip; they are more comfortable dealing with it. Michael Fullan made a telling comment related to the implementation did. He stated, "The only way to avoid the 'dip' is to go to the workshop, and never try to implement it."

The Levels of Use are illustrated in Chart 5. (Note: the Levels of Use also applies to the students.) As you read through the levels, an important factor is that little to no student benefit occurs until the teacher is at the Routine or higher levels of innovation. You can see why long-term efforts are essential. In a study we did in the York Region District School Board **(Bennett, Sharrat (199 X)** we found that most teachers were still at the Mechanical Levels of use after two years. This has massive implications for how districts 'think' about student assessment. For a more in-depth analysis of that districts on-going work see Sharratt and Fullan, (2012).

Chart 5. CBAM Levels of Use (this also applies to students)
(Note: little to no benefit on student learning until Routine and higher levels of use.)

Non-Use:	the teacher is not using the innovation
Orientation:	the teacher attends a workshop to understand, practice the innovation
Preparation:	the teacher is planning to transfer the innovation to their classroom
Mechanical:	the teacher starts using it, but the implementation is not effective
Routine:	the teacher is now a smooth user of the innovation
Refined:	the teacher is now a sophisticated user of the innovation
Integration:	the teacher is merging multiple innovations
Refocusing:	the teacher is searching for new ideas

CBAM/Levels of use is presented and discussed with the participants in this study. CBAM assists participants in positioning their efforts within the process of educational change and engage in wise evaluation (both self and collective) along the continuum of improvement.

Section Three: Qualitative Impact Data

The purpose of the programme (which was in time was re-named the Instructional Leadership Programme) is to promote relationships of learning and building capacity at a range of interdependent context-sensitive levels; micro (classroom by classroom), meso (within and between school) and macro (systems level). The programme draws significantly upon the research work of Prof Barrie Bennett with a focus on the interplay

between curriculum, assessment, instruction, knowledge of how students learn and theories of change and systemic change.

Importantly, the programme is about systemic change to enhance learning and learning goals as identified by teachers and national policy. In many ways we regret that the programme was ever called a programme as it is in fact a process and is not about the promotion of any particular way of teaching nor any particular individual.

As stated earlier, we believe that if the programme is indeed systemic, then we must eventually get to all teachers in all schools (we realize that is somewhat idealistic). The programme attends to understanding what conditions allow for improved learning and learning experiences to take place and to be sustained.

In researching and reporting on multiple aspects of the change project (initially qualitative shifting to merging qualitative and quantitative) the key (as mentioned earlier) is not to research the effect of instructional innovations on student learning until we've first assessed the teachers and students levels of use of the innovation as well as the 'power' (effect size) of those instructional innovations.

To date the impact data on teachers' knowledge, skills, attitude and actions has emerged in a number of forms and might be best set within the inter-related triad of personal, professional and systemic impact. The ultimate go**als** of this project (improved student learning and learning experiences) are for now best captured through their teachers' perceptions. Commentary on such impact is provided primarily by the participants but also by other professionals, such as colleagues in the Inspectorate and policy sections of the DES. Other stakeholders' views such as representative bodies for teachers, principals and parents are also beginning to emerge in the context of the movement towards overall systemic reform in the Irish educational system. Student voice has, to date and in the context of this project, been accessed by way of teacher inquiry and school self-evaluation practices.

Personal Impact

A significant dimension to the project in Ireland is the self-declared profound personal impact it is having upon teachers and principals. This has not occurred by accident. The project has purposely addressed the personal and emotional dimension of being a teacher and principal in the 21st Century. A common vein in the data is that participants feel valued, trusted and empowered as a result of engaging with the work. A sense of being valued is imbued across a wide spectrum from the quality of the surroundings in which the workshops take place to the opportunity to speak, listen and be listened to in the workshops.

A significant feature of the project identified by participants is the affirmation of the importance of being a teacher and of the inherent complexities associated with teaching. Engagement with the programme allows for teachers and principals to understand that it is acceptable, if not indeed a professional requisite 'to try and retry' integrating and

stacking various skills, tactics and strategies to support student learning. In addition to having a sense of being valued, teachers and principals express the view that the project allows them return to their original reasons for becoming teachers and principals … including the moral purpose associated with making a difference to the lives and life chances of the students in their school.

By invoking what we know about change wisdom the programme validates the importance of school personnel as key change agents working in tandem with each other and with other professionals such as the Inspectorate, Teaching Council and personnel from a range of external agencies. The support of the DES, the engagement by some members of the Inspectorate and the attendance by senior ranking officials including the Minister for Education, also reinforce the message to participants that they and their work are valued.

To professionalize teaching, the programme does not set out to tell teachers how to teach but rather respectfully asks that they consider a range of issues when deciding how to teach and assess, and how to engage with students and with each other. Teachers learn at their own pace, set against their own prior practice and current context. They motivate themselves. Consequently teachers feel they have ownership over the programme and that they as a team of three are both trusted and empowered to return to improve the teaching and learning experience in their setting. Words used by participants include 'confidence', 'energy', 'enthusiasm', all of which are linked not only to personal, but also professional, impact. Confidence is a dominant theme in relation to personal growth as framed in the context of student learning and expressed by this participant.

> I feel my students are 'learning better' and I am more confident. I am more confident in teaching students and in discussing my classes in the staffroom. I gave a presentation to the whole staff on Instructional Leadership Programme and I would never have been able to do this with confidence before the course.

The interplay between personal growth and professional learning is discussed in more detail in the next section.

Professional Impact

The professional impact of the programme is not separate from the individual personal experience of participants but rather extends the conversation to the impact upon teacher's practices, and the impact upon others, i.e., students in the classroom and colleagues in the school. The programme consistently challenges participants to develop professionally as individuals, with a view to sharing in the collective settings of their own school classroom, school staffroom or other schools once they've had a chance to 'play' with the innovations – to gain some insights.

The initial professional impact is one of acquiring or re-acquiring a skill set that involves, more often than not, a deeper engagement with instructional practices both new and old. In some cases it is simply putting a name to something they've been doing for years. This

was particularly obvious in the classroom management component. The theoretical and evidence base associated with such practices assists in determining the power of such instructional practice, the manner in which it can be used and assessed, as well as offering a common language in which reflection can take place at both an individual and collective level.

The later point is frequently highlighted by teachers and principals as having a significant impact upon their own learning, their colleagues learning and the learning of their students. Participants speak of the acquisition of a language of and for instruction that influences individual and professional reflection, dialogue, action and reaction.

> Participating in this programme with Professor Barrie Bennett has achieved so much in enabling myself and dozens of colleagues to acquire a vital vocabulary and a forum, which has facilitated us in engaging in much-needed reflection on our professional practices, and has also served to reinforce and extend many of our teaching skills, while introducing and developing so many more. It has been the absolute highlight of my four decades of teaching.

A principal from another school observed the professional impact upon teachers.

> The impact on the members of staff who have participated on the programme has been profound. All have found the content to be relevant to their work and have found it very successful on a number of levels. It has given them an increased ranged of skills with which to impart their subject. It has enabled them to apply more complex teaching tactics and strategies, which in turn raised the effectiveness of their teaching and student learning.

Another principal highlighted the pleasure of 'leading learning' rather than merely 'leading administration'. In reminding herself of the origins of the word 'principal', she referenced the Irish word for principal, 'príomhoide' meaning 'principal teacher'.

The shift from individual reflection to collective conversation is well-captured by a teacher when he discusses working with student (candidate) teachers.

> One of the greatest gifts that a practitioner in any field can bestow is the passing on of one's skills to the next generation. Pre-service students of teaching are regularly required to attend classrooms to witness an experienced teacher at work, in order to "learn from the master", and to replicate what is considered to be good practice when teaching their own classes. However, observing is not enough for the novice, despite paying the best of attention. There is a need to question, explore, clarify and discuss much of what actually happened in the "successful" class, in order to understand the reasoning behind why things were done in a particular way. The prospects of a fruitful outcome for such a discussion would have been generally quite limited until recent times, i.e., until the advent of a proper vocabulary that could actually facilitate it. The main problem has been that, while teachers might have been very effective and highly successful, they were

> quite often unaware of several of the elements of their practice that provided such outcomes. Barrie Bennett would term such individuals (the majority of Teachers!) as being "unconsciously skilled", as opposed to being "consciously skilled".

As well as setting individual goals and engaging with student teachers, participants have sought ways to share their learning with colleagues. Efforts to work with colleagues who were not participants on the programme is central to the programme's desired goal of building capacity within and across schools. Achieving this goal is very much dependent upon the leadership shown by principals and or deputy principals as they return to their school.

Below is an account by a deputy principal who has advanced the programme in her own school.

> My school has been involved in the Instructional Leadership (IL**) P**rogramme since 2008. The team initially trained was the Deputy Principal, an English teacher, and 2 teachers whose subjects are J.C. Science, Biology, Chemistry, Maths, I.T., P.E. and C.S.P.E. Our school was already a pilot school for the NCCA research on Key Skills and we could immediately see the huge potential of ILP for building the skills, tactics and strategies to make learning and teaching intentionally excellent. It works!
>
> The team initially played with some of the strategies in our own classrooms and used them at staff and planning meetings. We meet for 40 minutes each week to cascade the project – a seriously pleasurable "free" class. The response of staff is receptive and encouraging, having management involvement (right up to CEO level) ensured that IL was prioritised. We held an in-school session of peer professional development (daunting!). Since then these 2hour sessions have been held twice yearly. The staff response was such that we set up a Teaching and Learning Club (TLC for short) and we meet after school every 3 weeks for 20 minutes (a timer is set). At each meeting another skill or tactic or organiser is shared. Teachers give feedback on how the innovations are going in their classrooms and bring samples of student work. Up to 80% of staff attends even though it's on their own time. We even had a DES inspector join us one evening during a subject inspection. She was really impressed.
>
> Most important the student response to their experience is that learning is more fun because it's active. They register that skills learned in one classroom. Recently a class asked if on their own time they could watch "Casablanca" again to prepare for a teams games tournament next day! Students' social and co-operative learning skills are perceptibly enhanced.

In more recent times the school has invited the primary (elementary) schools on the campus to 'build collegial relationships with fellow professionals' and support students as they transferred from primary to secondary education. Website development at school and programme level (www.instructionalleadership.ie) has seen recordings of

instructional practices uploaded and shared. You can sense how this is leading to embedding this within the culture the secondary and feeder schools.

The visibility of students' work and the promotion of instructional practices during the normal running of staff meetings are two common approaches adopted by schools to share learning and inspire action. A newly appointed principal spoke of the importance of being 'vulnerable' to colleagues by opening up her classroom (she retained her class to the end of the year) for other teachers to observe her efforts at implementing instructional practices, and the power of the conversations that followed.

Another participant described these conversations as involving a shift in process and the pleasure that was derived from

> ...witnessing colleagues engaging with each other and enthusiastically talking about HOW they are teaching and HOW the students are learning rather than WHAT.

As stated above, teacher enthusiasm in what is meaningful professional development for them, has resulted in teachers finding time to meet and learn collectively in their own school settings. Inter-school support among teachers is also emerging through the creation of networks of teachers who are geographically close to one another and they meet in the evenings in their own time. Such meetings involve teachers discussing and illustrating a range of instructional practices and how they might be used to best effect. In attending these meetings the CBAM model is again useful in determining the different points that teachers are at along the continuum of instructional improvement. The inter-school dimension is also being supported by the National University of Galway, who have in collaboration with the ILP have devised a Diploma in Leading Learning. Graduates are then made available to work with their own and other schools in a manner that supports the continued extension and refinement of the programme at school and classroom level.

An examination of the continuum of improvement and the shift from individual teacher reflection/action to increased collective reflection/action is reported by teachers to be assisted by the ongoing engagement with the Inspectorate. The work of the Inspectorate to evaluate, advise, support and challenge schools brings them into contact with the programme at both school and classroom level and is seen by participants as a positive. Although the inspectorate does not evaluate the programme per se, teachers and principals speak of the validation and extension of the programme as experienced through engagement with inspectors when the inspectors comment on the quality of the learning and teaching observed Not surprisingly, inspectors' commentary indicates that teachers within and between schools are at different points along the continuum. Inspectors have been addressed at regional level by Joan and by participants on the course and plans are afoot for some designated members of the inspectorate to have greater engagement with the programme.

Engagement with others and the consciously open invitation to all other educational stakeholders (i.e. Management Bodies, Parents' Associations, Principal Associations, Teaching Council, Unions and University personnel) to become involved is linked to the programme's understanding of how to implement and sustain change by attending to the reciprocal relationships at systems level that are required to ensure maximum benefit is drawn from the programme to enhance the learning and learning experience of our students.

Systemic Impact

In the Irish context, a considerable number of inter-related items frame the reform agenda that is happening apace and asks for changes in practices at classroom, school and systems level. These include an ongoing focus on the quality of learning and teaching that is inclusive (Special Education and Socio-Economic Disadvantage) and one that pays particular attention to School Self-Evaluation as a key driver of school improvement. Related to these are the promotion of literacy and numeracy (National Literacy and Numeracy Strategy), the continuum that is teacher education (Teaching Council), and a skills-based and student-centred lower secondary curriculum (Junior Certificate Reform).

The manner in which the programme can support and be supported by such a reform agenda is not lost on participants. In particular they recognize that items listed lead to a renewed focus on change and systemic change as played out in the classroom and facilitated by teachers (instructional repertoire) and assessed by student experiences and outcomes. Participants in the programme state that it offers "a roadmap to help meet the challenges of reform".

School Self-Evaluation
Shifting back historically, early work by the Irish Inspectorate with a European Union sponsored *Quality Partnership in the Regions (QPR)* project resulted in Finn's (one of the authors of this paper) school being involved in a school development planning self-evaluation project which resulted in Finn attending a summer school in Germany in 2001 where Barrie presented. In time such projects with clearer understandings of indicators for school self-evaluation which in turn saw other advances such as This precursor to school self-evaluation informed other projects including the Effective School Self Evaluation (ESSE, 2003) co-ordinated by the Standing International Conference of Inspectorate (SICI).

Today in Ireland, School Self-Evaluation aspires to be central to quality assurance and school improvement. School Self-Evaluation is described as

> …a collaborative and reflective process of internal school review. During school self-evaluation the principal, deputy principal and teachers, under the direction of the board of management and patron, and in consultation with parents and students, engage in reflective enquiry on the work of the school. (DES, 2012).

Programme participants identify a range of ways in which the programme can support school self-evaluation, and in particular the current focus upon teaching and learning in the school. As noted by the Chief Inspector and well-received by the participants, a particularly complementarity exists between the programme and the promotion of school self-evaluation where "both have a shared purpose and approach" (Hislop, 2011). At the first national conference of the ILP, the Chief Inspector highlighted the following principles of the programme as resonating with those of school self-evaluation.

- Promoting excellence in teaching and learning is at the core of the Instructional Leadership Programme
- The best way to get better learning is to improve the instructional practices of teachers
- Better teaching is best achieved as a strongly collaborative activity
- The programme at its best seeks to build the internal school capacity as well as the capacity of all schools
- Colleagues are a source of innovation and improvement
- The programme gives a language and a structure for professional engagement- where teachers *and* students are allowed to reflect on actions and impact on learning
- ILP encourages an open classroom door – sharing practice, responsible professional experimentation
- Teacher conferencing
- Understanding change and how it impacts upon the quality of learning and supports wise interpretation of data/evidence from SSE.

Participants state that the programme provides them with the language for individual and shared reflection which can in turn include the students in the conversation, reflections and agreed actions. Principals speak of how the programme complements and extends existing programmes for principles with particular reference to acquiring the skill set to move from management to leading learning. Recent developments involving the National Association of Principals and Deputies (NAPD) with the support of the Inspectorate in an initiative designed to assist principals and deputy principals have seen some schools from the programme integrate their skills for the purposes of leading learning in their schools. This in many respects could be interpreted as an expression of the personal confidence and professional learning that has emerged during the programme.

Teacher Continuum

From the beginning, the Teaching Council has accepted all invitations to attend programme activities and is keenly aware of the how the programme can facilitate teacher learning and development across the continuum of a teacher's career.

Pilot activities and other Teaching Council initiatives in relation to supporting newly qualified teachers (NQTs) and those mentors who work in schools have drawn upon the cohort of schools from the project.

Similarly, the extension of the teaching qualification in Ireland, Postgraduate Diploma in Education (PDE), to a two-year programme has seen discussions take place between the steering committee and the Schools of Education in the Universities and other similar institutions.

Inclusive Learning, Literacy and Numeracy Strategy and Lower Secondary Reform
Like policy and decision makers, participants in the programme are quick to see the connections between the programme and the promotion of national agenda topics such Inclusive Learning, Literacy and Numeracy Strategy and Lower Secondary Reform. The vast majority of students in Ireland attend mainstream schools irrespective of difficulties, disabilities or disadvantage (OECD, 2005) and the educational system focuses on learning for all. Consequently, teachers are aware of the need for a diverse range of instructional practices to meet the diverse needs and strengths of students enrolled in their school and sitting in their classroom. To draw on recent work in Ontario (2013), teachers and principals understand that good teaching is just that, good teaching and what is "essential for some can be good for all".

Lower-secondary reform offers an example of the interplay between the programme and the national agenda, where national goals are determined by the quality of teachers' actions. The skills based nature of the Junior Cycle Framework outlines 8 key skills and 24 statements of learning. One of the key skills, for example, is "working with others". Through the work of the ILP, such a skill is made more achievable because of the teachers engagement with the range of instructional practices such as those associated with the concept of cooperative learning, with in turn the associated skills (e.g., framing questions), tactics (e.g., placemat), and strategies (e.g., Johnsons' five basic elements of effective group work).

Team-teaching, the programme and deepening engagement with pedagogy

Team-teaching, where two teachers teach in the same classroom at the same time, is not a new concept but is being addressed anew in Ireland. The renewed interest in team-teaching initially stems from the promotion of inclusive learning for students identified with special educational needs (SERC, 1993). Recent research in Ireland (Ó Murchú, 2011) was undertaken shortly before and quickly in tandem with the commencement of the ILP programme, again with the considerable support of Joan Russell. The team-teaching pilot project (now firmly embedded) along with policy development in Ireland has awakened interest in the view that effective-team-teaching can assist with the promotion of school self-evaluation, the lifelong continuum of teacher learning with the promotion of schools as sites of learning for teachers as well as their students, and can support changes where necessary and sustain good practices continually.

Very quickly, the opportunities for creating a professional learning community within a class, between teachers and students emerged as a significant benefit to those involved and offers a means for teachers 'to play together' with their instruction and with their students and to discuss the perceived impact it has upon all and upon all learning. It

allows attention to advance from the CBAM to implementation and evaluation of action. Please note that team-teaching implies that the students are part of the team.

Opening up the secret garden that is the classroom is a significant dimension of team-teaching and of the promotion of learning, for both students and teachers, and assists with the dissemination of professional learning 'between the workshops' **(Fullan, ?** Joyce and Showers, 2002). In turn, the instructional language acquired at the workshops opens up possibilities for deeper engagement with reflective practices at an individual and collective level among those who engage in team-teaching. The scourge of inadequate time for teachers to interact is in part reduced by learning *in* teaching rather than before or after teaching. Equally the temptation to not try, or to only try once, a particular instructional practice is reduced and replaced with a sense of curiosity and creativity that supports student and teacher learning.

The programme also addresses some of the potential weaknesses in team-teaching where attention needs to remain on the learning experience and outcomes for the students (and not just the teachers), and where the most powerful instructional practices need to be utilized. It should be remembered that team-teaching (like 'cooperative learning') is *not* an instructional method, its power rests in what it encourages to happen in a lesson. Here we disagree with Hattie's view (2009) and others before him Armstrong (1975) who declared that the jury is out on team-teaching. We argue it's a mistrial if you see the concept as a methodology, its power is the way it can influence the learning by assisting in the choice of methodologies and how they are used, assessed and reassessed. Indeed the power of teachers being accountable to one another is also missed in the literature on team-teaching and we believe this is an important dimension if classroom practices are to be improved and if classroom practitioners are to be supported in improving.

The manner in which team-teaching can position teachers to learn and to teach is yet to be fully explored. For example, the interplay between concepts of trust, pressure, proximity and reciprocal altruism invokes aspects of Social Capital Theory. This line of thinking assists participants in framing both the project and team-teaching across the change process. That process includes bonding. bridging and linking (Woolcock, 1998) and in capturing what collaborative action means, asks and offers teachers, within classes, between classes, between schools and within the wider educational community.

As stated earlier, perhaps our failure to effectively enact change systemically (as reflected in Cuban and Usdan's, 2003 work) is in part connected to our preference to research change, write about change, and do workshops on change rather than to collectively and effectively enact change systemically over time. The interplay between team-teaching and the programme is ongoing, as is the eco-system between the programme, personal and professional development, system related priorities and team-teaching. Connecting to the idea of the inexorability of change, the eventual outcome for this project is to create a system that has the internal capacity to carry out and research its efforts at change. To repeat for the third time, changing a few classroom or a few schools, for a while, is not, nor ever should be, the goal of an educational system.

Section Four: A Critique of the Project Through the Change Lenses

This section provides excerpts from specific components from Charts 4 and 5 in the previous section. As part of that we also connect to the actual training/learning process, as well as, the content of the workshop. The first part refers to Chart 4 and the 'initiation' phase; the second part refers to Chart 5 and the 'implementation' phase.

Initiation Below in Chart 6 are the four components we selected from Chart 4: quality of the innovations, access to the innovation, balance of top down bottom up, Ministry advocacy, and connecting to previous change efforts. We selected four to reduce the size of the paper. We first provide an overview of each one followed by what we would argue was our score on the rubric. (Note that the scoring may span two levels.) From that we identify what we could have done differently if we were to do this again.

Chart 6: Rubric on the factors that guide initiation (bold represents our level)

Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Quality of Innovation	little to no research support; not applied in other districts	some research support; applied in a few districts	***substantial research support and is applied in a number of cases***	substantial research support; applied in numerous schools and districts
Access to Innovation	not really considered	***considered but limited***	***considered and fairly extensive***	considered and extensive
Ministry Advocacy	little to no support	some support	***solid support from a few***	solid support from most
Balance of top down bottom up support	little to no balance	emerging but minimal	***emerging and obvious but only a few major players***	respectful balance of top down bottom up
Connecting to Previous Change Efforts	no connections; not considered	***some consideration to some efforts***	***clearly considered and connected***	clearly considered and connected and documented

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Quality of Education In terms of the *quality of the innovation*, we believe we are pushing towards Level 4 in terms of the content but just hitting Level 3 in terms of process of the training. We focused on those instructional innovations that would work at all grade levels, all curriculum areas, and that had research support that indicated they made a difference in student learning. For example, instructional methods from cooperative learning (effective group work) were selected because no other instructional area has more research support on student learning (Hattie, 2009, 2012; Johnson & Johnson (1989); Slavin (1995). The more complex cooperative learning processes have one of the highest effect sizes on higher-level thinking (such as Teams Games Tournaments, the Johsnons' Five Basic Elements and Academic Controversy. We also worked with a variety of graphic organizers methods such as Venn diagrams, Fish Bone

diagrams, Ranking Ladders, Mind Maps and Concept Maps. Key here is having students integrate multiple graphic organizers (Bennett, 2012). For more information on the instructional content, see Bennett and Rolheiser, 2001. In addition, we wove in aspects of classroom management with a focus on how to effectively respond to students who choose to behave inappropriately (Bennett and Smilanich, 2001, 2013).

In summary, the instructional methods employed are supported by research (Hattie, 2009, 2012; Marzano, 2007). The training model aligns with the process of peer coaching which the research shows impacts transfer of learning to the classroom. Our current weakness is that we have not built in a way to make sure transfer happens back in the school and we do not provide support or demonstration lessons back in the school/classroom. For that reason we only score level 3. To shift to a four we would have to have built in a process for feedback in the school/classroom. Here we could have built in the requirement for them to video their teaching and for them to meet and discuss several lessons between each training session. We also should have built in a better mechanism for assuring all teachers returned to the next session with samples of student work.

Access to the Innovation One of the challenges of working at the level of the system is creating the opportunity for educators within the system to be involved in the change process. This 'size issue' is why the scoring spans two levels. In Ireland, teams of teachers from all sixteen ETBs were selected to participate, with the understanding, that they would eventually provide similar learning experiences for other teachers in their schools and other schools in their area. The location selected for the workshops was in the central part of Ireland to minimize travel for those educators from around Ireland. Funds were also provided to cover food and accommodation.

In summary of this factor, although teachers from all ETBs were involved, the number we can accommodate given the number of secondary teachers in Ireland is small. We are now at about 700 teachers. That said, these 700 teachers are expected to begin sharing and doing workshops in their 3rd year of the project. Hopefully that will increase the access to the innovations.

Ministry Advocacy In order to access funds, Ministry support was essential. To set up the possibility of accessing funds, pilot workshops were provided in four locations around Ireland to see whether or not educators felt the project was worthwhile. The feedback was positive and funds were provided to support the first cohort. We are now working with the sixth cohort, with each cohort having between 130 to 150 teacher administrator teams. We realized right at the start this factor was critical.

In summary, this support is increasing as we mover further into implementation.

Balance of Top Down Bottom Up Support The research is clear that the graveyard of failed innovations is just as full of top down bottom up as bottom up top down change efforts (Sarason, 1990). Most current researchers argue that where the change starts is not the issue; the issue is that over time that those in administrative positions work

collaboratively with those who are in schools and classrooms. In this project, Finn Murchu, (as stated earlier) an inspector, attended a workshop in Germany for educators from around Europe. He saw the impact of the Durham Board of Educations change effort and inquired into the possibility of doing something similar in Ireland. Joan Russell (Cork ETB) agreed to provide the support to move forward with the idea. That initial partnership led to the pilot workshops that eventually led to initiation of the first series of workshops.

Connecting to Previous Change Efforts One key word that is essential to initiation of new innovations is to respect those innovations currently being implemented within the system. One key researched innovation, team teaching was being piloted/implemented in various secondary schools around Ireland. What we realized was that the team teaching process was actually one of the most powerful ways to encourage collaboration and in-school support for this 'new' project. Team teaching connects to the idea of peer coaching, and the enactment of professional learning communities.

Implementation Below in Chart 7 are the factors we selected from Chart 5 for implementation: Power of the innovations, quality of the learning processes, levels of use, connecting stakeholders, building the internal capacity, and researching the process.

Chart 7: Rubric on the factors affecting implementation (bold represents our level)

Factors	**Level 1**	**Level 2**	**Level 3**	**Level 4**
Power of the Innovation(s) (this refers to the effect size of each innovation on student learning)	little to no attention paid to power – most innovation have low power	beginning to think about power – and some innovations are more powerful	**working at understanding power; a clear shift occurring towards selecting more powerful innovations**	clear understanding of power and educators consider power when making instructional decisions
Learning Process/Quality (effectiveness of workshops etc. re learning and transfer of learning	little to no attention paid to process or teacher learning transfer learning	**some attention paid to the process of how teachers learn and transfer learning – still a bit sporadic**	**attention consistently paid to most variables related to how teachers learn and transfer learning**	attention consistently paid to most or all variables at a more sophisticated level of use
Attention to Levels of Use (From the CBAM research)	little to no understanding of Levels of Use	beginning to talk about Levels of Use but not really acting on it	**talking about Levels of Use, beginning to use it to understand implementation**	understands and acts on Levels of Use – use it to understand implementation
Building Connections with Stakeholders	little to no connection with other stakeholders	**beginning to make those connections and sense their importance**	making connections, understands the importance of the connections	continuing to expand the connections; deeper understanding of

				the importance
Building Internal Capacity to Sustain Change (Continuation)	little to no consideration	talking about it but not consistently acting on it	**understands the importance; beginning to create opportunities**	created and continuing to expand internal capacity to sustain change
Researching the process and impact	little to no attention paid to research	**talking about doing research; a few simpler action research studies being done**	**research is occurring, some graduate work and more done on action research; beginning to present at conferences**	action research, graduate research and external research being completed; presenting at conferences; publish

Power of the Innovations Clearly, if we want to impact student achievement we must attend to those instructional processes that have the most power. We take the time to make sure participants understand that effect size and when possible share those effect sizes.

Effect size is a 'tricky' area of inquiry in that more is going that is indicated by the effect size statistic. In Hattie's 2009, 2012 work we get an excellent reporting of the effect of instructional innovations on student achievement. That said, you must be a critical consumer of that research. For example, Hattie clumps cooperative learning methods into a single effect size (he treats cooperative learning as a strategy … which it is not … it is a belief system related to how students learn. Clumping is like averaging a wheelbarrow, a wagon, a truck, a train, and a freighter in terms of their capacity to transport goods. Wheelbarrows will look a lot more powerful and freighters a lot less powerful in that you get regression towards the mean. So processes such as a Think Pair Share or Place Mat are not going to be as powerful as Teams Games Tournaments and Academic Controversy. Importantly, just because an innovation has a low effect size does not mean it use is limited. The effect size and the innovation are the science; how it is implemented/integrated into other innovations is the art.

Extending that critique, Hattie does not take into account the process of instructional integration (the sequenced or simultaneous application of two or more instructional methods. For examples, a grade four student who integrates a Mind Map, two Venn Diagrams, a Fish Bone diagram, a concept attainment data set and cross sectional diagrams to summarize a unit of study (Bennett, 2012, p. 4XX). Tangentially, Hattie states that instructional methods with low effect sizes can be harmful. That is a naïve statement. Less complex (less powerful) instructional methods are almost always required to implement more complex process. For example, providing wait time in questioning is not as powerful as effectively framing questions but necessary as part of framing questions. Framing questions is less powerful than Think Pair Share but necessary as part of Think Pair Share. Think Pair Share is applicable to process the learning in an Academic Controversy or Concept Map. This is no different from having

the skill to pass and catch a ball in basketball in order to enact a give and go. And a give and go is essential in running a 1-3-1 offence. This less complex more complex interaction plays out in all areas requiring the enactment of a skill.

In summary, although we are working hard at focusing on effect size as one way to assess our efforts to improve student learning, we are also working to be critical consumers of that research.

Learning Process (Effectiveness of the Workshop) We attend to the research on Peer Coaching to guide a lot of what we do in terms of the learning process (Showers & Joyce, Bennett, 1987). The critical variable workshop learning is the transfer of the learning. In our case, transferring the innovation from the workshop back to the classroom. Coaching means that educators come in teams with their administrator to get the relevant theory/information related to an innovation. In addition those teams experience modeling, have the opportunity to practice and give each other feedback, and then, when they return to the classroom they support each other in the implementation of that innovation. This is a key area where we can connect previous innovations (Team Teaching) to the project. Team teaching is an ideal situation to enact peer coaching. Because we work with the same group for four 2 1/2 day sessions over two years we also get the opportunity to discuss issues when they return for the next sessions. Why we are spanning two levels on the rubric is that we are not able to provide in-school support to the school teams. We see the future involvement of inspectors as one way to provide one form of in-school support.

In summary, we are cognizant of the need to provide high quality learning opportunities for teachers. Our concern is how to more effectively support teachers back in the classroom – between workshops and after the workshops have finished (sustainability)

Levels of Use of an Innovation Peer coaching focuses on transfer and making sure those attributes of the innovation are enacted. Levels of Use focuses on the effectiveness with which the teacher and student enact the innovation. Chart 2 identified those levels.

Chart 8 below illustrates how Levels of Use is applied to Think Pair Share. You will see that many other factors impinge on how effectively Think Pair Share plays out in the classroom. For example, how teachers frame questions, the cognitive complexity of the questions, how TPS connects to other innovations etc., all interact to determine the effectiveness of TPS.

Chart 8: Think Pair Share: Cooperative Learning Tactic

Criteria	**Mechanical**	**Routine**	**Refined/Integrative**
# of times	1 to 10	10 to 20	> than 20
Need to explain Think Pair Share	Yes, at first – students do not understand why the teacher is applying TPS … use is 'clunky'	No, but the teacher may need to briefly remind students … teacher is a smoother user	No explanation or reminder – students understand the TPS process … teacher easily applies; students

			understand how it works
Teachers ability to Frame Questions apply wait time while being sensitive to factors such as the complexities of thinking	Teacher is not that skilled in framing questions and the use of wait time; has a limited understanding of complexities of thinking (e.g., Bloom's taxonomy) when framing questions	Teacher is framing questions, often thinks of/applies wait time; still does not skillfully attend to the different complexities of thinking	Teacher frames questions effectively; applies wait time being sensitive to the complexities of thinking (e.g., Bloom's Taxonomy)
Teacher's ability to respond to students' responses	Teacher is just starting to consider the different ways students respond but seldom takes it into consideration	Teacher is more skilled at responding to students responses and how that affects student participation and safety	Teacher is skilled at responding to the different ways students respond; no when to suspend judgment
Application of appropriate collaborative skills	Teacher is beginning to consider and teach social skills such as equal voice and communication skills such as attentive listening,	Teacher and students are becoming more skilled at attending to appropriate collaborative skills	Teacher and students easily and appropriately apply a range of social, communication, and critical thinking skills
How the teacher applies/integrates TPS with other instructional methods	Beginning to use TPS to enact other methods such as Concept Attainment.	More consistently connects TPS with other instructional methods.	Easily and effectively integrates TPS with other instructional methods.

In the above rubric, we have modified/merged the last two levels. Levels of Use is initially a struggle when teachers are attempting to apply it to their efforts. Obviously, given they are now applying the innovations the first three levels are irrelevant.

Key here is that when teachers go back to enact innovations they will be mechanical users … as will their students. This is identified as the implementation dip. This is where the peer coaching process and team teaching become key in assisting teachers to get 'out of' the dip. Not until teachers become routine users do we find effects on student learning. Shifting from mechanical to routine can take several years. You can see why we work with the same cohort of teachers for two or more years.

Here again we must reflect on the effect size research; rarely does anyone first consider the level of use of instructional innovations prior to calculating an effect size for that innovation. The good news is that the existing effect sizes are most likely conservative estimates of the impact of those methods. Again, however, when an innovation has a reported lower effect size, keep in mind the teacher and students were most likely mechanical users and you may be making a serious error in thinking the innovation is not that effective.

In summary we realize we must merge the quality of the learning opportunity to affect transfer with how effectively teachers and students apply the innovations. We know this

can take a considerable amount of time for more complex (and powerful) instructional innovations. This is why starting in primary/elementary schools is critical.

Connecting with Stakeholders The idea of systemic change implies involving all those individuals/organizations that can support or block change efforts. In Canada and Australia, we include the ministry, faculties of education, unions, and school districts as the key stakeholders. Within those organizations there are also often sub groups. For examples, parent groups/school trustees within the district. Within the district, the primary and secondary teachers must obviously be involved over time.

Why stakeholder involvement is important can be best illustrated by a project in Tasmania, where in the seventh year of the project, a state election removed the key support from the ministry. In Western Australia, when the same thing happened in the 12th year of the project, the ministry did not lose the project because the union has written it up in the collective agreement. In most previous projects, the faculties of education have been the most difficult stakeholders to engage in the projects. Although some advances have been made in this regard more needs to be done. In summary, we are not 'advanced' in engaging all stakeholders.

Building the Internal Capacity The last phase of a change initiative is getting to the level where most teachers in most schools are involved/engaged. Building the internal capacity to develop educators that can carry on the change and those that follow is critical to the idea of embedding innovations within the culture of the organization. Although this is currently a secondary initiative, some of the secondary schools are already providing workshops for the elementary schools that feed into their school. We clearly realize the importance of shifting to Irish educators providing the workshops as soon as possible.

In summary, we are in the sixth year of the project, we find that in about the 5th year, teachers start to feel comfortable doing workshops for their colleagues. We are on the cusp of this starting to happen. That said, some secondary schools are already well into enacting these workshops for themselves, other secondary teachers in other schools and in some elementary schools.

Researching the process and the Impact Evaluation of the project is essential. Currently we are compiling qualitative data to find out what is happening and the difference it is making for teachers as they try to shift from mechanical to routine users of innovations. This paper is the result of that effort. Clearly, we also need to eventually look at the effect the project is having on student achievement, but we must make sure that teachers are actually implementing the innovations and implementing them at a routine or higher level of use. Any decisions we make about impact that does not first inquiry into the teachers' and students' levels of use would be suspect.

In summary, solid qualitative data must be collected and analyzed prior to designing ways to collect and analyze quantitative impact data. To often we have looked for impact prior to determining whether or not the innovation was actually implemented; in which case we are at risk at discarding potentially powerful innovations.

Fullan's Four Drivers of Change

Earlier in the paper we indicated that we would employ Fullan's (2011) four drivers for change to further understand/guide our efforts at systemic change focused on instruction. From our perspective as change agents, we feel Fullan's synthesis is one of his best pieces of work since the New Meaning of Educational Change.

As an advance organizer to grasping/enacting the four drivers (see Ausubel, 1978 for more detail on advance organizers) Fullan shares four imperatives that can be employed to judge the likelihood of implementing the four drivers: (1) foster the intrinsic motivation of teachers and students; (2) engage educators and students in continuous improvement of instruction and learning; (3) inspire collective or team work; and (4) affect all teachers and students – 100 per cent. Although those ideas are not new, they are important … especially when Fullan argues their importance. And it is the argument in Fullan's 2011 synthesis that is so coherently precise.

Key here is to realize that those four common-sense statements are uncommonly enacted. Also keep in mind that 'one' does not 'do' those four imperatives (no more that one would 'do' the four drivers of change. They are not processes – the processes are what occur to enact those 'drivers' and 'imperatives. The challenge is in their enactment. Metaphorically, we can talk about what to consider when mountain climbing; to actually climb the mountain is for more complex, unpredictable, and challenging.That challenge is why we have more research 'about' what to do than research 'about' what was actually done over time systemically.

For example, one key area identified by Fullan focuses on instruction. We have been focusing on instruction systemically since 1982 in over 30 district-level efforts. And as a consequence, we know how hard this is to execute. Miles and Huberman (1984) found that nothing causes more conflict than trying to extend/refine the instructional practices of teachers. Hughes (1991) found that secondary teachers in Australia identified that their number one focus for professional development should be instruction. When those teachers were followed to determine what they selected for professional development, instruction was dead last.

The research on the Expert Blind Spot (Nathan & Petrosino, 2003) shows that the more passionate teachers are about the content they teach and the deeper they grasp the constructs of that content, the less likely it is that they will believe they need to enact an extensive instructional repertoire or to understand how students learn. Their great passion and intellect will win the day. Probably the biggest mistake we make with secondary teachers is to have them sit for a day or two focused on innovation 'X' and they do not see one example or video of this innovation being implemented in their subject area. What physics or English or art or technology teacher wants to sit through a ½ day or full day or full week workshop and not see how it works in their subject area? Do you sense the complexity? And what about the instruction and classroom management interplay? For example, when you implement those methods that enact the idea of cooperative learning you initially increase classroom management problems; implementing an

innovation when students are behaving inappropriately is difficult.

Below in Chart 9 we briefly analyze our efforts through those four drivers of change. First we provide a rubric and how we would score ourselves. Following that we discuss our score on the rubric. Note we shifted the connector from 'versus' to 'over' as in Fullan's description he did not say that one is necessarily bad the other one good – rather, it is the nature of their interaction, often in concert that is key.

Chart 9. Four Drivers of Change (bold represents our level)

Four Drivers	Level 1	Level 2	Level 3	Level 4
Capacity Building Over Accountability	standards, assessment, rewards and punishment dominate the system; no sense of another way	***Beginning to realize that intrinsic motivation is key; a few beginning to shift***	***Achieving standards, focus on assessment through building internal capacity; most beginning to shift***	Achieving standards, focus on assessment through building internal capacity; most to all beginning to shift
Group Quality Over Individual Quality	little to no value or effort placed on building social capital (relationships)	some value & effort placed on building social capital (relationships); still struggling to get this going	***more obvious value & effort placed on building social capital (relationships) beginning to be normed into the school culture***	obvious effort & value placed on building social capital (relationships) for the most part is normed into the school culture
Instruction Over Technology	little to no focus on instruction as it connects to technology; technology is more the focus	focusing on instruction but still not connecting it wisely to technology	***obvious and increasingly pervasive focus on instruction with an emerging sense of how it connects to technology***	obvious and effective focus on instruction with technology understood as a partner in more powerful transformative ways of learning
Systemic over fragmented	Little to no sense of how to operate as a system involving multiple stakeholders	***Beginning to sense the idea of the system and connecting with some aspects of the system***	***Obvious effort to involve some of the key parts of the system; unions, faculties of education etc.***	Effectively involving most to all key parts of the system; they all get their responsibility in working collecting to make a difference in student learning

Accountability Over Capacity Building Fullan shares a wide range of ideas. One refers to the unwitting invoking of accountability through standards, assessment, rewards and punishment as key drivers of change. Invoking accountability assumes that approach will motivate teachers to develop the requisite skills and competencies to get better results.

The more important concept here, from our experience, is not accountability but professional freedom and responsibility. That implies teachers influence, design their learning environments based on their understanding of their students. They are motivated to do the best for students because they have a voice over what happens. When you take away the opportunity to think, act, to be creative, to be a critical thinker in the design of learning environments you demean what it means to be a professional. Fullan, states that

> …it is not the presence of standards and assessment that is the problem, but rather the **attitude** (philosophy or theory of action) that underpins them, and their **dominance** (as when they become so heavily laden that they crush the system by their sheer weight). (p. 8)

In our description of the programme and insights into its impact, you can sense we are working to build capacity; to not get caught up in the trap of accountability in the absence of possibilities.

Individual Quality Over Group Quality We have stated earlier that the issue is not about a few teachers in a few schools or a few schools in a district. The issue is all teachers in all schools. Fullan's comment below supports what we have been doing around systemic change for the last twenty years. This driver is why the Durham Board of Education won the Bertlesmann award as the top district in the world – they build capacity systemically. This is key to our work in Ireland.

> No nation has got better by focusing on individual teachers as the driver. Better performing countries did not set out to have a very good teacher here and another good one there, and so on. They were successful because they developed the entire teaching profession. (p. 10)

That said, individuals are important. Leithwood et al's (2009) research shows that the principal's support of teachers becoming instructionally skilled is the second most powerful predictor on whether or not students learn. He and his colleagues go on to say that they found no examples of a school changing with anything less than highly effective school leadership.

Again, you can sense our focus in building a more collaborative and collegial learning environment for educators. Teams of teachers from earlier cohorts are now running the first day of training for new cohorts. This piece is key to building sustainability. Cohort six will be organized and run by teacher teams from Cohorts 1, 2, 3, & 4 who have been implementing a variety of instructional approaches for three to six years.

Technology Over instruction Fullan's comment below positions this argument of technology versus instruction. Key here is to appreciate the connection between the two.

> "I hate to sound like a broken twitter but no other successful country became good through using technology at the front end. Without pedagogy in the driver's seat there is growing evidence that technology is better at driving us to distraction, and that the digital world of the child is detached from the world of the school." (p. 15)

From our experience, having a more extensive instructional repertoire that pushes more complex ways to think and more engaging and meaningful foci for thinking, increases the chances teachers sense the role of technology in the teaching and learning process. We find that the less teachers grasp thinking and all its dimensions, the less likely they are to engage technology for more transformative ways of learning. For example instructional methods we invoke in training (e.g., group investigation and academic controversy) provide a process that encourages students to access the world as they collect and analyze data related to more complex richer ways of learning such as project-based learning. Note that we are still a long way from having this happen systemically, but it has started.

Fragmented Over Systemic "The natural definition of systemic means that all elements of the system are unavoidably interconnected and involved, day after day." The problem here is that the politics and personalities intersect to impact pedagogy (Freire discusses this in his 2004 text *Pedagogy of Indignation*.) Getting the system to function more like a quilt than separate patches is critical. For example, in Tasmania, a state-wide project was 'finished' by the state election after seven years of work on the project. The opposition party had no interest in following through with this initiative; interestingly, the state paper/media was against the government and also played a key role in dismantling the project. Interestingly, in Chile, the mining industry, forestry industry and the media all work together to make sure a quality education occurs in Chile, especially related to the education of the poor. In Chile, the media were powerful supporters of teachers and students; they all 'talked about' the education of the students of Chile. They thought like a system; Tasmania did not. Fullan, in his paper on the wrong drivers, illustrates how Australia (one of the three countries in his study) is not doing it right.

The converse to Tasmania happened in Western Australia. After ten years of the initiative, the government in power knew they would lose the next election. The ministry's concern was that they might lose the project. The teachers union was an equal partner in this project (they actually initiated the project). They reminded the ministry that no one could touch the project because it was written into the collective agreement. They thought more like a system. Recently, Becky Saunders (Saunders, 2012) won dissertation of the year at AERA for her research into one aspect of this project in Western Australia.

Where to Next

Collectively, we've worked to apply/enact key ideas related to change, systemic change, instruction, and how students and teachers learn. We understand the importance of creating a more collaborative collegial system that engages all stakeholders. The challenge is to get the stakeholders to understand and act on their responsibility to the

system that works to design powerful learning environments for students. Obviously we are doing this for students; clearly, if not for students (as stated earlier) most stakeholders would not exist (i.e., ministries of education, faculties of education, teacher unions etc.).

We need to continue and continually build the internal capacity of educators in Ireland; that will never end. As part of that, we must also find more effective ways to encourage transfer from the learning workshops to the classroom. Although educators come in teams from schools with school administration … that does not mean learning transfers or transfers 'accurately'.

We must put more emphasis on encouraging those involved to bring samples of student work to share with their colleagues – and to also put those examples onto the website for all teachers to access.

Secondary teachers understand the importance of elementary students arriving in secondary schools already skilled at most of what we are working on related to instruction. For that reason, we must shift the focus to include primary/elementary teachers. We are still trying to determine the best way or ways to do this. Currently, some secondary schools are doing workshops for their elementary feeder schools; perhaps that may be the most effective and cost effective way to shift in this direction. Recently, we have a few secondary teacher/consultants running workshops for the 300 facilitators who work with the elementary teachers; this would be another avenue of involving the elementary school educators. We are also working on how to run workshops for primary/elementary teams of teachers and principals that parallel those provided for the secondary teachers.

Two of Fullan's change maxims continue to guide our thinking and action: (1) start small think big and (2) slower is faster. We realize this is most likely going to be a fifteen-year effort to shift to a more systemic impact, but recently, two faculties of education have contacted us to see how the Bachelor of Education program might fit into working with teachers involved in the project. Building a common assessment and instructional language between Faculties of Education and the ministry educators would certainly be one additional part of 'starting small and thinking big'.

Appendix

Appendix A – Eight Criteria for the Bertelsmann Prize, 1996

1. Concerns of schools for the learning and life chances of children and young people
2. Innovation and evolution
3. Employee potential
4. Innovative school leadership
5. Participation of pupils, parents and other agencies
6. Cooperation between individual schools and external decision makers
7. Evaluation and quality assurance
8. A framework which supports innovative school development and the national level

Appendix B – Why Reform Fails - Fullan and Miles (Phi Delta Kappan, 1992)

1. Faulty maps of change
2. Complex problems
3. Symbols over substance
4. Impatient and superficial solutions
5. Misunderstanding resistance
6. Attrition of pockets of success
7. Misuse of knowledge about the change process
8.

Appendix C – Propositions for Success - Fullan and Miles (Phi Delta Kappan, 1992)

1. Change is learning – loaded with uncertainty
2. Change is a journey, not a blueprint
3. Problems are our friends
4. Change is resource hungry
5. Change requires the power to manage it
6. Change is systemic
7. All large scale change is implemented locally

Appendix D

Levels of Use Rubric: Think Pair Share

Criteria	**Mechanical**	**Routine**	**Refined/Integrative**
# of times applied	1 to 10	10 to 20	> than 20
Need to explain or remind students about Think Pair Share	Yes, at first – students do not understand why the teacher is applying TPS … comes across as a bit clunky	No, but the teacher may need to briefly remind students … teacher is a smoother user	No explanation or reminder – students understand the TPS process … teacher easily applies; students understand how it works
Teacher's ability to Frame Questions apply wait time while being sensitive to factors such as the complexities of thinking	Teacher is not that skilled in framing questions and the use of wait time; has a limited understanding of complexities of thinking (e.g., Bloom's taxonomy) when framing questions	Teacher is framing questions, often thinks of/applies wait time; still does not skillfully attend to the different complexities of thinking	Teacher frames questions effectively; applies wait time being sensitive to the complexities of thinking (e.g., Bloom's Taxonomy)
Teacher's ability to respond to students' responses	Teacher is just starting to consider the different ways students respond but seldom takes it into consideration	Teacher is more skilled at responding to students responses and how that affects student participation and safety	Teacher is skilled at responding to the different ways students respond; no when to suspend judgment
Application of appropriate collaborative skills	Teacher is beginning to consider and teach appropriate social skills such as equal voice and communication skills such as attentive listening,	Teacher and students are becoming more skilled at attending to appropriate collaborative skills	Teacher and students easily and appropriately apply a range of social, communication, and critical thinking skills
How the teacher applies/integrates TPS with other instructional methods	Beginning to use TPS to enhance other instructional methods such as Corners, Concept Attainment.	More consistently connects TPS with other instructional methods.	Easily and effectively integrates TPS with other instructional methods.

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