

# System Implementation and Monitoring, Fall Regional Session Barrie Region, 2012

This document contains notes from the discussions occurring during the Barrie Region SIM Fall Regional Session. Hyperlinks provide quick access to various discussion topics within the document.

## Discussion Topics

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## *Gap Closing: Precision and Personalization*

### SO Group

- How SOs can use monitoring as a mechanism to ensure 'Problems of Practice' are implemented effectively at the classroom level by being visible and open to learning
- Need for coherence in both horizontal and vertical alignment to ensure teachers are responsive to students, principals can create the conditions necessary to promote collaborative inquiry, and SOs encourage the use of cyclical feedback from multiple sources (qualitative, quantitative, trailing, and current)

Reflective Question: How can SOs structure intentional and on-going school visits which encourage accountability through the delicate application of both pressure and support?

### System Staff

System Group- issues on Gap Closing, group consisted of Consultants- Curriculum and Spec Ed, coaches  
One person started with a question:

- Technology - is it a question of equity and access?
- Equity around bring your own device and the reality of schools
- Discrepancy between access in elementary and secondary
- SEA claims- maximize the use of laptops for use in applied classes
- Starting to think about 1 iPad or laptop between 2 or 3 students to encourage collaborative thinking
- There is an assumption that laptops themselves will increase scores
- If there is the same kind of teaching how do we put pedagogy and technology together
- Bring system people together

- SEA equipment- teachers need to be comfortable with technology
- Teachers need to engage in the tools- need leaders to support this
- ‘Own a laptop program for teachers’- after school/ summer workshops- invitational and based on learning the skills of the computer ,not the pedagogy just skills- moving towards good pedagogy- looking for structures to work in i.e., Math Camp
- Collaboration with Special Ed - what are the cognitive demands, working with teams of special ed, Principal, teacher Librarian, starting with the analysis of student thinking- what do they need to be able to do- then infuse technology where needed
- We need to teach skills that they need- precision, need to teach about each type of LD
- Grade 7-10 networks, applied math, unpack i.e.ps, found they needed to be more precise, shift away from withdrawal framework to core model - spec ed in classroom
- Maybe a Collaborative Inquiry on LD students as the marker students... maybe if we do something slightly different, more precision
- CIL-M whole process is spec ed
- SWST teachers- SERTS need to be working side by side in this method
- We have many students who are struggling - who do not have a diagnosis but need the same skills

SWST involved in the Inquiry Network- SWST stance is so important, others have come to co-observe, student doing, student saying, I wonder.

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### ***Leading Mathematics Learning: Supporting Numeracy (Day 1)***

*Importance of building content and pedagogical knowledge*

- Nurturing professional “habits of mind” e.g., resourcefulness and learning about a particular strand/content before planning to understand developmental phases and potential misconceptions; focussing on big ideas
- Resources: Guides to Effective Math Instruction, M. Small and C. Fosnot’s work as possible resources for educating selves about content
- Building T pedagogy so learning can be transferred to other math contexts e.g., building in HOW to use text to adapt questions so they can be more “open” or to create parallel tasks; text book should not be “demonized”, it is HOW the text is being used that is the problem (as a program vs. resource)
- Developing a shared understanding of what consolidation is and go deeper (beyond sharing); article shared at Numeracy Leads was shared at table

*How do we spread what is working? Include more educators in moving forward?*

- What are the supporting conditions for effective PLC related to math? (“co”; deprivitization of practice, precise focus for learning informed by student needs, learn by doing the work etc.)
- Are we spreading learning about math, the processes through which teachers have learned or both?
- Are our evolving understandings of effective math practice or “needs” in developing math pedagogy being reflected in the content of professional learning sessions? (e.g., if teams are comfortable with creating good questions but there is a need to go deeper with consolidation, is the content of the CIL-M sessions or professional learning sessions reflecting this or are we still structuring the professional learning the way we always have?)

### *Interventions for students with LDs?*

- Are tasks providing multiple entry points?
- One board shared their approach by supporting teachers by expanding their understanding of the characteristics of various LDs, how these might present in math, then things teachers can do that are “necessary for some, good for all” to embed differentiation into math lessons. A suggestion from another board also included taking tasks and “mapping them” back to the characteristics of a particular LD to generate discourse about if tasks meet needs and how they can be adjusted etc.
- York Catholic: a research-based inquiry focussing in math interventions.

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## ***Leading Mathematics Learning: Supporting Numeracy (Day 2)***

### **Principals**

#### *Building content and pedagogical knowledge*

- Many of the same issues/questions echoed from yesterday’s session (e.g., role of textbooks in an inquiry-based math classroom)
- Developing a culture of resourcefulness (e.g., use of Guides, EQAO questions as a resource and EQAO resource that came out last year as support to understand the qualities of L1-L4 thinking/work)
- Teach teachers HOW ... so capacity is built, so processes they learn can be transferred into classroom across strands vs. relying on consultants or books to provide questions for them etc.

#### *Connections Across the Curriculum*

- How do we help educators see connections (similarities) between math thinking and “thinking” in literacy e.g., people very comfortable teaching comprehension strategies... how might this be similar/different to explicitly teaching math processes?
- What is “numerate” in addition to “literate” behaviour?
- Math talk or talk across the instructional day as a foundation for learning?

#### *Challenges of practice*

- Strategies for dealing with high turnover in staff, varied readiness of staff
- Defined autonomy (“umbrella” focus that all staff can see selves in the work but everyone focussed on similar thing and that there are multiple entry points)
- “expert” vs. expertise
- Is it getting to student desk? Why not? What next? How do we sustain change vs. “event”?

#### *Leadership*

- How do we monitor? How do we document what we see?
- Co-developing monitoring “look fors” so we are all “monitoring” in an ongoing way, by all and in service of student learning and achievement.
- Principals asking for support re: their own coaching skills/ facilitation skills

#### *CI connected to work with IEPs - Learning Disabilities in Math Projects`*

- Started with grade 7 & 8... found out that it was too late in grade 7
- Starting in Grade 4 and building pedagogical content knowledge - need to boost the content knowledge for teachers therefore the board is giving a rebate to do content knowledge in Math

- What are the curriculum expectations that you are covering in the completion of a single open ended math problem
- Math Camps to build content knowledge
- Anticipation strategy in CIL-M - "What do I think that the outcomes are going to be?"
- Discussion around how to approach the Numeracy PA days
- "Pillar" model for school/board improvement reinforces the separateness instead of the overlap.

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## ***Using Technology to Support Learning and Engagement***

### **System Support Group**

GOAL: Seamless integration of technology in the classroom for the purpose of learning

- Is it working?
- How do we ensure that the technology enhance the learning rather than becoming a glorified textbook

Use of language of technology as a tool... technology is assumed... 21c learning video...

### **Discussion around "SAMR" → Stages of implementation of technology.**

- **Substitution** (technology is used as a substitute for non-tech tools)
- **Augmentation** (technology somewhat augments the learning)
- **Modification** – are teachers modifying pedagogy to enhance learning?
- **Redefining Learning** – through use of technology, educators are empowered to redefine the notion of learning

*How do you move technology to move forward in the SAMR?*

Discussion ensued...

- No matter what continuum you are talking about, having a CI will augment buy-in and movement forward.
- All teachers are provided with technology.
- Another board talked about how they are in year 7 of all teachers having laptops
- One district is in its first year with all teachers having a laptop. Only way of getting release time is to have technology. Had sessions starting with 'how do I open a file' to things like Comic Life. They have all their teacher laptops linked and shows up on all.

*As a system, how do we move forward with this?*

*How do we redefine PD as we go?*

DISCUSSION Example – how do we use Today's Meet more deeply? For feedback? It didn't take us anywhere? Posing questions on Today's Meet – report back – how do we get it to **Redefining Learning**

*How is the 'bring your own device' going?*

- Range of answers from "No board policy yet" to "Just rolling out a policy" to developing norms "norms – if isn't being used, it has to be seen" to "Policy is that it is up to the school - Reference to most recent Learning"

- Report about Peel DSB – they have full set of protocols all set up – Director – teachers are told to get on board – system has to be robust enough to cope with the varied technology
- One district has guest access for all – is a board wide initiative... and for equity – partner up – research suggests that learning spaces with sharing devices is more powerful
- Article from the states – parents trained WITH the kids → huge augmented use of technology – Family Path

Are any of the boards implementing tablet rollouts?

- Starting – pockets – intentional – going by interest – based on inquiry – 25 for a school – they now have wireless
- courses are offered – enter where you are on the tech spectrum... reminiscent of the SAMR conversation

*Probing Question: if we had a wand and we had what we wanted, how would we know that the learning is happening?*

Discussion – by flipping the classroom – latter part of the SAMR.

*Follow up probe: couldn't that be done without the technology?*

Discussion – when used well, tech goes beyond what we can do without tech... adds to the differentiation, adds to the 'time on thinking' instead of 'memorization of facts', adds to AfL

*Probe: How to separate the instructional choices from the technology? If we moved forward in using 21c Instructional strategies, would this have the same effect as the use of technology?*

*Probe: How do we know that this is making the difference...*

Student engagement – respecting where they are when they go home – how do we navigate this? Is our role to teach them to move towards learning beyond the first Google hit? It is right in the curriculum... in the math processes... in the inquiry stance of Science... in the research around a variety of curriculum docs...

What mechanisms can we put in to place so that we can make this happen? What if you don't have the resources? How do we encourage the use by a reluctant user?

- Go back to inquiry
- What are the students' learning needs?
- One example – putting the technology in to the hands of the 'at risk' kids

### **Another Group Conversation**

- New learning gap – Student vs. teacher knowledge and understanding of use of technology (students know more than teachers)
- Philosophical differences also exist between students and teachers re technology
- Financial concerns re technology, a lot of \$ invested in technology
- "Tablet Strategy" (generic term) of value only if goal to help students access curriculum, individualize and personalize learning, and with a student achievement agenda focus
- Board policy created addressing the use of mobile devices
- Book from Alberta as source of information on how to use technology as a tool .
- Mark Prensky, "Digital Natives", Fullan "Stratosphere" as other relevant sources.

- Use of technology as part of TPA
- Shared understanding of technology at point of pedagogy and point of learning
- Technology enabled learning environment vs. shiny bits and tech savvy.
- How can we be 21C without the technology there in the first place
- Initial focus on putting technology in place, now measuring outcomes in teaching and learning without backward design...figuring it out
- “Earn a Laptop” programs need to include a focus on instructional use not just operational items. Teach teachers links to teaching and learning, and use the laptop as a learning tool.
  - Use as a production vs consumption device
  - Board structure...who owns IT? Connection to Programs?
  - Why are we not differentiating technology?
  - Equity of access issues, are we widening the gap through use of specific hardware?
  - “BYO Device” preference.
  - “Device Neutral” – device is less relevant as long as it can access the web based tools (eg Google Docs) for increased portability, more inclusive. Same for platform.
- Technology beyond it being a "gimmick" was a big focus of our conversation
- **Technology at the point of learning vs at the point of instruction: if you are using a smart board at the point of instruction it is just a teacher tool....need to move it to a student tool...point of learning**
- Mark Prensky's idea of the digital divide: "Teachers are digital immigrants ( came to the digital shores later in life ) and students are digital natives ( grew up with it ) "....
- Can't assume that just because they grew up with it and use it that they are using it for productivity.
- Having technology does not imply effective use
- We need to be comfortable with sharing the learning...letting the students lead
- Teachers want the skills
- Lots of PD has been provided in each board
- Training off site for those with laptops, iPads, training for occasional teachers ( unit paid for coverage through PD funds) , training for interested people after school
- Teachers interested in learning about how to effectively embed technology into pedagogy...one board invited teachers to apply for technology explaining what you would like to know more about for embedding tech into pedagogy first....must share learning within school and within learning pod
- Conversation followed regarding equity...poverty...parents who don't supervise their kids' use of technology. We want ideally for children to engage in communication while they interact with technology...
- Some research suggests that a 1:1 tech:student ratio is not the best. Perhaps 1:3 is best??
- Need to have a repertoire of things you do....not just rely on technology
  - One district has moved away from having an “IT” dep’t in to a “learning support services department”.
  - New teachers get a laptop and 3 days of training – 1 day when they get it – 2 days later –
  - Norms – bring your technology to your workshop
- iPad vs. laptop....balance of both?
- iPad is seen as a consumption device, laptop as a creation device
- Some boards have a BYOD ( bring your own device) policy
- Acceptable use policy....acceptable use for teachers since all their clients are minors
- Norms for students around use

- Issue shared: early learning lens: walk in and see headphones on kids, isolated ( "using technology")... Need them to be in conversation with others.
- At the forefront we need to know our curriculum...where we are going, before we get them to use technology
- One board shared their story of having demo classes. Lots of interest came from hearing about this journey they have undertaken.....have you considered sharing a learning story...historical timeline documenting the learning that has come over time...pitfalls, challenges, successes....

### **Principals**

- We are spending time and money on technology – how can we help it redefine the task
- When we purchase a new piece of technology, it is not just the cost of the item, we have to also consider the money needed for training – a hidden cost – how are we planning for professional learning?
- There are challenges with the comfort zone of teachers with technology – there are different levels of expertise within a staff – it can be a matter of attitude or a matter of aptitude and the attitude can always be overcome to get teachers using technology but the aptitude presents a barrier
- Sometimes individual schools go off on their own and purchase technology outside the board plan or issue – then the system lags behind
- There is not a one shot deal for technology
- When you treat technology as a means to deliver knowledge, you are just replacing the overhead
- We need to help teachers reframe the task
- We need to give teachers time and permission – permission to screw up and learn from mistakes
- It is a challenge for principals to find time to support teachers in implementing technology
- Teachers need to learn to trust technology – they often do not use it because it is not reliable
- Are we considering the SIP and how technology supports the focus
- One principal shared that when teachers express an interest, she might purchase an item and let them play with it – we need to build a technology enable learning environment, we need to build capacity within the staff – start small, grow it out slowly
- As a principal, you need to take care of technology issues
- Some boards have different policies – notebook purchase for teachers – but how do we sustain this?
- How do we develop digital citizenship in our students
- The way you roll it out is important
- Much discussion about students using their own personal devices
- Are we seeing technology at the point of instruction or learning?
- We need to think of technology as helping teachers create and collaborate as opposed to word documenting, measuring knowledge
- Some boards are training students first – building the critical mass and then having students work within a classroom
  - what are we doing with technology, is it just a substitution or
  - have we started to move to transformation
  - Modification and redefinition
  - What are we going to do with the technology
  - Teachers need to be in the learning stance and continue learning with the students

- Putting the tools in their hands (teachers) in an explicit way with the goal for them to learn specific items during the time they have the iPad.
- The infrastructure is not supporting the technology we are using, if we are trying to have a whole class using the iPads the system crashes
- If teachers see how valuable it is they may be more inclined to incorporate it with the students.
- An issue of locus of control.
- Have lunch time sessions - we are looking for someone who had success in using technology for learning - The high flyers tech teachers are using them, we should have - learning sessions to share their expertise
- Teachers don't know all the answers, they just need to know where could you go if you are not sure how to do something, need to have more of an exploration stance.
- The kindergarten classrooms have iPads for everyone and they have really taken off.
- Sometimes we limit the students by surrounding them with a framework.
- Had success in having a group of students using one iPad to generate the questions - give them the question and what you want them to find out, and give them the technology /tools
- It is critical to give them an open question which involves more thinking, not just Google the answer.
- It comes back to the inquiry approach.
- How do you use these as an authentic tool to help you access the curriculum. It is the mindset, it is the adaptive piece that is more of a challenge.

#### *How do we get the buy in?*

- If teachers realize that this is a tool to make your life easier.
- If technology is not their expertise, start with an area they are proficient in such as critical thinking process.
- What about the equity questions, surprising when one school did bring their own technology to school only a handful of students didn't have, the school purchased the technology for students to use.
- Bring their own technology to school

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### ***Leading Learning in Reading: Supporting Literacy,***

#### Principal Group

- 4 roles - this term has been around for a long time but do we need to know what it means- as leaders we need to embrace it - reference to the Third teacher monograph
- Noticed date as 1990 on the model of the 4 roles- linked to guides to effective instruction
- 4 roles gets at the role of decoding and comprehension- specifically in Primary a lot of emphasis on decoding
- K-12- model- need different skill sets to get into different texts
- Helps student to be aware of what it takes to be a good reader
- Teachers may have used different aspects of this
- Tying into expectations would be helpful
- Reading- before, during, after- link to the three part lesson
- How do we not lose emphasis on literacy with all the focus on math

- High school- how to embed literacy across the subjects
- 4 roles helps with metacognition for students- teachers need to plan lessons to include all four roles
- Idea from one participant: 4 roles are assigned to students-
- Text analyzer links to point of view in curriculum
- Can we align things better?
- Need to align to the curriculum
- Needs to be done through shared reading, guided reading, science
- Fiction , non-fiction
- Young students- use of teacher modelling

### ***Oral language- links to writing***

- CIL-M process- students working together on an open ended question and consolidation- makes transparent the issues
- Making their thinking visible to them as well as their teacher
- Oral language is process- we talk to help process ideas
- Monograph - Grand Conversations- students need to be taught how to do conversations
- One participant suggested the six steps to active to active reading- secondary strategy
- Gradual release
- Sometimes students need things to read at a high level of independence- other times they can read higher level texts, collaboratively integrating thinking
- Many students are able to read high levels but not comprehend
- EQAO- our students were not so good at the low level things- need to dig deep into the questions- need to keep balance
- Goes back to inquiry
- One school went into inquiry but EQAO scores fell
- How we teach- shift in practice, shift in thinking- comprehensive literacy underpins everything

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## ***Collaborative Inquiry***

### **Principal Group**

- Principals must demonstrate vulnerability and should model co-teaching to bring credibility to their position as lead learner
- Principals should assume a SWST stance and focus on the student desk to promote the use of research and emphasize the need to make student thinking visible

#### *Reflective Question:*

- How can principals better manage the balance between operational demands and leadership in student achievement?

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### ***Inquiry Article Breakout: “Putting It Into Practice”***

- Student-driven – what does that mean?
- Conditions for success: social and physical environment (“Third Teacher”)
- Balance – repertoire, inquiry AND “just in time” explicit instruction
- Will teachers of older students see selves in article?
- Structures: “safety”, time and intentionality, depth vs. surface
- Knowing our students AND the curriculum
- Welcomed simplicity of the article: multiple entry points along with informed professional judgement and intentional planning of how to invite students into inquiry.
- Role of leadership at all levels to ask guiding questions
- “research-informed”: curriculum documents as professional literature too; curriculum documents (front matter!); connection between curriculum documents
- Teacher as co-learner, facilitator
- Intentionality and focus integral components of inquiry

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### ***Article Discussion : Inquiry in the Classroom***

Table group discussion: Mixed roles ( 10 people)

- Always a question of time and resources to learn about this
- Talks about Inquiry as a stance but also as one way , among many to teach.
- As Principals co- teaching is important to think about in learning this
- Wondering how the ‘Daily 5 fits into this’ and the role of meaningful tasks
- Assessment of inquiry- how to get teachers to use this and not just put it into a portal
- Idea- lunch and learns, or after school 4-6 with light food
- Learning fairs to spread the information
- System plan on training grade 1 and 2 teachers to take running records to analyze student reading with the use of texts in an inquiry model
- Some do a running record or PM benchmark but do not transfer this to next steps and their teaching
- Importance of early intervention
- Integrating the 4 roles and Primary discussion paper
- The article it discusses 4 levels or types of Inquiry - All have importance in the teacher knowing the curriculum intimately in order to infuse the right learning at the right time
- Honours where everyone is in their learning
- Able to use this in conversation, learning hubs with other educators

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