NOTES

4 school districts, rural schools, small, biggest has 200 students

Hit very hard with covid

Shut schools, lots don’t have internet – not high speed, so students lost ground

All ages k-12, k-6, 7-8 junior high, 9 to 12 is high school

Superintendents are worried they must follow the state curriculum which may or not make sense

One size fits all

Changes every 4-5 years, new brilliant way of teaching, so change everything around

State superintendent, 3 ago was a big proponent of the core curriculum so we ended up with that

Programs – not curriculum based, but learning based

Compatible with any curriculum

Different way, developed organically through grass roots organisations, doesn’t have big well known teaching company

Simpler, inexpensive,

Teachers often like it

But ‘you’re not a teacher’, ‘you don’t know what it’s like’

**Proposal is to implement two train the trainer programs that provide core learning method that would then be used with the math program**

Direct instruction but works backwards

Math

New math

Core curriculum

Geometry, trig, algebra

**Normal way**

Here’s the process to add numbers

Teacher gives examples to work on

Hopefully the idea sticks

**This way**

Here are three examples

What’s the common rule – pattern searching

Student comes up with the pattern

Then once you find the rule, combine them to develop more complicated rules for bigger problems

If you get a complicated problem, word problem, how break those down to be something you can solve

Teacher – picking a concept – fractions (pictures, words, numbers)

1/2 + 3/2 = 4/2

1/3 + 1/3 = 2/3

47/236 + 23/236 = 70/236

What’s the rule?

How could you use the rule elsewhere?

Use the rule to decode a word sentence

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Stakeholders –

Decision makers – Superintendents have administrative role as ceo of school district

Every school will have someone who is in charge of the department or 1-2 people in charge with curriculum

Vice principal / assistant principal

Teachers

Heads of math curriculum in schools and / or district

Primary

Middle school

Secondary

Purpose statement –

As a result of this email, I want the superintendents to talk to their staff and recommend that Ravi comes in and tells us more about this approach

Concerns –

Teachers – very keen to help students, worried about more work or less (front end learning curve, because students are learning a common process to learn new material, whenever you give them new material it is easier – falls)

**Tradeoffs –**

Great idea, but too hard – too much work to implement – I have to take time to do something different

Is the benefit so great that I can’t refuse or the cost so great I can’t refuse

Show how they do have time

Make it as easy

I have the resources

It’s only half an hour before you use them

Problemsolvingmaps.com

How create the appetite for implementing something that has an on cost and which everyone agrees with the need but too busy

Barriers …

Convince – problem is big enough

Convince – this method is worth trying

Convince – this method will make it easier for teachers once established

Skill up time

Context shifting – to do something a new way

Allowed to do something different

1. does not align to state curriculum
2. there are already state and national programs that I need to incorporate
3. does not talk to current social issues - isolated in approach
4. how do I produce a lesson plan that hits the KLAs (Key Learning Areas) and integrates with other subjects?
5. Where is the approval of the educational board that this is suitable?

at stage-gates there are level-set exams - how does this prepare the students to do well according to the state measures?

does the training use inclusive language?  Is it in a cultural context for the students?

**Timing –**

Post covid problem – both an opportunity and a problem

Purpose –

As a result of this email I want the superintendents to be intrigued enough to want **to me to come in and demonstrate a lesson**

As a result of this email I want the superintendents to be intrigued enough to invite me to work with one eager teacher to prepare a demonstration lesson

DRAFT EMAIL ……

Hello Fred,

Context – Thank you for speaking at last Friday’s Chamber meeting on the state of the district education. We enjoyed hearing from you and that students are starting to catch up after the challenges of learning during covid. We were however saddened to hear that now only 25% are at grade level, which is even lower than the pre-covid level of a low 40%.

Process Trigger – I wanted to follow up with an idea for helping lift student outcomes in math.

Substantive trigger – we see an opportunity in our post covid world to help students get back to where they were more quickly

Question – What opportunity?

So what – I would like to work with teachers’ aides to help students leapfrog their learning around mathematics to help them catch up or even go beyond our pre covid levels.

So what –

1 –

2 - agree to explore Problemsolvingmaps as a methodology to bring students to a higher level of proficiency in key learning 1.1.a, 2.b algebra at xxx level, etc

2 – work with you to identify a small number of teachers’ aides who could work with me on this

3 – agree a plan for working with them to introduce the approach into an agreed number of classrooms as a pilot

**Hook, relevance to all stakeholders who all have different needs to meet**

**No one size fits all comms, temptation to send one email to all, but may need to tailor it and be absolutely clear what you are asking for … but break it down, don’t go for gold straight away, might need to let go a bit**

**Bottom line up front**

To School districts

Thank you for speaking at last Friday’s Chamber Café. You presented useful information. Thank you also for allowing me to introduce you to two teaching methodologies. The first is particular to math education and the second relates to helping students think, in general. Both of these programs are independent of curricula and not contrary to any State requirement. Both also have three basic parts to them. Both programs enable students to ‘learn’ rather than ‘be taught’. Yet, the role of the teacher is vital to their success. The programs are of the “train the teacher” model. What this means is that the students are introduced to the ideas by the teacher and not through a canned program. What this means to the students, is that they will be able to apply what they learned over and over. So, what are they?

The first program is called Problem Solving Maps, which was developed by a college professor to help his nephews. He then expanded the ideas in his math classes. The three levels to the program are:

* Level 1 – Definitions and Basic rules
* Level 2 – Combining rules to solve more complicated problems
* Level 3 – Learning how to break harder problems, particularly word problems, into smaller chunks that can be solved

The program builds student confidence because it is the student, not the teacher, who develops the rules for solving problems. The program allows the teacher to enable students to work at their own pace, work individually or work in a team and the students also have fun while learning.

The second program is called TOC for Education and is designed to help students learn core thinking skills. These skills, also, will be used again and again by the students, enabling quicker and more thorough learning throughout their time in school and beyond. The three parts to this methodology are:

* Part 1 – Conflict Resolution (called Clouds)
* Part 2 – Recognizing and overcoming obstacles (called an Ambitious Target)
* Part 3 – Understanding consequences of decisions (called a Branch)

Again, these ideas are explained to students by their teachers, are learned by students at their own pace and can be used individually or in groups.

Both programs have been used successfully in the U.S. and throughout the world, in large districts and in small districts, in prosperous districts and in poor ones.

I would be excited to work with you in bringing these programs to our districts and to Jefferson County. I will follow up with you later this week.

You can find out more about these methods at:

Problemsolvingmaps.com

TOCforeducation.com

Sincerely,