

EDUSS LEARNING.

Essential Keys To Effective Intervention

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Introduction

With all the effort and money being poured into education, particularly intervention programs, in many areas we are still seeing a continued expansion of student achievement gaps and an alarming dropout rate in our schools. In the past, blame has been laid at the feet of teachers, administrators, districts and government for not providing, producing and delivering enough of virtually everything. Unfortunately, or fortunately (depending on your point of view) government is not to blame for this worldwide phenomenon.

We believe that the problem is not with our teachers, schools, administrators, districts or even government. We believe that the core problem with our schooling system is the inability to effectively help our students close their achievement gaps.

Are achievement gaps a new phenomenon? No! Students have always developed achievement gaps due to a range of reasons: moving from school to school, curriculum sequencing that is different from school to school or even teacher to teacher, students missing school due to sickness etc.

NCLB was and is a good concept. However, in order to satisfy its mandated benchmarks it created problems. It changed school operational procedures from focusing on student academic proficiency to scoring outcomes-focused programs and procedures. This produced an end result of teaching to the test - trying to ensure satisfying specific outcomes.

All this needs to change or we will never regain our position at the head of the international education table. There are a few essential foundational keys that need to be changed. These will have a ripple effect through our schooling systems and will change our K-12 schooling system to a student proficiency-focused system away from a scoring outcomes-focused system. With these key changes, we can ensure the success of the current intervention programs in our schools: whether it is an RTI program, Title-1 program, achieving AYP, special ed, credit recovery etc.

The EDUSS solution is the only system that delivers on all these key elements. Our case studies show results that can be achieved when teachers implement the Eduss Solution.

Why EDUSS is a true differentiated intervention solution.

The EDUSS solution is the ONLY solution that covers all six essential elements to run a successful intervention solution for your school. The other solutions use the correct terminologies but fall short on delivery. If you want to run a successful intervention program that will ensure prolonged student proficiency (not just short term band aiding of the problem), you need a system that covers all six of these key elements.

The six essential keys to ensure success with your intervention solution:

1. Allow for cross grade assessments;
2. Allow for grade recovery and cross-grade individualized lesson plans;
3. Identify each student's foundational level of understanding;
4. Eliminate true/false and multi-choice from your intervention operations;
5. Eliminate false achievement markers.
6. Incorporate true individualized differentiated instruction.

What is the difference between true intervention and test prep?

When you deploy an intervention solution, your goal is to bring all your students to grade level proficiency. The correct way to do this is to identify the problem areas for each individual student that have caused them to fall behind and not be proficient at grade level. Unfortunately, a tendency towards “test prepping” has developed in the US. That is, preparing the student to pass the test (usually state standards tests) and ignoring the cause of the individual student’s problem areas.

The practice of test prepping has come back to haunt us. We now have record number of student dropouts, school closures, and students being classified under alternative education. We have been band-aiding the problem that has now grown into a National catastrophe.

The answer is to deploy a true intervention solution in your school that will run a true differentiated assessment for each student allowing for cross-grade curriculum recovery. This will show a picture of each student’s learning wall and each brick (learning gap) that is missing, even if that means going back to kindergarten level. We then need to design a differentiated lesson plan for each student that includes differentiated instruction to bring the student back to grade level proficiency. The EDUSS solution will do all this automatically.

In short, don’t band-aid the problem, fix the problem.

What is a true differentiated cross-grade assessment?

First: True differentiated assessment:

Traditional assessments in the US cover the content for a specific grade level by using multi-choice and true or false as an operational format. Each student in a particular grade level is tested with the same battery of questions. These systems work from a bank of questions to facilitate some random questioning. They are marketed as differentiated assessments; unfortunately they are not.

More than likely, each student in a class has different academic needs according to their individual learning gaps. A true differentiated assessment will have a different number of questions for each student in the class. The key is that the next question the student gets in their assessment should be determined by their previous answer.

A true differentiated assessment follows the student's proficiency around each specific question and, based on his/her answer, then determines the next question. This is why it is essential that the assessment requires the student to give an intelligent response that will be measured with no possibility to guess what the answer might be.

Second: Cross-grade assessment:

The problem with most assessment tools in the marketplace is that the assessment curriculum they are based on do not allow crossover from one grade level to another.

For example: A grade 5 student will only be tested by questions from a grade 5 curriculum in the traditional assessments. A true cross-grade assessment will incorporate curriculum for a grade 5 student that covers grade 5, and if s/he fails that, everything the student should have mastered going back grade levels until s/he shows competency. This needs to be available in each topic tested if we are to find out the root problems the student has. In many cases this means a grade 5 student may be tested down to grade 4 or 3 in some topics, and in rare cases down to grade 1 or kindergarten. (Grades 5 vs. K-5)

Students miss concepts throughout their learning career. It has been that way for centuries, but our schooling system has evolved into a system that does not allow for grade recovery. Many mathematical concepts taught in grade 5, for instance, rely on the student having mastered pre-requisite concepts in earlier grades. Therefore, if a student misses a concept or concepts in an earlier grade, the problem/s caused by this will escalate in later grades until the student leaves school or drops out.

The EDUSS solution will not only do a true differentiated assessment, it will also automatically manage this cross-grade assessment process for the teacher.

Why is true differentiated cross-grade instruction so important?

The same facts mentioned in a true differentiated assessment apply to differentiated instruction. Once we have determined a student's individualized foundational level of understanding, we have to design a specific lesson plan for that student. If the assessment determined that the student missed some key foundation strands in earlier grade levels, the solution then needs to design a specific learning plan for that student that will start at his/her specific identified grade level and curriculum strand. Once this lesson plan is established, it is essential that the student has access to differentiated instruction that has the ability to teach the student his/her specific topic at his/her specific level.

For example: If we have a grade-9 student who missed the concept of common denominators in fractions in say grade 4, we need the ability for that student to run an instruction lesson at grade 4 level teaching the concept of common denominators.

This student-specific functionality needs to be available for every student in the classroom as it relates to their individualized needs. The EDUSS solution has this ability – to provide and manage each student's automated instruction plan.

Why is grade recovery so important with intervention?

Students miss concepts throughout their learning career. It has been that way for centuries, but our schooling system has evolved into a system that does not allow for grade recovery. Many mathematical concepts taught in grade 5, for instance, rely on the student having mastered pre-requisite concepts in earlier grades. Therefore, if a student misses a concept or concepts in an earlier grade, the problem/s caused by this will escalate in later grades until the student leaves school or drops out.

For example: If we have a grade-9 student who missed the concept of common denominators in fraction in grade-4, we need the ability for that student to run an instruction lesson at grade 4 level teaching the concept of common denominators. There is no sense in trying to teach this student the concept of say exponents in algebra or how to add/subtract fractions with different denominators until he/she has a complete grasp on common denominators and equivalent fractions in grades 3 and 4.

The EDUSS solution will not only generate a true differentiated assessment with related lesson plans, it will also automatically manage the cross-grade process for the teacher.

Why is it important to identify each individual student foundational level of understanding?

Due to the test preparation syndrome and the multi-choice and true/false assessment formats that are used, the state assessments that are administered in our schools today only provide a picture of the student's level of knowledge at a specific grade level. This is only part of the picture. If we do not find the student's foundational level of understanding (reasoning level) an intervention plan is bound to fail.

To prevent this, we need to run an assessment that will adapt to the student needs, level of understanding and learning style. The key is to find the student's foundational level of understanding. Our case studies show that if you design a learning plan around a student's foundational level of understanding, not just their level of knowledge, that student will improve. The reason for this is that the lesson plan is then designed around the student's known level of understanding, starting at his/her lowest level and then moving forward from this point. By using this procedure, the student will show immediate growth and success.

In order to determine a student's foundational level of understanding, a solution needs to accommodate cross-grade curriculum and the student's learning style. It also needs to eliminate multiple choice or true/false questioning formats because we need to determine the student's reasoning method/s for arriving at an intelligent answer, as well as eliminate the ability for the student to guess what the answer is.

The EDUSS solution not only runs an assessment that will identify the student's foundational level of understanding, but it automatically designs a learning plan around that specific understanding, thereby guarantying immediate improvement.

Why is it so essential to eliminate false achievement markers?

False achievement markers are a teacher's worst enemy. They give the sense that the students are at a proficiency level while they might have large and key gaps in their foundational levels of understanding.

Some examples of actions that cause false achievement markers:

- Multiple-choice and true/false as a questioning methodology;
- Only grade level specific assessments;
- Worked examples in any form of test;
- Test prepping for State testing;
- Not allowing for different learning styles.

The EDUSS solution is designed to eliminate or minimize false achievement markers. The Eduss Solution is designed so that the student goes through a range of filtering mechanisms to identify foundational understanding levels and learning styles.

Why do True/false and multi-choice procedural operations create false achievement markers?

Multiple-choice and true/false questioning methodologies create false achievement markers by their design. Multiple choice questions are usually presented as selecting from four answers (25% chance of a correct guess) and true/false formats give a 50% chance of a correct guess. Because of this, the teacher can never be 100% sure that the student truly understood the question. False achievement markers are then used to determine the students competency.

The second problem is that the teacher has no way of seeing the student's reasoning methodology behind the answer, and therefore can draw no accurate conclusions about the student's level of understanding.

Thirdly, because of the design, 95% of all tests using this methodology accommodate the student by providing worked examples which can allow smart visual learners to reach a pass mark by copying the trend they pick up within the worked examples.

The fourth reason is that by teaching the student test-taking skills, the student can get much closer to the correct answer. An example is teaching the students to eliminate the worst choice or the definitive wrong answer. Once the student has eliminated these, they have a 50% success rate for just guessing the correct answer.

The EDUSS Solution eliminates these possibilities and forces the student to make intelligent decisions and work through each step in providing the answer.

Why do other software programs prefer using True/false and multi-choice procedural operations?

Most of the software programs in the market come from companies that started as publishers or still are publishers. This means the easiest way to move hardcopy publishing content into an electronic format is by using the multiple-choice and true/false questioning methodology. In short, it is cheaper to do it that way.

EDUSS did not start as a publishing company. We started as a software company that has been developing educational software since 1992. When we designed the IMTA intervention solution we started from a clean slate, with specific outcome goals, and therefore we did not have to compensate or cut any corners. This is what we do.

Why is it important to identify and accommodate a student learning style?

With our schooling system grounded in the publication sector, the natural trend was to present one curriculum with one learning style. With the advent of the computer, this was no longer necessary, but because most of the software vendors come from companies that started as publishers or still are publishers, they are assimilating their printed material design into software programs with still just one learning methodology.

EDUSS made a decision from the start to move away from this limiting operational position and decided to incorporate the different learning styles into each state's curriculum. EDUSS also developed a curriculum designer tool, giving each teacher, school, and district the ability if they choose, to add additional methodologies to their curriculum and therefore adapt content to the learning style of the student.