

VARIOUS ASSESSMENT AND ENHANCING METHODS IN SCHOOLS

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ABSTRACT

The goal of the paper is to enhance the quality of education by using checking and remedy strategies of students' learning. Whether or not students learn subjects is a core issue of quality of education. The checking and remedy processes are mostly attached to the quality of teachers. Recruiting the high quality teachers and educating them are the key factors of raising the performance of students. In this paper, we are focusing the educational aspect to enhance the quality of teachers. The methods of assessments are Accountability, Essential Question and Online Academic Achievement. The methods of enhancement are Reteach and Enrich, Online Learning, Individual Progress Guided Education, Arts integration, Collaborative Projects, One-to-one, Early Intervention and Project Base Learning.

Keywords: Accountability, Reteach and Enrich, Individual Progress Guided Education, Arts integration, Collaborative Projects, Project Base Learning.

INTRODUCTION

The goal of the paper is to enhance the quality of education by using checking and remedy strategies of students' learning. Whether or not students learn subjects is a core issue of quality of education. There are various problems in learning process such as misunderstanding, forgetting and confusion. This paper shows checking methods to identify these problems and remedies to cure them.

In every country, education is mainly provided by the public schools. In public schools, the majority of students is qualified for free or reduced lunch. These students consist of the segment of the population which is very high in need and under-served. All students should have the right to receive excellent education to provide equal opportunities and currently this isn't the case (Prahalad, 2009). Raising the quality of education is a top priority. How can we have a high quality public education system? Especially, how to raise educational quality in a resource-scarce environment?

Each country (developed or developing) has particular problems such as lack of student motivation, student attendance, availability of materials, weak management, insufficient instructional supervision, poor facilities, curriculum rigidity, and managerial ineffectiveness (Heyneman, 2004; Chapman et al., 2005).

The checking and remedy processes are mostly attached to the quality of teachers. Recruiting the high quality teachers and educating them are the key factors of raising the performance of students. In this paper, we are focusing the educational aspect to enhance the quality of teachers. Attracting high quality candidates is certainly crucial. Some suggestions are related to increase salaries (Woessmann, 2011), raise the status of teachers, and enhance the career opportunities (Gamboaa and Waltenberg, 2012).

Our main goal is to leverage our resources without increasing the cost. Therefore, public school administration should focus on assessing and reducing the gaps among students about the processing of information. We will present many cases from different geographical locations where teachers and administrations demonstrate good practice to the public education system. Our motivation is to create a complete learning environment to nurture students' capacities.

When public schools do not educate their students on a high level of quality, it perpetuates social failures. However, the main purpose of education is to equalize opportunity between rich and poor social economic classes and to increase economic growth (Gamboaa and Waltenberg, 2012). Indeed, when education system works successfully, it opens many opportunities to the citizens. Finnie and Meng (2002) and Green and Riddell (2003) found high returns considering cognitive skills in Canada. McIntosh and Vignoles (2001) found strong returns considering income for both numeracy and literacy in the United Kingdom. Hanushek and Pace (1995) state that college completion is significantly related to higher test scores at high school. Higher cognitive skills in primary school lead to lower repetition rates (Harbison and Hanushek, 1992). The cross-country studies reveal the impact of educational quality on growth (Hanushek and Woessmann, 2011). Higher quality of education rather than school attainment is related to the distribution of income and to economic growth (Eric and Woessmann, 2007). Education helps to emerge skillful labor work forces for competitive economy. An improvement in the performance of students in sciences is associated with an increase of patents (Varsakelis, 2006).

In the next sections, we will present several case studies to present assessment of performance and to enhance it in various countries.

OBJECTIVES

The goal of this study is to improve the poor results. There are many methods to check the status of students and to correct their mistakes. Learning subjects is a core issue of quality of education. The checking and remedy processes are mostly attached to the quality of teachers. Recruiting the high quality teachers and educating them are the key factors of raising the performance of students. In this paper, we are focusing the educational aspect to enhance the quality of teachers.

CHECKING

Table 1. Accountability

System	Process	Result
Accountability	- The test and assignments are conducted very often and grades are informed to teachers.	-Teachers compare results and take the action. -In the test base exam, schools receive very high score. -90% admission rate to college.

In the classical method (table 1), there is a deep engagement of accountability in administration and teachers to perform better grades. Assignments and exams are very often conducted. All grades are informed to teachers. Administration and teachers follow results of students and they compare their past record to recognize trends. Teachers take the action for those who underperform in exams (Bloom et. al, 2012). In this system, students are successful in the university entrance test. The admission rate to university is high.

The Knowledge Is Power Program charter school system in the U.S.A. is applied to this accountability system. Consequently, 89% of students are admitted to college (41% going to college for students in a similar economic background in the U.S.A.) (www.kipp.edu). KIPP follows a rigorous college-preparatory curriculum, and the charter schools claim to create a strong culture of achievement to develop the knowledge and character needed to succeed in top quality colleges.

Table 2. Essential Question

Essential Question	-During the class schedule, teachers focus on limited number of questions. -Instructors ask these questions in the end of class.	-Students answer the main questions with details.
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In the essential question, there are some essential questions (one or two questions) per lesson, and students must be able to answer these questions by the end of the lesson (table 2). The main questions are related to what the intended goal of the lesson is? The approach of the main question helps teachers stick with one topic and not to jump to another subject and make students confuse.

The students have to be able to analyze and apply to the single topic and they cannot just answer the question with a yes or no. It has to be an answer with causes and examples

Table 3. Online Academic Achievement

Online Academic Achievement	Parents can see online the grade of their children	-Parents are aware the performance more closely and follow the test results. -Prevent fraud acts.
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Parents can see what they are doing in class every day by accessing online account at home (table 3). Parents can also check on upcoming assignments, and teachers' recommendations for work. In the student account, there are not only grade and homework but also the

students' diaries and teachers' comments about students. So, parents discover many skills, behaviors, thought about their children.

The web system is pretty easy. Parents can sign into the account and they can keep up with their grades. It's easier to keep track on line how their children are doing. Without online implementation, there are fraud actions or parents can find out very late about the downward trend of grades and attitudes.

Curing Method

Table 4. Reteach and Enrich

System	Process	Result
Reteach and Enrich	<ul style="list-style-type: none">-Repetition of the class every day throughout the class.-Common curriculum and same test-Some students are either in repletion session or in enriching programs.	<ul style="list-style-type: none">-All students' grades rise significantly- In six months the school scales up excellence level

In the Reteach system, every day during the long break period, teachers spend their time with students who are struggling with concepts. In extra time and attention, students master in their subject. Every student participates at some point in reteaching period. Students find as an opportunity to learn something better than they did the first time.

The system is based on a shared curriculum map with objectives defined for every week of the school year. At the end of each week, teachers assess students on those objectives.

Some students are already very good in subjects and they don't need to reteach. The administration assigns students to an enrich session. Therefore, students are not getting bored if they did well in the test.

A public school in Arizona applies the reteaching and enriching sessions and it is categorized as the highscA+ group and it receives School of Excellence Award from the Arizona Educational Foundation. Before this application, test scores are extremely low in all subjects. Thanks to the dedication of administration and staff, in six months the school scales up excellence level (Nobori, 2011).

Table 5. Online Learning

Online learning	<ul style="list-style-type: none">-An educational website helps students work through interactive challenges at their own pace, while teachers have access to interactive dashboards to monitor and assess student progress.	<ul style="list-style-type: none">-The average score is up 40 percentage-Students are engaged.-Kids are repeatedly trying.-Their learning habits are changing.
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Repetition takes time of teachers. One way to relax the resource constraint is on line education. Blended learning is to engage students with tech integration (table 5). Students have serious difficulties in math and sciences. On line resources help teachers to prepare class lessons and to analyze how many exercises students have completed and where they struggle.

Students start solving these exercises multiple times. Students are trying and eventually they learn the materials. Hence, students' self-confidence is increased. and they are more engaged.

The Khan Academy is an educational website featuring over three thousand videos in many core academic subjects (www.khanacademy.org). Students work through interactive challenges at their own pace, while teachers have access to interactive dashboards to monitor and assess student progress.

Table 6. Individual Progress Guided Education

Individual Progress Guided Education	<ul style="list-style-type: none">-Divide students based on performance.-Every student has to engage the material.-Every student moves on his pace.-children are grouped according to the progress they make-Assignments are divided based on difficulties.-High capacity students do not need explanation but more challenging homework.-Curriculum basically is one where students proceed at their own.	<ul style="list-style-type: none">-There is a great improvement in teacher-student relationship-Better score for the underperformer and outperformers.-It helps students develop their interests through things that they're in love with or they care about
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Individual Progress Guided Education allows students proceed at their own paces (table 6). Elite students blur out the answer before other students have a chance to think about it. Therefore, lessons move on before really most of students notice that a question is asked.

They complete a series of individualized tasks showing mastery of material in different stages. It's individually guided as opposed to grade level. They are instructed from where their knowledge leaves off. They are internally divided into groups on the basis of skill development. It is not sufficient that a student is a high achiever but he is required to improve.

The goal of individual guided education is to focus on degree of growth that students experience rather than achievement (Metz, 2011)

Everyone feel they get the attention and assistance they need. These relations improve building trust between teacher and student and reduce conflicts.

Each student has own pace to learn. Dividing assignments in pieces based on difficulties increases the usefulness of assignments. Levels of assignments help teachers to assess each student where they actually are. Breaking assignments in multiple parts make teachers understand challenging homework.

To use time efficiently, teachers first give assignments to high capacity students who do not need much explanations want to have challenging homework. While these students work on these challenging assignments, teachers start with the students who are struggling most. These students need more explanations to perform tasks (Kathy Baron, 2011).

Table 7. Arts integration

Arts integration	-Subjects are integrated to arts.	-Students analyze the problem with different angels. - Student achievement in math and in reading has increased by almost 30 percent and suspension rate fell by 23 %. Teacher’s turnover dropped drastically (before the implementation 18 out of 45 teachers resigned at that year
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One effective method to cure the lack of understanding is to reshape the problems and solutions in different ways. One way of reshaping is to use art. Teachers integrate subjects such as math, science, and English with art works such as paint, dance, drama, and music (table 7).

Arts are transformative. Art integration is that one learns the content area through the art so it opens a new door to understanding due the visualization with aesthetic (Robinson,). Artful thinking is an approach to teaching visual arts through a series of routines and each routine has a set of questions that the teacher asks about a piece of art and they're designed around critical thinking skills (Robinson, 1982).

Bates Middle school in the U.S. passes the art integration model. Appreciations of parents are enhanced and student achievement in math and in reading has increased by almost 30 percent and suspension rate fell by 23 %. Teacher’s turnover dropped drastically (before the implementation 18 out of 45 teachers resigned at that year (<http://bms.sumterschools.net/>)).

Table 8. Multidisciplinary Studies in Collaborative Projects

Multidisciplinary studies: Collaborative projects	Teachers from different subjects design a common project to assign students.	--Students learn multiple disciplines in one project.
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In the art integration, subjects are integrated into art. In the multidisciplinary method, subjects are integrated each other. Different subjects are mixed (table 8).

Finding commonality geography with history is challenging and it needs strong collaboration among teachers. However, the innovative thinking is very stimulating. This also may help students develop their interests through things that they care about.

All teachers get together. They plan and work together. Everybody takes his own part and contributes what his strength is toward this big puzzle of a project.

Table 9. One-to-one

One-to-one	-One teacher is devoted to needy students	-Needy students catch up the class. -High school graduation rate rose from 68% to 79%.
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Some students need that extra time. The one-to-one dedication is needed for some kids to be successful. One teacher has the time dedicated towards making sure that students understand (table 9). Students may see the teachers rather the contents as a challenge or even they may perceive teachers as a threat.

An important issue is the design and decoration of the teacher room. It should not look like a classroom and it needs to be decorated with comfortable chairs and relaxing environment to relieve the stress of students.

In Canada, one-to-one model widely exists. For example, 40,000 immigrant students come into the Canadian public school system every year and the migrant children have difficulties to adapt. 25% of the students in Ontario State are born outside Canada, and 80% of them are not native speakers. (www.edutopia.org/Canada).

Every school in Ontario staffs a full-time teacher, who devotes his time to the students who are in capable in understanding of basing disciplines. After the transition of one-to-one, schools in Ontario raise their test scores and graduation rates. Between 2003 and 2010, Ontario's high school graduation rate rose from 68% to 79%. Despite coming into the country with challenges, immigrant children perform as well as Canadian-born children on the assessment just a few years after their arrival.

Table 10. Early Intervention

Early Intervention for the Retarders	<ul style="list-style-type: none">-Emotional, academic and health support for difficult students in learning.-Subject teachers cooperate with the special teacher in cases where a student has problems with their studies.	<ul style="list-style-type: none">-90% of students can succeed to follow regular classes.-The equity and the quality of schools improve.-Prevent accumulating problems.
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In the checking process, teachers may face learning difficulties of students. In Finland, early intervention for the retarders program is developed (table 10).

Early detection of any difficulties and problems is the key of solution. The difficulties might be in reading, listening, or in subjects such languages and math. Schools include a special teacher who is assigned to identify student who need extra help and then provide special education to these retarders. The classroom teachers contact the special teacher at the very early moment. The key elements are related to early detection and rapidity. A student welfare team which comprises of the principal, the special education teacher, the school nurse and psychologist and the classrooms teacher follow these students. The teams meet twice monthly to discuss the progress of students.

40% of students in Finnish secondary schools receive some kind of special intervention. Finland's graduation rates in high school reach 93% in 2008. On the Program for International Student Assessment tests, Finland score either first or second out of all OECD countries for all three measures: scientific literacy, math literacy, and reading literacy (OECD, 2011).

Table 11 : Hands-on Assignment: Project Base Learning

Project Based Learning	<ul style="list-style-type: none">-Assignments are in project base.	<ul style="list-style-type: none">-The assessment includes the content, the speech, the organization of ideas, the intonation of voice, the effective use of power points, the figures, schemas, and pictures.-Each student present over 200 public speeches.
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In project base learning, students at this school do not only get the knowledge, but they learn the application, so the knowledge becomes relevant when it is applied to a real world situation (table 11).

Projects usually have four phases. In the first phase (general information), the teachers give a general information about the topics. In the second phase (choose), students pick one topic and they define the goals of the project. In the third phase (presentation), students present their projects and in the fourth phase (assessment), teachers and classmates evaluate the project together. There is a peer feedback. They're faced with this really complex problem that has certain constraints, and they have to figure out how to solve. Real cases are the most powerful learning. The project base does not only include of the real life problem-solving but also communication, collaboration skills and team work.

Manor New Technology school in Texas applies this methodology in entire curriculum. For instance in the class, if the topic is World War II, in the first phase, history teacher explains the general framework about the history. One group of students chooses the totalitarianism. They present this concept in class. Teachers and students assess the presentation. The assessment includes the content, the speech, the organization of ideas, the intonation of voice, the effective use of power points, the figures, schemas, and pictures. Students are assessed on multiple learning outcomes. Students are active learner. Students present 60 projects with oral presentation. Students present 60 projects a year. They are presenting 60 public speeches a year. By the time they graduate, each student present over 200 public speeches. 100% of alumni of Manor New Technology go to college and they outperforme the state average in all subjects (<http://mnths.manorisd.net>).

CONCLUSION

What can be alternative approach to reduce the waist of our teaching? How can teachers ensure that students learn? What are innovative methods? These are the questions that the paper attempts to answer.

In the assessment methods, we explore the following:

In accountability, the test and assignments are conducted very often and grades are informed to teachers. Teachers compare results and take the action. In the test base exam, schools receive very high score and most of students are admitted to college.

In essential question, during the class schedule, teachers focus on limited number of questions. Instructors ask these questions in the end of class. Students answer the main questions with details.

In online academic achievement, parents can see online the grade of their children. Parents are aware the performance more closely and follow the test results. The online system prevents fraud acts.

In the remedy methods, we explore the following

In the reteaching, some students are either in repetition session or in enriching programs. In six months the school scales up excellence level

Online learning helps students work through interactive challenges at their own pace, while teachers have access to interactive dashboards to monitor and assess student progress-The average score raises and students are engaged.

In individual progress guided education, every student moves on his pace.

There is a great improvement in teacher-student relationship. Better scores are received by the underperformer and outperformers.

Subjects are integrated to arts. Student achievement in math and in reading has increased and suspension rate falls. Teacher's turnover dropped drastically.

In collaborative projects, teachers from different subjects design a common project to assign students.

In one-to-one, one teacher is devoted to needy students who catch up the class and high school graduation rate raises.

Emotional, academic and health support for difficult students are provided by the special teachers. Subject teachers cooperate with the special teacher in cases where a student has problems with their studies. 90% of students can succeed to follow regular classes.

The equity and the quality of schools improve. The early detection prevents accumulating problems.

In project base learning, students learn by application. The assessments of students' presentations include the content, the speech, the organization of ideas, the intonation of voice, the effective use of power points. During the school term, each student presents over 200 public speeches.

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