

**Data-Driven Instructional Planning:  
Paving the Way to Exponential Improvement in Learning**

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**Abstract**

In order for schools to see continuous and consistent improvement in student learning, they must utilize data to drive their decision-making process when planning and implementing instructional curricula. Most studies on Data Driven Instruction planning address only the results of written assessments.

I would argue that the data we are analyzing to make our decisions should come from not only written assessments, but also from satisfaction surveys of all stakeholders, the degree and consistency of parent involvement, and student and staff retention rates, etc. Our decision-making should address all facets of a student's education and not only what can be measured from written assessments.

**Presenter Information**

Magda Elkadi Saleh is Head of School at American Youth Academy in Tampa. She has worked in Islamic Education for over 18 years at two schools in several capacities. With a BA in Biology and a Master's Degree in Public Health, she has extensive background in Data Analysis and its benefits. She also understands that results are rarely brought about by only one variable, and that different types of studies must be conducted and different data analyzed in order to get a clear picture of what is happening, and in order to make decisions that will bring about positive change.

Testing students and schools has become the rage in most states and at the national level. In many districts and schools, the testing is seen simply as a tool by which to reward or punish schools. Administrators and teachers tend to strive for improvement in scores simply to see improvement in scores and may not be analyzing the actual scores in order to develop and improve their curricula. In other schools and districts, there is a genuine desire to see improvements in achievement. In many cases, though, schools which are working hard to educate their schools are penalized because of low test scores; the baseline

develop and improve their curricula. In other schools and districts, there is a genuine desire to see improvements in achievement. In many cases, though, schools which are working hard to educate their schools are penalized because of low test scores; the baseline of the students is not taken into consideration when the results are analyzed. If a school starts with students scoring beneath the 20<sup>th</sup> percentile and takes them to the 27<sup>th</sup> percentile in one year, they may still have a failing score, but, quite obviously, they must have done something right to improve their students' performance by over 30%.

Test data must be evaluated in several ways to help shape the direction the school and each individual teacher takes:

- \* Individual student scores in each subject
- \* Classroom performance as a whole
- \* Improvement in scores from one year to another in the same students
- \* Three- and five-year trends in certain subjects and with certain groups of students

By looking at scores in this comprehensive fashion, the school can get a much clearer picture of what is happening in the school.

The school must also disaggregate the data to pinpoint specific areas of weakness and specific areas of strength.

Most of the studies are now discussing three main types of data-driven instruction:

1. Data Driven Instruction (DDI)
2. Data-Driven Decision-Making (D3M)
3. Data Formative Instruction (DFI)

All three of these forms of data-driven instruction are based on the premise that:

- 1) The administrator of the school must set goals and train the teaching staff;
- 2) The teachers, with the administrator's guidance, will set their curriculum based on stated objectives, either school-, district-, state- or nation-based;
- 3) Curriculum mapping must be done to set a time-line for meeting objectives;
- 4) Assessment is done at specified times throughout the year to gauge whether or not objectives have been met;
- 5) Instructional decisions are made based on the results:
  - To re-teach unmet objectives; or
  - To move on to new objectives, if the tested objectives were met.
- 6) Communication is on-going with parents, students, teachers and administrators, so that all members of the "team" are working together and understand the rationale behind the testing. Communication is also important to inform everyone of the progress that is being made.

Over the past 10-15 years, many schools have proven that this type of data-driven instruction and decision-making yields positive results. Many schools have found that publicizing quarterly improvements on bulletin boards in the schools' hallways even further improves results. Furthermore, schools that have made this type of data-driven instruction a true part of the school culture have found much better results than schools who keep it as an administrator-focused policy.

While this type of assessment, analysis of results and data-driven decision-making is extremely important, test data, is not the only data schools need to be using to shape the direction the school and teachers will take. Reaching academic milestones and objectives is not the only objective of our schools. Our schools also seek to develop the students spiritually, morally and socially. In order to do this, we must use other types of data to help drive our decision-making. These other forms of data come from:

- \* Satisfaction surveys of all stakeholders: Board members, teachers, staff, students, donors and community-members.
- \* Parent involvement in school activities and events
- \* Student retention rates and the reasons students may be leaving
- \* Teacher and staff retention rates

Satisfaction surveys are extremely important in the planning process in the schools. It is not healthy for board members and administrators to think that they, alone, know what is best for the school. By surveying all of the stakeholders, the school can get a clearer picture of whether or not it is focusing on the areas of academics, values and extra-curricular activities that are important to its stakeholders or if they have placed too much emphasis on areas that are not as important as others. Satisfaction surveys should be given annually or bi-annually at the least. The results of the surveys should be analyzed carefully and should be used in assessing whether the direction the school is following is truly in line

activities that are important to its stakeholders or if they have placed too much emphasis on areas that are not as important as others. Satisfaction surveys should be given annually or bi-annually at the least. The results of the surveys should be analyzed carefully and should be used in assessing whether the direction the school is following is truly in line with what the parents want or not. The surveys should be analyzed at a specific point in time and over a period of several surveys to see if there are any specific trends that are emerging. The results of the surveys and the decisions based on these results need to be communicated to all stakeholders.

Parent involvement needs to also be analyzed at certain points in time and over longer periods of time to look for trends. Parent involvement is usually directly related to both parent satisfaction and student performance. Concerned parents tend to have a better relationship with the teachers, tend to be more involved in their children's studies and tend to be more supportive when any assistance – moral, physical and/or financial – is needed by the school. If a drop is seen in parent involvement, it becomes imperative on the Board and the administration to determine the cause for this drop in involvement. Once the cause is found, efforts must be made to address the issues at hand. Again, communication is key.

Parents' feedback should be actively sought either through Town Hall-style meetings or through surveys, hard-copy or on-line.

Student retention rates are another important factor to analyze. For example, if a school is losing students to IB schools, it may be necessary for the school to look into implementing an IB program in order to retain its brightest students. Students may also be leaving the school if they feel the curriculum is too difficult. A school may decide to offer more than one academic track in each grade level to better serve the needs of all of its students. Of course, such changes cannot be made as knee-jerk reactions. The changes must be made only after careful study and needs analysis. They must also be affordable and sustainable.

Teacher retention rates are also a key factor to analyze in the process of data-driven decision-making. Teachers often feel that testing and test analysis are added burdens to their already overloaded work schedules. They see the testing as a waste of precious teaching time, and they see scoring the tests as tedious and often meaningless busywork.

When this occurs, the administration is usually to blame. The administration has most likely not invested enough time into staff development and training. It would behoove the administrators to meet with the teachers to:

1. Ensure that each teacher understands the purpose of identifying the objectives to be met in each subject area.
2. Ensure that each teacher understands the concept of curriculum mapping and the importance of dividing the yearly objectives into four measurable and attainable quarters.
3. Ensure that each teacher understands the purpose of measuring mastery of objectives and of communicating this mastery to the students, parents and administrators.
4. Ensure that each teacher knows how to devise lessons to effectively re-teach skills identified as "not mastered."
5. Ensure that each teacher has the necessary skills to fulfill each of the aforementioned tasks.
6. Encourage and commend the teachers on their jobs and instill in them a feeling of accomplishment on and pride in their achievements.

As with all programs implemented in the schools, record-keeping is of utmost importance when instituting data-driven instruction and data-driven decision-making. Keeping accurate and orderly files, both hard-copy and electronic, is extremely essential in the data-analysis process over both the short- and the long-term.

If schools are to continue to grow in numbers, in strength and in quality, it is extremely important for them to use data – both subjective and objective – to drive the planning and implementation of their academic and extra-curricular programs. It is a collaborative approach that must actively involve all stakeholders. Each stakeholder's success is interconnected with the others' success, and the results feed each other. For example, when a teacher performs well in the classroom and attains favorable results, the parents will see these results and will both respond favorably on the surveys and participate more in the school. These actions on the part of the parents will further encourage the teachers to continue to do an excellent job and will serve as incentives for the teachers to strive even

these results and will both respond favorably on the surveys and participate more in the school. These actions on the part of the parents will further encourage the teachers to continue to do an excellent job and will serve as incentives for the teachers to strive even harder to achieve even greater success. This whole process will reflect on the students' performance, which will enhance the school's reputation, which will lead to more students joining the school, which, in turn, will lead to the school's continued growth and development.

### **Citations**

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