

Data: Who needs them? *

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For the past few years, I have been the Local Education Agency (LEA) representative, from California, to the U.S. Department of Education National Center of Education Statistics (NCES) National Forum on Educational Statistics. Each state department of education may send one representative to the Forum. Additionally, a state may appoint a member from a school district or other LEA.

A major purpose of the Forum is to bring people together to discuss methods to improve the collection and transmission of educational data. Last year, I was elected to the position of Forum Chairperson. While this was an honor, I believe that the election of an LEA representative was recognition by the membership of the role that local education agencies play in the generation, collection “cleansing” and validation of education data. In the same spirit, Forum members recognize the fact that all members of the education community use these data (or, *this* data ♪).

Roger Young, a school district Business Manager from Massachusetts, and a member of the Forum, has demonstrated the connection between data that relates directly to students and data needed to understand the facilities and financial information that allow instruction to take place. In fact, through his efforts, a Facilities Task Force, jointly sponsored by the Forum and ASBO, is working on a set of guidelines for using standard data elements in strategic planning for facilities upkeep.

It is a cliché, but a fact, nevertheless, that technology is changing rapidly. The cost/benefit ratio of Electronic Data Interchange (EDI), for example, has greatly improved since the advent of security protocols for the transmission of data over the Internet. New technologies exist and others are being developed that enable various “stovepipe” computer systems to work together to support many of the different decisions that need to be made in a school district. An effective Decision Support System (i.e., a Data Warehouse with pizzazz) enables teachers to examine the progress of individuals or groups of students so that they are able to determine the next steps in classroom instruction.

At first glance, collaboration between ASBO and Forum members might seem to be an unlikely pairing. However, a common understanding of the data we all use, and a common set of definitions, can actually save money, increase efficiency throughout the enterprise and (believe it or not) improve student achievement. To prove this point, I would like to give a couple of examples to show how Forum members and members of ASBO can work in partnership.

Recently, Raymond Yeagley, Superintendent of the Rochester School Department in New Hampshire, wrote an article for this newsletter describing the use of Electronic Data Interchange (EDI) for the transfer of student records between districts and from districts to colleges and universities. Our larger high schools receive many hundreds of requests for transcript information from what seems like many hundreds of colleges and universities. The use of EDI can make responses to these requests easier to answer.

Additionally, the electronic transfer of student records can eliminate the problem that results when a new student enrolls at a school and the student records do not arrive until many weeks later. For some of our students and teachers, this “lag time” can result in a great deal of wasted effort through incorrect classroom placements. This issue is especially important when the school does not know which Special Education services a student may require.

* To paraphrase, ♪ you say *these* data, and I say *this* data ♪, let's NOT call the whole thing off.

The EDI format, as Raymond Yeagley indicates, is used throughout the world in many industries, including automotive and banking companies. Originally, Electronic Data Interchange standards were developed to simplify and speed up the purchasing and invoicing process. Because of the reduction in paperwork and the “real-time” transmission of data made possible using EDI, companies are even able to reduce their inventories. Only recently, the insurance industry and educators have realized that EDI is an effective way to transfer “people” records from place to place in addition to business records. It was at this point that Forum members got involved with EDI implantation efforts.

You may be wondering why this article spends so much time discussing EDI. One reason is money. (Is this a surprise?) The other reason has to do with ASBO/Forum collaboration. By now, most people recognize that a more efficient data exchange process would be beneficial; school districts would save money when purchasing items and there would be a more effective method of placing students in classrooms.

Certainly, there is a cost associated with the implementation of an EDI system. What is not always understood is that the cost/benefit ratio for implementing a more efficient data exchange process can be greatly reduced through collaboration. Cooperation is required between district business managers, fiscal officers, district IT shops and research evaluation units. Everyone recognizes that this is not always easy. However, the benefits to all make it worth the effort.

The fact is that the physical infrastructure an IT shop establishes to implement EDI is the same for the electronic transmission of purchase orders and invoices as it is for the transmission of student records. Through collaboration in the development of an EDI process in a school district, both sides of the house are able to leverage costs.

As we think about “both sides of the house,” the analogy can be extended to include the “stove pipes” that run through our houses/schools. We recognize that, in most districts, computerized systems exist as “stove pipes.” That is, the systems are separate; they do not talk to each other or work together. The use of EDI is only one example of a process that enables stovepipe systems to work together.

Building a Decision Support System is another way to bring stovepipe systems together. All members of the educational community are now expected to make “data driven decisions.” As the paradigm shifts, teachers and principals need a system that links the various district databases to assist in the analysis of student assessment results. (Parenthetically, if you use the phrases “data driven decisions” and “changing paradigm” in the same sentence, you will instantly become eligible for an honorary Doctorate in Education Administration.)

Actually, the uses of a Decision Support System are endless. The analysis of student assessment results can be used by a teacher to determine how best to meet the needs of an entire class, to meet the needs of groups of students or individual students. Other district administrators may, to use a simplistic example, use a Decision Support System to see if there is a relationship between student assessment results and the introduction of new textbooks or other instructional material.

It is vitally important that offices and units within a school district collaborate on the development of any Decision Support System. As we have seen, these data are interdependent. The office responsible for determining how many schools need to be built, for instance, depends on data from sources as diverse as the United States Census Bureau and the district student information system. Data to assist in making such an expensive decision must be readily available, with the various databases able to talk with each other so that, when the superintendent goes before the Board of Education, he or she can be certain that the request for money to build these new schools includes data from all possible sources available to the district.

When stovepipe systems communicate with each other, the work of school personnel and central office officials becomes more efficient. This is not to say that information needs throughout a district are the same. For example, business managers need a computer system that tracks many data elements when a product is ordered (e.g., vendor name, PO number, cost of the item, etc.) and many more when the district receives an invoice.

However, the school principal may only want to know if a specific item has been ordered for his or her school, and when it is expected to arrive. A Decision Support System could let the principal see that particular piece of information without compelling him or her to view extraneous data about the purchase. When existing stovepipe systems are “lashed” to each other effectively, both principals and central office personnel are empowered. Decisions can be based on information rather than anecdote.

There are many other examples of effective uses of integrated computer systems. When a student moves from one school to another or from one home to another, a domino effect takes place. Traditionally, the parent is required to complete new enrollment papers, contact the bus supervisor, complete a new federal Free and Reduced Lunch application, etc. Then, all of that information is entered into one or more computers. Often, staff enters the same information into different “stove pipes.” By linking different systems together, and by improving the way data is entered and transmitted between systems, we can greatly improve the effectiveness of our school “business” at the same time we are having an effect on the instructional program in classrooms.

Our role, as educators, on both sides of the house, must be to make certain that everyone in the education community participates in the development of computer systems and the standards and definitions for those systems. Through the partnership between Forum members and members of ASBO, we can ensure that COMMON standards and definitions are developed. The ASBO/Forum collaboration can guarantee that “both sides of the house” build a home where all are comfortable.

For more information about the Forum and Forum products, look at <http://nces.ed.gov/forum>. In particular, read the publications, ***Safeguarding Your Technology***, and ***Technology @ your Fingertips***.

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