Using **EXAM**VIEW® to Teach Assessment in a College Teacher Education Program at Indiana University of Pennsylvania

TRADITIONAL USES OF **EXAM**VIEW® IN THE CLASSROOM

The **EXAM**VIEW® Assessment Suite is a powerful tool that contains multiple applications for the classroom teacher. Teachers are able to use the software to maintain students' records of test and non-test performance (i.e., a computerized grade book), analyze test results, and generate wonderful performance reports through Test Manager. Teachers are able to develop or import test items and store them in test banks to be used to generate a variety of tests and answer sheets through Test Generator. Finally, they are able to publish the test for online administration, either through a network or on a stand-alone computer, through Test Player.
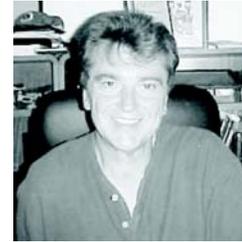
By Dr. Mark J. Staszkiewicz, Department of Educational and School Psychology, Indiana University of Pennsylvania

Many textbook publishers offer textbooks (elementary level through adult education) that provide test banks that are in **EXAM**VIEW® format. To get a sense of the growing number of such options one only needs to visit TitleTrack. Over 6,000 titles of textbooks were identified in which **EXAM**VIEW® software has been incorporated. **EXAM**VIEW® also allows tests to be exported to Classroom Management Systems such as WebCT.

There is little doubt that **EXAM**VIEW® is a very powerful and useful tool that can support the instructional role of the classroom teacher and it does not matter if that teacher works in an elementary school, middle school, high school, or university. Each manages classroom records, generates and administers classroom tests, and prepares reports to share with students and, in some cases, with parents or other appropriate parties.

As a classroom teacher in a university, I use **EXAM**VIEW® for all these reasons. I keep my class lists and grade book in Test Manager. After each test I am able to give each student a progress report of how he or she is doing in the class. I use **EXAM**VIEW® to store test items and to generate the tests I administer for my classes. One very useful feature is that I am able to generate equivalent forms of a test when I need to do so for make-up exams or for multiple sections of a course. I also have generated "practice tests" which I administer using Test Player as a way of reviewing material before a regular class test is given. Furthermore, all the traditional applications identified above work as well in the college classroom as they do in the K-12 classroom.

The purpose of this article, however, is to describe a lesser-known yet exceptionally valuable application of **EXAM**VIEW® – an application in which **EXAM**VIEW® becomes both a source and a tool of instruction all while supporting the assessment students.

THE TRADITIONAL APPROACH TO TEACHING FUTURE TEACHERS AT THE UNIVERSITY

I teach in a university at which a large number of students are preparing to become teachers and they aspire to work in grades ranging from kindergarten through high school (K – 12). These students, often referred to as "pre-service teachers," must develop competencies across a variety of disciplines. They need to acquire the knowledge, skills, and attitudes necessary to understand the subject matter they will be teaching; they need to know the characteristics of the students they will have in their classes. These pre-service teachers also need to acquire a range of pedagogical strategies to meet the needs of their students.

One of the required classes that all pre-service teachers must take is a course designed to teach them how to assess student learning. In the case of our university, the general objectives of such a course are that the students will:

1. Understand the role of assessment in teaching;
2. Understand and be able to apply the concepts of reliability and validity in both classroom and standardized tests;
3. Understand the various methods of assessment and the circumstances for appropriate use of each;
4. Construct a variety of teacher-made tests and other evaluative procedures;
5. Understand the needs of special populations (e.g., students with disabilities, students from different cultures, students for whom English is a second language, etc.) as they relate to assessment;
6. Interpret and utilize data/scores provided by standardized tests through the use of appropriate statistics;
7. Understand the trends, issues, and relevant research in assessment related to educational reform; and
8. Understand the technology associated with educational assessment.

The first three times I taught the course I used a fairly traditional method. I selected a $100.00 textbook, and then provided supplemental activities and readings to support the book. Classes consisted of a combination of lectures, class activities, projects, and tests designed around the eight primary objectives of the course.

A NON-TRADITIONAL USE OF EXAMVIEW® IN TEACHER EDUCATION

Three events caused me to rethink this usual approach to teaching Assessment. First, as I looked for teaching aids or strategies that I could incorporate into my classes, I found on the Internet a wealth of accurate and legitimate information related to the general topics of the course. I began to question whether having the students spend $100.00 for a textbook was really worthwhile. Secondly, I began looking for a tool that I could give to my students to help them write and store test items, as well as to keep their grade books. Initially, I was hoping to find an open source or free software that I could simply let my students know existed. I searched but found nothing suitable. I did, however, find **EXAM**VIEW® and I looked at it very closely. Unfortunately, it was not free and I could not justify having my students spend $100 for a textbook AND buy a piece of software, no matter how impressive I thought it was.

Thirdly, as I was preparing my students for their final exam, I noticed that a considerable number of them no longer had a book! In checking with them, I learned that they all sold them back to the campus bookstore. The used book market is quite extensive and students, always looking for quick cash chose to risk all by selling the books early. I had naively thought that students would keep this book as a valuable reference for when they became classroom teachers. I could not have been more wrong.

At this point I began to piece together the following strategy:

1. If I could find a way to present the content to the students through some combination of materials that I would prepare and those I could make available on the Internet, the students would not need an expensive textbook.

2. If the students did not spend the money on the textbook, then I would feel justified in having them purchase **EXAM**VIEW® as a requirement of the course.

3. By having all the students own their own copy of **EXAM**VIEW®, I could have the students learn the software and then use **EXAM**VIEW® to teach my students how to construct valid and reliable tests. One of the projects all my students are required to do is to create a test with objective and essay-type items. As students learn each test item format, they could use **EXAM**VIEW® and the test bank feature – then, when they were finished, they could complete their project by generating an actual test.

4. Once the course ended, the students would keep the software to be used during their student teaching experience as well as in their jobs upon graduation.

To implement this approach I contacted a sales representative at *e*Instruction and worked with them and with our University Book Store to negotiate a favorable volume discount. Both groups were most helpful in allowing this to happen. I prepared a set of instructional materials to teach the students **EXAM**VIEW® as well as the content needed for the course. Once that was done, it was simply a matter of trying things, modifying where necessary, and continuing to work out the "bugs" until the students and I believed the experience was worthwhile.

Currently, the course consists of five modules, not all of which utilize **EXAM**VIEW®. The following is a non-exhaustive list of the content we would cover in this course.

- **EXAM**VIEW® – what it is, how to use it, and why it's part of this class

- Historical perspectives of assessment in the United States

- The relationship of Assessment and Instruction

- Types of assessments

- Characteristics of good assessments (e.g., validity, reliability, practicality, etc.)

- Goals and objectives within the cognitive, affective, and psychomotor domains

- Differences between recall and higher order thinking

- Teacher constructed test items

- Non-test performance assessments

- Accommodation for children with special needs or for whom English is not the primary language

- Grading practices and assessment

- Standardized test

STUDENT REACTIONS TO THE **EXAM**VIEW® APPROACH

Has this approach been worthwhile to me and to my students? Have the students and I thought this approach was worthwhile? At the end of every semester I ask my students to complete evaluations of my performance. In addition to a series of questions related specifically to teaching (i.e., clarity of directions, quality of assessments, returning student work on time, etc.), the instrument contains open-ended questions through which students can share suggestions or comments. Among those I've received since implementing the **EXAM**VIEW® approach are:

- Purchase of **EXAM**VIEW® vs. textbook was more valuable and helpful

- **EXAM**VIEW® is a great program for this class. It will be very beneficial in the future.

- **EXAM**VIEW®!

- Glad we did not have a textbook. **EXAM**VIEW® is an awesome tool I can use throughout my career.

- I like your easy-going style. I really am glad we are using **EXAM**VIEW®. It's a huge help! Thanks so much!!

- I liked using **EXAM**VIEW®. I feel this will be very helpful as a future teacher.

- **EXAM**VIEW® was great for the class.

- Thanks for introducing me to **EXAM**VIEW®!

In general, students reported that they got enough content through means other than a textbook and almost to a person, they liked using **EXAM**VIEW® as the vehicle through which they developed their own test items. Further, I have had students contact me after they graduated to let me know how the school in which they got a job has **EXAM**VIEW® and how wonderful it was to be able to show other teachers how to use the software. From my perspective, students who have gone through the course using **EXAM**VIEW® do as well or better on their content tests and do far better on their projects than students who took the course before I began using **EXAM**VIEW®.

Another plus has been that students are much better able to document their assessment practices after their student teaching experience. Our students are required to produce "work samples" documenting some of their work while student teaching. Among the categories they must document are how they assessed THEIR students and how they documented that learning took place. With **EXAM**VIEW® it is easy to give examples of test items and reports of student progress.

CONCLUSIONS AND CLOSING COMMENTS

There is no question in my mind that the incorporation of **EXAM**VIEW® has been a valuable change in this course. I believe students get as much content as they did when I used a textbook. Because the content is in the form of handouts and websites, they can keep these after the class has ended. Consequently, instead of selling back a resource they can use in the future (which is what they did when they sold back their textbooks) they can keep the electronic handouts and the websites to use in the future. More importantly, they have a tool they can use for many years to come.

Among the changes I will be incorporating in the future are:

1. Utilizing a computer lab on campus to teach the software to my students. During these first few semesters I would have students bring laptops and I would have the students work in teams to practice the software. Through the generosity of eInstruction, I have been able to install the software on 40 machines in one of our computer labs. I can now take the class there to teach them the package and they can use that facility while on campus. Since they all own their own copy of the software, they can save their work to a flash drive and take it home to their own computers.

2. Utilize the **EXAM**VIEW® Learning Series test bank items in which items are keyed to specific state standards. This will allow me to teach the students how to link their test items to state standards for their discipline and also allow them to see how different items can assess the various levels of the cognitive domain.

3. Develop modules that will allow me to use **EXAM**VIEW® in an online format as we offer more and more such options for our student body. Currently, I teach the course entirely in an on-site format. The university does offer the course in an online format and I believe that **EXAM**VIEW® can be incorporated into that delivery system as well. There are some wonderful learning tools available online to learn how to use **Exam**View.

4. Incorporate the use of a scanner to teach the students how scanning is done and how easy it is to use one to generate item-by-item statistics to calculate item difficulty, item discrimination, and internal reliability.

5. Solicit feedback from students who have completed their pre-service preparation and are now full time teachers to determine what was most beneficial and what recommendations they have for further improvements and enhancements.

For more information regarding this article or other issues related to the use of **EXAM**VIEW® in the university curriculum contact Dr. Mark J. Staszkiewicz at mjstat@iup.edu.

ABOUT eInstruction

eInstruction is a premier global provider of interactive learning solutions for primary, secondary, and higher education markets. Interactive solutions, including the eInstruction® **INTERWRITE**MOBI™, and **INTERWRITE**DualBoard™ all come with eInstruction® Workspace, a next generation educational software application for creating, teaching, and assessing student performance using digital content. eInstruction® assessment solutions include, **CPS**Pulse™ **INTERWRITE**CRICKET®, and **INTERWRITE**PRS® clickers, members of a powerful student response system that combines interaction and assessment to enhance classroom productivity and improve student results. eInstruction has a rich history of delivering interactive solutions that are changing how