

Implementation and Evaluation Report

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EIDT 6910: Capstone

April 20, 2014

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Implementation Overview

On Monday, April 7, my normal fifth period class was converted into a pilot for the Colegio Americano de Torreon (CAT) library tutorials. While the technology department continues to work on adding the instructional resources to the CAT homepage, I created my own Weebly site and left on a link on my Moodle page so that the learners could easily access the tutorials and not worry about misspelling the address. Knowing that the learners had learned about some of the databases (yet with the retention level of such a subject questionable), I let them choose which two tutorials they would like to complete and explained that they had to begin with the pretest, then either watch the instructional video or read the user guide before completing the training worksheet and finishing with the post-test. Because it is meant to be a self-paced tutorial, I merely explained how the students should proceed and then let them begin the training. I spent the rest of the training monitoring their progress and offering assistance when necessary.

Because some students were missing for MAP (Measures of Academic Progress) testing, the class was smaller than normal (ten students as opposed to the normal 19) which let me monitor student progress more closely. As students began the pre-test, some students with iPad minis had difficulty getting the embedded quiz to work. They would enter their names, but the page would merely refresh. I wasn't sure how to fix the issue, but luckily I had two older laptops available for student use, so they took the pre-and post-test on the laptops and watched the videos with their device.

After everyone had entered the pre-test, I made it a point to wander and watch their progress. Once the quiz was complete, the next issue arose as students began to watch the instructional video. Colegio Americano has been experiencing many issues with the internet so some students were getting frustrated as they waited for the video to load. In an effort to save some of the internet bandwidth, I suggested that they watch the video in pairs or read the user guide that was located below the instructional video. Everyone opted to be in pairs and watch the video and that seemed to solve the issue.

Next, as students moved on to the training worksheet that had them implementing the skills they had seen in the videos, I saw students continue to work in pairs and help one another understand the databases. While group work was never part of the plan, it seemed to help students who were struggling. It was a happy accident that allowed the learners to receive immediate help from a peer instead of having to wait for me.

Nevertheless, the worksheet did take more time than I had anticipated because the learners had to keep going back to the videos and user guides to review the skills. There are many details to remember with the databases, so having the students do two tutorials was asking a bit much. I ended up asking them to abandon the second tutorial and complete the post-test so we could see how much they learned.

Overall, I feel like the implementation was successful. There were technology issues and time eluded us, but students commented on how much they liked the videos and they were appreciative of the opportunity to review the resources while completing the training worksheet. As for me, I liked having the worksheet on paper so that I could monitor student progress and see what they were working on without having to interrupt them. Plus I was able to catch some

mistakes and fix them before students took the post-test. That was key for some learners because without that intervention, they would have continued making that same mistake.

After the training, students expressed how pleased they were with the training and the parts that they really liked, namely the videos and the pre- and post-test since it gave them a certificate after completing the quiz. Therefore, with a few revisions (discussed later on), I know these tutorials will help our school community.

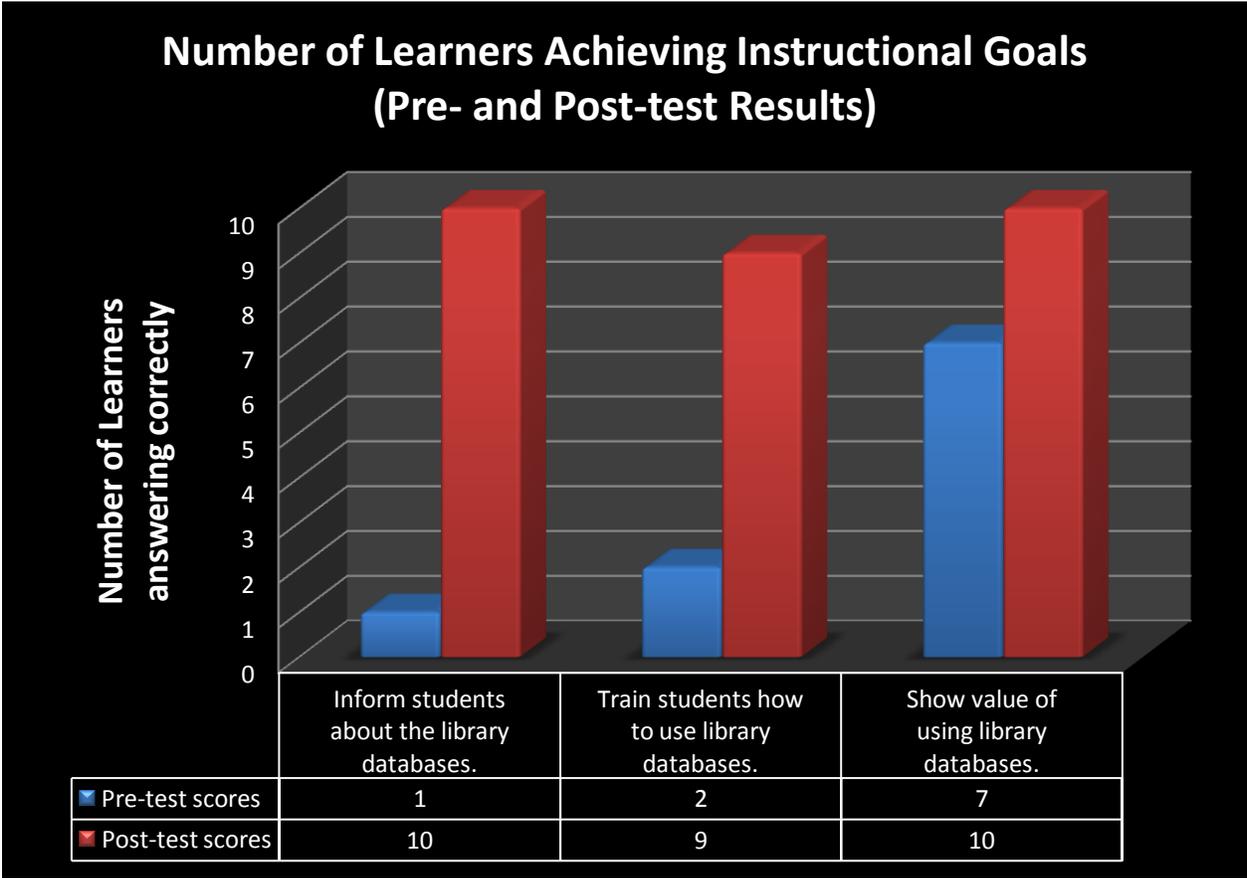
Analysis of Assessment and Evaluation Data

The pre-test showed that instruction was necessary because most scores were in the 30's and 40's. The learners didn't even know how to access the library web page properly nor what was the purpose of each database. It seemed the learners were guessing for most of the questions because the average time they took to answer each multiple choice question was around 55 seconds. After instruction, the average time per question was around 20 seconds—that shows they knew what they were doing!

After the pre-test, learners began the training worksheet that took them through each skill again. Most learners needed to review parts of the video and others used the user guide. However, they never doubted themselves and they seemed to work better in teams. After all, it was Morrison et al. (2011) who paraphrased a retention chart that said, "People generally remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they hear and see, 70% of what they say or write, and 90% of what they say as they do a thing" (p. 186). I think the grouping actually moved them from the 70% mark (writing) to the 90% mark (writing, saying, and doing). Plus, through this mutual support, all learners were able to complete the training worksheet and I only found a couple of errors, namely due to

misinterpretations. Having the learners listen and watch a presentation and then implement what they had learned was successful. The learners gained experience and confidence with the databases.

This newfound confidence was clear in the post-test results, too. However, I did realize that I had to rework the pre- and post-test because there wasn't enough time for the learners to complete all of the training modules. Nevertheless, after removing the test questions that the learners didn't study, I was able to see that the training was effective. When I put the pre- and post-test scores side by side, the learning was clear. While the post-test scores averaged out to be around 65%, the scores were actually around 95 to 100% when I removed the unnecessary questions. All ten trainees passed with flying colors—another sign of a successful training.



In conclusion, I believe that this training module will be useful for the whole CAT community; however, it will be most successful when implemented synchronously so that the trainees can work together and the facilitator can help with any problem areas.

Proposed Revisions

The biggest revisions must be done with the pre- and post-tests. Each training module should have its own pre- and post-test because it is not a true assessment of student knowledge to test them on all modules if they haven't completed all the modules. The original plan was to have students complete them all; however, the SME and I quickly realized that was not realistic. Databases are difficult to understand if one has never seen them before, so the only way to give learners the adequate time and assistance is to have them complete one module at a time. Therefore, the pre- and post-tests must be divided up accordingly.

Another possible revision would be to have printed user guides available for the learners. While the learners didn't say anything about flipping back and forth between the database and the user guide, I thought it increased extraneous processing. It would have been beneficial to have them printed and to give each learner a copy to use for the training. Besides, these could be laminated so they could be used for multiple trainings and they could be available in the library while students are researching.

Finally, learners seemed to struggle most with Boolean operators. Although they aren't a database, Boolean operators are used in all of the databases so there should be a training module dedicated to Boolean operators. This would give the learners more of a chance to see them in action multiple times and to truly grasp what they do. Simply mentioning them during the other training modules isn't effective. Learners need and deserve more training with Boolean operators,

especially since it will enhance the use of the databases. Beyond that, another pilot should reveal if those changes are effective or if there are any other weak points in the training. Then this training will be ready to implement for many years to come.

Reference

Morrison, G. R., Ross, S. M., Kalman, H. K., & Kemp, J. E. (2011). *Designing effective instruction* (6th ed.). Hoboken, NJ: John Wiley & Sons, Inc.