

## Better Teachers for Better Classrooms: An Instructional Module

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**Abstract:** Within the State of Hawaii Department of Education there are more than 1,000 teachers deemed by the United States Department of Education as “Non-Highly Qualified” (NHQ). The No Child Left Behind Act of 2001 requires every classroom teacher in nine educational categories to be deemed Highly Qualified (HQ). The problem at this time is that not all districts and teachers have an understanding of what the requirements are for a teacher to be HQ. These teachers rely on a face-to-face meeting with district staff to understand the requirements. This instructional design project focused on the construction of online modules that will increase the efficiency and effectiveness of the current system that aids teachers with the HQ process. The pilot module was developed for new teachers to the Central Maui Schools and will be further developed to address veterans and out-of-state teachers. Data was collected from participants in order to measure their understanding of the law, as well as how to determine their Highly Qualified Status. The results showed ninety two percent of teachers understand the Law after completing the modules and ninety five percent of them were able to determine their Highly Qualified Status.

### Introduction

Within the State of Hawaii Department of Education there are more than 1,000 teachers deemed by the United States Department of Education as “Non-Highly Qualified” (NHQ). While this is a very specific label, the guidelines for this denomination are quite complicated and very easily misunderstood by the public, principals, and even the teachers who are affected by this label. The guidelines were written into the No Child Left Behind Act of 2001 (United States Department of Education, 2004) signed by President Bush into Law in 2002. The law requires every classroom teacher, in nine educational categories, to be deemed Highly Qualified (State of Hawaii Department of Education, 2006). The law does not provide guidelines for the label; it is determined by the individual states. The State of Hawaii established its guidelines in 2005.

In 2007, Hawaii started to monitor the number of teachers who were classified as Non-Highly Qualified. The individual school districts were then asked to design an intervention

plan. The current problem is that districts and teachers do not have a common understanding of the requirements for a Highly Qualified Teacher. An instructional design module was created to describe the requirements for new employees within the Central Maui Complex Area Schools to obtain the label of being a "Highly Qualified Teacher." Teachers were able to use these informative and interactive modules to determine their status. The objectives of this module were to reduce the cost of the current outreach practices, address the needs of the adult learners, allow teachers to work at their own pace, and offer an alternative to the current practices.

## **Background**

Adults are not just large children; they have different learning requirements. Adults learn best when some situation in their life creates a need. Adults will then take charge of their learning, make their own choices, and draw on their experiences. Adults are able to best absorb information when their learning is related to a task they have to perform (Dornan & David, 2000). Also, according to the research, the adult learner has many responsibilities that must be balanced against the demands of learning. Because of these responsibilities, adults may have unique barriers against participating in learning (Russell, 2006).

According to Donovan (2009), within the field of adult education a paradigm shift, or at least a paradigm creep, is taking place as a result of advances in technology. Online education and distance learning programs have provided educational opportunities to adults that allow for breaking away from space and time constraints (Vrasidas & Glass, 2002). However, studies on distance learning within adult education over the last three decades have highlighted not only the benefits, but also the challenges that adult learners face in participating in distance and online education programs. These challenges include adults' difficulties in managing work, family, and study obligations (Merriam & Caffarella, 2007). Not surprisingly, these challenges become more evident when one considers the emerging economic, social, and gender roles of adult learners. Another key challenge for adult learners is that the amount of time they spend in learning processes is not necessarily positively correlated with successful learning outcomes (Livingstone, 1998). Based on Wang's research (2008), pedagogy, social interaction and technology are three key components of a technology-enhanced learning environment. Sieber (2005) points out that effective online learning requires a high level of responsibility for learning on the part of students and a reduction of the teacher-student power differential.

The growing body of research on cost-effectiveness in online education suggests that institutions not only can operate efficiently but that they also can improve upon the quality of their programs, show positive learning outcomes, increase student access, and foster an intellectually-stimulating environment for students and faculty alike (Bishop, 2008). Cost-effectiveness is a technique for measuring the relationship between the total inputs, or costs, of a project or activity, and its outputs or objectives" (Woodhall, 1987). Cost effectiveness is a relevant topic with the recent economic events around the world. According to Bishop (2006) the reallocation of resources is an efficient and cost-effective means for achieving a more learning-centered environment. There are also factors that would argue cost-effectiveness of online learning. For example, in many organizations the assumption that

faculty or trainers are already familiar with the necessary technology is a highly unrealistic assumption (Bartley & Golek, 2004). The retooling of faculty would require an additional cost not factored in the traditional setting.

### **The Project**

This instructional design project was intended to address the need for a better approach to inform teachers about their Highly Qualified status under the guidelines of the No Child Left Behind Act of 2001. The modules were an interactive self-paced approach to guide teachers through the maze of requirements and prerequisites built using a systematic instructional design model and constructed in Adobe Flash.

The learners for this project were newly hired teachers in the Central Maui Complex Area. These teachers tended to be in their first year of employment with the Hawaii Department of Education and are still actively pursuing the minimum requirements to obtain their Hawaii Teaching License. Any initiative to support this particular group of teachers is critical to the status of our educational system. For the purpose of this project the researcher identified some basic skills that the adult learner must have prior to starting the modules:

- Basic computer skills, both motor and cognitive.
- Basic understanding of reading flow charts
- Basic understanding of teacher credential requirements
- Knowledge of current employment status

The module was structured to cover two different categories. The first section was entitled "What is my Highly Qualified Teacher Status?" The second section, "Understanding the Law behind Highly Qualified Teacher," was a basic snapshot of the No Child Left Behind Act of 2004. The first part of the module helped the teachers identify their status within the Law and provided a clear picture of the requirements they must meet. The second covered the basic information that teachers must know about No Child Left Behind – Highly Qualified Teacher. This module took the teachers through the basic principles and the steps the Hawaii Department of Education is providing to aid teachers through this process. The concept of using an interactive and self-paced module which substituted for the current one-on-one interviews was well liked by all participants. The module was built as an interactive website that included graphics, multimedia and interactive readings. The researcher conducted an informal conversation with the participants allowing them to comment on their experience and compare it to the current practices by the State of Hawaii Department of Education.

This research project was developed and tested in the Central Maui Complex Area Schools. The physical site of the research collection was Puunene School and twenty five participants took the modules for their first live trial.

In February of 2010, quantitative data was collected through a pretest and posttest for this project from the participants. Questions regarding the effectiveness and efficiency of the modules were collected using surveys before, during, and after the modules. Observational data was collected during the research period by the researcher. Observational data collected during research was done by utilizing an observation sheet provided by the

University of Santa Cruz Observation protocol program. Qualitative data collected for the purpose of effectiveness and efficiency was completed by using an online survey created with Google documents.

## Results

Participants completed the modules and provided feedback in a timely fashion with few problems encountered. In terms of the content, the modules were highly effective in terms of understanding the material. The results showed ninety two percent of teachers understand the Law after completing the modules and ninety five percent of them were able to determine their Highly Qualified Status. Further, overall the modules engaged the learners and met the other objectives for establishing a positive learning experience. The qualitative and observational data revealed some key responses to my project. The first key response addressed the need for multiple ways of presenting material for an adult learner. The second key response was the ability to go through the presented material at the learner's pace and comfort level. The third and final key response was the clarity and simplicity of the material presented. Seventy one percent of participants indicated that the modules were very useful and that the content was well organized. One participant commented on "how user friendly and not super tech the module was."

Adult learners are more experienced and perhaps more advanced in their thinking based on background knowledge, but they are still in a position where they seek both reassurance and support from their instructor (Sieber, 2005). I noticed through out the project that adults still need the one-on-one contact. The online modules were scored highly by participants in the areas of simplicity and presentation style, but they noted they would have liked a face-to-face session to explain all the features in depth. The project also allowed participants to download materials for them to review and practice. The participants reflected that the ability to access the materials in multiple ways helped them understand the process much better.

Participants indicated they were pleased to see modules that allowed them to go at their own pace and provided them with feedback. The module's interactivity rated highly on the posttest survey. The fast pace and lack of time to review the process in the traditional process was one of the reasons why this project was started. Participants indicated on their evaluation of the modules that they like the self paced versus the one-on-one meeting because it allowed them to take their time and really learn about the process. The high comfort level of the participants was also reflected on the posttest survey. The current process could be perceived as abrasive and humiliating for some teachers, but the ability to complete the process in private and be able to interact with the process was highly scored by our participants.

Adult learners have different learning styles that must be considered before starting an educational session (Russell, 2006). The ability for teachers to spend time understanding the process and the necessary steps to obtain the designation of Highly Qualified Teacher was a major reason for the creation of this project. In order to accomplish that, I had to design modules that were clear and simple for all participants to navigate and understand. Participants were clear in the pretest survey about how unclear and complicated the law and

the process is right now. The elements of clarity and simplicity alone had turned them off to the idea of participating in my project. I was glad to see that all participants rated the modules as clear and simple to understand.

## **Conclusion**

Instructional design requires application in a systematic way that goes beyond presenting facts and merely remembering information; it requires learners to use the information to complete specific concrete tasks or to solve specific problems according to Merrill (2007). The new modules allowed for a more efficient use of time interviews by the staff, and promote understanding related to the process and guidelines of the Highly Qualified Teacher. The current newly hired teachers rely on support personnel provided by the State and District Offices. These opportunities for support only take place twice a year and under a strict compliance calendar. This process does not allow for true learning or guarantee reliability and consistency.

The use of an instructional design model will ensure that further training and education programs related to this topic will be done in a consistent and reliable fashion. Instructional modules are an ideal instrument to help support personnel and our teachers with this enormous task. In my project I designed an interactive online module created for adult learning that took into consideration the key issues exposed by the research. In order for my tool to be successful, the content and the medium matched the complexity of the adult learner. Upon successful completion of my project, I feel, the tool was useful and I have done my part to build a better teacher and therefore contribute, in a small way, to better teaching.

The future development of these modules will cover the needs of veteran teachers and transfer teachers. Modules like these will only help our efforts to educate and complete the state requirements for all teachers in Hawaii's public school system who are deemed Non Highly Qualified. The larger audience of teachers statewide will required the modules to have not only the flexibility, but the relevant content to address all users. One of the major improvements to address these issues would be to make the modules more interactive and have more customized features, so participants will feel supported. Future participants will be able to not only access all forms and materials, but will also be able to complete and submit them to the appropriate entity automatically online at the completion of each model. They will be able to see their results and a certificate will be generated for the teachers to show their successful completion of these modules.

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