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Connecting, Sharing, and Advancing Nursing Informatics

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BENEFITS OF MEMBERSHIP

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Three Deadly Sins of Device Fairs

By Cheryl D. Parker, PhD, RN Senior Clinical Informatics Specialist, Motion Computing and Contributing Faculty, Walden University MSN Program/NI Specialization

Literature reviews support our common sense regarding the necessity of having end-user involvement in the selection of the devices they will use in their daily patient care activities is a necessity. Acting on this very logical premise has led to the practice of holding "device or vendor fairs" so that clinicians can evaluate the various devices under consideration. Is this a bad course of action? No, of course not, but has the old saying goes, the devil is in the details. After many years of attending device fairs as an end-user, as a hospital based informatics nurse specialist, and as a vendor representative, the following are my top three deadly sins of conducting device fairs. There are many more but the top three are enough for this article.

Author's caveats: The examples given have been seen in multiple events, so I hope no one feels I'm pointing a finger at them. The opinions expressed in this article are based on my experiences and discussions with others and do not represent any specific vendor or facility.

Deadly Sin #1: ...And I'm Going to Use This Thing How?

Herding people into a room and asking them to evaluate devices when there has been no preliminary education on how the devices will impact their workflow is the first on my list of deadly sins. During my time working for a vendor, I have been at many device fairs where clinicians asked me to explain their new workflow or they weren't sure which of the devices they would be using—this is especially true for paper-based facilities going to an

Welcome From the Editor and Secretary

Denise Tyler, MSN/MBA, RN-BC

I hope you are all staying cool and enjoying the change in the weather. Fall and the fall colors will be quickly followed by cooler weather, and holiday planning and shopping. If one of your New Year's resolutions was to publish, you still have one newsletter left. Please let me know if you need any assistance. If you are in school, or a recent graduate, use those new familiar writing skills to publish – trust me, it is more enjoyable and more rewarding to write when you want to-on a topic you are interested in, or even better, passionate about than writing for a class! We have several outstanding articles by students or recent graduates; on example is our 2010 Maggie Cox Award Winner, Robin Stout-Mickelson.

I had the opportunity to speak to a group of high school students about nursing as a profession this week, and I could honestly say that I still love nursing - and that I continue to learn something new every day I work. Some of that learning is through the sharing of knowledge that we do as a part of our professional networking and development. Part of our responsibility as professionals is to share our knowledge through mentorship, publication, or presentation (or even better – all of these).

Speaking of sharing and learning, plan on attending the 2012 ANI-CARING conference, Nursing Informatics: "Making a Big Splash" in Orlando April 12 -14. Spring in Orlando is beautiful, SeaWorld is an easy walk from the hotel, it is reasonably priced, you get CEUs, and an excellent opportunity to learn and network. For more reasons, read the Ten Reasons to Attend on our website. I hope to see many of you there!

By Susan K Newbold, PhD RN-BC FAAN FHIMSS

ANIA-CARING MEMBERSHIP PROFILE

As of 09/2/2011, there are 2965 members from 50 states and 34 countries: Afghanistan, Australia, Bermuda, Brazil, Canada, Chile, Croatia, England, Finland, Germany, India, Ireland, Israel, Jordan, Kenya, Kuwait, Lebanon, Malaysia, New Zealand, Pakistan, Panama, Philippines, Qatar, Romania, Saudi Arabia, Singapore, Slovenia, South Africa, South Korea, Spain, Taiwan, Thailand, UAE, USA.

GRADUATION

Doctor of Philosophy (PhD)

Olivia Velez, Cortland Manor, New York, Columbia University School of Nursing defended her dissertation July 20, 2011. Dr. Velez' dissertation title is "Design and Usability Testing of an mHealth Application for Midwives in Rural Ghana." Dr. Suzanne Bakken was her dissertation adviser and Jacqueline Merrill was on her committee.

Luann Whittenburg, Alexandria, VA defended her dissertation entitled, "Postpartum Nursing Records: Utility of the Clinical Care Classification System" on May 21, 2011. Dr. Whittenburg completed her degree from George Mason University, Fairfax, VA, Dr. Virginia K. Saba, Ed.D., RN, FAAN, FACMI who served as a content expert to her Committee.

Doctor of Nursing Practice (DNP)

Alicia A. Morton, Bowie, MD successfully presented her doctorate of nursing practice capstone work on July 18, 2011. She graduated from the University of Maryland, Baltimore, MD in 2011 and also 2002.

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electronic medical record (EMR). Clinicians rarely have a concept of what their workflow will be like when moving to an EMR. Colleagues from other companies have shared similar stories—is Respiratory Therapy going to use this communication device too? Are the Critical Care and ED going to use this IV pump or is it just Med-Surg?

Best Practice: Don't make your people ask the vendors…make sure the end-users understand the future state workflow before they evaluate devices.

Deadly Sin #2: Lack of an Effective Evaluation Plan

Almost every event I have attended had an evaluation sheet of some sort. Notice I said most of…yes, I have been at some without…not sure how they planned on gathering the user feedback.

Here are some examples of what not do to when creating an evaluation plan:

1. Create the evaluation form at the last moment or even worse, change it mid-event. This leaves the organization with little to no valid data upon which to base their decision.
2. Having questions on the evaluation form that are YES/NO questions that should have been confirmed prior to inviting that vendor. An example is having every clinician ask if the device is 802.11 a/b/g/n compliant – this should have been confirmed by IT first and should not have been on the clinician evaluation form. But almost every nurse dutifully asked the question of each vendor.
3. Having only two choices on the evaluation form – "like it or don't like it" for each criterion.

Best practice: Design and test the evaluation form prior to the event and be sure you understand what the results will look like and how you will use them. Have a ranking scale to determine which functionality is more important to the end users so you have an additional way to weigh the results i.e. is it more important to have X than Y even though you really like Y.

Deadly Sin #3: Devices, Devices, and More Devices

Shouldn't we show our end users every possible device? In a word…No, and for several reasons:

1. Many end users attending the device fair are doing so during a break or slow time on the unit and have very little time to see multiple vendors showing the same type of product. This is especially true if the end-users are seeing several different types of products. The result is their evaluation will be on the limited number of products they saw. I have attended device fairs that had 5-10 computer cart vendors present each with 1-3 carts per vendor to evaluate. What can a staff person really accomplish in 15-30 minutes?
2. Overwhelming them with too many choices is confusing and at the end of the day, you will seldom have a clear favorite.
3. You may need a lot of space to evaluate products especially if you are expecting end users to move product around such as with a bed, cart, or IV pole.

Best Practice: Develop a requirements document first. Have a selection committee comprised of IT, Informatics and clinician representatives from the various professions (Nursing, Respiratory, Medicine, etc.) and departments (ED, Critical Care, Dietary etc.) as appropriate review the requirements document to

Three Deadly Sins of Device Fairs

determine that as many requirements as possible have been identified. Then have the selection committee vet the possible products first and determine the top products in each category that will be shown to the end-users at large having no more than 2-3 vendors per product.

TIP: Never show a product to the general end user population that they can't have!

Even better practice---have the selection committee make the decision as the representatives of their units and professions. Remember that vendor fairs are very expensive for the facility and the vendor and that no matter what product is selected, a certain number of people will not be happy with the selection and they will be vocal about it. The goal is not to make everyone happy. That is impossible. The goal to make sure that the product selected meets as many of the identified requirements as possible. Spend the majority of your efforts on understanding the requirements in detail rather than your time and money in holding massive device fairs that don't help you make a better decision.

WINI Expedition Arrives in Region 1, Kalispell, Montana

Charles Boicey, MS, RN-BC, PMP, Director, Region 1

On August 12, 2011 the WINI expedition arrived under the blue skies of Montana to deliver a three day overview of Nursing Informatics. The hosts, Kalispell Regional Medical Center provided a comfortable venue for over 30 Nurses, some of which traveled from as far away as Long Island, New York and San Diego, California. Pat Mulberger RN, BSN and her team did a fine job of making everyone feel at home.

Carol J. Bickford, PhD, RN-BC and Kathleen Smith, MScED, RN-BC, FHIMSS led the attendees through a variety of topics including: Theories used in Nursing Informatics, Human Factors, Standards and the ANCC Nursing Informatics certification process.

In addition to learning about the exciting field of Nursing Informatics the attendees also enjoyed many networking opportunities and a reception hosted by ANIA-CARING. After hours were spent in the various venues in Kalispell with some of the more adventurous traveling up to Glacier National Park to take in the gorgeous scenery. The combination of a great program, enthusiastic attendees, gracious hosts and last but not least the beautiful state of Montana made this WINI one of the best ever.

MEMBER NEWS

Doctor of Health Administration (DHA)

Sharon L Bradley, Spokane, WA received a Doctor of Health Administration degree from the University of Phoenix May 2011. Her dissertation was defended March 2011, "A phenomenological exploration of nurses' perceptions of the effect of electronic documentation on healing relationships."

Master of Science in Nursing (MSN)

Amabelle Grace Aureus, Rosedale, MD completed an MSN in Informatics at the University of Phoenix August 1st, 2011. She attended the commencement October 2nd, 2011.

Margaret Chase, Silver Spring, MD received her MSN degree from Walden University in Nursing Informatics, Spring, 2011.

Kathryn Larabee, Wilmot, WI., graduated from Walden University with her MSN in Nursing Informatics, December 2010.

Melodye Jacobs, Covington, GA, earned her MSN from Georgia State University, Atlanta, GA., June 2011.

Master of Science (MS) in Nursing

Jennifer T. Carter, Apollo Beach, FL graduated in 2011 from the University of Maryland with an MS degree in Nursing Informatics.

CERTIFICATIONS
Certificate in Health Informatics

Donna Cottle Macon, GA earned her certificate in Health Informatics from the University of CO Health Sciences July 2011

Gail Robel, Bayfield, CO graduated from the Applied Health Informatics program at Johns Hopkins University, Baltimore, MD. in 2011.

Debbie Sternberg, Forestville, CA received a certificate in Health Informatics, March 2011, University of California – Davis. Debbie is one of the first graduates from the Health Informatics Certificate program.

PUBLICATIONS:

Lynn Choromanski, New Hope, MN wrote a CIN article: **Choromanski, L.** (2011) Development of a Nursing Informatics Governance Committee. *CIN: Computers, Informatics, Nursing* 29(2): 69-72.

Michelle Honey, Auckland, NZ contributed to the following article: Lim, A.G., Doherty I., **Honey., M.LL.,** (2011). Creating teaching objects: A case study of delivering recorded narrations in nursing education. *CIN: Computers, Informatics, Nursing Topical Collection to Issue 29*(6), TN114-119.

Kathleen G. Mastrian, Sharpsville, PA co-edited: McGonigle, D. & Mastrian, K G. (2012). *Nursing Informatics and the Foundation of Knowledge (2nd ed.)*. Burlington, MA.: Jones & Bartlett Learning.

Joan M. Smith, Arlington, VA. wrote: **Smith, J. M.** (2011). Clinical Information System Training Tips and Techniques for the Novice Educator. *CIN: Computers, Informatics, Nursing*, 29(4); 375-380.

Shawn Stromberg, Hillsboro, MO wrote: **Stromberg, S. C.** (2011). A Training Model for Orienting Newly Hired Nurses to an Organization's Electronic Health Record. *CIN: Computers Informatics Nursing*, 29(6), 321-325 310.1097/NCN. 1090b1013e318224e318278f.

Why Reinvent the Wheel?

Brenda Kulhanek PhD, RN-BC, CPHIMS

Training plays an important role in the successful use of health information technology (HIT). A recent Stanford research study analyzed over 250,000 ambulatory patient visits and concluded that the use of EHR systems with clinical support decision making tools did little to improve the quality of patient care (Modernhealthcare.com). However, study participants made the observation that EHRs are complicated systems that are used by individuals with little or no formal training. As a result, these EHR systems may not be used to their full potential. The authors noted that healthcare organizations often lag behind other types of businesses when it comes to designing, developing, and delivering effective training.

Training involves much more than telling learners how an HIT system works. Training is the final opportunity to provide intentional and positive change management. Training impacts the quality and efficiency of patient care, and training influences adoption of the new HIT system. Training is a very expensive and intensive project for an organization to undertake, yet very little guiding information is available for those involved in training health care staff to use HIT systems.

Despite the lack of established best practices and HIT training research, the good news is that we do not have to reinvent the wheel when it comes to planning, designing, and implementing training. We can borrow existing training models and methods that are used by other industries. These models, used in education, business, manufacturing, and the military, can be readily adapted for use in our complex healthcare environments. Human performance technology (HPT) is focused on the improvement of organizational and individual performance. Quality management, or total quality management, is a close cousin of HPT and uses models from manufacturing to examine and improve processes using methods such as six-sigma and lean manufacturing. Unlike quality management, HPT seeks to improve the performance of the individual worker rather than processes, although inefficient processes may be a root cause of a gap in worker performance. HPT approaches improvement by identifying gaps in performance, defining expected performance, and then determining and implementing the proper intervention to resolve the gap in performance. Interventions may or may not involve training, but interventions are evaluated after implementation to determine the degree to which the gap in performance was resolved. Instructional design is viewed as a sub-discipline of HPT.

How does this apply to developing and delivering training for an HIT system? The first step to applying HPT methods and models to HIT training is to approach training as an intervention that is being implemented to improve a gap in performance. Utilizing the evidence-based processes of HPT can produce improved training outcomes and may reduce your overall training budget by decreasing learner time. The acronym A.D.D.I.E.(assessment, design, development, implementation, and evaluation) outlines the steps used in the training production process.

Analysis

Analysis is the first step of any performance improvement project, and is essential for the development of HIT training. The nature of each project and each organization will determine the types of analysis that are conducted. Some of the main types of analysis are listed in figure 1.

Why Reinvent the Wheel?

Category	Type of Analysis
Organizationm	• Gap analysis • Current quality/ performance issues • Organizational needs/mission/current drivers/barriers • Technology • Leadership support • Resources
Learner	• Work environment • Worker • Knowledge • Attitudes • Skills
Roles	• Tasks • Task inventory (steps in an EMR process) • Job performance requirements • Workflow

Figure 1. Types of Analysis

Analysis provides the data with which you will base decisions that must be made in the design, development, implementation, and evaluation stages of the training project. Analysis can help you understand the existing skills and knowledge that learners possess prior to attending training, the best means of training delivery for different groups of learners, the technical and physical environment of your organization, how the physical environment will support your training delivery method, the state of readiness for change in your organization, the amount of leadership support for your training project, and many other essential pieces of information. Without proper analysis, you may design and deliver training that does not meet the needs of particular groups of learners, is excessively long, does not result in application on the job, creates increased resistance to change, and results in patient harm.

Analysis can be a difficult step to accomplish; training often must be developed within a tight timeline, analysis requires information that the training developer may not be able to access, and analysis can be viewed as non-productive time. Nursing is pragmatic by nature and origin; therefore, we are familiar with implementing a solution before we have conducted a thorough analysis of the situation.

If time to conduct an analysis is an issue, a basic analysis should gather information about all of your learner groups that includes base computer knowledge, job roles, and workflows. This will help prevent classrooms of learners from patiently waiting while one or two attendees learn how to use a mouse, or forcing a classroom of physical therapists to undergo instruction based on nursing workflow. It is also critical to analyze the physical and technical environment of your organization. Do you have space for classroom training? Is the classroom designed to accommodate networked computers? Do you have the proper technological structure for eLearning? Do you have a system to track eLearning? Failure to gain this basic data can lead to classroom

Patricia Abbott, Columbia, MD, **Carol Bickford**, Olney, MD., **Stephanie Poe**, Baltimore, MD, and **Gail Robel**, Bayfield, CO were featured in the Johns Hopkins Nursing magazine. The article "Health Info in the Digital A" is available at magazine.nursing.jhu.edu in the Summer 2011 issue.

In another article in the same issue, "High-Tech Nursing: Informatics Team Leads the Way," **Deborah Sherman**, Hanover, MD, **Stephanie, Poe**, Baltimore, MD, and James E. Smith, Baltimore, MD were interviewed.

Advance for Nurses (www.advancefornurses.com) publishes "Nursing Informatics & Technology: A Blog for All Levels of Users." ANIA-CARING contributors are: **Angela M. Lewis**, Anacortes, WA, **Nicole A. Mohiuddin**, Lake in the Hills, IL, **Susan K. Newbold**, Franklin, TN, **Sandy Ng**, San Francisco, CA, and **Denise D. Tyler**, Visalia, CA.

CONFERENCES:

20-23 September 2011. **HIMSS AsiaPac 2011 Conference & Leadership Summit**. Melbourne, AUSTRALIA. http://www.himssasiapac.org

28-29, 2011. **HIMSS Summit of the Southeast**. Gaylord Opryland Hotel, Nashville, TN. http://www.summitofthesoutheast.org/

22-26 October, 2011 **AMIA 2011 Annual Symposium**. Washington, DC. Hilton Washington & Towers. AMIA NI-WG dinner Sunday, 23 October, 2011. www.amia.org

23-25 November, 2011. **HINZ Conference and Exhibition 2011** "Working Together...Working Smarter." Papers, posters and workshop proposals on any aspect of health informatics are welcome. Submissions due 15 August 2011. http://www.hinz.org.nz/page/conference. Speakers include Dr. David Blumenthal and Dr. Susan K. Newbold. Dr. Michelle Honey, Auckland, New Zealand, is on the Executive Committee of HINZ.

Please send items for future newsletters to: Susan K. Newbold, membership@ania–caring.org

Why Reinvent the Wheel?

training that is held in a broom closet, or eLearning that must be printed out and completed by hand. A little extra time spent in analysis at the beginning can save time, expense, and headaches later on in the project. In a perfect world, there would be plenty of time for analysis, however, in the real world, after you have gathered enough data to make informed decisions, you will move into the design phase of the training project.

Design

The design phase of the training project focuses on training content, learning objectives, instructional strategies, details of training delivery, and initial review of the draft training plan. You should also take the time to review evidence for best training practices and relevant learning theories. The theoretical approach that you take towards training will determine how you structure the training curriculum.

During the design phase, you can create some shortcuts by identifying materials that can be recycled or changed slightly and reused in training. You may also use subject matter experts to help write training curriculum and to review training materials for accuracy and completeness. Subject matter experts (SMEs) are typically clinicians or technicians that have advanced knowledge of HIT system content or functionality, and can provide valuable assistance during the entire training project. If you are utilizing SMEs for the first time, it is important to clearly describe the role of the SME in order to create a smooth flow of processes for the training project. Most SMEs have full-time job duties and must perform content review in addition to their regular duties. It is important to obtain agreement on review and turn-around times for materials. It is also important to clearly define the role of the subject matter expert as a content expert rather than a design and instruction expert. Clearly defining the roles of the contributors to the training project can prevent hours of rewriting and revisions of training design later in the project.

During the design phase, you will also develop learning objectives. Learning objectives are important because they will guide the content that is presented to the learners as well as the evaluation of the success of the training project. If the learners are to pass a post-training assessment, the learning objectives should guide the type of questions that are on the assessment. Learning objectives should address the highest level of desired learning within the HIT application. Learning objectives should cover not only acquisition of knowledge but also application and aptitude. Further, learning objectives should be written using action verbs that provide a "clue" as to the nature of the desired objective. For example the word "list" would indicate knowledge, and the word "enter" would indicate application.

Details of training delivery will include securing space, if training is to be delivered via classroom instruction, ensuring the necessary technology, if training is to be delivered via eLearning, and acquiring any equipment that will be needed for training. Training dates should be determined early so that notice can be provided to patient care managers. Training can create a strain on resources and early notification of training can help facilitate staff scheduling and budgeting for the training project. Prioritize the training project so that tasks that require more time will be addressed first, and tasks that can be quickly accomplished are scheduled later in the plan. If you have not finalized your project plan and budget for training by this time, the design phase is where this should be completed.

As you begin to assemble training content into an outline, refine and polish the draft outline and content through ongoing SME reviews. Once the HIT application

has stabilized and the draft training outline is polished and complete, you are ready to begin the development phase of the training project. Although some experts suggest that you develop materials as you design them, you may find that this can lead to extra rework of your training materials; however, time constraints may require the use of a compressed training project timeline.

Development

The development phase is where you will create your training materials based on the polished training plan that was developed during the design phase. At this point, you will be creating your instructor manuals and classroom job aids if you are utilizing a classroom training delivery method, or you will be creating your eLearning materials. Some organizations will hire a vendor to create eLearning solutions while others will develop eLearning internally using programs such as Captivate, Camtasia, PowerPoint, or Articulate. Keep in mind that eLearning programs take a certain amount of experience and expertise in order to produce well-designed materials in a reasonable amount of time. A rule of thumb is to estimate 200 hours of development time for an experienced designer to create every one hour of eLearning, and 100 hours of development time to create every one hour of classroom instruction.

As the training materials are developed, it is important to pilot test them with a group of learners. Ideally, you should select a mixed group of learners, some with little computer experience, some with moderate experience, and some with computer expertise. Remember to gather a mix of disciplines for pilot testing if the HIT application will be used by multiple disciplines and create an evaluation tool so that you can gather valuable and relevant feedback from your pilot training group. Review the evaluation data and revise the draft materials based on the feedback of your pilot group. If you have created major revisions to the draft training materials, it will be beneficial to perform another pilot test of the training materials with a new group of learners that once again reflect a mix of skills, experience, and disciplines.

If you are delivering training using eLearning, test your final training materials after they have been placed into their final electronic location. Ensure that the training works flawlessly for each learner, regardless of how each learner accesses the training modules. The best designed training project will be eclipsed by

frustration if the learners encounter problems accessing or completing the eLearning modules in a timely and efficient manner. Once your training materials have been completed, tested, and revised, it is time to implement your training project.

Implementation

Implementation of training occurs shortly before the new HIT system functionality is implemented, typically four to five weeks before system implementation. Training should not be implemented to soon before system implementation as the learners will forget lessons learned by the time they are able to use the HIT system. Some organizations will conduct post-training validation of each learner prior to granting system access while other organizations will grant system access at the completion of training. Tracking training attendance will be important in order to manage system access or to provide data to help predictions for future training sessions.

Evaluation

Your training project should be evaluated in order to ensure that you have effectively addressed the identified gaps in learning as well as to improve the training experience for the learners. There are five levels of evaluation used by performance improvement professionals and instructional designers; these levels include 1) reaction 2) knowledge 3) application 4) business results, and 5) return on investment (ROI). A reaction evaluation may include questions about the classroom environment, instructor knowledge, time and location of the training, and perception of the relevance of training. Reaction data can be used to improve classroom design, provide feedback to instructors, and adjust other classroom or training details. Although it is important to gather data about the learner's reaction to the training program, there is very little correlation between liking or disliking a training program, knowledge and application (Phillips, 2003).

A level two evaluation measures the amount of learning that was obtained from the training program. An evaluation of knowledge may include multiple choice, true/false, and matching questions that allow the learner to demonstrate learning. A level two evaluation helps to determine that the learners have gained knowledge in accordance with the learning objectives that were created during the design phase of the learning project.

The level three evaluation is more difficult and time-consuming to conduct than the prior levels of evaluation. Measuring application involves evaluating the use of training on the job, and measurements are typically obtained after the HIT application has been implemented. Application measures may include monitoring error rates for certain selected system functions, chart audits, direct observation of users, measurement of the number of paper documents still in use, or interviews and focus groups. In health care, evaluation of the application is complicated by the complexity of patient data and the disparity between the charting and documentation needs of each patient.

The fourth level of evaluation consists of measuring business results that have been obtained as a result of training. Just as the implementation of an HIT application should impact an organization's quality metrics, the training project should impact metrics as well. If business results are to be evaluated, specific metrics should be identified during the design phase of the training project. A percentage of the change in the metrics can be attributed to the training project as well as to the HIT application.

The fifth level of evaluation is used to measure the return on investment of the training project. This measurement is a percentage that is obtained by dividing the net benefits of the prior measures of the training project by the costs of the training project. Although the ROI of training is rarely if ever calculated for HIT training projects, the results can be used to help justify and build a solid ongoing HIT training program when training is assigned a dollar value.

Conclusion

HIT training is a complex process that relies on established theories and models to develop and deliver research-based training that is built using best practices. Rather than reinventing the wheel for each HIT training project, we can adopt well-established practices used by other industries for use in health care. Training is precipitated by a gap in performance, and the training intervention must be designed to address the gap in performance, and to evaluate the success in closing the performance gap.

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How to Successfully Pass the Nursing Informatics Certification Exam

Angela Lewis, BSN, RN-BC, CPHIMS

To a recent topic thread on the ANIA-CARING email list, Susan Newbold PhD, RN-BC, FAAN, FHIMSS wondered "why more informatics nurses do not seek certification?"

Over a quarter million nurses have been certified by the American Nurses Association Credentialing Center (ANA/ANCC) since 1991. The ANA did not recognize Nursing Informatics as a nursing specialty until 1992. Per national survey results from the ANCC's 2010 Role Delineation Study: Informatics Nurse: as of: "March 8, 2010, there were a total of 779 actively certified ANCC informatics nurses." The 2011 HIMSS Nursing Informatics Workforce Survey reported 19 percent of respondents held certification from ANCC in nursing informatics and thirty-five percent reported being in the process of pursuing nursing informatics certification. So again the question is: Why don't more nurses currently practicing within the informatics specialty seek certification?

How best to study for the exam and what are the best resources to use, and where can one purchase the NI Scope and Standards of Practice? These question and others related to the ANA/ANCC Nursing Informatics Exam are frequent and common discussion threads on the ANIA-CARING and other NI specific email lists, on blogs, on-line forums, at conferences and even around the water cooler where informatics nurses practice. Since there appears to be no lack of interest in obtaining board certification in the specialty perhaps there is more than just one answer to the question of why more informatics nurses don't sit for the exam.

Eligibility Requirements

ANCC offers 25 examinations at various levels including diploma, associate, baccalaureate and advanced practice. Informatics is one of the seven areas of specialty (non-advanced practice) certification examinations a Registered Nurse can take. Neither License Practical (License Vocational) Nurses nor Registered Nurses who hold diploma or associate degrees are eligible to sit for the exam. Prior to sitting for the nursing informatics certification exam you first must meet all of the following eligibility criteria:

- Hold a current, active RN license in a state or territory of the United States or the professional, legally recognized equivalent in another country

- Have practiced the equivalent of two years full time as a registered nurse

- Hold a baccalaureate or higher degree in nursing or a baccalaureate degree in a relevant field

- Have completed 30 hours of continuing education in informatics within the last three years

- Meet one of the following practice hour requirements:
  - Have practiced a minimum of 2,000 hours in informatics nursing within the last three years
  - Have practiced a minimum of 1,000 hours in informatics nursing in the last three years and completed a minimum of 12 semester hours of academic credit in informatics courses which are a part of a graduate level informatics nursing program
  - Have completed a graduate program in nursing informatics containing a minimum of 200 hours of faculty supervised practicum in informatics

Stepping Out of Your Comfort Zone

Could it be that like any other "test" a certain amount of anxiety and fear (of failure) is attached? What if I don't pass? I will have made that investment of time and money and failed? How embarrassing! Remember the anxiety associated with taking college entrance exams or better yet state Nursing Boards?! Who would willingly put themselves through that again?!

Conflict Theories related to Approach-Avoidance, Benefits speak to this struggle of: the attractive and unattractive parts of any course of action. "I want this but I don't want what this might entail". I want the potential benefit(s) of successfully passing the NI certification exam BUT I don't want the potential of failing that also could occur.

Nurses contemplating taking the ANA/ANCC nursing informatics certification exam should remember that many of their colleagues (who currently hold certification in nursing informatics) struggled with those same feelings of self- doubt and anxiety. In a 1996 CIN – Computers, Informatics, Nursing article titled: "TRAUMA OR TRIUMPH: Taking the Informatics Nurse Certification Exam". Author Joyce Sensmeier who wrote about her experience of studying for and passing the exam described herself as having "survived it" and encouraged others to follow suit. Many of your colleagues have reaped the benefits that certification provides – recognition of professional achievement, increased compensation and increased promotional opportunities. Certification in nursing informatics practice demonstrates attainment of specific knowledge, skills, and

abilities within the specialty. Worst case scenario – You fail the exam the first time, you can take it again without fear of being brought to the town square and publically flogged.

If at First You Don't Succeed

Most commonly seen are congratulatory posts to members of the ANIA-CARING email list who have passed the exam. Rarely do you see posts about not passing the exam. This is not because failing the exam is a rarity. ANCC provides free admittance to the Informatics Nurse Study Group for those who fail the exam the first time.

Pass or fail each test taker, immediately after the exam, receives their score with a breakdown of the test content areas including the test taker's level of performance for each of the concentration areas.

Example:

1. System Life Cycle Performance Level (low, medium, high)

2. Human Factors Performance Level (low, medium, high)

3. Information Technology Performance Level (low, medium, high)

4. Information Management and Knowledge Generation Performance Level (low, medium, high)

5. Professional Practice Trends and Issues Performance Level (low, medium, high)

6. Models and Theories Performance Level (low, medium, high)

7. Management and Leadership Performance Level (low, medium, high)

Those who do not pass the first time are strongly encouraged to use this as a guide to determine which areas to concentrate their study efforts on, the second time around.

Preparedness is Key

Confucius wrote: "Success depends upon previous preparation, and without such preparation there is sure to be failure." If anxiety and fear of failure are your reasons for not sitting for the exam, why not hope for the best BUT plan for the worst? Your "plan" should include obtaining as much information about studying for and successfully passing the NI certification exam as you can. How and how often is the exam administered? What is the passing score? What content is covered in the exam? What resources are available to assist you in preparation and study for the test? If you currently practice within the specialty, do not let this give you a false sense of confidence. Preparedness, not over confidence is one of the keys to successfully passing the informatics nurse exam.

You may want to evaluate your past test taking aptitude. Are you a bad or good test taker? Did your last test taking experience involve projectile emesis? The NI certification exam is administered via a CBT (computer based test) method. You may want to improve your comfort level navigating within this medium to decrease some of your test taking anxiety. Luckily ANCC provides a web-based course that includes test taking strategies.

Applications for the certification exam are accepted any time of the year, all year long. The NI certification consists of 175 questions, 25 of which are pre-test questions that may be used in a future version of the exam. Although the 25 pre-test questions will not be counted towards the test taker's final score still it is important to answer all questions.

Study Resources:

With all the study guides, texts and courses available you cannot go wrong if you start with, 1) the Nursing Informatics Scope and Standards of Practice and, 2) the ANCC Certification Handbook. ANCC provides a wealth of additional resources for studying for the exam.

The ANCC Informatics Nurse Study Group consists of weekly lectures, delivered by experts during 90 minute conference calls. You only need to pay the required fee, have access to a telephone and an e-mail address to participate. Study group materials provided include a program handbook that the speaker uses to structure presentation content during the eight week period. The cost and the August 2011 study guide schedule can be found at: http://www.nursecredentialing.org/Certification/ExamResources/CertificationCalendarEvents/Informatics-StudyGroup-2010.aspx

The Informatics Nursing Web Course is a narrated course offered (for a fee) by ANCC. At no cost, ANCC provides free sample questions that are similar to those found on the exam "but do not represent the full range of content or levels of difficulty." At a cost ANCC provides additional certification practice questions contained within two peer-reviewed quizzes. These sample questions are similar to those on the exam but again "do not represent the full range of content or levels of difficulty". The quizzes are web-based, include rational for correct answers and a timer indicating your elapsed session time, all in an effort to simulate the testing

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environment you will experience when taking the actual certification exam.

Another option is to attend a Weekend Immersion in Nursing Informatics. A WINI can be an additional study resource when preparing to take the certification exam. When choosing courses or study guides ensure the content has been recommended by ANCC or has been peer reviewed or provided by ANCC certified informatics nurses. Interested in an intensive two day course that focuses on current informatics trends and issues.? Try the Nursing Informatics Boot Camp. Contact Nursing Informatics Bootcamp at nursinginformatics@comcast.net.

Perhaps this information will incentivize your decision to take the exam sooner than later. A new updated (and believed to be - harder) version of the exam is scheduled to be released in May, 2012. The NI certification test reference list for exams taken on or before May 1, 2012 can be found at:
http://www.nursecredentialing.org/Certification/ExamResources/ReferenceLists/TestReferences/InformaticsReferences.aspx

For exams taken on or after May 7, 2012:
http://www.nursecredentialing.org/Certification/ExamResources/ReferenceLists/TestReferences/Informatics-TestRef2012.aspx

Credentials

A frequently asked question after one successfully passes the Nursing Informatics exam is: "How do I list my credentials now that I am an ANA/ANCC certified Informatics Nurse?" After successfully passing the exam, the R.N. is allowed to use and awarded the Registered Nurse – Board Certified (**RN-BC**) credential. CONGRATULATIONS!

Celebrate 30 Years of Caring in 2012!

By Susan K Newbold, PhD RN-BC FAAN FHIMSS
ANIA-CARING Membership Chair

In 2012 ANIA-CARING will celebrate thirty years of being an organization dedicated to education and networking in nursing informatics for the better provision of patient care! We are proud of our history and our current state and want to record our journey and our successes.

ANIA-CARING has appointed a task force to record the history of the organization. Task force members include Linda Wittrup, Stephen Prouse, Bobbi Crann, and myself. We will trace the beginnings of both groups and highlight the joining of the groups.

If you have any artifacts that you would like to share, please contact Susan K. Newbold at membership@ania-caring.org. We are looking for newsletters, photographs, memories, names of officers, etc. which would help us document our past. Please contact me prior to sending any materials.

Happy Birthday ANIA-CARING!