A Blended Learning NPR Training Module for IT Staff

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A BLENDED LEARNING NPR TRAINING MODULE FOR IT STAFF

Tracie Henson

A Major Project

Submitted to the Graduate College of Bowling Green
State University in partial fulfillment of
the requirements for the degree of

MASTER OF EDUCATION

December 2014

Committee:

Kathryn S. Hoff, Ph.D., Advisor
Gary Benjamin, Ph.D.
ABSTRACT

Dr. Kathryn S. Hoff, Advisor

The problem of the study was that there was a need to provide additional training to employees of the Information Systems (IT) Department of a regional hospital in the utilization of the Non-Procedural Report (NPR) writing function of the hospital’s Healthcare Information Systems (HIS). The current methods of NPR training lacked structure and depth and did not fulfill the needs of the IT staff to be able to focus on the proper actions needed to produce reports. The design and development of the blended learning module *Creating Your First NPR Report* was created to fill that need and provided an effective way for IT staff to adopt efficient strategies for learning NPR report writing skills and thus providing a valuable service to the hospital departments. The study had systems analysts as participants from the IT department.

The preliminary assessments establishing departmental reporting requests, software research, and learning needs for IT staff was achieved through a series of departmental question and answer sessions, software research, and an IT Staff – Knowledge Survey. The obvious lack of understanding of the basic principles of NPR report writing prompted the purpose and objectives for designing a blended learning module.

During the implementation of the blended learning module, a face-to-face, instructor-led session was conducted with the use of a PowerPoint presentation and hands-on demonstrations, which helped reinforce the correct way of designing NPR reports. The just-in-time information was provided along with reinforcing video presentations that helped the participants gain valuable knowledge about NPR report writing.
A post survey was conducted as an evaluation tool for the instructional methods used in each of the blended learning techniques. Performance and production of the NPR report from the face-to-face instructor-led sessions also served as another method of evaluation. The results from the survey reinforced the need for the blended learning training. An outcome of the study was the implementation of the blended learning training module given to other participants of the IT department and future modules that will help IT Staff create more robust reports for hospital departments.
I dedicate this project to the IT staff who assisted and participated in the study and to my director who allowed me to complete this while still doing my other duties.

I also want to dedicate this project to my family and especially my husband, for without his love and support I would not have been able to accomplish great things. His unselfishness during the course of my graduate studies truly deems him to be a “saint among saints”. I especially thank him for having dinner made when I get home from work and bringing me endless coffee in the “Bat Cave” while I was doing schoolwork. His love is infinite, I appreciate him every day and his favorite phase “I can’t wait to get my wife back” is now a reality.

Lastly, I want to thank God, for without him in my life I would not be able to do anything.

Everything I have and accomplish comes from him!

“May he grant your heart’s desires and make all your plans succeed.”

Psalm 20:4 (NLT)
ACKNOWLEDGMENTS

I would like to thank Dr. Gary Benjamin for being a part of my journey the last five years at Bowling Green State University. You have been a great professor, mentor, committee member, and friend. Thank you for your time and insight on my achievements.

I especially would like to thank Dr. Kathryn (Kate) Hoff for not only being a great committee chair, advisor, mentor, and professor, but for being my friend and confidant as well. Your constant involvement with my studies has helped me grow in not only knowledge of the subject, but in knowing life as well. Your friendship is something that I will always cherish.
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Section I. Background and Goals

There was a need to provide additional training to employees of the Information Systems (IT) Department of a regional hospital in the utilization of the Non-Procedural Report (NPR) writing function of the hospital’s Healthcare Information Systems (HIS). Hospital departments rely on IT staff to be able to write reports that extract important, vital information relating to their departments. The reports are used by management, front line supervisors, financial auditors, and accrediting agencies. An illustration of a completed NPR report of physicians is included in Appendix A. Example NPR Report. Departments expect to have resourceful and knowledgeable IT staff available to help design and create the reports that are needed for each situation. The amount of time it takes to learn good NPR report writing skills has become an issue with upper management. The learning curve was steep and IT management would like to get new IT staff up and running with minimal intrusion to their other current daily workload. This generates the task of creating efficient learning modules that will help IT staff become productive and achieve consistently high performance for this task.

Current methods of NPR training lack structure and depth and do not fulfill the needs of the IT staff to be able to focus on the proper actions needed to produce reports. Absence of face-to-face instructions and other forms of education only increases the problem. Resource constraints coupled with daily job challenges have placed additional pressure on IT staff creating a demand for new approaches to training. Organizations have found that a current trend to help increase effectiveness in staff has been to use a blended learning environment, “…a term describing an instructional strategy that combines the use of web-technologies with more traditional approaches, often classroom-based” (Adams, 2013, p. 2).
A blended learning approach can be used to enhance learning beyond traditional classrooms by allowing organizations to design learning capabilities that support just-in-time, or immediate access to specific learning tools anywhere, anytime. To improve on-the-job performance in organizations, the ability to learn at the point of need was increasingly important.

**Problem of the Study**

The problem of the study was that there was not a structured way of learning NPR report writing for IT staff. The current choices for learning are not efficient or cost-effective for the hospital. Currently, IT staff tries to produce an NPR report by trial and error, they attempt to find precious slices of time to analyze and read through online documentation and almost all of them end up having to ask a mentor about the process. Because of these inefficiencies, the plan was to analyze the current NPR learning processes available and develop a supplemental blended learning module as part of a continuing training plan for NPR report writing for the purpose of meeting IT staff needs, becoming familiar with essential measures of the report writing procedure, and effective utilization of the system. The plan was structured as supplemental training with capabilities for additional outreach to the IT staff for the purpose of hospital-wide benefits where they will gain valuable report writing skills that will allow them to produce effective reports for hospital departments.

**Objectives of the Study**

The objectives of this study were:

1. To develop a specific training module titled *Creating Your First NPR Report* using blended learning methodology with goals and objectives.

2. To evaluate the training module *Creating Your First NPR Report* first from a pre-evaluation method from IT participants and after revisions, evaluate selected audience
of IT systems analysts based upon actual performance and production of an NPR physician report that relates directly to a specific hospital department – Medical Records - who had requested a need for it to be created. A separate evaluation of the overall module will be achieved through the utilization of a survey among the participants.

3. To implement the blended learning training module as a template for future blended learning training modules.

**Significance of the Study**

In prior organizational meetings, management confirmed that our HIS system of choice would be a software product created especially for inpatient, outpatient, surgical and ambulatory hospitals. The product, Meditech, has a proprietary report writer function. The vendor, from Boston, Massachusetts, has offered to conduct training sessions at their on-site facility. Because of the distance, resource and time constraints, the department deemed that it was too expensive to do that type of training. If training could be provided on-site and during periods of the day when IT staff could attend between regular job duties, the cost savings, quality of work and return-on-investment could be increased. When the vendor was approached with this concept, they could not accommodate this type of schedule. Currently, the vendor provides PowerPoint presentations in a face-to-face hands-on environment. Because of the ineffectiveness and time-consuming nature of this type of training, management asked if there were other choices. They were presented with the fact that NPR training could be accomplished and delivered in-house by current experienced NPR report writing IT staff as subject matter experts. A blended learning approach to training IT staff would contribute to the success of the whole organization.
Ultimately the quality of reports that IT staff will be furnishing to other departments will be of significant organizational value.

**Assumptions**

The following assumptions were made for this study:

1. The blended learning methodology used was fashioned from current standards and techniques that have been researched and assessed in prior studies.
2. Information taken from the HIS system was complete and contains true and effective methods to produce favorable reports for other departments.
3. The blended learning training module was evaluated by IT staff who have little to no experience in writing NPR reports in the HIS. No prior knowledge was assumed.

**Limitations**

The following limitations were made for this study:

1. The computer software used to complete the online portion of the module was not SCORM compliant.
2. The courseware was pre-evaluated by IT personnel who do not work for the hospital and who have never heard of the HIS system. They were strictly evaluating the effectiveness of the module for flow, user-friendliness, and completeness.

**Identification and Description of Resources**

This study was encouraged and supported by the IT administration of the regional hospital. Resources utilized in the creation of the blended learning training module *Creating Your First NPR Report* included:

- Screen recording software such as Camtasia Studio 7 and SnagIt.
• Module creation using Adobe Captiva.
• Hospital Intranet for hosting video production and learner education.
• Network resources for video viewing and readily available documentation and help content.
• Human resources such as subject matter experts in the field of NPR report writing, usability testers, and current employees of the IT Department.

**Definition of Terms**

For the purpose of this study, the following terms were operationally defined.

*Non-Procedural Report (NPR)* is Medical Information Technology, Inc. proprietary report writing feature of the software. The report writer allows the users to create custom reports.

*Medical Information Technology, Inc.* commonly called MEDITECH is a Massachusetts-based software and service company that sells information systems unique to health care organizations (Meditech, 2014).

*Blended Learning* is defined as the combination of different types of instructional deliveries. This could include the use of digital media, web-based technologies and synchronous classroom style lectures. This is all designed to balance each other and promote learning and application-learned behavior (Singh, 2003, p. 52).

*m-Learning* is defined as mobile learning on a mobile device, such as a smart phone. When used in context of work place learning, the employee would be able to access on the job training via a mobile device. Another example would be just-in-time training to solve a particular problem or to gain insight on how to accomplish a task. *M-Learning* could be things as simple as a reference guide, checklists or an eBook.
**Literature Review**

A blended learning module was created for the IT staff of a regional hospital to help demonstrate and utilize the Non-Procedural Report (NPR) writing function of the hospital’s Healthcare Information System (HIS). Blending learning methodology will incorporate face-to-face education that will help IT staff focus on the proper procedures needed to construct a report, online lessons that will reinforce classroom instructions and additionally, blended online how-to videos that IT staff will be able to view to strengthen their knowledge learned from the blend. This type of m-learning will bring them to the just-in-time training or refresher they may need to keep their cognitive knowledge at the forefront.

Because of the type of learning environment chosen, research on the best possible way to produce a blended learning environment was in order. The more recent research has proven documented methodology that allows for optimal learning through different types of communication channels.

**Blended Learning in History**

As the name implies, blended learning represents the mixture of different types of educational teaching methods. It is an integrated approach for both instructor and learner. The mixed-mode instruction of a classroom setting, or face-to-face meeting combined with computer-mediated activities create an optimal knowledge experience for the learners. But before phrases such as blending learning or e-learning were introduced into educational pedagogy, the concept of web-based instruction was introduced to the world. In 1997, Badrul H. Khan, Ph.D., wrote a best-selling book entitled *Web-Based Instruction* that paved the way for the new field of e-learning. Through his teachings and book publishing Khan created a basic standard for web designed training and instruction. Web-based instruction was adopted in more than 350 colleges
and universities throughout the world and through his second book, titled *Web-Based Training* the aspect of using the World Wide Web for training was explored. Kahn (2014) continued to progress the field of distance learning and his eight-sided structural framework for e-learning evolved. The sides represented specific e-learning issues and are systemically interconnected to support learning. Using Kahn’s E-Learning Framework (see Figure 1) assures that learning outcomes are achieved. The approach took each of the eight sides and interconnected them to help identify the critical issues that needed to be addressed when creating context and audience.

![Figure 1- Badrul Khan E-Learning Framework](Khan, 2014)

Singh (2003), author of the article *Building Effective Blended Learning Programs* brought Khan’s E-Learning Framework to the blended learning dimension and discussed two objectives. The first objective was to show an in-depth view of blended learning and to discuss the ingredients or methods to use in the blended learning program. The second objective was “to provide a model to create the appropriate blend by ensuring that each ingredient, individually and collectively, adds to a meaningful learning experience” (Singh, 2003, p. 51). He relates to the blended e-learning framework of Badrul Khan. The Octagonal Framework (see Figure 2)
shows how to select the appropriate ingredients and should serve “as a guide to plan, develop, deliver, manage and evaluate blended learning programs” (Singh, 2003, p. 51).

Figure 2 - Khan's Octagonal Framework (Singh, 2003)

The author introduced Khan’s Octagonal Framework and gave each dimension of the framework a category of issues that needed to be addressed. He narrated that once the issues are addressed within the framework, it will help organize thinking and make sure that the blended learning program is a meaningful learning experience. Appropriately enough, his concept would give organizations the plans for effective learning and performance evaluation and ensure effective transfer of learning for their return on investment.

According to design expert, Singh (2003), blended learning modules must consist of strategies for effective learning and performance and consider different issues to create effective delivery of learning that result in high return on investment for the organization. To promote learning and application-based behavior, the modules will combine different types of delivery
media that will complement each other. The eight elements include institutional, pedagogical, technological, interface design, evaluation, management, resource support, and ethical.

**Institutional**

This dimension addresses issues of the organization and/or administration. The organization and its administration should be prepared to stand behind the development of the blended learning module. The availability of subject matter experts should be in place along with the infrastructure.

**Pedagogical**

This dimension addresses several issues including content analysis – the way the learning content will be delivered, audience analysis of the learners needs, and goal analysis including learning objectives. This would cover the design and strategy phase of the e-learning portion of blended learning.

**Technological**

The delivery methods that are identified and will be part of the blend need to include technology issues and how they will be addressed. This should include the creation of a learning environment and the tools to deliver the learning process. Issues will need to be refined such as the use of a Learning Management System (LMS) that can manage different types of content; online and face-to-face learning.

**Interface Design**

The interface design dimension identifies how the user interface should be created. Issues addressed in this dimension are things such as the correct number and type of elements needed on the user interface and making sure that it works into the blended program. There
should be enough complexity to house different elements of the blend and be able to switch between the two different types of sources.

**Evaluation**

Designing the interface is a crucial element when developing the blended program but the evaluation of the module as a learning tool will also be an important part of the process. Evaluation of the effectiveness of the blended learning project along with the performance of the learners within the program will need to be developed.

**Management**

This dimension addresses issues that relate to the management of the blended program, such as organizational structure and work-flow to manage multiple delivery types. This would address the need for issues such as learner registration and notification, and scheduling of the different elements of the blend.

**Resource Support**

Resources include items such as offline or online content and making it available to the learners. Organization of each type of content will need to be planned and readily available to the learners. Resource support could constitute having a tutor or mentor available in person, via email or on an online chat system.

**Ethical**

Ethical issues that need to be addressed when developing a blended learning program would include such things as equal opportunity, diversity, and nationality.

**Blended Learning Presently**

Creating a blended learning environment that promotes learning with results that can be measured are challenges found today. Challenges include things such as technical,
organizational, and instructional tasks. Hofmann (2011), a synchronous learning expert, reported the top 10 challenges a trainer in blended learning will need to look out for including tasks such as resisting the urge to use technology just because it is available and to make sure that the organization is onboard so they realize the extensive process needed for a blended learning role in their organization. The instructional designer would need to look at challenges such as matching the best delivery medium to the performance objective and making sure that all of the elements of the blend are coordinated. She suggested making a “visual course map” (Hofmann, 2011, p. 13) and a solid communication plan.

This approach was echoed by Collins (2011), vice president of product development for ESI International, writing about experiencing the pitfalls that can occur with even the best-laid design. She gave us a “behind-the-scenes look at blended learning and highlight potential risks and trouble areas that will enable you to minimize headaches and maximize learning outcomes and investment” (Collins, 2011, p. 58). She formulated some basic tips to help stay clear of trouble spots. Design for success was one of the things she mentioned as it is all about the learner. Identify and document goals and requirements early on in the process. Start small and use a scalable approach. Make sure that the executive sponsor is on board and make sure that you partner with your IT staff. The biggest challenges facing organizations is “establishing requirements and identifying what issues they need to address” (Collins, 2011, p. 58). However, once the requirements are identified, business goals and problems should be used to create learning outcomes. She suggested that by starting small, perhaps with a pilot program, the company could highlight the results to the shareholders and get them committed with the blended learning approach. One important idea was that the learners need to be enthusiastic about the blended learning lessons. They need to see the value of the education or their commitment will
not be there. Another noted idea was the need to “communicate to the managers and the learners upfront that blended learning isn’t an event, but a process” (Collins, 2011, p. 61).

Another columnist, Hovis (2012) explained that a blended learning approach “with chunked learning content and assets can be a convenient and effective solution” (Hovis, 2012, p. 76). Her approach on creating blended learning for others who have a busy schedule is something that will need to be kept in mind during the development of this blended learning module. Self-paced e-learning would be one way for busy IT staff to adjust their schedules or help them gain access to the just-in-time information that is needed. Hovis highlighted a checklist that addressed steps that could be followed to create an effective program. Modeling after her checklist and concepts, the following list would address the success of an effective blended learning module for IT staff:

- Make sure that everyone involved knows the goals, program requirements and prerequisites.
- Consider the types of learning and delivery methods that make sense and that would satisfy the goals and objectives of the module.
- Translate business goals into objectives.
- Keep in mind the differences in the delivery methods and how participants will react to them.

**Summary**

Blended learning and the environment in which it is developed is a delicate blend of learning approaches. “It is a matter of getting the right content in the right format to the right people at the right time” (Singh, 2003, p. 51). Insight to the best possible approach for a blended learning environment and the methodology to use ultimately will be determined by the audience,
learning objectives, goals and time constraints. The research that has been done on the subject of blended learning will help in the creation of a model for IT staff. Taking into consideration all of the different aspects of the blend, Singh’s description of Khan’s Octagonal Framework model will be used as a reference to make sure that all of the strategies are covered. Effective development will produce a blended environment that will produce desired organizational results.
Section II. Procedures

The blended learning module *Creating Your First NPR Report* will be the start of a development of subsequent training modules related to NPR report writing for IT staff. Included in this section is the statement of the problem, project plan including research, audience analysis, scope, goals and objectives, methods of evaluating, and calendar of events along with a proposed budget.

Problem of the Study

The problem of the study was that there was not a structured way of learning NPR report writing for IT staff. The current choices for learning are not efficient or cost-effective for the hospital. Currently, IT staff tries to produce an NPR report by trial and error, they attempt to find precious slices of time to analyze and read through online documentation and almost all of them end up having to ask a mentor about the process. Because of these inefficiencies, the plan was to analyze the current NPR learning processes available and develop a supplemental blended learning training module as part of a continuing training plan for NPR report writing for the purpose of meeting IT staff needs, becoming familiar with essential measures of the report writing procedure, and effective utilization of the system. The plan was structured as supplemental training with capabilities for additional outreach to the IT staff for the purpose of hospital-wide benefits where they will gain valuable report writing skills that will allow them to produce effective reports for hospital departments.

Project Plan

To complete this study the following plan and procedures were followed:

1. Content Research
a. Research on learning and training needs

b. Research the Meditech software for NPR report writing

c. Establish the departmental reporting needs and reason for having NPR reports for the learning module

d. Research the best blend of learning for adult learners

2. Audience Analysis

a. Determine who should benefit from this study

b. Geared towards newer IT staff

c. Capable of collecting information for dissemination to other IT staff

d. Adaptable to varying levels of learning

3. Scope

a. Face-to-Face – Instructor-led

b. Online Content – Self Instructional video content and reinforcement exercises

c. Just-in-Time Content – Including self-help content

4. Develop training module - General Learning Goals and Objectives

a. At the end of the blended learning module, IT staff
   i. Will be able to recognize and articulate the foundational assumptions and Data Procedure Module (DPM) File structures of Meditech’s report writing functions
   ii. Will have increased knowledge of NPR report writing
   iii. Will be able to utilize Meditech’s report writing online documentation
   iv. Will be able to write an NPR report using Meditech’s NPR report writing tool to meet a specific departmental need
5. Method for Evaluating Achieved Goals and Objectives

a. Formally
   i. Face-to-Face – Instructor-led classes
      1. Observation
      2. Performance and production of an NPR Report
   ii. Online
      1. Reinforcement Exercises
   iii. Survey to evaluate two basic aspects
      1. Assess knowledge and attitudes toward content and training module
      2. Reaction to quality of blended learning

b. Informally
   i. Questions and answers
   ii. Group Discussions and online participation
      1. During Face-to-Face Instructor-Led classes
   iii. Individual Inquires via Coaching and Mentoring

6. Steps for Preparing Pre-evaluation of the Blended Learning Module
   a. Participants solicited to provide constructive feedback on Module
      i. Selection of two IT subjects who do not work in the IT systems analyst department at the regional hospital but are considered trainers in their respective areas
      1. Will have access to instructor notes of the Face-to-Face – Instructor-Led classes
2. Will have access to printed copies of the online content

3. Will have access to printed copies of the Just-in-Time content

ii. Feedback received based on the following criteria

1. What worked or didn’t work

2. Usefulness

3. Flow

iii. Rework of Module based upon constructive feedback
Calendar of Events

The following was the time-line of events in order to complete the project, pre-testing, testing and finalizing the report. It was completed by November/December, 2014. The following Gantt chart shows the timeline of events.

![Gantt Chart](image)

Figure 3 - Gantt Chart

Proposed Budget

The following budget had been planned for the duration of 12 months.

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<td>Recruiting of Participants</td>
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<tr>
<td>Researcher Time</td>
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<tr>
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**TOTALS:**

|             | 580 | $ 16,870.00 |

**Number of Months to Complete**

** 12 hours per week **

12
Section III. Methodology

This section will serve as an overview of the steps and methods used in the creation of the blended learning module *Creating Your First NPR Report*. From planning through production and on to the evaluation of the final product, the project plan outline, literature review and especially that of Singh’s (2003) article were necessary to achieve the creation of the blended learning module. These steps will be detailed in this section in order to aid the reader in understanding the process of development and the outcomes.

*Institutional*

*Management Support*

Hospital departments rely on IT staff to be able to write reports that extract important, vital information relating to their departments. The reports are used by management, front line supervisors, financial auditors, and accrediting agencies. Departments expect to have resourceful and knowledgeable IT staff available to help design and create the reports that are needed for each situation. The amount of time it takes to learn good NPR report writing skills has become an issue with upper management. The learning curve was steep and IT management would like to get new IT staff up and running with minimal intrusion to their other current daily workload. This generates the task of creating efficient learning modules that will help IT staff become productive and achieve consistently high performance for this task.

*Pedagogical*

*Content Analysis*

Content Analysis included researching learning and training needs of the IT department, Meditech’s NPR report writing references, established reporting needs of the hospital and finding the best blend of learning for adult learners.
A list of learning and training needs of the IT department were gathered through a series of discussions with IT management and staff. The discussions unveiled the fact, among other issues outside the scope of this project, that there is a definite lack of knowledge in Meditech’s NPR report writing that would justify the creation of a supplemental blended learning module.

Research also concluded that Meditech’s web references to the report writing feature had a minimum amount of information. There were however, some video references that were necessary to help reinforce the learning.

Reporting needs of the hospital departments were researched by gathering a list of reports desired, their purpose and who they would benefit. From that list, the Medical Records request for a physician’s report was chosen as the outcome of this project.

Research on finding the best blend of learning for adult learners came from the literature review. References to starting small and using a scalable approach were proposed by Collins (2011). The busy schedules of IT staff would make it necessary to provide them with chunks of information explained by Hovis (2012) so that learning could be intertwined with their other daily activities. Getting the learner excited about learning and stressing that learning is not an event but a process was another suggestion by Collins (2011). A simple preliminary checklist was created that would address the success of the blended learning module. The checklist included 1) making sure that learners know the goals and requirements, 2) consider the types of learning and delivery methods that would satisfy the goals and objectives 3) translate business goals into objectives and 4) keep in mind the differences in the delivery methods and how participants will react to them.
Audience Analysis

Audience Analysis of learner needs included research into who would benefit from this study. A pre-survey was created and emailed to IT staff. See Appendix B: Pre-survey Email. The survey included questions that would show the knowledge level of the learners on several concepts of report writing along with demographics and how they learn best. A sample pre-survey can be found in Appendix C: Staff IT – NPR Knowledge Survey.

When the results of the pre-survey were tallied, 25 of 30 IT staff responded for an 83% engagement rate. The survey questions and IT staff answers about Meditech’s acronyms were in line with what the researcher expected. For the two questions, how many NPR reports have you created from scratch and how many NPR reports have you modified, 76% or 19 of the respondents reported zero to each of these questions. That is a significant percentage considering that only 12% or 3 respondents had responded that they have written 10 or more reports from scratch and have modified 10 or more NPR reports. Clearly there is a need for NPR training among the respondents. The next set of questions was demographic in nature, which asked the respondents how long they had worked for the hospital’s IT department. The average length of tenure of the respondents was between 1-3 years. An additional demographic question inquired as to what IT department the respondents worked in. 36% of the respondents were Systems Analyst, 28% were Clinical Systems Analyst, and 24% were Service Desk Analyst. It should be noted that a requirement of the IT Systems Analyst job states that they will be able to produce reports from the data stored in the hospital’s information system. The survey question on how best do you learn, 83% of the respondents noted that they learn better by kinesthetic and 17% as visual learners. Of the 25 respondents, 79% or 19 of them responded that they would
like to learn how to write NPR Reports. See Appendix D: Staff IT – NPR Knowledge Survey Results.

Based on the results of the pre-survey and the requirement of their job description, three IT systems analysts were chosen as a cohort to participate in this study. It was noted that once the project was completed that roll-out of the blended learning module to the rest of respondents will be done.

Goal Analysis

Learning objectives were determined as a result of goal analysis. The organizational goal was to make sure that IT staff can learn NPR report writing to be able to produce reports for other departments. The following learning goals and objectives were developed for the blended learning module.

At the end of the blended learning module, IT staff

- Will be able to recognize and articulate the foundational assumptions and Data Procedure Module (DPM) File structures of Meditech’s report writing functions
- Will have increased knowledge of NPR report writing
- Will be able to utilize Meditech’s report writing online documentation
- Will be able to write an NPR report using Meditech’s NPR report writing tool to meet a specific departmental need

Scope

Taking into account each goal and objective, the scope of the blended learning project was developed. The scope would include a Face-to-Face instructor-led class, online content including a self-instructional video with additional information to help reinforce the concepts delivered in the face-to-face class. The just-in-time content included items such as handouts
during the face-to-face class and research articles in a location that the learners would be able to reference anytime, anywhere while on the hospital’s network.

Technology

Content Delivery

Content delivery for the different types of blend in the scope needed to be considered. The technology needs to accomplish the blended learning module Creating Your First NPR Report should have a minimal impact on hardware and software resources along with minimal impact on network resources. With that in mind the following technological study for content delivery was conducted.

Face-to-face instructor-led class technology would include the following:

- Software resources including Microsoft Office Suite to produce the PowerPoint presentation and just-in-time handouts. Also, access to the Meditech’s software via the terminal server platform would be needed
- Hardware resources including thin client technology that will allow access to the hospital’s HIT system via the term server farm
- Network resources including shared file folder location for the PowerPoint presentation and handouts
- Training room resources including projector and laptop, thin clients for the cohort to use during the instructor-led class and to produce an NPR report

Online Content – self instructional video content and reinforcement exercises:

- Video-making software resources including Camtasia Studio 7 and screen capture software SnagIt
• Hardware resources including Windows PC running a version of Windows Media Player to observe the video
• Network resources including a shared file folder where online content can be located

Just-in-Time Content including self-help research articles:
• Software resources including Microsoft Office Suite to open the documents
• No Hardware resources were noted
• Network resources including a shared file folder where just-in-time content and research articles can be located

**Interface Design**

The analysis performed on content, audience and goals helped build the scope of the project. Available technology for each element of the blend was examined and taken into account during the design phase. Appropriately, the following elements for each blend were developed.

**Face-to-Face Instructor-led class**

Based on the approach of Hovis (2012), it was noted to keep the face-to-face blend short and simple but meaningful to meet the objectives and goals. The cohort had limited amounts of time in their busy days to be able to sit in a classroom for lecture. With that in mind the following training outline (see Figure 4) was created with corresponding PowerPoint slides and instructor notes. The face-to-face instructor-led class would have three parts: introduction to Meditech’s NPR report writing (See Appendix E: PowerPoint: Introduction), data storage (See Appendix F: PowerPoint: Module 1-Data Storage), and creating and editing NPR reports (See Appendix G: PowerPoint: Module 2-Creating & Editing NPR Reports). Each module, other than the introduction, had its own set of objectives that aligned with the learning goals. There were
reinforcement exercises throughout along with hands-on demonstrations that satisfied the learning needs of those who learn best by kinesthetic and visual.

**Training Outline**

**Introduction**
- What is NPR
- What is the NPR Report Writer
- Pages in NPR Report Writing Screens
  - Page One – General
  - Page Two – Sorts/Selects
  - Page Three – Picture

**Module 1**

**Data Storage**
- Objectives
  - Examine how data is stored in a hierarchical structure within an NPR application
  - Understand how to read the Data Definition List
  - Learn how to access data fields on an NPR Report
- Common Terms
  - Field – smallest piece of significant data
  - Record – Grouping of related Fields
  - File – Grouping of related Records
  - Hierarchy
    - Application – the highest level – a collection of programs
    - DPM (Data Procedure Module – a set of closely related data files
    - Segment – a file where fields are stored
      - Collection of segments within a DPM - based on the relationship between the data in each segment
        - Parent (Main) Segments
        - Child Segments
    - Relating Enter/Edit Screens to the Hierarchy
      - Illustration from the Physician Dictionary
  - Subscripts
    - Urn
    - Mnemonic
    - Others
      - Integer
      - Date
- Reinforcement Exercise One
- Reinforcement Exercise Two
- Reading a Data Definition
Module 2
Creating and Editing NPR Reports

- Objectives
  - Introduce Keystrokes specific to the NPR Report Writer
  - Create a simple custom NPR report to list data in a column format
  - Demonstrate the effect of a detail segment on a report

- Process Reports
  - Report Objective
    - DPM?
    - Name?
  - Identify a New Report
  - Identifying Existing Reports
  - Other Report Subroutines
    - Report Subroutines
      - Enter/Edit – allows you to edit the report
    - Macro Subroutines
    - Screen Subroutines
    - Procedure Subroutines

- General Page
  - Report Title Section
  - Detail Segment and Index File Section
  - Page Characteristics
  - Report Regions Section
  - Exercise 1 – General Page Summary

- Picture Page
  - Components of Report Picture
    - Report Fields
    - Attributes and Field Markers
    - Report Regions
    - Report Picture
  - Exercise 1 – Picture Page Summary
    - Demonstrate the effect of the detail segment on a report
  - Warning message when changing the detail segment on the report

Figure 4 – Training Outline
**Online Content**

The online content was the development of a self-learning video derived from Meditech’s video archive. The video called *Finding Data Seminar* was reproduced using Camtasia Studio 7 and published as an .mp4 video. Producing as a smaller-sized video file assured that it would play smoothly on the available network. The self-paced video reinforced the concepts learned in the face-to-face instructor-led class and is directly correlated to the learning goals. See Appendix H: Online Video Self-Learning.

**Just-in-Time Content**

The just-in-time content was two-fold. During the face-to-face instructor-led class, handouts of Quick Reference Guides were provided. See Appendix I: Just-in-time Handouts. Additionally, a printed copy of the PowerPoints was distributed to the participants for reinforcement of learning beyond the classroom as a suggestion from the pre-evaluation result. Another type of just-in-time content was the selected research articles that were gathered for the cohort to access anytime they needed. The research articles not only reinforced the face-to-face instructor-led class, but also provided additional information that could be useful for the learners. Examples are provided in Appendix J: Self-Help Article Example.

**Evaluation**

**Pre-evaluation**

Pre-evaluation of the blended learning training module was accomplished by the following methods. Selection of two IT subjects who do not work in the systems analyst department but are considered trainers in their respective areas. They were provided the following items:

- Instructor notes/outline of the face-to-face instructor-led class
• PowerPoint presentations of the Introduction, Module 1 and Module 2
• Access to the file location of the online content video
• Access to the file location of the just-in-time content and self-help research

The selected pre-evaluation participants were given one week to finalize their findings and a meeting was called to discuss. They were to look at the following three criteria while evaluating the course:

• What worked or didn’t work
• Usefulness of each of the blends
• Flow

The result of their pre-evaluation overview was positive on all three criteria with one minor change to the flow of the blend. They suggested that the just-in-time handouts during the face-to-face instructor-led class also include a printout of the PowerPoint slides. This, they stated, would help reinforce what was being said and notes could be taken on the different areas of instruction during the class. Their suggestion was incorporated into the blended learning course when it was delivered.

**Informally**

Informal methods of evaluation included question and answer sessions, instructor perception of participants body language, and group discussions during the face-to-face instructor-led class. Mentoring or coaching was exercised during other times.

**Formally**

Formal methods of evaluating the blended learning consisted of the following. For the face-to-face instructor-led classes, evaluation was having each participant produce the NPR
report in Module 2. In order to evaluate the online content of the self-instructional video, the participants were asked if there were additional comments or questions about the content.

The last formal method of evaluation was with a post survey (See Appendix K: Post Survey) which was given to the participants after the blended learning course was completed. A five-point Likert scale was used in the post-survey instrument. In the first section, the participants were asked to evaluate the following statements as it pertains to the Face-to-Face Instructor-Led portion of the Blended Learning Module. There were a total of nine statements they were to evaluate, rating them in response to the Likert scale on what they thought. The statements included were:

- The objectives of the modules were clearly defined
- Participation and interaction were encouraged
- The topics covered were relevant to me
- The content was organized and easy to follow
- The materials distributed were helpful
- This training experience will be useful in my work
- The trainer was knowledgeable about the training topic
- The trainer was well prepared
- The time allotted for the training was sufficient

The second section asked the participants to evaluate the following statements as each pertains to the Online Self Instructional Video content of the Blended Learning Module. There were a total of four statements they were to evaluate, rating them in response to the Likert scale on what they thought. The statements included were:

- The topic in the online self-instructional video were relevant to me
• The online self-instructional video content was organized and easy to follow
• The online self-instructional video experience will be useful in my work
• The time allotted of the online self-instructional video was sufficient

The third section asked the participants to evaluate the following statements as each relates to the Just-In-Time Content and Self-Help Articles of the Blended Learning Module. There were a total of three statements they were to answer, rating them in response to the Likert scale on what they thought. The statements included were:

• The Just-In-Time content provided me with important information to be able to produce NPR reports
• The location of this content was easy access
• The Self-Help Articles were helpful

The next three questions were open-ended questions which dealt with respondents feelings towards the training. The questions included:

• What did you like most about this training?
• What aspects of the training could be improved?
• How do you hope to change your practice as a result of this training?

A Likert scale was again utilized in the last section, requesting the participants to indicate their level of agreement with the following five statements:

• Participating in the blended learning module was a good use of my time
• I would recommend this training to others in my department
• The Blended learning Module provided me with an important skill to do my job better
• Should this type of training be continued for NPR Report Writing
• Should this type of training be used to learn other aspects of my job
Management

Infrastructure

Management of a blended learning course includes things such as organizational structure and work-flow to manage multiple deliver types. Managing multiple delivery methods takes more effort than delivery of a course in one specific delivery type. Infrastructure requirements were consistently monitored to make sure that the blended learning course was successful.

Scheduling and Notification

Management of scheduling and notification of the blended learning course was done utilizing Microsoft outlook email. During each phase of the blend, an email was produced announcing the next phase of the blend and when they needed to have it done. See Appendix L: Email Communications. This kept the project on track and the communication lines open.

Resource Support

Online Content

Making sure that the online content is up-to-date and relevant is an ongoing process. As more up to date content is collected, it will be disseminated in the shared folders assigned to the blended learning module. It is accessible by everyone in the IT department.

Mentoring

As more IT staff learns how to create NPR reports, there will be a need for more mentoring and coaching. A group of subject matter experts have been asked to fulfill the mentoring capacity. Mentoring or coaching can occur in person, via email or online chat system.
Ethical

Considerations

There were considerations into the ethical stance on developing a blended learning course. Considerations such as needs of the disabled, equal opportunity, cultural diversity and nationality were addressed.
Section IV. Results of the Study

The blended learning module *Creating Your First NPR Report* was provided to the participants over a two week period. Each blend was introduced through a series of scheduled emails to the participants which provided necessary information on what to complete. The face-to-face instructor-led class was held in the training room with thin clients available for them to use to connect to Meditech’s software. The participants received a printed copy of the PowerPoint slides and just-in-time handout to help them with this portion of the training. The introduction and the two modules in the face-to-face instructor-led class were completed in two hours and all of the learning goals were realized. The participants finished the class by creating the required NPR report. Two days later, they were then engaged with the online content self-instructional video that helped reinforce the learning from the classroom setting. Positive verbal feedback was received. Last, the just-in-time content including self-help research articles was disseminated to them. Again positive verbal feedback was received. The post survey link was then emailed to the cohort asking them to complete by the end of the day. Everyone in the cohort seemed very receptive to the whole process.

Summary

The participants in the cohort were very open to the aspect of needing additional knowledge of NPR report writing and wanted to update their skills. The goals and objectives for the course were all met in the following way with one or several of the blends.

- Will be able to recognize and articulate the foundational assumptions and Data Procedure Module (DPM) File structures of Meditech’s report writing functions
  - Goal met in the face-to-face instructor-led class. Module 1 – Data Storage
- Will have increased knowledge of NPR report writing
Goal met in the face-to-face instructor-led class after finishing Module 1 and Module 2. This goal was also met via the online content and just-in-time content.

- Will be able to utilize Meditech’s report writing online documentation
  - Goal met with the introduction to the online documentation in the face-to-face instructor-led class during Module 1 – Data Storage

- Will be able to write an NPR report using Meditech’s NPR report writing tool to meet a specific departmental need
  - Goal met at the conclusion of the face-to-face instructor-led class Module 2 – Creating and Editing NPR Reports.

The participants continued through the rest of the blended elements finishing up with the post survey. The assessment and gains in skills and knowledge was quite positive.

**Results and Conclusions**

**Informal**

One informal evaluation was from instructor perception in the face-to-face instructor-led class. The researcher noticed several times in the face-to-face instructor-led class that participants had questions on what was being presented. Sensing from their body language that they did not comprehend, the researcher immediately stopped and asked “Can you see what I am talking about?” at which time they would respond with a simple “No, can you explain it again?” The researcher believes that these types of interactions were important for knowledge transfer for those who are kinesthetic learners.

Other informal methods of evaluation continue even today with a constant open communication of questions and answers on different aspect of NPR report writing. This
communication includes not only what was covered in the instructional modules, but other aspects of NPR report writing. The researcher believes that additional NPR training should be pursued so that they will have more training and knowledge in other aspects.

*Formal*

More formal methods of evaluation of the face-to-face instructor-led class were the actual performance and production of the NPR report.

*Post Survey*

The post survey results of the blended learning course were conclusive that the cohort agreed or strongly agreed to almost every aspect of the blended learning course. See Appendix M: Post Survey Results.

The results show favorable for the nine statements on evaluating the face-to-face instructor-led portion. 66.7% strongly agree with each statement and 33.3% agree with each statement. One statement was skipped by one respondent that asked if the trainer was well prepared.

The second set of four statements about the online self-instructional video content was a bit discouraging to the researcher. 66.7% strongly agreed with all of the statements, 16.65% agreed and 16.65% neither disagree nor agree. What does this tell the researcher? It may indicate that the respondent who marked the statement on the Likert Scale with a neither disagree nor agree possibly could have had problems with the online video. The respondent may had problems with opening and viewing the video or possibly not having enough time to view it. None-the-less, the scores for this section indicate that follow-up is needed with the respondents, either by email or group conversation to discuss the online self-instructional video content.
The third set of statements about the Just-in-time content and self-help articles were 66.7% strongly agree and 33.3% agree. This gave the researcher the indication that they would use this favorably in the future.

The next three questions were open-ended questions that dealt with feelings towards the training. For the first question on what did you like most about this training, there were two of the three cohort respondents with one response simply stating that they liked “the one on one”. The other response stated “The instructor was very knowledgeable about the subject. She explained the material clearly and made it easy to understand and learn”. The second open-ended question about what aspects of the training could be improved there were again just two out of the three cohort respondents. The first one put “more one on one” and the second stated “Nothing, the training was fantastic. The trainer followed up after the training class with more material on the subject to help keep the information fresh.” The last open-ended question on how do you hope to change your practice as a result of this training was responded to by one of the three participants. Their response was “I am completely new in this field. I will now be able (to) write successful NPR reports using the methods that I learned.” Reflecting on the responses to the first two questions where the respondent answered “one on one” and “more one on one”, leads the researcher to believe that this respondent learns by demonstration and hands-on. Their main objective was to be able to have an open dialog during the face-to-face instructor-led classes to help them understand better. The researcher feels that having a smaller class, like this study cohort of three people, could be a success factor in others.

The last section asked them to evaluate the five statements for overall satisfaction. The respondents answered with a 66.7% strongly agree with the statements, 22.2% agreed and 11.1% neither disagree nor agree. The researcher found the 11.1% result to be troubling in the fact that
one of the three cohort respondents neither disagree nor agree with the statement about if the blended learning module provided them with an important skill to do my job better and the statement about should this type of training be continued for NPR report writing. This result gave the researcher an indication that this employee was disengaged, possibly because of not seeing the benefit of the training towards one of the job requirements they were hired to do. In order to adjust this attitude, the researcher will need to make sure that it is stressed to IT staff, especially if they are systems analysts that this skill is part of their job descriptions and they need to know and learn it. For other IT staff, it will not be so important for them. As for the other disengaged answer whether this type of training be continued for NPR Report Writing, the respondent may not be able to see the value in having any training, let alone a blended type of learning. However, the very next question the same respondent agreed to the question on should this type of training be used to learn other aspects of my job.

While technology of learning tools and delivery media continues to change and advance, there is one thing that is certain: Organizations such as the regional hospital and particularly the IT department favor blended learning models over single delivery style programs.

**Recommendations**

Based upon the results of this study, the researcher has identified the following recommendations:

- The continued development of blended learning modules for NPR report writing
- The blended learning module developed for this study can be used as a template for future blended learning modules in other areas of interest or need
- Given the time constraints of participants of the blended learning module, it may be worth considering delivering the learning content in smaller chunks of time
The researcher concludes that in order to fully understand if IT staff learns better with a blended learning format than another, the study should be conducted with the delivery of the same content in a completely online learning environment. Comparisons between the two types could then be done with results that would show which learning environment would be the best for IT staff.
References


Collins, P. T. (2011, December). *An insider’s view to meeting the challenges of blended learning solutions.* Retrieved from ASTD - T+D Magazine:


http://badrulkhan.com/


APPENDIX A: Example NPR Report

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</tr>
<tr>
<td>00167</td>
<td>WYSOR, JAMES J MD</td>
<td>35047619</td>
<td>M</td>
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<tr>
<td>00169</td>
<td>DANIELS, ROBERT W PhD</td>
<td>341356718</td>
<td>C</td>
</tr>
</tbody>
</table>
APPENDIX B: Pre-survey Email

IT Staff Survey - A Beginning Medtech NPR class

Henschen, Tracie - Systems Manager, Information Systems

You received this email on 08/26/2014 10:44 PM.

Good evening,

As many of you may not know, I am in the final leg (months) of my graduate studies at Bowling Green State University. Once I have completed my final stage, I'll be graduating in December with a Master of Education in Learning Design from the College of Technology, Architecture and Applied Engineering. Another want, I will start to work toward the Design Learning for online purposes, assuming and less-to-less to different types of substance. I mean I'm talking to the older learners. As part of my final graduate requirement, I need to develop a research thesis or present a major project. I have decided to create a major project, which is in my case, entails that create the B/LT/C0 Learning Design project. The blended learning is defined as the combination of different types of instructional deliveries. This could include the use of digital media, web-based technologies and asynchronous classroom style lectures all designed to balance each other and promote learning and application of learned behavior.

More specifically, my blended learning course will be on "Creating Your First NPR Report". The course will consist of an introduction and 3 beginning the modules in a class lecture style lecture with hands-on demonstrations. Learners will be able to create their first NPR report. There will also be self-instructional video content and reinforcement exercises that will need to be taken. Additionally, just in time content including self-help will be available.

I have asked for and was given permission from the dean to fulfill this requirement with the help of our department. To be clear, I am not asking that everyone from our department take the course, however, I do need at least 2-3 people to make my research the study viable. So if you are interested in beginning lessons on learning how to create NPR reports in Medtech, please consider my blended learning course "Creating Your First NPR Report". No prior NPR knowledge is assumed. This multi-faceted aspect of your Personal Development Plan in your career. My future plans for this study would be to create the other modules in the beginning NPR report writing set and eventually work into intermediate to advanced NPR tips and techniques. Other areas of interest could also be considered.

The blended learning course (including all blended components) will only take approximately 3 hours of your time and will include:

- Taking the IT Staff - Knowledge Survey below via Survey Monkey - this is not a question. Consider taking the survey, even if you don't want to attend the course. 30 minutes. To be completed by end October 26, 2014
- Classroom style lecture and hands-on demonstrations with question and answer feedback. You will create your very first NPR report if you have never done so in the past. I will schedule this to be on Tuesday, the 1st week of November.
- Introduction: 2 hours. To be held begining week of November.
  a) Session 1: Case Studies
  b) Session 2: Creating and Editing NPR Reports
  c) Complete Survey of Classroom Partners
- Self Instructional Video: Content with Reinforcement Exercises. 30 minutes
- Accessing and Reviewing Content and Self Help Areas. 20 minutes
- Final Hour: take the course information, survey, etc.
  a) Assess knowledge of what was learned
  b) Attitude toward content and learning
  c) Reaction to quality of the blended learning course

Thank you in advance for your participation, even if you're not interested in attending the course, please consider filling out the IT Staff - Knowledge Survey above so I can gather beginning research data. However, if you fill in the survey and I'd like to attend the blended learning course, please email me your intentions.

Reminder: I am planning an the blended learning course the 1st week of November.

Thank you,

Tracie Henschen
Systems Manager, Information Systems
Lucas County Regional Medical Center
Tracie.Henschen@Medtech.com
Tel: 419-944-0221, Cell: 419-937-7402
## Staff IT - NPR Knowledge

### IT Staff - Knowledge Survey

Please take a moment to take this short IT Knowledge Survey. I am conducting research as part of my Master's Program. As part of this research I will be presenting a series of Blended Learning Modules on Meditech's Report Writing feature. Thank you in advance for your time. Tracie

1. **What is NPR? As it relates to Meditech.**
   - [ ] National Public Reporting
   - [ ] Non Procedural Reports
   - [ ] Non Procedural Representation
   - [ ] National Public Radio

2. **What is DPM? As it relates to Meditech.**
   - [ ] Data Protection Manager
   - [ ] Data Process Manager
   - [ ] Data Problem Module
   - [ ] Data Procedural Module

3. **How many NPR Reports have you created from scratch?**
   - [ ] 0
   - [ ] 1-3
   - [ ] 4-6
   - [ ] 7-10
   - [ ] 10 or more

4. **How many NPR Reports have you modified that someone else created?**
   - [ ] 0
   - [ ] 1-3
   - [ ] 4-6
   - [ ] 7-10
   - [ ] 10 or more
APPENDIX C: Staff IT – NPR Knowledge Survey (Continued)

<table>
<thead>
<tr>
<th>Staff IT - NPR Knowledge</th>
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</thead>
<tbody>
<tr>
<td><strong>5. How long have you worked in Firelands IT?</strong></td>
</tr>
<tr>
<td>● Less than 1 Year</td>
</tr>
<tr>
<td>● 1-3 Years</td>
</tr>
<tr>
<td>● 4-6 Years</td>
</tr>
<tr>
<td>● 7-10 Years</td>
</tr>
<tr>
<td>● 10 or more Years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>6. What is your department in Firelands IT?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Service Desk Analyst</td>
</tr>
<tr>
<td>● Systems Analyst</td>
</tr>
<tr>
<td>● Clinical Systems Analyst</td>
</tr>
<tr>
<td>● Network Analyst</td>
</tr>
<tr>
<td>● Manager</td>
</tr>
<tr>
<td>● Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>7. Would you like to learn how to write NPR Reports?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Yes</td>
</tr>
<tr>
<td>● No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>8. How do you learn best?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Visual (transparencies, videos, slides, reading, demonstrations, flip charts)</td>
</tr>
<tr>
<td>● Kinesthetic (hands-on, role-play, simulations, writing/note taking, practice activities or demonstrations)</td>
</tr>
<tr>
<td>● Auditory (lectures, group discussions, informal conversations, stories and examples, brainstorming)</td>
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</tbody>
</table>
APPENDIX D: Staff IT – NPR Knowledge Survey Results

Q1: What is NPR? As it relates to Meditech.

Answered: 24  Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Public Reporting</td>
<td>0.00%</td>
</tr>
<tr>
<td>Non Procedural Reports</td>
<td>64.17%</td>
</tr>
<tr>
<td>Non Procedural Representation</td>
<td>45.83%</td>
</tr>
<tr>
<td>National Public Radio</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
</tr>
</tbody>
</table>

Q2: What is DPM? As it relates to Meditech.

Answered: 24  Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Protection Manager</td>
<td>20.83%</td>
</tr>
<tr>
<td>Data Process Manager</td>
<td>25.00%</td>
</tr>
<tr>
<td>Data Problem Module</td>
<td>4.17%</td>
</tr>
<tr>
<td>Data Procedural Module</td>
<td>50.00%</td>
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<tr>
<td>Total</td>
<td>24</td>
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APPENDIX D: Staff IT – NPR Knowledge Survey Results (Continued)

Q3: How many NPR Reports have you created from scratch?
Answered: 25  Skipped: 0

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<tr>
<th>Answer Choices</th>
<th>Responses</th>
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<td>0</td>
<td>76.00%</td>
</tr>
<tr>
<td>1-3</td>
<td>8.00%</td>
</tr>
<tr>
<td>4-6</td>
<td>0.00%</td>
</tr>
<tr>
<td>7-10</td>
<td>4.00%</td>
</tr>
<tr>
<td>10 or more</td>
<td>12.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

Q4: How many NPR Reports have you modified that someone else created?
Answered: 25  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>76.00%</td>
</tr>
<tr>
<td>1-3</td>
<td>4.00%</td>
</tr>
<tr>
<td>4-6</td>
<td>4.00%</td>
</tr>
<tr>
<td>7-10</td>
<td>4.00%</td>
</tr>
<tr>
<td>10 or more</td>
<td>12.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
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</table>
APPENDIX D: Staff IT – NPR Knowledge Survey Results (Continued)

Q5: How long have you worked in Firelands IT?

Answered: 25  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
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</thead>
<tbody>
<tr>
<td>Less than 1 Year</td>
<td>4.00%</td>
</tr>
<tr>
<td>1-3 Years</td>
<td>48.00%</td>
</tr>
<tr>
<td>4-6 Years</td>
<td>16.00%</td>
</tr>
<tr>
<td>7-10 Years</td>
<td>16.00%</td>
</tr>
<tr>
<td>10 or more Years</td>
<td>16.00%</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
</tr>
</tbody>
</table>

Q6: What is your department in Firelands IT?

Answered: 25  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Desk Analyst</td>
<td>24.00%</td>
</tr>
<tr>
<td>Systems Analyst</td>
<td>36.00%</td>
</tr>
<tr>
<td>Clinical Systems Analyst</td>
<td>28.00%</td>
</tr>
<tr>
<td>Network Analyst</td>
<td>4.00%</td>
</tr>
<tr>
<td>Manager</td>
<td>4.00%</td>
</tr>
<tr>
<td>Other</td>
<td>4.00%</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
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</table>
APPENDIX D: Staff IT – NPR Knowledge Survey Results (Continued)

Q7: Would you like to learn how to write NPR Reports?
Answered: 24 Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>79.17%</td>
</tr>
<tr>
<td>No</td>
<td>20.83%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Q8: How do you learn best?
Answered: 24 Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual (transparencies, videos, slides, reading, demonstrations, flip charts)</td>
<td>16.67%</td>
</tr>
<tr>
<td>Kinesthetic (hands-on, role-play, simulations, writing/hot taking, practice activities or demonstrations)</td>
<td>81.33%</td>
</tr>
<tr>
<td>Auditory (lectures, group discussions, informal conversations, stories and examples, brainstorming)</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>
Creating Your First NPR Report

Introduction

Trade mission, systems manager Information Systems
A Blended Learning NPR Training Module for T-Tests
Component of Master of Education "ียสอ.เอ" Major Project

Creating Your First NPR Report

Introduction

Trade mission, systems manager Information Systems
A Blended Learning NPR Training Module for T-Tests
Component of Master of Education "ียสอ.เอ" Major Project

What is NPR?
- NPR stands for "Non-Procedural Representation"
- Fourth Generation Tool
- Offers the ability to create a program using "pictures" and NPR translates it into MagicSS Code

What is the NPR Report Writer?
- Programming tool that allows access to data stored within NPR Application
- Provides ability to output data in a variety of formats
  - Full List Reports
  - Download Reports
  - Statistical Reports
  - Custom forms and labels

Page One - General

Page Two - Sorts/Selects

Page Three - Picture
APPENDIX F: PowerPoint: Module 1–Data Storage

Creating Your First NPR Report
Module 1 – Data Storage

Tracie L. Nelson, Systems Manager
Information Systems
A Blended Learning NPR Training Program for IT Staff
Component of Master of Education, DLNS Program

Objectives
- Examine how data is stored in a hierarchical structure within an NPR Application
- Understand how to read the Data Definition List
- Learn how to access data fields on an NPR Report

Common Terms:
- Field – smallest piece of significant data
- Record – grouping of related fields
- File – grouping of related records

Hierarchy
- Application: The highest level, a collection of programs
- DPM (Data Procedure Module): A set of closely related data files
- Segment: A file where fields are stored

Example:
- Main Segments:
  - Descend directly from the DPM (Appear on left margin of Data Definition List)
  - Fields stored within a main segment have a 1:1 relationship with the data in the segment
- Child Segments:
  - Descend from another segment (indented 2 spaces under parent segment on Data Definition List)
  - Fields stored within a child segment have a 1:M relationship with the parent segment
APPENDIX F: PowerPoint: Module 1–Data Storage (Continued)

Data Definitions

Segment Hierarchy Terms
- A parent segment describes a segment which has one or more child segments associated with it.
- A child segment describes a segment whose data fields can store multiple values for each parent segment value.

Storing and Retrieving Data
- Each record within a segment must be unique.
- This is accomplished by assigning a data value called a subscript to each record.

Subscripts
- One or more data values that uniquely identify a record
  - Subscripts provide access to the data fields in the segment
  - Subscripts are located within the segment

Types of Subscripts
- "um" = Unique Record Number
- "memonic" = Name code, typically defined in a dictionary
- "seqnum" = Sequence number, stored mostly in order unlike on screen
- "date" = Store data in chronological order

Subscripts and the Segment Hierarchy

Subscripts and the Segment Hierarchy
APPENDIX F: PowerPoint: Module 1–Data Storage (Continued)

Exercise 1
- world.continents(continent)
- world.countries(continent, country)
- world.provinces(continent, country, province)
- world.states(continent, country, state)
- world.hvrs(continent, hvr)
- world.oceans(ocean)
- world.reefs(ocean, reef)
- world.atmosphere(atmosphere)

Exercise 2
- ADV1.MAS.cdpq1(cdpq1, patient, cdpq1, query)
- ADV1.MAS.cdpq1.multiple(cdpq1, patient, cdpq1, query, cdpq1, multiple)
- ADV1.MAS.main(lrn)
- ADV1.MAS.insurance(lrn, insurance)
- ADV1.MAS.insurance.multi(lrn, insurance, insurance, query)
- ADV1.MAS.insurance.multi(lrn, insurance, insurance, query, query)
- ADV1.MAS.insurance.multi(lrn, insurance, insurance, query, query, query)
- ADV1.MAS.insurance.multi(lrn, insurance, insurance, query, query, query, query)

Exercise 3
MIS.DOC DPM Questions:
1. How many main segments exist in the MIS.DOC DPM?
2. Is the ‘name’ field an Offset, Local, or VAL?
3. What is the data type (DAT attribute) for the ‘name’ field?
4. What is the value of the LEN attribute for the ‘name’ field?
5. List the subscripts for the ‘insurance, plan’ segment.

Exercise 4
Other Questions:
1. How many DPs exist in the ADM Application?
2. How many main segments exist in ADMActionResult?
3. What is the subscript of the ‘main’ segment in ADMActionResult?
4. What is the subscript of the ‘main’ segment in OEGRD?
5. What is the subscript of the ‘main’ segment in BAR_PROC?
APPENDIX G: PowerPoint: Module 2–Creating & Editing NPR Reports

Creating Your First NPR Report
Module 2 – Creating and Editing NPR Reports

Traci Heron, Systems Manager
Information Systems

A Blended Learning NPR Training Module for IT Staff:
Component of Master of Education, T&IE Major Project

Objectives

- Introduce keystrokes specific to the NPR Report Writer
- Create a simple custom NPR report to list data in a column format
- Demonstrate the effect of a detail segment on a report

This module:

- This module is designed to demonstrate how to create reports and edit the
  systems associated within the Ems/Edi feature of the NPR Report Writer
  Process routine.
- The goal of this unit is to complete a walk-through exercise.
- This exercise is designed to be performed along with the instructor during
  the unit presentation.
- The instructor will inform you when to perform each step of the exercise.
- Provides you with an overview of the data structure and data fields
  associated with the MISDOC DPM.
- We will begin writing a report that will print information pertaining to data
  within the MISDOC DPM.

Process Reports

Report Objective:
We will create a report that will print the provider mnemonic, name, license
number and doctor type. The data values that print on the report output
should be in column format. At the top of each page, we will print descriptive
headings above the data fields.

Steps to be performed:

1. Choose the appropriate DPM and detail segment:
   - Which DPM contains the data?
   - Which detail segment should be used?
     Enter the detail segment on the General Tab

2. Add a Y to Page Header region on the General Tab in order to print column
   headings on each page.

3. Add the data fields: mnemonic, name, df licensee number, and
   df specialty to the fields section on the Picture Page.

4. Place the data fields above the report picture.

5. Insert two additional lines to the Page Header region on the Picture Page.

6. Add column headings to the HP region for each data field.
APPENDIX G: PowerPoint: Module 2–Creating & Editing NPR Reports (Continued)
Creating a Report

Exercise 1—General Page Summary & Picture Page

Steps to be performed:
1. Choose the appropriate EFM4 and detail segment
2. Add a page header region on the General Tab in order to print column headings on each page
3. Add the data fields: mnemonic, name, dtlicense, number, and dtstatus to the Fields section on the Picture Page
4. Place the data fields above the report picture
5. Insert two additional lines to the Page header region on the Picture Page
6. Add column headings to the HF region for each data field

Effect of changing detail segment on a report

General Page
APPENDIX G: PowerPoint: Module 2–Creating & Editing NPR Reports (Continued)
APPENDIX H: Online Video Self-Learning

Finding Data Seminar
Report Writer
Follow-up to Level 1 Seminar
### APPENDIX I: Just-in-time Handouts

<table>
<thead>
<tr>
<th>Report Routines</th>
<th>Use This Routine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a custom report based on a MEDITECH standard report</td>
<td>Insert custom report into database</td>
</tr>
<tr>
<td>Print the available DPs in a given application</td>
<td>List DPs by application</td>
</tr>
<tr>
<td>List factors that are pointers to a given DPM</td>
<td>DPM Pointer Cross Reference</td>
</tr>
<tr>
<td>Print the data definitions for a set of DPs</td>
<td>List Data Definitions</td>
</tr>
<tr>
<td>Move custom reports (and custom menus) to another location</td>
<td>Move Menus and Reports</td>
</tr>
<tr>
<td>Save custom reports to a PC file</td>
<td>Save Reports to File</td>
</tr>
<tr>
<td>Load custom reports from a PC file</td>
<td>Load Reports from File</td>
</tr>
<tr>
<td>Generate a list of prior edits to a custom report</td>
<td>Report Audit Trail</td>
</tr>
<tr>
<td>List menus that contain specific reports and matrices</td>
<td>List Menu Cross Reference</td>
</tr>
<tr>
<td>List reports meeting specific search criteria</td>
<td>Report Search and List</td>
</tr>
<tr>
<td>List factors that are pointers to a given DPM</td>
<td>DPM Pointer Cross Reference</td>
</tr>
<tr>
<td>List all users with access to a given report (or menu)</td>
<td>List Routine Menu Access by User</td>
</tr>
<tr>
<td>List the last date and time on which custom reports were run (also the file names of those reports)</td>
<td>List Report Usage Routine</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Process Reports Functions</th>
<th>Use This Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create or modify a custom report</td>
<td>1. Enter/Edit (Report)</td>
</tr>
<tr>
<td>Print the source code of a custom report</td>
<td>2. List Source Code</td>
</tr>
<tr>
<td>Print the object code of a custom report</td>
<td>3. List Object Code</td>
</tr>
<tr>
<td>Translate a custom report</td>
<td>4. Translate</td>
</tr>
<tr>
<td>Test a custom report</td>
<td>5. Run</td>
</tr>
<tr>
<td>Copy an existing custom report</td>
<td>6. Copy</td>
</tr>
<tr>
<td>Define menus for a custom report</td>
<td>7. Enter/Edit (Macro)</td>
</tr>
</tbody>
</table>

#### NPR Report Writer

**Quick Reference Card**

For Client/Server Modules

#### Features:
- Report Routines
- Process Report Functions
- Enter/Edit Report, Picture Screen Keyboard Shortcuts
- System Conventions

**Caution!**

Do not turn off your computer while you are working in a routine. Instead, call your system administrator or MEDITECH for assistance.

**Other References**

MEDITECH recommends that you also refer to the Online Help available by pressing the F1 key from most pages in the module.

For beginning users, the System Conventions section is especially helpful.

Keyboard templates are available. You position a template over the keyboard so that you can refer to it for the key names.

MEDITECH
APPENDIX J: Self-Help Article Example

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Comstock Software Blog.docx</td>
<td></td>
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<tr>
<td>Creating a list of default answers for LI.docx</td>
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</tr>
<tr>
<td>Creating Long List without ORd selection.docx</td>
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<td>Creating Multiple Download Files from One Repo...</td>
<td></td>
</tr>
<tr>
<td><strong>Custom F9 Lookups for NPR Reports - Part 1.docx</strong></td>
<td></td>
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<tr>
<td>Custom F9 Lookups for NPR Reports - Part 2.docx</td>
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<tr>
<td>Formatting Phone Numbers.docx</td>
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<td>Formatting Title Strings with @Title.docx</td>
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<tr>
<td>Getting rid of trailing spaces in NPR fields.docx</td>
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<tr>
<td>Loading a list in a structure for record selection....</td>
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<td>nptricks.docx</td>
<td></td>
</tr>
<tr>
<td>Opening up other DPM to pull info for report.docx</td>
<td></td>
</tr>
<tr>
<td>Radiology report text.docx</td>
<td></td>
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<tr>
<td>Reading a Crash Screen in Client_Server.pdf</td>
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</tr>
<tr>
<td>Save Valuable White Space on Your Reports.docx</td>
<td></td>
</tr>
<tr>
<td>Sheet of Labels.docx</td>
<td></td>
</tr>
<tr>
<td>String Extraction and Date Formatting.docx</td>
<td></td>
</tr>
<tr>
<td>Summary subtotals in report trailer.docx</td>
<td></td>
</tr>
<tr>
<td>When is an Order Actually Two Orders.docx</td>
<td></td>
</tr>
<tr>
<td>Where are these Duplicates coming from.docx</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX J: Self-Help Article Example (Continued)

Reading a Crash Screen

The first step in troubleshooting a crash is to identify the piece of code that's causing the problem. Let's look at the crash screen in Client/Server, shown below.

Notice how the crash screen is broken down into groups of three lines, or frames. We need to determine in which frame the crash occurred.
APPENDIX K: Post Survey

Welcome to Post Survey of the Blended Learning Module - *Creating Your First NPR Report*. As part of the follow-up process on this training module, a post survey is needed so that the evaluation of the training module, course content, learning objectives and overall satisfaction is gathered.

Please take a few minutes to complete the survey. Your feedback is important. Thank you again for participating.

Tracie

<table>
<thead>
<tr>
<th>Blended Learning Module - <em>Creating your first NPR Report</em></th>
</tr>
</thead>
</table>

Please rate the following aspects of the Blended Learning Module - *Creating your first NPR Report*.

1. Evaluate the following statements as it pertains to the **Face-to-Face Instructor Led portion of the Blended Learning Module**.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objectives of the modules were clearly defined.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Participation and interaction were encouraged.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The topics covered were relevant to me.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The content was organized and easy to follow.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The materials distributed were helpful.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>This training experience will be useful in my work.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The trainer was knowledgeable about the training topic.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The trainer was well prepared.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The time allotted for the training was sufficient.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
2. Evaluate the following statements as it relates to the **Online Self Instructional Video** content of the Blended Learning Module.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The topic in the Online Self Instructional video were relevant to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Online Self Instructional video content was organized and easy to follow.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>This Online Self Instructional video experience will be useful in my work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The time allotted for the Online Self Instructional video was sufficient.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Evaluate the following statements as it relates to the **Just-in-Time Content and Self-Help Articles** of the Blended Learning Module.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Just-In-Time content provided me with important information to be able to produce NPR reports.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The location of this content was easy to access.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Self-Help Articles were helpful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. What did you like most about this training.

5. What aspects of the training could be improved?

6. How do you hope to change your practice as a result of this training?
### 7. Evaluate the following statements for overall satisfaction.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating in the Blended Learning Module was a good use of my time.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I would recommend this training to others in my department.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The Blended Learning Module provided me with an important skill to do my job better.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Should this type of training be continued for NPR Report Writing?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Should this type of training be used to learn other aspects of my job?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
APPENDIX L: Email Communications

Thank you for signing up to take the blended learning course in NPR Report Writing. I am starting with a smaller subset of staff so that I can manage the research that will go along with your cohort.

I am sure that you will find it beneficial for the jobs that you perform currently as outlined in the Essential Tasks, Duties, and Responsibilities section of the Systems Analyst's job description. It states that you will be able to "Generate custom reports to address the needs of the organization." (Systems Analyst, Job Description, July, 2012, http://intranet.firelands.local/depts/hr/job%20descriptions/1515.htm)

In this section of the course we will be accomplishing:
- Classroom style lecture and hands-on demonstrations with question and answer feedback. You will create your very first NPR report if you have never done so in the past. This is scheduled in the Mylander Training Room for 2 hours.

AGENDA
- Introduction
- Module 1 - Data Storage
- Module 2 - Creating and Editing NPR Reports
- Complete Survey of Classroom Portion

Please let me know if you have any questions.

Blended Learning Module - Online Self Instructional video - Finding Data

Henson, Tracie - Systems Manager, Information Systems

To: Espejo, Robbie - Information Systems; Smith, Douglas - Information Systems; Ralph, Matthew - Information Systems

Subject: Email Communication - Finding Data

Date: Tuesday, November 11, 2014 11:13 PM

Good Morning,

I wanted to give you the next step for the Blended Learning Module - Creating Your First NPR Report.

The Online self-instructional video called Finding Data is located here: [Video File/Unified/Applications/Medical/NPR/Blended Learning Module/Online Video/Finding Data.mp4]

Please plan on viewing on Wednesday, if possible. This is an excellent video on how to find the data needed for NPR reports. There are several scenarios that will help you.

The just-in-time content and self-help information is forthcoming and will be disseminated out tomorrow also.

I plan on wrapping this up on Thursday or Friday with a Post-Survey which I will send out to each of you.

Again, thank you for being a part of this research group so that I can finish my project up.

Any questions, please let me know.

Tracie

Tracie Henson
Systems Manager, Information Systems
Firelands Regional Medical Center
Tracie.Henson@firelands.com
Cell: 419.343.3011; Office: 419.557.7482
APPENDIX L: Email Communications (Continued)

RE: Blended Learning Module - Online Self instructional video - Finding Data

Henson, Tracie - Systems Manager, Information Systems

To: [Email addresses]

Monday, November 17, 2014 3:51 PM

* You replied on 11/21/2014 1:51 PM.

Good evening, I just wanted to touch base and let you know that tomorrow I will be giving you the location of the just in time content and self help resources.

Also, if you haven’t already done so, please watch the video, I’m sure you will find it very helpful.

A final survey will be sent to you on Wednesday or Thursday to complete the blended learning cohort.

Thanks again for participating in this project. I really appreciate it.

Thanks,
Tracie

RE: Blended Learning Module - Online Self instructional video - Finding Data

Henson, Tracie - Systems Manager, Information Systems

To: [Email addresses]

Tuesday, November 18, 2014 3:14 PM

* You replied on 11/26/2014 4:24 PM.

Just In Time Resources.

Please look around at some of the articles I have accumulated over the years. These are just a handful (didn’t want to overwhelm) - I put all of them out there soon.

Thanks,

Tracie
RE: Blended Learning Module - Online Self instructional video - Finding Data

Henson, Tracie - Systems Manager, Information Systems

To: Espino, Robbie - Information Systems; Smith, Douglas - Information Systems; Rabjohn, Matthew - Information Systems

Thursday, November 20, 2014 4:28 PM

Robbie/Doug/Matt,

As a final step in this project, I have a small post-survey for you all to complete.
If you could, please have done by Friday, November 21.
Again, thanks for your participation in this.

https://www.surveymonkey.com/s/Z3qGGRK

Tracie
APPENDIX M: Post Survey Results

Q1: Evaluate the following statements as it pertains to the Face-to-Face Instructor Led portion of the Blended Learning Module.

![Bar chart showing survey results for Q1]

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objectives of the module were clearly defined.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>Participation and interaction were encouraged.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The topics covered were relevant to me.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The content was organized and easy to follow.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The materials distributed were helpful.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>This training experience will be useful in my work.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The trainer was knowledgeable about the training topic.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The trainer was well prepared.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>100.00%</td>
<td>0</td>
<td>4.67</td>
</tr>
<tr>
<td>The time allotted for the training was sufficient.</td>
<td>0.00%</td>
<td>0%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
</tbody>
</table>
APPENDIX M: Post Survey Results (Continued)

Q2: Evaluate the following statements as it relates to the Online Self Instructional Video content of the Blended Learning Module.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The topic in the Online Self instructional video were...</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The Online Self instructional video content was organized...</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>0.00%</td>
<td>66.67%</td>
<td>3</td>
<td>4.33</td>
</tr>
<tr>
<td>This Online Self Instructional video experiences will be useful in my work.</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>0.00%</td>
<td>66.67%</td>
<td>3</td>
<td>4.33</td>
</tr>
<tr>
<td>The time allotted for the Online Self Instructional video was sufficient.</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
</tbody>
</table>
APPENDIX M: Post Survey Results (Continued)

Q3 Evaluate the following statements as it relates to the Just-in-Time Content and Self-Help Articles of the Blended Learning Module.

Answered: 3  Skipped: 0

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Just-in-Time content provided me with important information to be...</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The location of this content was easy to access.</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The Self-Help Articles were helpful.</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
</tbody>
</table>
### Q4 What did you like most about this training.

<table>
<thead>
<tr>
<th>#</th>
<th>Responses</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The instructor was very knowledgeable about the subject. She explained the material clearly and made it easy to understand and learn.</td>
<td>11/21/2014 10:26 AM</td>
</tr>
<tr>
<td>2</td>
<td>the one on one</td>
<td>11/21/2014 8:45 AM</td>
</tr>
</tbody>
</table>

### Q5 What aspects of the training could be improved?

<table>
<thead>
<tr>
<th>#</th>
<th>Responses</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nothing. The training was fantastic. The trainer followed up after the training class with more material on the subject to help keep the information fresh.</td>
<td>11/2/2014 10:29 AM</td>
</tr>
<tr>
<td>2</td>
<td>more one on one</td>
<td>11/2/2014 8:45 AM</td>
</tr>
</tbody>
</table>

### Q6 How do you hope to change your practice as a result of this training?

<table>
<thead>
<tr>
<th>#</th>
<th>Responses</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am completely new in this field. I will now be able write successful NPR reports using the methods that I learned.</td>
<td>11/21/2014 10:26 AM</td>
</tr>
</tbody>
</table>
APPENDIX M: Post Survey Results (Continued)

Q7 Evaluate the following statements for overall satisfaction.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Disagree Nor Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating in the Blended Learning Module was a good use of my time.</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>I would recommend this training to others in my department.</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>3</td>
<td>4.67</td>
</tr>
<tr>
<td>The Blended Learning Module provided me with an important skill to do my</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>0.00%</td>
<td>66.67%</td>
<td>2</td>
<td>4.33</td>
</tr>
<tr>
<td>Should this type of training be continued for NPR Report Writing?</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>0.00%</td>
<td>66.67%</td>
<td>2</td>
<td>4.33</td>
</tr>
<tr>
<td>Should this type of training be used to learn other aspects of my job?</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>2</td>
<td>4.67</td>
</tr>
</tbody>
</table>