

Brian M. Claesson-Patten
Module 2 - Formative Assessment Design version 3.0
August 20th, 2015

A well-designed assessment piece can go far beyond determining a student's success or failure at learning specific content. In order for an assessment to have value as a tool for student learning and guiding instruction, that assessment needs to go beyond determining if the student was simply right or wrong in their response. A well-designed formative assessment gives the student an opportunity to demonstrate their understanding of the material in a way that allows us to see how they are transferring the knowledge to the task, as well as providing evidence of any misunderstandings that may be causing an unsuccessful transfer. Through a better understanding of the student's ability in, and process of, transferring knowledge, we can then provide specific, meaningful, feedback to the student. In order for the assessment to support and encourage student learning, the student must be allowed to take the feedback from the assessment and given an opportunity to apply that feedback in a way that will make them successful in a future assessment. As an educator, the information obtained from these assessments can identify if our students are meeting our goals in their understanding of the content. Especially important is identifying causes for student misunderstanding so that we can direct our instruction to help remove these misunderstandings. In order for an assessment to provide this valuable information, we must be clear on our educational goals, and make decisions on what types of activities will help to provide evidence of student understanding.

My assessment design is an adaptation of the standard multiple-choice test, which is currently the most widely used tool for both formative and summative assessment in an EMS classroom. While this style of assessment typically does not collect detailed information regarding a student's understanding of material, due to current expectations and cultures within the EMS education community among both educators and students, keeping to something more familiar will allow for greater acceptance and implementation. The modification in my design from the typical multiple-choice assessment is that students will be presented with more in depth scenario based questions, and be presented with more detailed answer choices. Students will not only need to select the correct answer, but also write justifications for or against all the answer choices. As an assessment as learning activity, students will be allowed to use resources to reinforce their knowledge of specific content, and apply that knowledge to the context of the question. With the increased complexity of the individual questions, and the time required for thorough student completion and feedback, an assessment piece of this style will consist of fewer questions than a standard multiple-choice assessment. I believe no more than five questions on any one assessment would provide the best opportunity for students to demonstrate understanding of the content being assessed and being able to receive meaningful feedback without being overwhelmed with information.

The assessment piece I am designing would be used during a module on the identification and treatment of respiratory emergencies. This would take place during a paramedic course,

meaning that the students would have already covered respiratory emergencies at a more simplified level during their previous EMT-Basic course (a requirement for admission into a paramedic program). Students taking this assessment would have a basic familiarity with patient assessment practices for respiratory problems, be skilled in common basic airway emergency treatments, and be familiar with the terminology and pathophysiology of the different respiratory issues. The purpose of the assessment is to give students an opportunity to apply knowledge of patient assessment, respiratory disease pathophysiology, airway management skills, and treatment protocols, in a way that demonstrates their ability to work through a given scenario, identify the patient's problem, and select an appropriate treatment.

Paramedic curriculum objectives are very specifically defined, leading often to a separation of specific skills or applications of knowledge in ways that do little to give us insight as to how a student would use the information as a whole when faced with a patient in respiratory distress in the field. This assessment would require students to reference and apply knowledge covering dozens of specific objectives, such as "identify a patient's need for oxygen administration", or "identify the signs and symptoms of pneumonia". While these objectives will be used in the creation of the elements of the assessment, as an instructor I am also looking for information on how my students are interpreting the question to identify the important elements that will differentiate one disease process and treatment plan from another. By giving them detailed feedback on their responses, I am hoping to not just correct any problems with content knowledge but to guide them through a more detailed process of identifying important information gathered from assessments that will allow them to make good treatment decisions in any patient care scenario.

The overall goal of EMS education is to prepare students to be able to apply their knowledge and skills in a wide variety of complex patient situations. There is often a heavy focus on teaching and assessing content knowledge, and not the process of applying that knowledge in ways that will make students successful providers. In EMS education, simulations are used to allow students an opportunity to demonstrate their ability to apply and transfer knowledge. While this is a necessary form of assessment, it does not give instructors a meaningful way to assess how a student is processing information and making decisions. Too often if a scenario does not go well, or students are questioned about actions and decision processes, it is viewed by the student as confrontational. The stress involved makes meaningful feedback difficult for the student to internalize, or turns the scenario from an opportunity to demonstrate transfer into one of reinforcing rote behaviors when the student is corrected. By assessing the students through this more individual assessment I am hoping to eliminate the performance anxiety of scenario assessment at the early stage when students are solidifying their understanding of basic concepts.

Success as an EMS provider requires that students be able to apply knowledge in a wide range of situations. This requires real understanding of the subject. "A person who has understanding can cope far better than others with the ambiguous – that is, real-world – challenges in which

what is required does not come packaged as a straightforward cue to stimulate a single response” (Wiggins and McTighe, 2005, p.48). A typical assessment in an EMS classroom is usually designed to stimulate a single response, without assessing how or why the student made that choice. By having students explain their choices, both for and against treatment decisions, I am hoping to give students practice with a process that will benefit them beyond the classroom. I believe the design of the assessment will also allow me to see if students have any misunderstanding of the content that needs to be corrected. The design of this assessment allows the student to see options in answer choices, but requires them to analyze each answer choice, differentiate between treatment plans, and discuss their thought process behind their selection of the correct treatment plan. Since this is the skill they will need to develop as a provider, the assessment and feedback can help them practice and develop this skill. As they evaluate their options, deficiencies in content knowledge can be identified and corrected as they work through the assessment using available resources.

In order for the assessment to be successful, students will be introduced to the content through readings, short lectures, and discussions. Students will also be familiar with different resources available as they work through the assessment scenarios. The assessment is asking students to think and respond in a way that may be unfamiliar to them. It will be necessary to let students know what the expectations are as they complete the assessment. Examples and practice questions demonstrating the level of detail in responses expected will be given before implementing the assessment piece.

I am designing this assessment to be completed electronically through the use of Google Docs. Since all of my students have accounts created with Google, and many course resources are already hosted on a Google Drive, I believe this system will provide the flexibility and familiarity to allow students to be successful in completing this assignment in a digital format. The use of Google Docs will also offer a feature rich text editor with collaboration features that will be beneficial for instructor feedback and student comments to that feedback as well as making it easy for students to make any necessary corrections to their work. Many of the courses I teach are in the hybrid environment, making the use of Google Docs a much more efficient and uniform way to process assignments.

The assessment as a Google Doc will be shared with the student in a read-only format, the student will make a copy of the assessment renaming the document to include the student's last name, and upon completion will share the assignment back with the instructor. This process would be explained and practiced with other types of assignments prior to the assessment to make sure the student is comfortable with the process.

Prior to the assessment, students would be assigned required readings covering the topic, been exposed to a lecture either in class or through a digital format, and be given the opportunity for questions and elaboration on the topic either in class or electronically through discussion forums or direct email.

Below is an example question, with samples (in blue text) of what would be expected from the student as they select the correct answer and their justifications. The italicised words are important elements for the question that should be addressed in each of the justifications.

Instructions: The following questions will present you with patient scenarios and patient information gained through an assessment of that patient, each question is a separate patient and scenario. For each question you will be presented with four possible answer choices. For each answer choice, you must identify it as “correct” or “Incorrect”. In addition to this, you must also state why the answer choice is either “correct” or “incorrect” based on your knowledge of the content in the context of the question. As you read the question pay attention to the *italicised* words, these will provide you with important elements of the question that should be addressed in your answer justifications.

Question #1: You arrive to find a 47-year-old patient in respiratory distress. You find that your patient has a *high fever* and a *productive, purulent cough*. His lung sounds are *diminished in the right upper lobe* and he indicates significant *pleuritic chest pain* when he takes a deep inspiration. This patient is MOST likely suffering from:

- A. Tuberculosis - *Incorrect - a TB patient would most likely not have diminished lung sounds in only one area, they may have chest pain and a fever, however they would not have a productive purulent cough, any production from coughing would most likely be blood or clear mucus.*
- B. Congestive Heart Failure - *Incorrect - CHF does not cause a fever in patients, and does not result in a productive cough. CHF would cause crackles or rales when listening to lung sounds from fluid buildup, but would not cause diminished lung sounds in just the upper lobe. While the patient may be experiencing chest pain, it would not be pleuritic in nature.*
- C. Pneumonia - *Correct - Pneumonia is an infection that frequently causes fever and the production of purulent (green or yellow) sputum. Pneumonia can be focused in only one area of the lung causing significant mucus production, so diminished lung sounds in only the upper right lobe makes sense. Because there is an infection with fever, this could cause an irritation and inflammation in the pleural spaces, causing movement of the chest during breathing to be very painful.*
- D. Pneumothorax - *Incorrect - A pneumothorax is not an infection and does not cause fever. There is also no increased production of any sputum, so any cough would not be productive. It is possible to have diminished lung sounds in the upper right lobe if that is*

the area where the pneumothorax has occurred, and it may be possible that the patient is experiencing pain on inspiration that could be indistinguishable from pleuritic pain.

This question would align with the following educational objectives:

5-1 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory problems

5-1.1 Discuss the epidemiology of pulmonary diseases and conditions.

5-1.4 Identify common pathological events that affect the pulmonary system.

5-1.5 Discuss abnormal assessment findings associated with pulmonary diseases and conditions.

5-1.10 Identify the epidemiology, anatomy, physiology, pathophysiology, assessment findings, and management for the following respiratory diseases and conditions: (C-1)

a. Adult respiratory distress syndrome

e. Pneumonia

f. Pulmonary edema

j. Spontaneous pneumothorax

For the example above I realize that my expectation in answer depth by the student is quite high. I would expect that it would take many exposures to this type of assessment, with supportive formative feedback, for them to be able to answer so thoroughly. Many times paramedic students have difficulty explaining their decisions and communicating in a professional way. I view this assessment as a way for them to practice communication with appropriate terminology, and as they progress in the program grading would become more strict regarding their use of correct terms, grammar, and style.

From this assessment I am hoping to identify any weaknesses in a student's understanding of particular diseases, treatment options, or an inability to identify and process important elements of patient information from the questions. Through the student's detailed answers I believe it will be easier to identify areas that the student needs to work on. Feedback to individual students could be much more focused based on student's responses. On the Google Doc I would be able to recommend further readings, ask for more elaboration, or ask follow up questions that might elicit replies that would give me the information I need to determine if a student is understanding the material.

I also plan to use this assessment to assess the effectiveness of the instruction, and to also guide future instruction. With the detailed responses I will be better able to specifically identify misunderstandings common to the majority of students. Based on this I can adjust instruction or create class lessons that will correct these misunderstandings or deficits in knowledge before

moving on to other topics. In the past if the majority of a class missed a question similar to my sample above in a simple multiple-choice format, the only correction to instruction would be to re-teach the material on those diseases. With better information from the assessment identifying specific areas of misunderstanding I would be able to spend time going into more depth on the content to improve student understanding. Through this process I might also be able to identify overall instructional techniques that are more effective with a particular group of students that could be applied to future instruction.

I hope that by being assessed with this more involved style of assessment students will move away from the tendency to try and memorize just enough facts to select the correct letter choice on a multiple-choice exam. At the same time I believe this assessment style will make them comfortable with the traditional multiple-choice assessment style they will face for their certification and licensure exams. After being required to justify every decision on their classroom assessments, simply picking a letter choice could reduce stress and testing anxiety when they sit for their course final exams and certification exams.

I tell my new students that the great difficulty they face when becoming paramedics is that all they see in the field are the paramedic's practical skills that honestly do not take long to master. What they cannot see is the thought process and critical thinking, based on a solid base of specialized knowledge, that occurs before any treatment decision or practical skill is performed. Improved assessment can help students practice this process, give instructors insight as to how students are progressing, and provide a way to give meaningful feedback to students. Meaningful assessment and feedback can bring instructors and students closer together, creating a much more collaborative and effective educational experience.

References

Wiggins, Grant P, and McTighe, J. (2005) Understanding By Design – Expanded 2nd Edition. Alexandria, VA: Association for Supervision and Curriculum Development.

August 9th, 2015

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Paramedic curriculum objectives are very specifically defined, leading often to a separation of specific skills or applications of knowledge in ways that do little to give us insight as to how a student would use the information as a whole when faced with a patient in respiratory distress in the field. This assessment would require students to reference and apply knowledge covering dozens of specific objectives, such as “identify a patient’s need for oxygen administration”, or “identify the signs and symptoms of pneumonia”. While these objectives will be used in the creation of the elements of the assessment, as an instructor I am also looking for information on how my students are able to critically think and transfer knowledge into new scenarios that go beyond simply eliciting a regurgitation of a memorized fact.

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can cope far better than others with the ambiguous – that is, real-world – challenges in which what is required does not come packaged as a straightforward cue to stimulate a single response” (Wiggins and McTighe, 2005, p.48). A typical assessment in an EMS classroom is usually designed to stimulate a single response, without assessing how or why the student made that choice. By having students explain their choices, both for and against treatment decisions, I am hoping to give students practice with a process that will benefit them beyond the classroom. I believe the design of the assessment will also allow me to see if students have any misunderstanding of the content that needs to be corrected. The design of this assessment allows the student to see options in answer choices, but requires them to analyze each answer choice, differentiate between treatment plans, and discuss their thought process behind their selection of the correct treatment plan. Since this is the skill they will need to develop as a provider, the assessment and feedback can help them practice and develop this skill. As they evaluate their options, deficiencies in content knowledge can be identified and corrected as they work through the assessment using available resources.

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Below is an example question, with samples (in blue text) of what would be expected from the student as they select the correct answer and their justifications. The italicised words are important elements for the question that should be addressed in each of the justifications.

Question #1: You arrive to find a 47-year-old patient in respiratory distress. You find that your patient has a *high fever* and a *productive, purulent cough*. His lung sounds are *diminished in*

the right upper lobe and he indicates significant *pleuritic chest pain* when he takes a deep inspiration. This patient is MOST likely suffering from:

- D. Tuberculosis - Incorrect - a TB patient would most likely not have diminished lung sounds in only one area, they may have chest pain and a fever, however they would not have a productive purulent cough, any production from coughing would most likely be blood or clear mucus.
- E. Congestive Heart Failure - Incorrect - CHF does not cause a fever in patients, and does not result in a productive cough. CHF would cause crackles or rales when listening to lung sounds from fluid buildup, but would not cause diminished lung sounds in just the upper lobe. While the patient may be experiencing chest pain, it would not be pleuritic in nature.
- F. Pneumonia - Correct - Pneumonia is an infection that frequently causes fever and the production of purulent (green or yellow) sputum. Pneumonia can be focused in only one area of the lung causing significant mucus production, so diminished lung sounds in only the upper right lobe makes sense. Because there is an infection with fever, this could cause an irritation and inflammation in the pleural spaces, causing movement of the chest during breathing to be very painful.
- D. Pneumothorax - Incorrect - A pneumothorax is not an infection and does not cause fever. There is also no increased production of any sputum, so any cough would not be productive. It is possible to have diminished lung sounds in the upper right lobe if that is the area where the pneumothorax has occurred, and it may be possible that the patient is experiencing pain on inspiration that could be indistinguishable from pleuritic pain.

Given your above field diagnosis for the patient, what is your *treatment plan* for this patient including any possible concerns of *infectious disease* and the use of *Personal Protective Equipment*?

The patient with pneumonia who is experiencing difficulty breathing will require the immediate application of supplemental oxygen, if the patient has an adequate respiratory rate and depth. Because this patient has an infection that can be spread through airborne droplets, providers should wear face masks and face shields in addition to gloves. An IV should be established with the possible administration of Normal Saline depending on the blood pressure of the patient and whether they show any signs of dehydration caused by the fever. Additional interventions would include the use of nebulized albuterol to relieve airway constriction and loosen mucus. If the patient's difficulty breathing progresses, the use of CPAP may become necessary to assist the patient's breathing.

This question would align with the following educational objectives:

- 5-1 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory problems
- 5-1.1 Discuss the epidemiology of pulmonary diseases and conditions.
- 5-1.4 Identify common pathological events that affect the pulmonary system.
- 5-1.5 Discuss abnormal assessment findings associated with pulmonary diseases and conditions.
- 5-1.10 Identify the epidemiology, anatomy, physiology, pathophysiology, assessment findings, and management for the following respiratory diseases and conditions: (C-1)
- a. Adult respiratory distress syndrome
 - e. Pneumonia
 - f. Pulmonary edema
 - j. Spontaneous pneumothorax

For the example above I realize that my expectation in answer depth by the student is quite high. I would expect that it would take many exposures to this type of assessment, with supportive formative feedback, for them to be able to answer so thoroughly. Many times paramedic students have difficulty explaining their decisions and communicating in a professional way. I view this assessment as a way for them to practice communication with appropriate terminology, and as they progress in the program grading would become more strict regarding their use of correct terms, grammar, and style.

I hope that by being assessed with this more involved style of assessment students will move away from the tendency to try and memorize just enough facts to select the correct letter choice on a multiple-choice exam. At the same time I believe this assessment style will make them comfortable with the traditional multiple-choice assessment style they will face for their certification and licensure exams. After being required to justify every decision on their classroom assessments, simply picking a letter choice could reduce stress and testing anxiety when they sit for their course final exams and certification exams.

I tell my new students that the great difficulty they face when becoming paramedics is that all they see in the field are the paramedic's practical skills that honestly do not take long to master. What they cannot see is the thought process and critical thinking, based on a solid base of specialized knowledge, that occurs before any treatment decision or practical skill is performed. Critical thinking and decision making is the hardest skill to teach and to assess, hopefully with the use of improved assessments EMS instructors will be able to better guide students through this difficult process.

References

Wiggins, Grant P, and McTighe, J. (2005) Understanding By Design – Expanded 2nd Edition. Alexandria, VA: Association for Supervision and Curriculum Development.

Brian M. Claesson-Patten

Module 2 - Formative Assessment Design version 1.0

1) A brief statement about the ways that assessments, in general, can be designed to support student learning and to inform instruction. This statement should be informed by the reading you have done in Modules 1 and 2.

A well-designed assessment piece can go far beyond determining a student's success or failure at learning specific content. As educators we often define assessments as summative or formative, with the main distinction being that a formative assessments is given while there is still time for us to correct the students understanding and give them another chance to prove it on a summative assessment before moving on to another topic. In order for an assessment to have value as a tool for student learning and guiding instruction, that assessment needs to go beyond determining if the student was simply right or wrong in their response. A well-designed formative assessment gives the student an opportunity demonstrate their understanding of the material in a way that allows us to see how they are transferring the knowledge to the task, as well as providing evidence of any misunderstandings that may be causing an unsuccessful transfer. Through a better understanding of the students ability in, and process of, transferring knowledge we can then provide specific, meaningful, feedback to the student. In order for the assessment to truly support and encourage student learning, the student must be allowed to take the feedback from the assessment and given an opportunity to apply that feedback in a way that will make them successful in a future assessment. As an educator, the information obtained from these assessments can identify if our students are meeting our goals in their understanding of the content. Especially important is identifying causes for student misunderstanding so that we can direct our instruction to help remove these misunderstandings. In order for an assessment to provide this valuable information, we must be clear on our educational goals, and make decisions on what types of activities will help to provide evidence of student understanding.

2) *The name and the purpose of your assessment. This statement of purpose should be anchored by curriculum expectations or other priorities, objectives, or skills frameworks that guide your work. Using language from UbD, this is your vision statement of the results you expect to see.*

The working title for my assessment is currently: *Respiratory Emergencies: Quality Care Decisions*

The assessment design is an adaptation of the standard multiple-choice test, which is currently the most widely used tool for both formative and summative assessment in an EMS classroom. While possibly an odd starting place for a formative assessment design, due to current expectations and cultures within the EMS education community among both educators and students, keeping to something more familiar could allow for greater acceptance and implementation. The change or modification in design from the typical multiple-choice assessment is that students will be presented with more in depth scenario based questions, and be presented with more detailed answer choices. Students will not only need to select the correct answer, but also analyze and write justifications for or against all the answer choices. As an assessment as learning activity, students would be allowed to use resources to reinforce their knowledge of specific content, and apply that knowledge to the context of the question. With the increased complexity of the individual questions, and the time required for thorough student completion and feedback, I would expect that an entire assessment piece of this style might only consist of two or three questions.

The assessment piece I am designing as an example would be used during a module on the identification and treatment of respiratory emergencies. This would take place during a paramedic course, meaning that the students would have already covered respiratory emergencies at a more simplified level during their previous EMT-Basic course (a requirement for admission into a paramedic program). This means that students would have a basic familiarity with assessment practices for respiratory problems, be skilled in common basic airway emergency treatments, but have very little experience in differentiation of specific disease processes and problems, and also lacking in experience in identifying more specific advanced treatments expected of an advanced provider. The purpose of the assessment is to give students an opportunity to apply knowledge of patient assessment, respiratory disease pathophysiology, and airway management and treatment protocols, in a way that demonstrates their ability to work through a given scenario and make decisions on appropriate and inappropriate provider actions.

Paramedic curriculum objectives are very specifically defined, leading often to a separation of specific skills or applications of knowledge in ways that do little to give us in insight as to how a student would use the information as a whole when faced with a patient in respiratory distress in the field. This assessment would require students to reference and apply knowledge covering

dozens of specific objectives, such as “identify a patient’s need for oxygen administration”, or “identify the signs and symptoms of pneumonia”. While these objectives will be used in the creation of the elements of the assessment, as an instructor I am also looking for information on how my students are able to critically think and transfer knowledge into new scenarios that go beyond simply eliciting a regurgitation of a memorized fact.

The overall goal of EMS education is to prepare students to be able to apply their knowledge and skills in a wide variety of complex patient situations. There is often a heavy focus on teaching and assessing content knowledge, and not the process of applying that knowledge in ways that will make students successful providers. In EMS education simulations are used to allow students an opportunity to demonstrate their ability to apply and transfer knowledge. While this is a necessary form of assessment, it does not give instructors a meaningful way to assess how a student is processing information and making decisions. Too often if a scenario does not go well, or students are questioned about actions and decision processes, it is viewed by the student as confrontational. The stress involved makes meaningful feedback difficult for the student to internalize, or turns the scenario from an opportunity to demonstrate transfer into one of reinforcing rote behaviors when the student is corrected.

Through this assessment I am hoping to give students an opportunity to apply knowledge and demonstrate understanding through a critical analysis of treatment options for a given scenario. By giving them detailed feedback on their responses, I am hoping to not just correct any problems with content knowledge but to guide them through a more detailed critical thought process that will allow them to make good treatment decisions in any patient care scenario.

3) A brief outline of what you would hope to learn about your students' learning processes from the assessment you design.

Through this assessment piece I am hoping to learn more about my students ability to apply existing knowledge and skills to situations that will make them think critically about correct and incorrect decisions as presented to them in the scenarios. Through the process of selecting the correct treatments and then writing their thoughts on why the treatments are correct, and the others are incorrect, I would like to gain a better understanding of how my students are processing and prioritizing information. Through repeated use of this type of assessment I would like to see if my students are more successful at reaching understanding of the material by being asked to explain their thought process as they make treatment decisions based on varying scenarios with varying amounts of information available for them to base their decisions on.

Typical instruction is based on students learning about signs and symptoms of diseases and appropriate treatments separately in two different learning modules. Memorization of facts is stressed, and then students are asked to apply those facts in scenarios. This often results in

failure for the student, as they are unable to recall these facts within the context of the scenarios.

One of the challenges in EMS education is determining is identifying why students are not succeeding. There are students who do very well with very little content knowledge, but have an ability to transfer that knowledge in a practical way. There are other students who have a very deep content knowledge, but lack the ability to transfer. Since we are teaching to adult learners with very diverse educational backgrounds, assessing and developing these abilities can be difficult in the very condensed timeframe of our courses. I would like to see if this assessment could identify specific weaknesses in either content knowledge or application skills for particular students.

4) An explanation of how the design of this assessment reflects what you understand about understanding and valid ways of getting at the complexities of that construct or set of constructs.

Success as an EMS provider requires that students be able to apply knowledge in a wide range of situations. This requires real understanding of the subject. "A person who has understanding can cope far better than others with the ambiguous – that is, real-world – challenges in which what is required does not come packaged as a straightforward cue to stimulate a single response" (Wiggins and McTighe, 2005, p.48). A typical assessment in an EMS classroom is usually designed to stimulate a single response, without assessing how or why the student made that choice. By having students explain their choices, both for and against treatment decisions, I am hoping to give students practice with a process that will benefit them beyond the classroom. I believe the design of the assessment will also allow me to see if students have any misunderstanding of the content that needs to be corrected. The design of this assessment allows the student to see options in answer choices, but requires them to analyze each answer choice, differentiate between treatment plans, and discuss their thought process behind their selection of the correct treatment plan. Since this is the skill they will need to develop as a provider, the assessment and feedback can help them practice and develop this skill. As they evaluate their options, deficiencies in content knowledge can be identified and corrected as they work through the assessment using available resources.

5) An outline of the ways that you would need to design instruction, given the purpose, content of the assessment, and the assumptions you've made about learning.

In order for the assessment to be successful, students would need to be introduced to the content through readings, short lectures, and discussions. Students would also need to be familiar with different resources available as they work through the assessment scenarios. The assessment is asking students to think and respond in a way that may be unfamiliar to them. It will be necessary to let students know what the expectations are as they complete the assessment. An example demonstrating the level of detail in responses would be necessary.

6) A list of three digital tools that you are exploring as supports for this work, with a brief description of the ways that you are thinking about those tools as integral to the learning and assessment processes.

I am still trying to decide on how, or if, this assessment will be evaluated or graded as part of my courses. As I make that decision it might help direct my choice of electronic tool for implementation of the assessment.

I currently use Haiku Learning as an LMS system for several of my courses. Within Haiku there is a good assessment creation tool that would work for the format of my assessment. The assessment would allow the student to select that correct answer choice as well as enter the justification for or against. One nice feature of the system is that after the student completes the assessment I could allow them to see the answers along with justifications or notes from the instructor almost immediately. This would not provide personal corrective feedback, but would give students detailed answers in a timely way. The small text boxes for student entry may feel constrictive and result in abbreviated responses. I am also concerned that the look and feel of the assessment will still seem too summative for the student.

I am also considering using Google Docs to collect responses and give feedback. The benefit of this system is that students would have the ability to be very detailed in their responses. The autocorrect of the system would hopefully encourage better writing skills, which many of our students' lack. The system also allows a nice way for the instructor to give feedback and make references to student responses through highlighting. Overall as an electronic tool, the shared doc can build a sense of collaboration between teacher and student.

I am struggling to come up another digital tool to use for this assessment. I was considering initially one of the survey tools that would allow students to submit responses, such as SurveyMonkey, but at this point feel that there would be a disconnect between the answers submitted and my feedback. While the submissions are important for me to get a sense of how my students are doing, if I cannot provide them with feedback that is very specifically tied to their responses I am losing the learning benefit of the assessment.

I will continue to look for other digital tools, however I am now more focused on feedback as the priority rather than collection of responses.

References

Wiggins, Grant P, and McTighe, J. (2005) Understanding By Design – Expanded 2nd Edition. Alexandria, VA: Association for Supervision and Curriculum Development.

