**LARC BETA TESTING -**

**Gathering Data**

Write down the questions you are trying to answer about the assessment process. These questions might be about student learning, student engagement, course assessment,  program assessment, institutional effectiveness, or other areas of interest. These questions will inform the process you use to decide what data to gather and how you gather it.

Questions:

1. I am working on redesigning a continuing education course and transitioning from on site to hybrid model with online and on site content. How can I best assess that the course is as effective as it has been in previous years?
2. I understand that application type questions call on higher order thinking skills, however, it seems that there is some element of recall that also needs to be tested. What is the right balance?
3. Even with formative assessment, which is not graded, there appears to be an element of increased student stress levels associated with this, how can I decrease this?
4. How frequently would I utilize formative assessment in a 10 week course?
5. When writing multiple choice questions, is there an ideal number of options to choose from?

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| **What are the goals/objectives you are trying to achieve?** | **What are the questions you are trying to answer?** | **Category of data** | **Source of data/method of data collection** | **Timeline / deadlines** | **Roles and responsible individuals, and groups?** |
| Apply critical thinking in order to synthesize orthopaedic physical therapy examination information, determine an appropriate classification of common musculoskeletal disorders and select the most appropriate intervention based on the principles of evidenced-based medicine. | 1. I am working on redesigning a continuing education course and transitioning from on site to hybrid model with online and on site content. How can I best assess that the course is as effective as it has been in previous years?  2. I understand that application type questions call on higher order thinking skills, however, it seems that there is some element of recall that also needs to be tested. What is the right balance? | Quantitative – can compare final exam score between years. | End point – number of residents/course attendees who pass the OCS examination  However at end of 10 week course there is a final exam score which can be utilized to assess the course  Also have course evaluations | Results are too far away to be able to utilize and modify the course in a timely manner  Final exam is at the end of 10 week course  However need more frequent assessment throughout the course | Residency director tracks pass rates  Instructors need to rewrite some of the region specific questions for conformity (e.g. all questions are multiple choice, 4 options)  Instructors need to contribute to biweekly assessment/check ins. Residency director responsible for grading and tracking student progress and sharing results with guest instructors. |
| Demonstrate proficiency with performing region-specific comprehensive exam integrating manual therapy and movement-based assessment tools that have been validated by the literature or supported by clinical experts. | 3. Even with formative assessment, which is not graded, there appears to be an element of increased student stress levels associated with this, how can I decrease this?  4. How frequently would I utilize formative assessment in a 10 week course?  5. When writing multiple choice questions, is there an ideal number of options to choose from? |  |  |  |  |

**Part 2: Factors to consider before deciding what data to gather**

Now that you have articulated and prioritized your questions, begin to brainstorm some of the data you could potentially gather to answer these questions.

Create a list of this potential data. You can use your assessment plan table from the previous activity, but be prepared to change and rework your list as we begin to think about what factors should influence the type of data we gather.

* Interim assessments – biweekly mini quiz scores
* End of 10 week course there is a final exam score which can be utilized to assess the course
* Course evaluations
* End point – number of residents/course attendees who pass the OCS examination

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| **Data Source** | **Educational**  **Input, Output, or Experience** | **Higher or Lower**  **Validity** | **Higher or Low**  **Reliability** | **High, Low and type of Process Input Need** | **Intensity of Process: Roles and Timeline** | **Higher and Lower Process Output** |
| Interim assessments – biweekly mini quiz scores | At present measuring only output.  Could have a pre test to measure input | High validity (directly related to course content) | ? reliability | Technology needs are high:  high process input initially (input quiz into learning software),  software grades quiz (low process input)  Faculty input high – writing the questions.  Have students write questions as part of assignment | Interim formative assessment (bi weekly quizzes have been added as a new feature this year) – now timeline and intensity is spread out across the 10 week course. | Have had high numbers of students complete interim assessments – relatively high output |
| Final exam score | Output | High validity (directly related to course content) |  | Faculty input high – writing the questions.  Course coordinator input high – grading and releasing scores | Historically this has been the only form of assessment in the course (high intensity at the end of the course).  Now with interim assessments, this has evened out | All participants complete the final exam to get a course certificate, high output data |
| Course evaluations | Educational experience |  |  |  | High intensity at the end of the course. Time allocated within the course for students to complete assessment. Course coordinator reviews and compiles data and distributes to course faculty | Allocating time within the course, before distributing course certificates has increased output from course evaluations |
| Clinical reasoning assignments | Assesses input and output because student prior experience is usually evident, especially early assignments | High validity – assignments are associated with the region of the body residents are currently studying | Could be lower reliability. However all assignments have the same ‘grader’ (course coordinator) | Low input for assignment instructions  High faculty input needed to grade assignments |  | High output – all residents are required to complete assignments |
| OCS (Orthopaedic Certified Specialist) Exam Pass rate | Educational experience and output | High validity |  |  |  | Data collected from graduate surveys – relatively high output |

**Final reflection**

1. While creating the product, on which types of data and sources of data did you decide to focus and why?

Initially my questions were ‘in the weeds questions’ about decreasing student anxiety around even ungraded assignments, types of questions etc.

1. What questions or challenges arose for you when completing this task?

As I was completing the task I realized that I did very little to take into account educational input and what students were coming to the course with. There was no way of measuring this other (a) the requirement that all residents be licensed before entering our program and have graduated from a CAPTE accredited program and (b) data gathered from an initial clinical reasoning assignment

1. For group dialog: What is one piece of advice or information that you would give your colleague if they asked for feedback on how to improve and/or re-prioritize this list of goals, objectives, questions, types of data and sources of data?

I would say to broaden the lens with considering assessment, even if only considering one course. Think back to Institutional objectives, Program objectives and then course objectives.

**Part 3: What are the best practices for gathering data?**

1. In comparison to examples discussed in the video, what do you see as some of the biggest roadblocks you might encounter in collecting data?

FERPA/student privacy, cooperation from faculty

1. Why is it important to have policies or procedures in place for storing data you have gathered?

To protect student and faculty privacy

1. How can you envision making the data gathering process easier on your campus?

I think our online learning platform (D2L) allows us to grant access to others at the Institution which help with the ease of gathering data

1. Revisit the best approaches to gathering data that you drafted. Are there ideas you want to add to the list after viewing the video and reading through the list of questions and prompts?

Original list:

* Gathering data from student assessment: Quizzes, IRATs, TRATs, clicker questions, exams, course evaluations, surveys
* Gathering data from faculty: surveys, brainstorming sessions

After watching the video, something that I would add is assessing student goals – what do they envision the ‘end point’ of the course would look like. We have students write a mission statement about what the end point of their physical therapy education would look like but should consider something similar for each course perhaps.

1. In what ways at your institution do you envision using multiple different sources of assessment data to get a better understanding of student learning?

Need to assess prior knowledge – what students are coming in with. Assess knowledge intermittently and not just with a final exam or practical.

**Final Reflection**

1. While creating the final product, what roles and responsibilities did you assign and why?

As the director of the residency and coordinator of the didactic component of the course, I took on the majority of the tracking of the data/student progress. The faculty/guest lecturers also have roles to play in writing questions and ensuring some conformity of test questions (e.g. MCQ, number of responses etc)

1. What questions or challenges arose for you when completing this task?

I think that I still have questions about assessing student engagement. I don’t think that I have determined a reliable measure of this other than (a) course evaluation (b) exam scores.

1. For group dialog: What is one piece of advice or information that you would give your colleague if they asked for feedback on how to improve and/or re-prioritize this list of goals, objectives, questions, types of data, sources of data, timeline/deadlines and roles and responsible individuals and groups?

Think broadly before getting into the weeds of the actual assessment. Have a clear research question – which I did not have when starting this course.