

(1) Please provide your raw assessment data (e.g., number of students who obtained the questions correct; results of scoring rubric, etc.). You may upload this as a separate attachment.

See attached excel document.

(2) Please summarize your assessment results with reference to the three specific learning goals you articulated in each of the three areas including (a) knowledge and conceptual understanding; (b) thinking and other skills; and (c) attitudes, values, dispositions and habits of mind.

Goals

- identify relevant numerical data sources and extract numerical data from data tables
- utilize these data to generate graphs that effectively visually represent the data (bivariate line or bar graphs)
- gain comfort and confidence in mathematical skills utilize quantitative data and QR to make informed health decisions
- - - Students scores improved significantly between the pre-test and post-test.
 - They were able to identify the correct source of data and extra the relevant data from a complex grid within and existing table.
 - All but one student created a proper data table in the post task.
 - - Students showed significant improvement in graphing the correct data and in the post test they correctly labeled the axes of the graph and provided a clear title.
 - I think that the second graph may have been a little easier to generate then the first so it may not be 100% comparable.
 - - Students who indicated low or moderate confidence in their answers during the pre-test gained significant confidence in the post-test. The students also did a better job of predicting their success in the post-test.
 - It is worth noting that the students biggest weakness was using numbers in their written answers. They all get the basic idea but were hesitant or did not understand the value of adding the numbers to the text.

(3) Do you feel that the assessment instrument(s) you used adequately measured whether or not your instructional activities were effective? Why or why not? Please also indicate how you will use these assessment results to improve your instruction.

- I like the general outline of my tool but think that my post test may have been a little easier than my pretest. Mainly, the pretest was a line graph and my post test was a bar graph. Next time I would make them the same.
- In the pretest, it may have been more challenging to identify the source of the data but the data itself was easier to extract from the document than in the post test.
- I have made changes to the language in both tests to better align with each other.
- It is also clear that students are really not comfortable using excel and went online to find other graphing tools. Next time I will have to spend more time on how to use excel or decide that it is not important to me how they make the graphs just that they do. I guess using excel was an unstated objective for my learning module.

(4) Please post your reflections on incorporating the instructional and assessment materials you developed/adapted as a result of NICHE. Do you feel they were helpful and/or effective? How did your students respond to them? Will you continue to use them (both instructional and assessment materials) in the future?

- I really liked including these numerical components to my instruction. I think the students really valued the work in the end.
- They were clearly math phobic at the start and I am not sure how much that will change outside of my class but it got a little better in class.
- It was interesting to observe a huge gender gap in willingness to respond to the numerical questions. The generally female dominated conversation became very male dominated during these lessons. I am going to have to work on this directly next time.
- I will definitely use aspects of the module I developed at NICHE again and will probably use numbers in a lot more of my general instruction.
- I am also running a 3-day workshop at QC with Joanne Miller for our faculty to encourage them to do more QR in their teaching too.