Item Analysis Assignment

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When testing students on their knowledge of learned information, educators need to review their test items to ensure their learning objectives are met. Educators are to ensure that the test items they provide are appropriate to help students achieve academic success. Educators must also use test items that are challenging enough to test their knowledge of learned information. "Item analysis is essential in improving items which will be used again in later tests; it can also be used to eliminate misleading items in a test" (Quaigrain & Arhin, 2017, p 2) An item analysis helps educators examine students' responses to each test item to assess the quality of each test item and a test as a whole. This item analysis will be a review of Grace Cruz Myint's item writing assignment.

When reviewing Grace's learning objectives, I have noticed that these objectives are focused on obtaining an appropriate score. I believe the use of a high obtaining score does ensure that the test items are sufficient to meet these requirements. Her objectives also highlight medical-surgical topics which are specific to her choice of focus. Each learning objective has achieved every aspect of the SMART criteria.

Her test items use different varieties of cognitive levels and types of questions which helps promote learning. Her first question is a multiple-response question with a cognitive level of understanding/comprehension, which is correctly identified. This question is clearly stated in a short lengthy statement. Understanding/comprehension is the correct cognitive level. This question ensures that a student would have to know what is a hydrocolloid dressing and its appropriate use for a Stage III pressure ulcer. This question aligns with her first learning objective which aims to demonstrate proficiency in wound management for patients.

Grace's Second test item is clearly stated to be directed to the sepsis intervention she mentions in her second learning objective. I believe this question has a higher difficulty level

than the first question as it is a multiple-response question with multiple answers. This is exactly

what you would find on the National Council Licensure Examination (NCLEX). The wording of

this question is exactly how a question would be if it was on the NCLEX. This type of question

with a multiple-response answer would have a cognitive level of applying/application, which is

correctly identified by the answers it provides.

This third question is much more specific to the cognitive level of

remembering/knowledge due to the given vitals. As the answer is septic shock, it is pertinent to

know the textbook identification of septic shock. This is also directly aligned with the second

learning objective. The fill-in-the-blank types are fairly new to me and, as it was stated in our

textbook, it is a new form of question that has been introduced to recent NCLEX exams that are

usually used to assess comprehension. I now understand that these new types of questions help

students with the use of clinical judgment. I believe Grace has executed this question

successfully by designing the vitals to directly correlate to septic shock with no other information

being distractors.

Her fourth question seems to have a lower difficulty level by using the true/false question

type when addressing her third learning objective which is prioritizing nursing interventions for

patients with acute exacerbation of chronic obstructive pulmonary disease (COPD). Although

this does not directly correlate to interventions, this question does reinforce knowledge of

COPD. The readability of this question seems to be flawed. Perhaps the question is missing a

word to complete its question. Regardless of how it was worded, I was still able to understand

the question's context and correctly identify the answer. I am unsure if the NCLEX still uses

true/false questions, but I think that this question can still the learner's clinical judgment.

Grace has correctly identified her fifth question's type and cognitive level. The level of difficulty would align with NCLEX content and aligns perfectly with her third learning objective. The length and readability are appropriate and it includes distractors in its possible answers. I believe this question has a higher difficulty level than the other questions which will greatly challenge the learner's knowledge on this specific topic.

Overall, Grace's item writing assignment was perfectly executed. She has correctly identified each item's type and cognitive level. Grace has successfully followed all the general rules that were identified in our textbook and kept the level of difficulty aligned with NCLEX content. Each item had an ideal use of clinical judgment and aligned directly with all her learning objectives. I truly believe that Grace will be a great educator in the future with these item writing skills.

References

Quaigrain, K., & Arhin, A. K. (2017). Using reliability and item analysis to evaluate a teacher

developed test in educational measurement and evaluation. *Cogent Education*, *4*(1),

1301013. https://doi.org/10.1080/2331186X.2017.1301013