
The Perceived Difficulty Assessment Questionnaire (PDAQ): *Methodology and Applications for Leisure Educators and Practitioners*

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Abstract

This learning activity introduces the Perceived Difficulty Assessment Questionnaire, or PDAQ. The PDAQ is a simple self-measure of difficulty that can be included in every assignment completed by a student (e.g., exams, quizzes, homework assignments, fieldtrip reports, etc.). The PDAQ uses a 5-point Likert scale to assess perceived difficulty and perceived length of the exercise (among other items), and incorporates a short open-ended question that requests the student's opinion and/or comments on the exercise. Whilst still in its exploratory stage, use of the PDAQ appeared to have resulted in higher student motivation levels; increased desire by the students to improve their performance; and a more effective learning and teaching experience. The PDAQ methodology and recommendations for best practices are also discussed.

KEYWORDS: Self-assessment, student performance, perceived difficulty, student feedback

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Introduction

In spite of a wide body of literature on student self-assessment (e.g. Bollag, 2006; Boud, 1995; Tan, 2008), little research has been conducted contrasting the results of self-assessment with actual student performance, as measured by written forms of examination (e.g., exams, quizzes, reports, etc.). Furthermore, with some exceptions (e.g., Tan, 2004), the practical implications of student self-assessment classroom activities have not been addressed. Although leisure educators and practitioners have been at the forefront of scholarly research concerning assessment techniques in higher education (Russell & Kovacs, 2006), scholarly research and systematic use of self-assessment techniques in leisure and recreation curricula is still in its infancy.

In an effort to improve the quality of our teaching through the inclusion of self-assessment measures, we have developed the Perceived Difficulty Assessment Questionnaire (PDAQ). The PDAQ is a simple self-measure of assignment difficulty that can be completed by all students and included in every assignment (e.g., exams, quizzes, homework assignments, fieldtrip reports, etc.). The PDAQ uses a 5-point Likert scale to assess perceived difficulty and perceived length of the exercise (among other items). It also incorporates a short open-ended question that requests the student's opinion and/or comments on the exercise. An example of the use of the PDAQ in an in-class exercise (a review quiz) can be found in Figure 1.

Background and Theoretical Framework

The PDAQ has its origins in the question that instructors often ask students upon completion of a given exercise, "How did it go?" By doing so, the instructor is simply requesting immediate feedback from the students. While it is fairly straightforward to assess students' knowledge of the material at a given point in time (e.g., via an exam or quiz), it is more difficult to assess whether or not students are actually learning and, more importantly, whether or not they accurately identify how their actions impact (positively or negatively) the learning process. Most ad-hoc attempts to document and assess student learning, well intentioned as they may be, often result in the impossibility of applying such knowledge in a systematic and scientific manner.

Ordinarily, the instructor is interested in the students' perceptions of the exercise's difficulty, length, clarity, expected grade, and so on (Angelo & Cross, 1993). As instructors, that was a question we often asked of our students. Unfortunately, we found that not only was it impractical to ask every student individually for feedback on an exercise, especially in large classes, but also that we tended to obtain fairly bland responses (e.g., "Okay," "Good," "So-so"). We also found that, in many cases, the vague response did not correspond to the students' actual performance.

Based on existing research (Tan, 2004), we hypothesized that asking students in person about assignment difficulty might inhibit their responses, and a more thoughtful response might be achieved if students had the opportunity to express themselves in writing. To that end, we conducted a small experiment that included a short question on the last page of a written exercise, asking for the students' written feedback on the exercise. Before we asked the students to complete the exercise, we mentioned that we had included a final series of short questions, which did not count

RATE THIS EXERCISE – please help to increase the quality of this course by answering the following questions (circle the appropriate answer). Answer them as truthfully as possible. Participation is voluntary and confidential. Thank you.

Difficulty Very Difficult Difficult Fair Easy Very Easy

Length Very Long Long Just Right Short Too Short

Opinions/comments _____

FIGURE 1: PDAQ included in a class exercise (review quiz)

toward their grade, but instead asked for their opinion on the exercise. Consistent with existing research about students' perceptions of self-assessment (Falchikov & Boud, 1989; Rust et al., 2003) we emphasized that responding to the question was voluntary, and that the resulting data was confidential. The results of the experiment were encouraging, with a 98% response rate, and with more than 80% of the students providing responses and comments on the exercise they had just completed (Authors, 2010).

Methodology and Desired Outcomes

Based on initial encouraging findings, we implemented the PDAQ in ten undergraduate classes over the course of five semesters. All three instructors were encouraged to include the PDAQ at the end of each student assignment, to modify the PDAQ as appropriate for each assignment, and to review feedback from students. We also stressed the importance of confidentiality and voluntary nature of student participation and that implementation of the PDAQ should not take more than a few minutes per class.

We found that use of the PDAQ results in a number of significant learning outcomes for both students and instructors. First, it provides immediate student feedback on any written exercise, on a virtual limitless number of desired topics. Second, it compels the student to reflect on his/her performance upon completion of a given exercise. Third, it allows the instructor to see any given exercise "through the students' eyes" and to improve and/or eliminate question(s) perceived to be too difficult, too ambiguous, and/or too easy. Fourth, it allows for comparisons between perceived, expected and actual student performance. Across the spectrum of classes where the PDAQ was administered, instructors commented that, with very few exceptions, students are honest in their assessment of course exercise and their own performance. Fifth, if used simultaneously by more than one instructor, the PDAQ allows for comparisons of perceived difficulty, among other measures, between

instructors at the departmental level. Finally, the most encouraging outcome of use of the PDAQ has been the positive feedback from the students, who seem empowered by use of this questionnaire. We found that by addressing and discussing PDAQ results with the students and making changes to course material where appropriate, students seem to take an added interest not only in their performance, but also in the course itself. After implementing the PDAQ, instructors commented on higher student motivation levels; increased desire by the students to improve their performance; a more effective learning and teaching experience; and the need for more robust and effective student evaluation instruments (Authors, 2010).

Recommendations and Suggestions for Future Use

To maximize the potential of the PDAQ as a student self-assessment tool, we have found that the importance of student self-assessment and its benefits should be made clear from the onset of the course (vide supra; see also Angelo & Cross, 1993). Common ways of doing so include a brief mention in the course syllabus; a short lecture on the purpose and benefits of the PDAQ at the beginning of the semester; and open discussion with students before the first written assignment. Students' comments should be compiled, analyzed, and the resulting feedback should be communicated to the students on a regular basis. It is important that the PDAQ is included in all written assignments, so that students get into the habit of systematically reflecting upon their performance once they finish the assignment.

We recommend also that, whenever possible, instructors collect and analyze PDAQ data using virtual learning environments (VLEs, i.e., software designed to support teaching and learning). For example, a customized version of the PDAQ can easily be included after an online quiz is administered to students, and their feedback easily recorded and made available to them (confidentially) in real time, along with class averages for each PDAQ item.

Furthermore, we found it extremely useful to discuss overall PDAQ scores with the class as a whole, which can be done quickly at the beginning of each class. We found that, particularly after important assignments such as quizzes or exams, PDAQ feedback was crucial to motivate students to increase their efforts for the next assignment. For example, mentioning that most students in the class classified the previous assignment as "Difficult" but the class average was 89%, not only acknowledges the students' efforts, but may serve as well as a motivational boost for the next assignment. Inclusion of customized PDAQ items that address a given exercise's relevance in tandem with its perceived difficulty may also be of use to reinforce the notion that learning is not always easy.

Lastly, a question that warrants further discussion is who ultimately benefits from (self-) assessment measures such as the one we present in this paper. On one hand, student feedback is a source for discovering how effectively the instructor is *teaching*, that is to say, to evaluate the instructor's performance (Enerson, Johnson, Milner, & Plank, 1997). On the other hand, feedback is a valuable source for understanding what and if students are *learning*. For example, it has been demonstrated that instructors who employ evaluation mechanisms regularly are stronger teachers (Seldin, 2003). Regrettably, college teachers have thus far been confronted with a lack of systematic

knowledge in regard to their students' learning (McKeachie & Svinicki, 2006). We hope that the development and use of the PDAQ will help narrow this gap, and thus enhance the learning process for both instructors and students.

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