Why African American College Students Miss the Perfect Test Score

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Abstract

Many African Americans were imbued with the cliché that they must work twice as hard as others to be a success in life. Entering college, students with this belief put extensive effort into earning top grades to ensure quality preparation for their chosen career; yet, some fail to earn top scores. Why? This is the million dollar question, but the answer may not be completely elusive. To investigate the problem students in a teacher preparation program were surveyed to gain their perceptions as to why they did not earn perfect scores on chapter quizzes (comprehension digests - CD, as known in the course). Additionally, the students were requested to specify their plan for improving their CD performance. The responses were sorted into major categories. The results showed that the students had challenges in the areas of test preparation, test-taking strategies, acquiring resources, benefiting from instruction, and dealing with personal problems. Plans to improve test performance fell into the areas of better test preparation, improved test-taking strategies, greater commitment to instruction, and acquisition of appropriate resources. Implications are provided as to how both the instructor and the students can help ensure better, if not perfect, scores on tests in their area of study.

Key words: College teaching, learning styles, students' test performance, study habits, tests and measurements, universities and colleges.

Introduction

Performance on tests is one of the greatest indicators of success in college. If students do not earn sufficient test scores, they do not graduate and earn a degree. The issue becomes how do students and faculty help to ensure proficient performance on various tests and exams administered in college.

Some researchers have examined student performance on various types of test items, for example, multiple-choice verse short-answer questions (Bleske-Recheka, Zeuga, & Webb, 2007). This study took a very fundamental approach and investigated students' perceptions as to why they failed to earn perfect scores on tests.

The review of related literature and the students' perceptions were viewed in reference to some major circumstances and tenets in higher education to arrive at implications for more effective teaching and enhanced student learning. Particular focus was on the condition of higher education (Roksa & Arum, 2011), theories on learning and test performance (Bagher, Ali, & Hossein, 2012; Palumbo & Steele-Johnson, 2014; Paul, 2015; Wang, Pascarella, Nelson Laird, & Ribera, 2015), and teaching and learning styles (Burka, 2008).

Review of Literature

Limited research has been conducted on students' perceptions of their performance on tests and how they might be able to improve on them. More studies have been conducted on how students perform on various test items and what might influence their performance. Zeug and Webb (2007) studied test and achievement data for college students and found that only a few consistently did better on one type of exam than another (e.g. multiple-choice versus short answer).

In an effort to enhance test performance, Wright and Burn (1991) incorporated "interesting" material prior to the test and found no main effect. However, positive emotions and thoughts to reduce test anxiety and raise confidence and performance had positive impact on quizzes (Nelson & Knight, 2010).

An investigation was made to determine if parental socio-economic status was correlated with test scores of their children. It was found that college students of parents who did not attend college were less prepared to go to college than those who had college-educated parents (Gewertz, 2015). Along similar lines, Williams (2006) investigated whether awareness of negative stereotypes about intellectual inferiority on one's "in-group" would undermine performance on academic tasks. It was found that men in stereotype threat conditions actually outscored men in non-stereotype threat conditions. However, Stereotype Threat Theory does holds that misconceptions do pose a problem in test performance (Palumbo & Steele-Johnson, 2014).

In this technological age, a study was conducted to ascertain if computer-based versus paper-and-pencil achievement tests made a difference in students' performance. Neither computer anxiety nor computer experience appeared to play a major role in moderating the usefulness of computer-based tests with college students (Barnes, Harvey, & Plake, (1989).

The nature of this study led to a search of evidence on key concerns and educational theories related to student achievement and performance on tests. A look at the condition of undergraduate education in the U.S. led to a call for transformed curricular experiences to cause colleges to place more emphasis on learning (Roksa & Arum, 2011). Concerning testing, it was suggested that they should be well designed and associated with meaningful activity to deepen and support understanding among students; such as the retrieval practice which treats tests as

occasions for learning (Paul, 2015). The deep learning approach, with its components being higher-order learning, reflective learning, and integrative learning, reportedly enhances teaching and learning (Howie & Bagnall, 2013; Wang, Pascarella, Nelson Laird, & Ribera, 2015). Also, Gardner's MI Theory (Bagher, Ali, & Hossein, 2012), where focus is on varying abilities of students, as well as encouraging students to accept ownership of their learning outcomes (Burka, 2008) have great implications for higher levels of test performance.

Because open-book test was central to this study, evidence was sort on the justification of its use. It was reported that open-book tests encouraged reading and improved study skills (Phillips, 2006). Open-book tests seem to be an absolute necessity in fields such as medicine that require extensive knowledge (Westerkamp, Heijne-Penninga, Kuks, & Cohen-Schotanus, 2013). From students' perspective, open-book tests led to higher initial performance than closed-book assessments, however, the gain did not continue and in the end both types of test yielded the same retention on a follow-up test (Agarwal, Karpicke, Kang, Roediger III, & McDermott (2008). It was found in another case that using open-book tests in conjunction with closed-book test improved knowledge needed to be known by heart (Heijne-Penninga, Kuks, Hofman, & Cohen-Schotanus, 2010).

Purpose

This study was established on the premise that proficient test scoring is a necessity for earning a college degree. Its specific purpose was to ascertain teacher preparation majors' perceptions as to why they earn less than perfect or less than high proficient scores on class tests. It also sought to discover what students felt could be done to improve their performance on tests. The utmost objective was to arrive at implications for establishing a milieu for teaching and learning that ensures proficient test performance.

Method

A survey instrument was designed and validated to ascertain students' perceptions as to why they failed to earn perfect scores on assessments in a selected course. Two pertinent survey statements of request were formulated and submitted to a three-member faculty panel for their review and input to make the statements valid for their intended use. The panel's input was carefully noted and used in arriving at the final version of the statements. The survey was as follows:

> Hello Future Educator:
>
> You have made some very good test scores in this course, but you have not always made the perfect score. Please state one or more reasons why you did not make a perfect score on some of the Comprehensive Digests (CDs). Also, provide any plans that you may have for improving your test scores in the future.
>
> Thank you,
> (Instructor)

The population for the study consisted of 24 teacher education majors at an urban university who were enrolled in a survey of exceptional children course. Requirements for the course included completion of an assessment (specified as Comprehension Digest, CD for short) for most of the chapters in the textbook. The CDs assessed knowledge, skills, and understandings acquired from their study and the instruction of the chapters. CDs generally contained 25 to 33 assessment items, including short-answer, multiple-choice, matching, true-false, and one essay and were administered during the latter part of the class period. Students were permitted to use their textbook but a 5-point penalty would be assessed.

The scoring rubric for objective items was correct or incorrect based on a scoring key and the essay was evaluated in terms of relevant factual content and skillful expression. Both combined could yield approximately 100 points. Any student who scored less than 70% was

permitted to further study the chapter and notes for a reassessment that could earn up to 70 points for that assignment.

When the students had attended class for four weeks and completed 4 CDs, the survey statements were administered. The self-reports were transcribed in their entirety and carefully analyzed to ascertain reasons as to why students failed to earn perfect scores on their CDs and their plans for improvement.

Findings

Upon analysis of information obtained from the survey as to why students failed to earn perfect scores on their CDs and what they planned to improve their performance, it was found that the statements tended to fall into some basic categories. For "why they failed to make perfect scores", the categories were Insufficient Preparation, Deficient Test-taking Strategies, Lack of Resources/Commitment, Problems with Course/Instruction, and Personal Problems/Issues. The students' plans for improvement fell into the categories of Better Prepare for Tests, Improve Test-taking Strategies, Further Commit/Attend to Instruction/Acquire Resources, and Better Manage Personal Problems/Issues/Otherwise Improve.

Table 1 illustrates the expressed reasons students gave for not earning perfect scores on class CDs. In the category of Insufficient Preparation, the deficiencies were not studying or preparing (17%) and not having appropriate work ethic and mindset (8%). In the area of Deficient Test-taking Strategies, two major problems for the students were time management (21%) and inability to decide on the right versus wrong answer (13%). Other problems with test-taking were simple mistakes, not knowing how to study for tests, and inability to comprehend what the question entails.

When it came to the category of Lack of Resources/Commitment, the students reported loosing points due to not having a book or being able to study (8%) and not listening or being lethargic in class (8%). For the category Problems with Course/Instruction, many used the textbook and a number regretted losing the 5 points for using it (21%). Also in this area students thought the teacher did not sufficiently explain material (17%), that there were too many distractions in class (17%), and the media of instruction contained too many abbreviations/acronyms (8%). In the domain of Personal Problems/Issues students reported having class overloads (8%), not adequately comprehending and remembering material (8%), being fatigue (8%), and just guessing answers to get to work (4%).

Table 1

Students' Reasons for Not Earning Perfect Scores on Comprehensive Digests (Quizzes)

(N = 24)

	No.	Percent
Insufficient Preparation		
- Did not study/read, prepare	4	17
- Work ethic hasn't been the best, mind not prepared	2	8
Deficient Test-taking Strategies		
- Time management, ran out of time/rushed	5	21
- Hardest time deciding right or wrong answers	3	13
- Deductions for silly mistakes, no attention to details	2	8
- Did not know how to study for class/CD	1	4
- Some questions worded oddly/vague)	2	8
Lack of Resources/Commitment		
- First CD, did not have a book, couldn't study	2	8
- Didn't listen in class, lethargic behavior	2	8
Problems with Course/Instruction		
- Teacher didn't explain information enough	4	17
- Points taken off for using the book	5	21
- Just getting use to the course	1	4
- Overhead not very helpful with abbreviations	2	8
- Distractions, one student always wanted attention	4	17
Personal Problems/Issues		
- Guessing answers to get to work	1	4
- Too tired to read through all of the literature	1	4
- Manage time between all classes, too many)	2	8
- Didn't comprehend, remember material	2	8

Table 2 reports what the students in the study planned to improve their performance in the future. In the category of Better Prepare for Tests over one third of the students plan to read, study, and ask more questions in class (38%). They also plan to better prepare their mind (4%) and create study groups (4%). In order to Improve Test-taking Strategies, the students plan to focus more on the questions (4%) and participate more in class (4%). To Further Commit/Attend

to Instruction/Acquire Resources a number of them plan to pay attention and be more productive in class (13%). They also value the textbook and plan to attend more to instruction. It was noted in the Otherwise category that expression of satisfaction with the grade was indicated (4%).

Table 2

Students' Plans for Improving their Future Performance on Comprehensive Digests

	No.	Percent
Better Prepare for Tests		
- Read, study, review more, ask questions	9	38
- Read chapters ahead of time, prep the mind	1	4
- Create study groups	1	4
Improve Test-Taking Strategies		
- Focus more on the question	1	4
- Participate - crazy how I remember from in-class discussions	1	4
Further Commit/Attend to Instruction/Acquire Resources		
- Got book, got couple perfect scores	1	4
- Be more productive, pay attention, do whatever necessary	3	13
- Really want to get through the semester	1	4
- Attend as teacher goes over terms, percents, test structure	1	4
Better Manage Personal Problems/Issues, Otherwise Improve		
- Satisfied with my grades	1	4
- Book was very helpful for CDs	1	4

Table 3 provides an overall picture of the students' performance during the first four weeks of the class. It shows the highest possible score (100 to 104), the range of scores (52 to 99), and the average (as well as percent in relation to 100) score earned on each CD (78% to 89%). The scores were on average at the acceptable to upper acceptable level. Of special note was that the average score increased with each CD. Further note was that the variance in earning perfect scores; one student earned three of possible four perfect scores but eight students earned at least one perfect score.

Table 3

Students' Performance on First Four CDs

CD No.	No. Students	Highest Possible Score	Range Low	Range High	Average (%)
1	33	100	65	95	78(78%)
2	29	100	52	95	81(81%)
3	28	104	64	99	86(83%)
4	28	104	72	99	92(89%)

Notes: 1 student had 3 perfect scores

2 students had 2 perfect scores

8 students had 1 perfect score

Summary and Implications

This study started from ground zero to ascertain why students failed to earn perfect/very high scores on class assessments (Comprehension Digests – CDs) and what students planned to improve their performance. It should not be assumed that students were performing very poorly. Table 3 shows that on average, they were performing at acceptable levels.

From the survey it was found that students' reasons for not earning perfect scores fell into the categories: Insufficient Preparation, Deficient Test-taking Strategies, Lack of Resources/ Commitment, Problems with Course/ Instruction, and Personal Problems/Issues. Things students planned to improve were in the categories: Better Prepare for Tests, Improve Test-taking Strategies, Further Commit/Attend to Instruction/Acquire Resources, and Better Manage Personal Problems/Issues/Otherwise Improve

Implications derived from this study were:

-Teachers and students can be partners in the instructional process. Students can inform instructors about what works best for them (how materials are prepared and presented).

-Students need to be encouraged to take ownership for their success in school (rely more on self than teacher for success).

-Students should be facilitated in better preparing for class and tests (students have a willing mind, teacher should offer directions).

-Teachers and students should analyze evidence of performance in class (many unknowns are brought to light; this sets the stage for improvement).

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