

FACTORS ASSOCIATED WITH STUDENT PERFORMANCE IN AUDITING: AN EMPIRICAL STUDY AT A NORTHEASTERN UNITED STATES PUBLIC UNIVERSITY

Carlos Rodriguez¹

Central Connecticut State University
United States

E-mail: rodriguezc@ccsu.edu

Mostafa M. Maksy²

Kutztown University of Pennsylvania
United States

E-mail: maksy@kutztown.edu

Michelle M. Kusaila³

Central Connecticut State University
United States

E-mail: mkusaila@ccsu.edu

Received: 2020-12-16

Accepted: 2021-03-18

Published online: 2021-04-20

Abstract

The grade the student intends to earn in the course is a strong motivating factor for students to perform well but intention to take the CPA exam or attend graduate school do not seem to motivate students to improve their performance in the Auditing course. The number of work hours and course load do not seem to have any negative effect on student performance, but students who work in accounting-related jobs perform better than students who work in non-accounting and non-business-related jobs. Class attendance and homework have positive effects on student performance but course study hours and total study hours per week do not. Students seem to make inaccurate evaluation of their math, reading, and listening abilities but make somewhat accurate evaluation of their writing abilities. Lastly, overall GPA is a strong predictor of student performance in the Auditing course.

Keywords: auditing; motivation; distraction; efforts; prior abilities; student performance.

¹primary and corresponding author

1. Introduction

Researchers have investigated a multitude of factors such as aptitude, exposure to prior coursework, and other intervening and moderating variables that have suggested the existence of significant relationships with student performance in higher education. Factors that have been used as proxies for motivation and effort are among those indicating significant positive influence toward student performance. This study aims to investigate the relationship between selected motivation, distraction, effort, self-perceived ability, and prior ability factors and student performance in the undergraduate Auditing accounting course.

One of the motivations of the current study is based on the notion that by identifying factors that motivate students to perform well, or that instead distract students from performing well, may help us to emphasize the former and to discourage the latter. A secondary purpose of this study is to provide empirical support to the intuitive belief that motivation enhances student performance. In addition, self-perceived ability factors can help to determine if students make accurate assessments of their own writing, math, reading, and listening abilities. The remaining sections of this paper present a review of prior research, discussion of the study objectives, variables, research methodology, and results. The paper ends with conclusions, recommendations, study limitations, and suggestions for further research.

2. Review of prior research

In recent past, various studies have examined the association between academic performance, aptitude, motivation and other factors and student performance. Often these studies used overall GPA as a proxy for prior academic performance. A significant number of researchers using participants and data from various colleges in the United States, have found evidence supporting overall GPA as a predictor of performance in accounting (Ingram & Peterson, 1987; Maksy & Zheng, 2008; Alanzi, 2015; Maksy, 2017; Maksy & Rodriguez, 2018; McCarthy et al., 2019).

Auditing is a core course in the accounting discipline at business colleges, and sometimes is a required course for other business majors requiring quantitative and assurance skills. To a limited degree, quantitative and assurance skills may be obtained in other business courses. However, studies exploring these latter skills have shown inconclusive results. Seow et al., (2014) reported that prior academic achievement, admission interview, critical thinking, and mathematical aptitude were significantly associated with successful academic performance. Quantitative knowledge was positively associated with academic performance in Cost accounting (Alanzi & Alfraih, 2017).

In the past, several investigators have discovered strong relationships between performance in accounting principles and student performance in subsequent accounting courses (Tickell & Smyrnios, 2005). Maksy and Zheng (2008) found that overall GPA and the grade in Intermediate accounting II are strong predictors of student performance in Auditing. Maksy and Rodriguez (2018) discovered that overall GPA and grades in Financial accounting were strong prognosticators of performance in Managerial accounting.

Studies involving motivation, or effort and motivation on student performance in accounting have shown positive associations, a view supported by Lane and Porch (2002). Various studies in accounting have used the grade a student intends to earn as a proxy for motivation, often resulting in positive association with student performance –e.g., Advanced accounting (Maksy & Zheng, 2008; Maksy, 2017), and Managerial accounting (Maksy & Rodriguez, 2018). Brown et al. (2016) found that guided reading questions had a positive impact on student motivation, reading comprehension, effort level, and understanding of the material before coming to class.

Coe (2016) surveyed upper-level accounting students from different institutions on factors that could influence a student's intention to sit for the CPA exam. Coe (2016) uncovered option to sit for the CPA exam after 120 credit hours of education, attractiveness of passing the CPA exam, access to a role model who is a CPA, self-efficacy, perceptions of psychological and functional support from faculty, and of social support from family and friends as factors with significant positive association.

Prior studies, on the other hand, have also investigated distraction factors that impact student performance negatively; nonetheless, some of these studies show mixed results. For example, Paisey and Paisey (2004), and Guney (2009) found a positive relationship between attendance and academic performance in accounting. Paisey and Paisey (2004) suggested part-time employment as a significant factor for students not attending classes. Lynn and Robinson-Backmon (2005) found employment status and learning outcomes as negatively related in higher-level accounting courses. Tessema et al. (2014) found that students who work a maximum of 10 hours per week usually have higher overall GPAs and are more satisfied than students who work a greater number of hours. Class attendance, student performance, and college experience were significantly related to student performance in a Cost accounting at a university in Kuwait (Alanzi, 2015). Fortin et al. (2016) studied reasons why nontraditional students in various academic institutions in Canada withdraw from undergraduate accounting programs, such as returning to school from short-time employment, dissatisfaction with courses, and low overall GPA, with overall GPA as the main reason for student withdrawal. Management responsibilities and time management factors were also found to contribute to student withdrawal.

In a study by Pavione et al. (2016) in Brazil, the authors pinpointed various factors that positively influence student performance such as teacher's didactics, content structure, desire to learn the subject, and library resources. The authors also pinpointed factors such as lack of interest, and lack of dedication to account for low student performance. McCarthy et. al. (2019) found that students taking online courses in Auditing and in Intermediate accounting III significantly outperformed students receiving the equivalent learning via face-to-face mode. Online students in Auditing also outperformed students in the hybrid mode. The authors' study suggested that low-performing students can benefit from hybrid (Intermediate accounting III) and online (Auditing, and Intermediate accounting III) delivery modes compared to face-to-face mode.

Rich (2006) observed significant negative relationship between class absence, class lateness and test performance. Maksy and Zheng (2008), Maksy (2017), and Maksy and Rodriguez (2018) found no significant negative relationship between hours of work per week and student performance in several accounting, auditing, finance, and investment courses. When compared to various previous studies, Alanzi (2015) surprisingly found grades in prerequisite courses, and overall GPA as not having positive significant relationship with student performance.

Studies have highlighted the importance of metacognition factors on student performance. Students that demonstrate commitment and responsibility toward their studies tend to excel in assessments (Gracia & Jenkins, 2003). Grade performance is significantly associated to student self-assessment of course learning objectives (Lynn & Robinson-Backmon, 2005). In a study by Schleifer and Dull (2009), the authors found a strong positive relationship between metacognition attributes and student performance. Lin and Songtao (2016) found that students with higher metacognitive awareness on class performance in Financial accounting perform better.

3. Study objectives

The *first objective* of this research is to study the association between three selected motivation factors (the grade the student intends to earn in the course, the student's intention to take the CPA examination, and the student's intention to attend graduate school) and the student's performance in a senior level Auditing course. A distinctive characteristic of the student population at this university is that many students are first-generation college students. The authors hypothesize that there are positive and significant associations between those motivation factors and student performance. That is, students who intend to earn higher grades, take the CPA exam or attend graduate school or both, are motivated to perform well and do perform well in the course to achieve their intentions (Coe, 2016). In the current study, the authors asked students whether they intend to sit for the CPA exam.

The authors assumed that those who answered “yes” instead of “no” or “maybe” were motivated to gain some or all the factors indicated by Coe (2016). A similar argument could be made for intention to attend graduate school, since most of these factors may be gained by attending graduate school.

The *second objective* is to study the association between three distraction factors (the student’s number of working hours per week during the semester, the student’s number of courses taken in the semester, and the student’s job type - whether or not it is related to accounting or business in general) and the student’s performance in the Auditing course. Intuitively, the higher the number of work hours per week, the less time the student will have to study for the course resulting in lower course grade. Furthermore, it is likely that the performance of a student taking higher number of courses will be affected negatively because the student may not be able to devote enough hours of study to the course. Additionally, if the student’s job is not related to accounting or business in general, the student’s grade in the Auditing course will be lower than if the student’s job is related to one of these areas. The authors hypothesize that if the student’s number of work hours per week is higher, and/or the number of courses taken in the semester is higher, and/or the student’s job is not related to accounting or business in general, there will be a significant *negative* association between these distraction factors and the student’s performance in the Auditing course. The potential exists for distraction factors to offset each other, thereby cancelling out any single factor effect. For this reason, the authors plan to test the effect of each distraction factor on student performance while controlling for the other two factors. The authors also plan to investigate the associations among the distraction factors themselves.

The *third objective* is to study the association between four effort factors (number of study hours for the Auditing course, number of study hours overall for all courses, homework scores, and class attendance) and the student’s performance in the Auditing course. Students that are motivated usually spend more time studying for the course, do well in homework assignments, attend classes, and participate in class discussions. Twenty-four (24) participants or 32.4% of participants were online students that had Attendance measured based on participation in weekly discussion boards. The study investigates the possible associations between these effort variables and motivation factors.

The *fourth objective* is to study the associations between students’ performance in the Auditing course and their current self-perceived abilities in writing, math, reading, and listening. A positive association between self-reported abilities and performance may indicate that students make reasonably accurate assessment of their abilities. A lack of positive and significant association between certain abilities and performance could be due to the possibility that those abilities are not relevant to the performance in the Auditing course or to students’ inaccurate assessment of their

abilities. The authors hypothesize positive and significant associations between students' self-perceived abilities and their performance in the Auditing course.

The *fifth objective* is to study the association between students' performance in the Auditing course and their grade in the pre-requisite Intermediate Accounting II course, and their overall GPA. Based on the results of several prior studies, the authors hypothesize that there are positive and significant associations between these prior actual abilities and student performance.

4. Study dependent variables

The study uses two dependent variables to measure student performance. The letter grade (A, B, C, D, F), and the overall points percentage earned by a student in the course. This is because the letter grade treats a student earning the lowest end of the grade range as having the same performance as that of a student earning the highest end of the grade range.

5. Research methodology

5.1 Survey instrument

The authors used survey questions from Ingram et al. (2002) with modifications that incorporated demographic and other information. For ethical reasons, confidentiality, and potential risk issues pertaining to participants the authors received Institutional Review Board (IRB) approval.

5.2 Study sample

Data on the survey instrument was collected within the first two weeks of each semester from undergraduate students enrolled in 3 sections in fall 2018 and 3 sections in spring 2019 semesters, for a total of 151 students, 63 and 88, respectively. Students that attempted to complete the survey were 105; however, only 74 usable responses were obtained. Female students account for 50.3 percent of the student population, and males, 49.7 percent. Data handling by authors followed rules established by the IRB at the study university.

5.3 Data analysis

To test the formulated hypotheses, the researchers used ordinary least square (OLS) linear regressions (Table 1), and Pearson and Spearman correlation coefficients (Table 2).

6. Study results

The following is an analysis of the study results by the type of factors investigated. Please note that partial correlations tables are not shown in the article; however, these are available from the authors upon request.

6.1 Motivation factors associated with student performance

As Tables 1 and 2 indicate, of the three motivation variables discussed in this study, only Intended Grade (IG) is significantly associated with student performance especially when it is defined as Points. When student performance is defined as Points, the level of significance is .01 under Pearson and Spearman correlations, and .10 under the regression test. However, when student performance is defined as Grade, the regression tests do not show any significant associations, Pearson correlations show significance at .05, and Spearman correlations show significance at .10. When controlling for the prior ability factors (Intermediate accounting grade, and overall GPA) the significant associations between IG and student performance under Pearson correlations weakened to the .10 level when performance was defined as Grade but remained strong at the .01 level when performance was defined as Points. Intention to take the CPA exam or to attend graduate school are not significantly associated with student performance (however defined) under all tests. These results agree with the study by Maksy & Rodriguez (2018).

6.2 Distraction factors associated with student performance

As Table 2 indicates, none of the three distraction factors have any significant negative association with student performance (however defined) under Pearson and Spearman correlations. Only the OLS regression tests in Table 1 shows a significant negative association between Job Hours and student performance (at the .01 level when performance is defined as Grade, and at the .05 level when performance is defined as Points). In analyzing the data further, the authors found a significant negative association between Job Hours and student performance (but only when performance is defined as Points and only at the .10 level of significance) when controlling for the other two distraction factors (Job Type and Course Load). However, when controlling for the other two distraction factors, as well as the prior ability factors (Intermediate accounting grade, and overall GPA), the significant negative association between Job Hours and student performance disappeared. This indicates that students who have the same grade in Intermediate accounting and about the same overall GPA, have the same performance in the auditing course regardless of how many job hours they work per week.

As Tables 1 and 2 indicate, there is a positive association between Job Type and student performance but only when performance is defined as Points. That association is at the .10 significance level under the Spearman correlation test, and at the .05 under the regression test. Students whose job type is accounting-related perform better than students whose job is business but not accounting-related, and the latter performed better than students whose job is non-business and non-accounting related. When controlling for the prior ability factors, the association between Job Type and student performance strengthened to the .01 level of significance when performance is defined as Points and even appeared at the .10 level when performance is defined as Grade. The authors also found a significant association between Job Type and student performance (at the .10 level of significance when performance is defined as Grade, and the .05 level when performance is defined as Points) when controlling for the other two distraction factors (Job Hours and Course Load). When controlling for the other two distraction factors as well as the prior ability factors (Intermediate accounting grade, and overall GPA), there is significant association between Job Type and student performance (at the .05 level of significance when performance is defined as Grade, and the .01 level when performance is defined as Points). Only the OLS regression test shows a significant positive association between Course Load and student performance (but only at the .10 level and only when performance is defined as Grade). Since the Pearson/Spearman correlation tests did not show any significant association between Course Load and student performance, the authors believe that Course Load has no effect on student performance and the association shown under the regression test and student performance is a statistical anomaly.

The result in this study that there is a significant association between Job Type and student performance (albeit only when student performance is defined as points) is not in agreement with some prior studies (Maksy & Zheng, 2008; Maksy & Rodriguez, 2018) that found no significant association between Job Type and student performance before or after controlling for the prior ability factors. The result obtained in this study that generally there is no significant association between Course Load and student performance is consistent with the results reported by Maksy and Zheng (2008), Maksy (2017), and Maksy and Rodriguez (2018).

6.3 Effort factors associated with student performance

As Tables 1 and 2 indicate, of the three effort factors discussed, Class Attendance has a significant association with student performance (however defined) under all statistical tests. The significance level of the association is .01 under the Pearson and Spearman correlation tests. Under the regression test, the significant association is present at the .05 level when student performance is defined as Grade, and at the .10 level when defined as Points. Further analysis indicates that the significant associations shown under the correlation tests remained strong at the .01 level even after controlling for the prior ability factors.

As Tables 1 and 2 indicate, Homework also has a significant association with student performance (however defined) under Pearson and Spearman Correlation tests but not under the regression test. The significance level of the association is .01 under the Pearson test when student performance is defined as Grade and .05 when performance is defined as Points. The significance level of the association is .01 under the Spearman correlations test whether performance is defined as Grade or Points. Further analysis indicates that the significant associations shown under the Pearson correlations test remained at the same levels even after controlling for the prior ability factors.

As Tables 1 and 2 indicate, none of the statistical tests used in the study showed any significant associations between Course Study Hours per week and student performance. Only the regression test showed significant negative association between Total Study hours per week and student performance but only when performance is defined as Grade and only at the .10 level. Further analysis indicates that when controlling for the other effort factors, there was significant positive association between Total Study Hours, as well as between Attendance, and student performance (at the .05 level) when performance was defined as Points in both cases. In addition, when controlling for the other effort factors, as well as for prior ability factors, a significant positive association (at the .10 level) between attendance and student performance exists. Based on these indicators, the authors can generally state that Class Attendance and Homework efforts have a positive effect on student performance.

6.4 Self-perceived abilities factors associated with student performance

As Tables 1 and 2 indicate, none of the statistical tests used in the study showed any significant associations between any of the self-perceived abilities (writing, math, reading, and listening) and student performance except in one isolated case where only the regression test shows significant association (at the .01 level) between writing and student performance but only when performance is defined as Points. Based on these results, the authors can generally state that none of the self-perceived abilities hypotheses have been supported. This may indicate that most students have overestimated their writing, math, reading, and listening abilities. Such assumption being correct may lead to negative consequences, since students with weak abilities in these areas may not seek help to improve those abilities – e.g., attending writing, math, or tutoring labs.

6.5 Prior actual ability (control) factors associated with student performance

As Tables 1 and 2 indicate, none of the statistical tests used in the study showed any significant associations between Intermediate accounting grade and student performance in auditing except in one isolated case where only the regression test shows such significant association (only at the .10 level and only when performance is defined as Points).

As Tables 1 and 2 indicate, all statistical tests used in the study showed significant associations between overall GPA and student performance, especially when it is defined as points. When performance was defined as Points, the level of significance was .01 under Pearson and Spearman correlations, and under the regression test. When performance was defined as Grade, the level of significant association under the regression test was weakened to the .10 level. Based on these results, the authors could infer that there is weak evidence that students with high grades in Intermediate accounting will earn high grades in the auditing course, and strong evidence that students with high overall GPA will earn high grades in the auditing course. These results particularly that GPA is a strong predictor of success in higher level undergraduate courses, are aligned with most prior studies.

Table 1
Regression analysis

Independent Variables	Dependent Variables			
	Letter Grade		Overall Points%	
	t Coeff.	Sig.	t Coeff.	Sig.
Constant	0.439	0.662	4.334	0.000***
Intended Grade	1.436	0.156	1.954	0.056*
CPA	0.882	0.381	1.005	0.319
Grad School	0.005	0.996	-0.648	0.520
Job Hours	-2.728	0.008***	-2.035	0.046**
Job Type	1.570	0.122	2.240	0.029**
Course Load	1.734	0.088*	0.705	0.484
Course Study	1.433	0.157	-0.446	0.657
Total Study	-1.889	0.064*	-0.182	0.856
Attendance	2.430	0.018**	1.949	0.056*
Homework	0.937	0.353	0.355	0.724
Write	1.619	0.111	2.817	0.007***
Math	-1.586	0.118	-1.254	0.215
Read	0.230	0.819	-1.544	0.128
Listen	-0.507	0.614	0.830	0.410
AC 312	-1.491	0.142	-1.792	0.078*
Overall GPA	1.756	0.085*	4.009	0.000***
Adj.R ²	0.292		0.434	
F	2.878	0.002***	4.504	0.000***

*Significant at 10%

**Significant at 5%

***Significant at 1%

(using two tails test)

Table 2Pearson/Spearman correlation coefficients^a

	Letter Grade	Points	IG	CPA	Grad School	Job Hours	Job Type	Course Load	Course Study	Total Study	Attend	Home-work	Write	Math	Read	Listen	AC 312	Overall GPA
Grad		.762***	.248**	.099	.016	-.107	.176	.157	.047	.078	.432***	.353***	.059	-.124	.056	.000	.018	.310***
Points	.797***		.345***	.109	-.091	-.146	.200	.163	.018	.184	.382***	.289**	.141	-.087	-.004	.104	.136	.472***
IG	.220*	.303***		.123	.171	.181	.079	-.054	-.024	.059	.311***	.229**	.086	.096	.098	.298***	-.101	.059
CPA	.050	.132	.149		.316***	-.101	.011	.020	.011	.087	-.010	-.030	.158	.143	.051	.045	.159	-.019
Grad Sch	-.006	-.100	.192	.265**		.066	-.163	-.026	.078	.072	-.077	-.098	.046	-.117	.246**	.048	-.153	-.039
J Hours	-.111	-.145	.208*	-.087	.049		.357***	-.050	.001	-.226*	.275**	.072	.103	.085	.138	.054	-.458***	-.346***
J Type	.193	.196*	.070	.000	-.162	.331***		.041	-.017	.010	.258**	.180	-.035	-.095	-.024	-.055	-.116	-.147
C Load	.162	.155	-.191	.076	.021	-.369***	-.024		-.137	-.005	.025	-.068	-.057	.159	-.063	.082	.151	.232**
C Study	-.094	-.010	.030	-.025	.088	.166	-.012	-.293**		.760***	.154	.051	-.141	-.102	-.072	.040	.068	.234**
T Study	-.040	.147	.022	.068	.030	-.121	.025	.040	.721***		.148	.058	-.118	-.218*	-.105	.023	.166	.343***
Attend	.406***	.442***	.329	.019	-.076	.212	.136	-.009	.134	.118		.600***	-.115	.042	-.019	-.002	.002	.190
H-work	.349***	.334***	.165	-.132	-.102	.145	.365***	-.085	.026	-.024	.413***		-.106	.035	-.103	.034	-.089	.045
Write	.071	.181	.078	.210*	.067	.115	-.037	-.134	-.052	-.067	-.110	-.004		.240**	.521***	.369***	-.079	-.119
Math	-.134	-.034	.099	.163	-.125	.054	-.111	.042	-.131	-.155	.048	-.032	.256**		.106	.324***	.047	-.137
Read	.078	.041	.117	.083	.255**	.094	-.022	-.101	.113	-.027	-.065	-.044	.545***	.124		.581***	-.126	.013
Listen	-.025	.094	.289**	.064	.063	.042	-.051	-.014	.102	.028	-.028	.026	.374***	.325***	.585***		.087	.047
AC 312	.008	.111	-.071	.125	-.133	-.471***	-.124	.117	-.011	.087	.051	.102	-.102	.008	-.148	.111		.517***
OGPA	.334***	.490***	.058	-.017	-.037	-.326***	-.141	.086	.210	.233**	.316***	.138	-.128	-.122	-.010	.050	.535***	

^a Pearson correlations are above the diagonal and Spearman correlations are below the diagonal

*Significant at 10%

**Significant at 5%

***Significant at 1%

(using two tails test)

7. Conclusions and recommendations

A general conclusion of this study is that motivated students perform better than non-motivated students. This is supported by the fact that students who reported that they intend to earn a high grade (such as an A or at least a B) performed well, earning those high grades. The intention to take the CPA exam and intention to attend graduate school do not seem to be motivating factors for the students to perform well in the Auditing course. Based on these conclusions, the authors recommend for accounting faculty, as well as for accounting researchers, to think of other factors that may motivate students to do well in the Auditing course, as well as in other accounting courses.

Another general conclusion from the statistical tests of this study is that the number of hours of work per week, and the number of courses taken in the semester, has no significant negative effect on student performance. That is, they do not distract the students and prevent them from earning higher grades in the Auditing course.

However, there is some indication that students who work in accounting-related jobs perform better than students who work in non-accounting related jobs. Based on this indication, the authors recommend that, if some students need to work more hours per week to support their family or carry higher than average course load to graduate on time, accounting faculty need not discourage them from doing so on the assumption that their grades will suffer. Accounting faculty should encourage accounting students who may have to work a significant number of hours to seek for work in accounting-related jobs. Accounting faculty need to consider multiple factors for poor student performance, in addition to the number of working hours per week, or the number of courses taken per semester.

A third general conclusion of the study is that class attendance and doing the assigned homework do lead to better performance in the auditing course. A surprising conclusion of this study is that the weekly hours of study for the auditing course or total study hours overall for all courses have no effect on student performance, even when controlling for prior ability factors. Only when the authors controlled for prior ability factors, as well as for class attendance and homework, that the results of the study showed a positive effect of course study hours and total study hours on student performance. Based on these results, the authors recommend to all faculty members at the School of Business, particularly accounting faculty, to encourage students to attend class and to complete all assigned homework. The authors assume that most faculties make such advising; hence, this recommendation is for faculty members who might not be making these suggestions.

A fourth general conclusion of the study is that there seems to be some evidence, albeit not overwhelming, that students who have good writing abilities perform better than students who do not have good writing abilities. A surprising conclusion of this study is that Math, Reading, and Listening abilities have no effect on student performance in the auditing course.

This is an indication of the possibility that students, particularly those that have poor performance in the auditing course, are overestimating their Math, Reading, and Listening abilities. A student's inability to accurately evaluate these skills can have negative effects on performance, since the student may not seek help – e.g., by attending math or tutoring labs. In light of this general conclusion, the authors recommend for the School of Business faculty, and accounting faculty in particular, to encourage students to make more accurate evaluations of their abilities (writing, math, reading, and listening), and to seek help for areas where improvement is sought.

Another recommendation for faculty is to encourage their students to read the course material in full, and to listen attentively to the instructor and their peers, and to ask for clarification if necessary. Students should also be advised to avoid distractions by using cell phones and/or laptops for reasons other those leading to an enhanced education.

A fifth general conclusion, as expected from prior studies in other courses, is that students with high prior actual ability end up earning high grades in the Auditing course. Specifically, the study provides evidence that there is a strong significant association between students' overall GPA and their performance in the Auditing course. In consideration of this general conclusion, the authors recommend that accounting faculty encourage their students to study hard to earn good grades in all courses to improve their GPA. Faculty should emphasize that research shows that students with high overall GPA tend to earn high grades in the Auditing course. The authors recognize that many faculty members may already be encouraging their students to do just that; thus, these recommendations are primarily for faculty members who may not be encouraging their students in that regard.

8. Study limitations and suggestions for further research

Like most studies, this study is subject to some limitations. One such limitation pertains to the subjectivity embedded in the self-perceived ability factors - Writing, Math, Reading, and Listening. Contrary to historical data (e.g., the grade received in prerequisite course) that can be verified against specific answers from the questionnaire, self-perceived ability factors are accepted as reported in the questionnaire regardless of whether these items accurately depict a student's self-reported abilities. As articulated in the literature, there seems to be a tendency for students to overestimate their self-perceived ability factors. A suggestion for further research would be to consider a more reliable method rather than to depend on a self-assessment approach- e.g., using historical course performance relating to these ability factors, or employing an exercise design to better measure these abilities. It should also be noted that factors pertaining to Intended grade, Intention to take the CPA exam, and Intention to attend graduate school are similarly exposed to a student's bias. Another limitation of this study is that the school is a state-supported university; hence, some conclusions of this study may lack applicability to private schools. A suggestion would be to replicate the study at a private university for comparison purposes, and thus to add to the literature.

References

- Alanzi, K. A. (2015). Determinants of students' performance in cost accounting-Further evidence from Kuwait. *World Journal of Management*, 6, 136-152.
- Alanzi, K. A., & Alfraih, M. (2017). Does accumulated knowledge impact academic performance in cost accounting? *Journal of International Education in Business*, 10, 2-11. doi:10.1108/JIEB-08-2016-0019
- Brown, C. A., Danvers, K., & Doran, D. T. (2016). Student perceptions on using guided reading questions to motivate student reading in the flipped classroom. *Accounting Education*, 25(3), 256-271. doi:10.1080/09639284.2016.1165124

- Coe, M. (2016). Factors that influence a student's intention to sit for the CPA exam. *CPA Journal*, 86(8), 18-20. Retrieved from <https://search.ebscohost.com/login.aspx?direct=true&db=mfi&AN=118272830&site=ehost-live&scope=site>
- Fortin, A., Sauvé, L., Viger, C., & Landry, F. (2016). Nontraditional student withdrawal from undergraduate accounting programmes: A holistic perspective. *Accounting Education*, 25(5), 437-478. doi:10.1080/09639284.2016.1193034
- Gracia, L., & Jenkins, E. (2003). A quantitative exploration on an undergraduate accounting programme of study. *Accounting Education*, 12, 15-32. doi:10.1080/0963928032000049375
- Guney, Y. (2009). Exogenous and endogenous factors influencing students' performance in undergraduate accounting modules. *Accounting Education*, 18, 51-73. doi:10.1080/09639280701740142
- Ingram, R. W., Albright, T. L., & Baldwin, A. B. (2002). *Financial Accounting – A Bridge to Decision Making*. Thomson South-western, Cincinnati.
- Ingram, R. W., & Peterson, R. J. (1987). An evaluation of AICPA tests for predicting the performance of accounting majors. *The Accounting Review*, Jan., 215-223.
- Lane, A., & Porch, M. (2002). The impact of background factors on the performance of no specialist undergraduate students on accounting modules – A longitudinal study: A research note. *Accounting Education*, 1, 109-118. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/09639280210153308>
- Lin, Z., & Songtao, M. (2016). The impact of metacognitive awareness on class performance in financial accounting courses. *Academy of Educational Leadership Journal*, 20(2), 78-88. Retrieved from <https://www.questia.com/library/journal/1G1-496014994/the-impact-of- metacognitive-awareness-on-class-performance>
- Lynn, S., & Robinson-Backmon, I. (2005). Course-level outcomes assessment: An investigation of an upper- division undergraduate accounting course and the factors that influence learning outcomes. *Journal of Accounting & Finance Research*, 13, 133-140. Retrieved from <https://eds.b.ebscohost.com/eds/detail/detail?vid=0&sid=aa0c700e-4c8f-489d-9129-a59e42461cf9%40pdv-sessionmgr06&bdata=JnNpdGU9ZWRzLWxpdmU%3d#AN=28743099&db=mfi>
- Maksy, M. M. (2017). Factors associated with student performance in advanced accounting: An empirical study at a commuter university. *Journal of Applied Business and Economics*, 19(9), 42-59. Retrieved from <https://search.proquest.com/docview/1992202725?pq-origsite=gscholar&fromopenview=true>
- Maksy, M. M., & Rodriguez, C. (2018). Factors associated with student performance in managerial accounting: An empirical study at a New England public university. *Journal of Applied Business and Economics*, 20(7), 102-125. Retrieved from <https://articlegateway.com/index.php/JABE/article/view/140>
- Maksy, M. M., & Zheng, L. (2008). Factors associated with student performance in advanced accounting and auditing: An empirical study in a public university.

-
- Accounting Research Journal, 21, 16-32.
doi:10.1108/10309610810891328/full/html
- McCarthy, M., Kusaila, M., & Grasso, L. (2019). Intermediate accounting and auditing: Does course delivery mode impact student performance? *Journal of Accounting Education*, 46, 26-42. doi:10.1016/j.jaccedu.2018.12.001
- Paisey, C., & Paisey, N. (2004). Student attendance in an accounting module – Reasons for non-attendance and the effect on academic performance in a Scottish university. *Accounting Education: An International Journal*, 13, 39-53.
doi:10.1080/0963928042000310788
- Pavione, C. N., Avelino, B. C., & de Souza Francisco, J. R. (2016). Factors that influence the teaching-learning process from the perspective of accountancy students: Analysis at a higher education institution in Minas Gerais. *Revista de Educação e Pesquisa em Contabilidade*, 10(2), 192-215. doi:10.17524/repec.v10i2.1371
- Rich, S. P. (2006). Student performance: Does effort matter? *Journal of Applied Finance*, 16(2), 120-133. Retrieved from <https://www.questia.com/library/journal/1P3-1284870581/student-performance-does-effort-matter>
- Schleifer, L., & Dull, R. (2009). Metacognition and performance in the accounting classroom. *Issues in Accounting Education*, 24(3), 339-367. doi:10.2308/iace.2009.24.3.339
- Seow, P. S., Pan, G., & Tay, J. (2014). Revisiting the determinants of students' performance in an undergraduate accountancy degree program in Singapore. *Global Perspectives on Accounting Education*, 11, 1-23. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2432904
- Tessema, M. T., Ready, K. J., & Astani, M. A. (2014). Does part-time job affect college students' satisfaction and academic performance (GPA)? The case of a mid-sized public university. *International Journal of Business Administration*, 5(2), 50-59. Retrieved from <https://www.semanticscholar.org/paper/Does-Part-Time-Job-Affect-College-Students%E2%80%99-and-The-Tessema-Ready/86026f1d7bed1842a5310e1f4215d514d658978a>
- Tickell, G., & Smyrnios, K. (2005). Predictors of tertiary accounting students' academic performance: A comparison of year 12-to-university students with TAFE-to-University Students. *Journal of Higher Education Policy and Management*, 27(2), 239-259. doi:10.1080/13600800500120142