

# The Effect of Academics' Gender and Experience on Students' Performance

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## Abstract

This study examines whether factors identified in the literature as influencing students' performance explain students' performance. Specifically, this study focuses on academics' gender and experience to examine their effect on students' performance. Using content analysis on 893 students' result, this study found both academics' gender and experience influence students' performance. The results of this study show that academics influence students of the opposite gender more than the same gender and the relationship is negative. This study also shows that academics' experience influences students' performance and the relationship is positive. Such results indicate that academics that have longer working experience in the academic line would influence their students' performance. The findings in this study also provide further understanding to the academics, faculties and universities on the importance of these factors on students' performance in designing well-targeted policy interventions.

**Keywords:** Academics, Gender, Experience, Students' Performance, Accounting, Public University

## Abstract

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## Introduction

Students' performance has always been important among the students and the universities as a form of measuring their process in education success. It reflects their ability to demonstrate the knowledge that they have learnt throughout the education process (Barkley, 2004) and this knowledge demonstration applies to all levels of education from the primary to the university level. Students' performance is also important since it is a key factor in the selection of job employment (Benning, 1999). The importance of students' performance is also attributed by the objective of the universities to provide quality education to their students and this led the universities to strive in finding ways to improve students' performance by identifying possible factors that led students to either excel or not excel in their performance.

Several notable factors have been identified in the education literature on the factors influencing students' performance. These factors include different socio-economic, psychological and environmental factors (Hijazi and Naqvi, 2006). These factors include gender (Anderson et al., 1994; Deboer, 1994; Horne, 2000), similar learning styles between the students and instructors (Borg and Shapiro, 1996), attendance (Park and Kerr, 1990; Romer, 1993; Devadoss and Foltz, 1995; Durden and Ellis, 1995) and their previous results (Nordstrom, 1990). Students' performance may also depend on other factors related to the students' background and behaviour (Devadoss and Foltz, 1996). On the other hand, Hijazi and Naqvi (2006); Antecol et al (2012) identified academics' attributes such as their qualification and gender may also influence students' performance. However, not many studies have examined the effect of academics' attributes on students' performance using a Malaysian context.

Using a Malaysian public university as the setting, this study aims to quantify the effects of academics' gender and experience on students' performance in management accounting courses. This study used content analysis on 893 students who have completed management accounting courses and were taught by 42 academics of different gender and different level of teaching experience. The remainder of this paper is structured as follows. The next section provides a review of relevant literature. Section 3 discusses the hypotheses underpinning this study and section 4 outlines the research design. The results are presented in section 5. A summary and conclusion are provided in the last section.

## Literature Review

A body of the education literature has examined the factors that could influence students' performance. Most of these studies supported the hypotheses that students' performance could be affected by different several notable factors such as students' gender (Anderson et al. 1994; Horne, 2000), effort (Ghani et al., 2012), similar learning styles between the students and instructors (Borg and Shapiro, 1996) and class attendance (Devadoss and Foltz, 1995; Durden and Ellis, 1995). However, other studies have also examined the factors influencing students' performance with mixed results such as geographical location (Chansarkar and Mishaoudis, 2001), students' gender (Jackstadt and Grootaert, 1980) and time spent in studying the course (Schidmt, 1983). The contradictory results could be attributed to the research design and sample selection. Other possible attribute could be due to these studies being conducted in various countries such as in USA (Tai et al., 2005; Maksy and Zheng, 2008),

Saudi Arabia (AbdulRahman, 2007) and Malaysia (Alfan and Othman, 2005; Ghani et al., 2012).

Within the accounting education literature, there are also studies that have examined the factors that influence university students' performance. Among the factors that have been examined are self-efficacy (Christensen et al., 2002, Tho, 2007); motivation (Yamamura et al., 2000; Chen et al., 2006), study style (Chen et al., 2006), class length (Ewer et al., 2002) and pre-requisite of another subject (Campbell and Glezen, 1989). Examining these factors is consistent with the attribution theory that defines how individuals attribute their performance to events and behaviour (Weiner, 1986). For example: if a student his failure to stable factors such as academics' lack of experience in a course that he is sitting in, then he would expect to fail in that course. However, studies that have examined the factors influencing students' performance came out with different findings with some support their hypotheses while others rejecting their hypotheses. Interestingly, not many of these studies have examined the effect of their academics' attributes such as gender and experience in influencing students' performance within the accounting discipline.

Perhaps one of the most extensive studies in the education literature that has examined academics' gender and students' performance in the primary school is by dee (2004). Dee argued that gender dynamics in classrooms are frequently portrayed as an important "environmental" source of the gender differences in educational outcomes. He suggested that there are a number of structural explanations for why assignment to a same gender teacher may influence the educational experiences of boys and girls. The male and female teachers have unique biases with regards to how they engage boys and girls in the classroom. For example: in a classroom observations, studies found that female teachers are more likely to offer praise and remediation in response to comments by boys but mere acknowledgement in response to comments by girls (Sadker and Sadker, 1994, Kleinfeld, 1998, Lewin, 1998; Sommers, 2000). Other studies provided mixed findings (Robst et al., 1998; Bettinger and Long, 2005) that show same-gender teachers may also communicate different expectations to students in their classrooms. This motivates this study to further examine this issue.

Another body of the education literature has also examined the link between academics' experience and students' performance (Sanders and Rivers, 1996; Wright et al., 2000). These studies found that students who were assigned to several inexperience teachers in a row have significantly lower achievement and gains in achievement than those who were assigned to several experienced teachers in sequence. For example: Clotfelter et al (2006) explored the relationship between teacher characteristics on students' performance. They found that a teacher's experience has a positive effect on students' performance. Similar findings were in rice (2003); Hill et al (2005) that show positive effect of experience on teacher effectiveness and consequently led to better students' performance. However, most of these studies examined this issue in the context of non-accounting and mainly focused on at the primary and secondary level. It would be interesting to examine this issue at the university level and determine whether similar findings would also exist.

In sum, the review of the accounting literature indicates that little research has investigated the link between academics' gender and experience on accounting students' performance. Such limitation warrants for further research on the link between these two variables and students' performance.

## Objective and Hypotheses Development

### *Objective of Study*

This study attempts to examine the factors influencing students' performance. Specifically, the objective of this study is to examine the effect of academics' gender and experience on accounting students' performance in management accounting courses. The objective of this study is achieved by way of content analysis over a period of 6 months.

### *Development of Hypotheses*

One of the factors suggested in the literature that could influence students' performance is academics' gender. Spencer et al. (1999) suggested that students tend to respond to a teacher's gender and not on how that teacher actually behaves. They found that female subjects underperformed on a math test when told that the test produces gender differences but did not when told the opposite. The results of these studies, however, are limited to students in a non-accounting discipline. Of consequence, such results could not be generalised to the accounting discipline, particularly, the accounting undergraduate students. Therefore, the following alternate hypothesis is developed:

*H1: There Is a Significant Relationship Between Academics' Gender and Accounting Undergraduate Students' Performance in A Public University.*

Another body of the education literature provide findings found that there significant difference between same gender of academics-students and different gender of academics-students on students' performance. Studies found that female academics offer more praises to comments by male students as opposed to female students and vice versa (Lewin, 1998; Sommers, 2000). Similar findings were also found in (Robst et al., 1998; Bettinger and Long, 2005). This study believes that the findings found in the education literature using non-accounting students would be similar for accounting students. Therefore, the following alternate hypothesis is developed:

*H2: There is a Significant Difference in Students' Performance between Same Gender Academics-Students and Different Gender Academics-Students in A Public University.*

Another factor that is examined in this study is academics' experience. Studies that have examined the link between academics' experience and students' performance have largely been examined in the education literature (Sanders and Rivers, 1996; Wright et al., 1997; Darling-Hammond, 2000). Most of these studies show significant relationship between academics' experience and students' performance. However, most of these studies examined this issue in the context of non-accounting and mainly focused on at the primary and secondary level. It is expected that academics that have longer teaching experience would likely to produce students with good performance as compared to less experienced academics. Therefore, the following hypothesis is developed:

*H3: There is a Significant Relationship Between Academics' Experience and Accounting Undergraduate Students' Performance in A Public University.*

Another body of the literature provide findings that found no significant difference between academics that have more experience in teaching compare to academics that have less

experience in teaching. These studies show that students who were taught by inexperienced academics achieved lower score compared to students who were taught by experienced teachers (Rice, 2003; Clotfelter et al., 2007). Such findings seem logical since academics that have longer teaching experience tend to accumulate the knowledge that they have gained throughout their working years and therefore, became more confident in providing knowledge to their students. On the other hand, academics that have just started their career in teaching may have lack of confidence since they may be struggling to understand the knowledge before disseminating the knowledge to their students. Therefore, the following alternate hypothesis is developed:

*H4: There is a Significant Difference in Students' Performance between same Gender Academics-Students and Different Gender Academics-Students in A Public University.*

## **Research Design**

### **Subject**

This study uses data on undergraduate accounting students who were enrolled in management accounting courses in a public university in Malaysia. Students who were enrolled in the management accounting course over a period of 24 months are chosen. In total, there are 893 cases of students. This study also relies on the data related to the students' teaching academics. In total, there are 42 lecturers that have taught the students in management accounting courses. Such sample is chosen based on the argument that the adequacy of the numbers to be used in this study.

### **Data Collection and Measurement**

This study uses content analysis as the research instrument. The content analysis was performed using the administrative data obtained from the university. Data related to students' score, the academics that were assigned to teach the students and the academics' experience were extracted from the data source.

Students' performance was measured based on the students' results of the final examination of the management accounting courses. Students' performance was recorded based on the grades provided by the university. The grades were determined by A for the highest score and F for the lowest score. For example: if a student scores above marks of 80, then he will be given a grade of 'A'. On the other hand, if the student scores less than 30, then he will be given a 'F'.

Data related to gender is assigned to 893 students and 42 academics. Although there are only 42 academics, this study matches every student with his or her academic. Therefore, students and academics that have the same gender are considered one group and students and academics with different gender are considered another group.

With regards the academics' experience, this study assigned the academics into two groups. The first group is for academics that have more than 10 years working experience whilst the second group represents academics that have less than 10 years working experience. Data entry and statistical analyses were performed using *SPSS*.

## Results

### *The Effect of Academics' Gender on Students' Performance*

This section presents the results of testing hypothesis 1. Hypothesis 1 states that “*There is a significant relationship between academics' gender and students' performance in management accounting courses*”. Pearson Correlation was used to determine the link between academics' gender and students' performance. Table 1 shows that there is a relationship between academics' gender and students' performance, and the relationship is positive at  $r=0.009$ . Therefore, this study supports hypothesis 1.

Table 1

*Academics' Gender and Students' Performance*

		Teaching Tool	Students' Performance
Academics' gender	Pearson Correlation	1	0.087
	Sig. (2-tailed)		0.009
	N	893	893
Students' performance	Pearson Correlation	0.087	1
	Sig. (2-tailed)	0.000	
	N	893	893

Table 2 presents the results of the analysis in providing evidence that different gender academics-students performed better than same gender academics-students. Upon comparing the results between the two groups, this study found that the students that have the different gender scored better than students that have the same gender as their academics. Panel a of table 2 shows that the mean score for the same gender of academics-students is 61.611 whereas students that have different gender than their academics have a mean score of 63.573. Such findings suggest that students would generally performed better when taught by academics of the opposite gender. That is, female students would perform better when taught by male academics and vice versa. Such finding is consistent with the previous studies in the education literature that found female teachers are more likely to offer praise and remediation in response to comments by boys but mere acknowledgement in response to comments by girls (Sadker and Sadker, 1994, Kleinfeld 1998, Sommers 2000).

Table 2

*Academics' Gender and Students' Performance*

Panel A: Descriptive Statistics

Nature of group	N	Mean	Std. deviation	Std. error mean
Same gender	565	61.611	11.1759	0.4702
Different gender	328	63.573	10.0968	0.5575

Panel B: Levene's test of equality of variance

Dependent variable: Test	F	Sig
Equal variance assumed	2.788	0.095



Panel C: T-Test for Equality of Means

	T	df	Sig.	Mean difference	Std. error difference	95% confidence interval of the difference	
						Lower	Upper
Equal variances assumed	-2.620	891	0.009	-1.9626	0.7492	-3.4329	-.4922

This section proceeds to test hypothesis 2. Hypothesis 2 states that *“There is a significant difference in students’ performance between same gender academics-students and different gender academics-students in a public university”*. T-Test analysis was used on the two groups namely, same gender academics-students and different gender academics-students. The results are shown in Panel C, Table 2. The results show that there is a significant difference on the students’ performance between same gender academics-students and different gender academics-students. The results in Table 2 therefore provide further support to hypothesis 2 with  $p=0.009$ .

#### The Effect of Academics’ Experience on Students’ Performance

This section presents the results of testing hypothesis 3. Hypothesis 3 states that *“There is a significant relationship between academics’ experience and students’ performance in management accounting courses”*. Pearson Correlation was used to determine the link between academics’ experience and students’ performance. Table 3 shows that there is a relationship between academics’ experience and students’ performance, suggesting that students would generally performed better when taught by academics with more experience. Such finding is consistent with the previous studies that found significant relationship between academics’ experience and students’ performance (Sanders and Rivers, 1996; Wright et al., 1997; Darling-Hammond, 2000). The results show a significant positive relationship of  $r=0.000$ , thus supporting hypothesis 3.

Table 3

#### Academics’ Experience and Students’ Performance

		Teaching Tool	Students’ Performance
Academics’ experience	Pearson Correlation	1	0.231
	Sig. (2-tailed)		0.000
	N	893	893
Students’ performance	Pearson Correlation	0.231	1
	Sig. (2-tailed)	0.00	
	N	893	893

Table 4 presents the results of the analysis in providing evidence that different gender academics-students performed better than same gender academics-students. Upon comparing the results between the two groups, this study found that the students that have more experienced academics scored better than students that have less experienced. Panel a

of table 4 shows that the mean score for the students that have experienced academics is 63.906 whereas students that have less experienced academics have a mean score of 58.348. Such findings suggest that students would generally performed better when taught by experienced academics due to their accumulation of knowledge that they have gained throughout their working years. On the other hand, academics that have just started their career in teaching may have lack of confidence since they may be struggling to understand the knowledge before being able to disseminate their knowledge to their students (Rice, 2003; Clotfelter et al., 2007).

This section proceeds to test hypothesis 4. Hypothesis 4 states that *“There is a significant difference in students’ performance between more experienced academics and less experienced academics in a public university”*. T-Test analysis was used on the two groups namely, more experienced academics and less experienced academics. The results in Panel C, Table 4 show that there is a significant difference on the students’ performance between more experienced academics and less experienced academics. The results in Table 4 therefore supports hypothesis 4 showing  $p=0.000$ .

Table 4

*Academics’ Experience and Students’ Performance*

## Panel A: Descriptive Statistics

Nature of group	N	Mean	Std. deviation	Std. error mean
More experienced	640	63.906	11.0833	0.4381
Less experienced	253	58.348	9.0157	0.5668

## Panel B: Levene’s test of equality of variance

Dependent variable: Test	F	Sig
Equal variance assumed	20.864	0.000

## Panel C: T-Test for Equality of Means

	T	df	Sig.	Mean difference	Std. error difference	95% confidence interval of the difference
						Lower Upper
Equal variances assumed	7.101	891	0.000	5.5584	0.7827	4.0222 7.0946

**Conclusion**

This study presents the findings of the effect of academics’ gender an experience on their accounting students. The findings of this study found that both academics’ gender and experience influence students’ performance. The results of this study show that academics would influence students of the opposite gender more than the same gender and the relationship is negative. That is, male academics would influence female students to perform better than male students and vice versa. In addition, students that have more experienced academics seem to perform better than students that have less experienced academics. The



findings in this study show consistent results with the studies in the education literature that academics' gender and education provides different impact on students' performance (Wright et al., 1997; Darling-Hammond, 2000; Rice, 2003; Clotfelter et al., 2007).

This paper has some limitations. Firstly, this study is based on undergraduate students over few semesters over a period of 24 months. The students sat for the management accounting courses in different semesters. The students may possess different ability or different kind of exposure such as teaching format when sitting for the management courses. Therefore, the findings may be questionable due to different batches of students. Secondly, the students are limited to a public university in Malaysia. Therefore, the findings of this study may not be generalised to other public universities.

In sum, this study provides evidences that point to the fact that students' performance in management accounting courses can be influenced by their academics' gender and experience. Therefore, the academics, faculties and universities can be aware of the importance of these factors on students' performance in designing well-targeted policy interventions.

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