Investigating the Role of Entrance Screening in Reducing False Positive Students and Predicting Readiness

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A R T I C L E I N F O	**A B S T R A C T**

Purpose: The main objective of this study is to examine the relationship among different success criteria (i.e. HSGPA, GAT, SAAT, ELPT & GPA) for study at an undergraduate level in order to predict readiness among Saudi students and reduce false positives. **Design/Method and Approach:** Quantitative research design was adopted in this study. The sample of the study included students studying in the Department of English Language at King Faisal University in Saudi Arabia. The data was collected from 336 students using stratified sampling technique. **Findings:** The results showed that HSGPA was the strongest predictor of success at the university, followed by ELPT scores, while GAT & SAAT scores were far less significant. In addition, the findings illustrated that there was a very small significant difference in academic performance between the students who sat for the ELPT and those who did not. Therefore, receiving institutions may wish to prioritize HSGPA marks. **Originality:** This study is among very few studies that provide an examination of the relationship among different success criteria (i.e. HSGPA, GAT, SAAT, ELPT & GPA) to predict readiness for study at an undergraduate level in the Saudi context.

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Introduction

The English Language Placement Test (ELPT) is an in-house test in the Department of English Language (DEL) at King Faisal University in Saudi Arabia. The test consists of two sections, namely, Reading and Use of English (Vocabulary & Structure). The ELPT has 50 items and lasts for 45 minutes. It is a paper-and-pencil multiple-choice test. The test is a norm-referenced high stakes test that is used for admission purposes into the DEL. The test is administered to approximately 1500 male and female students each year. The test candidates could be students who have just been accepted into the university or sometimes students who transferred from other colleges. Those who obtain the required score (60 out of 100 and above) will be enrolled in the DEL. Students were allowed to sit for the test one time only. The DEL did not allow the students to retake the test without giving convincing reasons. Some students were exempted from taking the test once they show that have passed standardized tests such as IELTS or TOEFL. Likewise, students who transferred from the preparatory year were also exempted from taking the ELPT because they have studied intensive English courses for almost one year.

Due to the large influx of students who were accepted in the College of Arts each year, it was decided that the cut-off score for the ELPT should be lowered to accept more students into the DEL. In other words, admission was based on the designated number of students for the DEL rather than their scores on the test which were below the average. The intention was to select the best, for example, 250 students and enroll them in the DEL. In such a case, some students may have been misplaced in the program, increasing the number of false positives (Hille & Cho, 2020).

The ELPT test was last conducted in 2016. Since 2018, the department has operated a new academic plan. It was suggested that there was no need for the placement test from that time onwards. The test was abandoned because it was felt that it was not a good predictor of success. However, the department argued that its results were not taken seriously since weak students were admitted to the department despite their low scores. In addition to that, there was an administrative burden on the college and the department to prepare new test items each year to cater to the approximately 1500 students who were going to sit for the test.

There have been a number of attempts to create tests that would help detect false positives or "untruthfulness", yet it is still difficult to be certain about the performance of candidates i.e. if they really know what they reported in the tests they truly know (McLean, Stewart, & Batty, 2020). In addition, it has been found that false positive outputs may result in a number of factors chiefly among are increased costs, unnecessary diagnostic procedures and discouragement of participation from the part of students in future screening trials (Golmakani, Hubbard, & Miglioretti, 2022).

The impact of either false positives or false negatives outcomes has been seen to vary according to the type of decisions that are going to be made as result of any assessment activity (Coggeshall, 2021). That is to say, the higher the stakes the more harm there will be on the part of institutions when false positive students who are unqualified are being accepted into programs of study or upgraded to a higher level. More importantly, Coggeshall (2021) maintained that "the goal of the assessment is to protect the public from the significant harm that can be inflicted on society by a false positive". She added that "examinees sitting for these tests have often spent years of their lives preparing and significant harm can be inflicted on these individuals by a false negative" (p.28).

The aim of this study is to examine the relationship among different success criteria (i.e. HSGPA, GAT, SAAT, ELPT & GPA) for study at an undergraduate level in order to predict readiness among Saudi students and reduce false positives.

Literature Review

Higher education institutions in Saudi Arabia always seek to improve learning outcomes so that students are better prepared for the future. In addition, such institutions are also keen to obtain a higher score in the ranking system each year. This shows the ability of institutions to sustain in the competitive environment. The students who are bright are valuable asset to the organization. Therefore, placement of students at any given program of study has to be accurate so that students needs are appropriately addressed. Likewise, misplacement may cause some difficulties to students and teachers as well (Hille & Cho, 2020).

There are different methods to gauge the performance of the students. One of the mechanisms is through the test scores. This is one of the criteria that is used by higher education institutions to examine the potential of the students (Meyer et al., 2016). Higher education institutions used this method as their school mission and policy to admit the students into their respective college or university programs (Papenhausen, 2014). Such examination will determine the need of students to get specialized assistance before entering a program. It will also show whether these students are ready to be admitted in an academic program, grade level and being in a course. In order to get the assessment of the potential of the students, educational support service plays a very important role. If a student is able to reach at the expected level of assessment or evaluation after going through initial screening, the institute will be in better position to place the student in certain environment of learning (Stanja et al., 2023).

A placement test is defined in the language testing literature as a test that is "intended to provide information which will help place students in appropriate classes" (Davies et al., 1999). According to Fulcher (1997), the purpose of "placement testing is to reduce to an absolute minimum the number of students who may face problems or even fail their academic degrees because of poor language ability or study skills". More specifically, there are two types of placement tests. They can be tests that have a "proficiency orientation" where their content is not related to the content of the target language courses or they can be "intended to reflect the nature of such language courses, and might be said to be preachievement" (Wall, Clapham, & Alderson, 1994).

Adaptive test technology is used in some placement tests. It shows that different students are exposed to different type of questions to gauge the ability of these students on the basis of their responses submitted against every question. The questions given in the tests change according to the level of students determined upon the number of questions submitted wrong or right by the students until certain level is achieved by the students (Faraj, 2015). A secured online link is developed to conduct the test, reporting and marking tools. The preparation of test session is also very easy and quick. Automatic system is developed to mark the results of the tests submitted. These types of tests provide immediate decisions regarding which courses and classes are best suited for candidates (Kozmina, Lukyantsev, & Musorina, 2020).

Placement testing research has witnessed a remarkable growth over the past several decades. Empirical research into placement tests in the field of language testing was first seen in the work of Wall et al. (1994) where they addressed placement tests deeply. Although placement tests are used widely within institutions, there is little attention in the literature about, e.g., in-house English for Academic Purposes (EAP) placement examinations (Feak & Salehzadeh, 2001). Similarly, Green (2012) pointed out that there is a dearth of research on placement testing in the language testing research literature.

The above reasons could be because placement tests are low stakes tests and therefore they have less impact on individuals than large scale high stakes tests such as the International English Language Testing System (IELTS), the Test of English as a Foreign Language (TOEFL), Cambridge exams, and other high stakes tests (Read, 2022).

Decisions are often made on the basis of language ability but other pieces of information could be included such as the following: learner preferences, nationality and first language, gender, age, friendship groups, personality, discipline, motivation, academic subjects that language learners follow in other classes, institutional and regulatory restrictions on class sizes, etc. (Green, 2012). Placement tools can be in the form of multiple-choice placement tests, interviews, essays, or a mix of these assessment methods (Shin & Lidster, 2017). The validity and reliability of the placement tests are of paramount importance. The findings of Wesche et al.'s (1996) study suggested that considerable attention should be paid to content validity because what might "work well in one context cannot be assumed to be appropriate in a seemingly similar new context".

Therefore, measurement errors should be minimized. With such probable measurement errors, the classification of students may fall into two categories: "false positive" errors take place when students are placed into programs higher than their actual levels, and "false negative" errors take place when students are placed erroneously into low levels (Bachman, 2004). When either of these errors is present, misplacement can cause dismay and frustration for students. Such negative consequences will also have an impact on the quality of learning and teaching.

Nevertheless, false positive errors are deemed to be more critical than false negative errors. This is because students who are misplaced into lower levels can be easily moved up to higher levels whereas it is difficult to make adjustments for those students who are misplaced into higher levels (Bachman, 2004). Luckily, in some situations such as direct self-placement, misplacement errors can be reduced "when students are informed about the course expectations and the responsibilities that accompany their course selection" (Crusan, 2011). However, LeBlanc and Painchaud (1985) argued that self-placement should not be left to students since they "simply do not have the tools to cope with a self-assessment situation that requires them to describe with some precision their level of proficiency".

As such, placing students into their appropriate levels is a challenging task. More specifically, students need the placement test to assess their language abilities, teachers need to match their instruction to the students' needs and program administrators look for valid and reliable placement mechanisms (Bernhardt, Rivera, & Kamil, 2004). For these reasons, Fountain and Nation (2000) stressed that "A placement test needs to be able to deal with learners of varying proficiencies in a sensible way".

In the DEL, the challenge is to conduct the placement test for 1500 students on one day. The test results are needed by the administration as soon as possible. Due to time constraints, the test has to be marked by a machine. In addition, face-to-face interviews and computer-administered tests are not possible. Thus, this assessment method through the placement test gives us little evidence about its predictive ability for the students. Bernhardt et al. (2004) noted that "Research indicates that language proficiency is clearly not limited to grammatical ability and reading and writing abilities assessed in paper-and-pencil tests… oral language assessment must also be included in any learner profile of language ability". In support of this view, Brown (1989) concluded that there was a mismatch between the students' scores on the placement test and their target levels of performance in the program. Therefore, in designing foreign language placement tests, it is crucial to consider other aspects such as background variables because they were found to predict students' scores on placement tests (Kondo-Brown, 2004).

Method

Sampling

The sample of this study was drawn from the database of the Deanship of Information Technology at King Faisal University in Saudi Arabia. The sample consisted of 1131 male and female (from the 2012 to 2019 batches) students registered in the DEL. The students were enrolled in the department when the study was conducted. Of those 1131, only 286 students sat for the placement test. They were the last batches to take the test (2016 and before). Therefore, the results for most of the students were missing either because the test was not introduced to the batch of the students (2017-2019) or because some students transferred from another college directly without having to sit for the test. It was decided that only 128 students who scored 50 and above (out of 100) on the placement test should be purposively included in the study. This was the cutoff score for admission into the department. Therefore, for the sake of accuracy, it would be better to compare the performance of successful students only with the other groups. Furthermore, only 208 students were selected (2018=104 and 2019=104) out of 456 students by using stratified sampling to make sure that there is an equal number of males and females (i.e., a 50/50 ratio for each batch). The sample size was calculated with reference to Cohen, Manion, and Morrison (2007).

Questions

This quantitative study has set out to answer the following research questions.

1- Does there exist a relationship among ELPT known as English language placement test, SAAT known as standard achievement admission tests, GAT known as general aptitude test and HSGPA high school grade point average
2- Can HSGPA be used as a sole predictor of academic success in the department of English?
3- Is there a difference in terms of performance through Grade Point Average (GPA) between the students who sat for the placement test and those who did not?

The main purpose of this study is to examine the relationship, if there is any, between the students' HSGPA, GAT, SAAT and placement test scores and their performance in the department through GPA.

Variables

Dependent Variable

The cumulative GPA for all batches of the students who participated in the study was the only dependent variable. Almost all previous research has considered GPA to be the strongest criterion and predictor of success at university. This is the reason why it was selected in this study.

Independent Variables

This study has chosen four independent variables based on the various criteria for success at the university. They were HSGPA, GAT, SAAT and placement tests.

Analysis and Findings

Descriptive and inferential statistics were used in this study. Multiple regression analyses were run in SPSS (Version 25) to answer the research questions. The level of significance adopted through the analysis was 0.5.

1   *Is there a correlation between the students' HSGPA, GAT, SAAT and placement test scores and their performance in the department?*

After conducting the multiple regression analysis on the first group of students who sat for the placement test (see table no. 1), it was found that one of the most significant as well as strongest predictor was HSGPA of performance in the department through GPA, with adj. R^2.134, F (1, 126) = 20.725, and p< .0005. Therefore, 14% of the variation in performance in the department of English through GPA could be explained by the variation in HSGPA alone. When the placement test results were added to the model, an increase of only 0.079 in the R^2 occurred, which explains another 7.9% in addition to the 14% that can be explained by HSGPA. If the two variables were added together, we would get a slightly better R^2 of .208, which accounts for approximately 21% of the variation in the performance in the department. This analysis has shown that the HSGPA variable is highly correlated with GPA in the department and thus it could be considered the strongest predictor of success at the university compared to GAT, SAAT & ELPT scores (see table no. 3 for the correlation results).

Table No. 1

Multiple regression analysis on the first group of students who sat for the placement test

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.376a	.141	.134	.64377	.141	20.725	1	126	.000
2	.470b	.221	.208	.61577	.079	12.719	1	125	.001

a. Predictors: (Constant), SecGPA

b. Predictors: (Constant), SecGPA, Placementtest

c. Dependent Variable: GPA

Table No. 2

Regression to the mean (5 variables)

Descriptive Statistics			
	Mean	Std. Deviation	N
GPA	3.1698	.69196	128
SecGPA	88.99	6.783	128
GAT	74.05	6.987	128
SAAT	64.34	18.664	128
Placementtest	62.83	10.588	128

Table No. 3

Correlation Tests (5 variables)

Correlations						
		GPA	SecGPA	GAT	SAAT	Placementtest
Pearson Correlation	GPA	1.000	.376	.210	.227	.298
	SecGPA	.376	1.000	.277	.227	.046
	GAT	.210	.277	1.000	.196	.213
	SAAT	.227	.227	.196	1.000	.020
	Placementtest	.298	.046	.213	.020	1.000
Sig. (1-tailed)	GPA	.	.000	.009	.005	.000
	SecGPA	.000	.	.001	.005	.304
	GAT	.009	.001	.	.013	.008
	SAAT	.005	.005	.013	.	.413
	Placementtest	.000	.304	.008	.413	.
N	GPA	128	128	128	128	128
	SecGPA	128	128	128	128	128
	GAT	128	128	128	128	128
	SAAT	128	128	128	128	128
	Placementtest	128	128	128	128	128

Table No. 4

Regression to the mean (4 variables)

Descriptive Statistics			
	Mean	Std. Deviation	N
GPA	3.3959	.83409	208
SecGPA	90.98	6.217	208
GAT	75.77	7.481	208
SAAT	65.69	24.368	208

Table No. 5

Correlation Tests (4 variables)

<table>
<tr><th colspan="6">Correlations</th></tr>
<tr><th></th><th></th><th>GPA</th><th>SecGPA</th><th>GAT</th><th>SAAT</th></tr>
<tr><td rowspan="4">Pearson Correlation</td><td>GPA</td><td>1.000</td><td>.548</td><td>.400</td><td>.404</td></tr>
<tr><td>SecGPA</td><td>.548</td><td>1.000</td><td>.261</td><td>.433</td></tr>
<tr><td>GAT</td><td>.400</td><td>.261</td><td>1.000</td><td>.134</td></tr>
<tr><td>SAAT</td><td>.404</td><td>.433</td><td>.134</td><td>1.000</td></tr>
<tr><td rowspan="4">Sig. (1-tailed)</td><td>GPA</td><td>.</td><td>.000</td><td>.000</td><td>.000</td></tr>
<tr><td>SecGPA</td><td>.000</td><td>.</td><td>.000</td><td>.000</td></tr>
<tr><td>GAT</td><td>.000</td><td>.000</td><td>.</td><td>.027</td></tr>
<tr><td>SAAT</td><td>.000</td><td>.000</td><td>.027</td><td>.</td></tr>
<tr><td rowspan="4">N</td><td>GPA</td><td>208</td><td>208</td><td>208</td><td>208</td></tr>
<tr><td>SecGPA</td><td>208</td><td>208</td><td>208</td><td>208</td></tr>
<tr><td>GAT</td><td>208</td><td>208</td><td>208</td><td>208</td></tr>
<tr><td>SAAT</td><td>208</td><td>208</td><td>208</td><td>208</td></tr>
</table>

Table No. 6

ANOVA Test

<table>
<tr><th colspan="7">ANOVA[a]</th></tr>
<tr><th></th><th>Model</th><th>Sum of Squares</th><th>df</th><th>Mean Square</th><th>F</th><th>Sig.</th></tr>
<tr><td rowspan="3">1</td><td>Regression</td><td>8.589</td><td>1</td><td>8.589</td><td>20.725</td><td>.000[b]</td></tr>
<tr><td>Residual</td><td>52.219</td><td>126</td><td>.414</td><td></td><td></td></tr>
<tr><td>Total</td><td>60.809</td><td>127</td><td></td><td></td><td></td></tr>
<tr><td rowspan="3">2</td><td>Regression</td><td>13.412</td><td>2</td><td>6.706</td><td>17.686</td><td>.000[c]</td></tr>
<tr><td>Residual</td><td>47.397</td><td>125</td><td>.379</td><td></td><td></td></tr>
<tr><td>Total</td><td>60.809</td><td>127</td><td></td><td></td><td></td></tr>
</table>

a. Dependent Variable: GPA

b. Predictors: (Constant), SecGPA

c. Predictors: (Constant), SecGPA, Placementtest

Table No. 7

Variables Entered/Removed

<table>
<tr><th colspan="4">Variables Entered/Removed[a]</th></tr>
<tr><th>Model</th><th>Variables Entered</th><th>Variables Removed</th><th>Method</th></tr>
<tr><td>1</td><td>SecGPA</td><td>.</td><td>Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).</td></tr>
<tr><td>2</td><td>Placementtest</td><td>.</td><td>Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).</td></tr>
</table>

Table No. 8

Excluded Variables

	Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GAT	.115[b]	1.339	.183	.119	.923
	SAAT	.149[b]	1.777	.078	.157	.948
	Placementtest	.282[b]	3.566	.001	.304	.998
2	GAT	.056[c]	.664	.508	.060	.883
	SAAT	.147[c]	1.825	.070	.162	.948

a. Dependent Variable: GPA

b. Predictors in the Model: (Constant), SecGPA

c. Predictors in the Model: (Constant), SecGPA, Placementtest

Table No. 9

Residuals Statistics

Residuals Statistics[a]	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.3911	3.8893	3.1698	.32497	128
Residual	-1.16619	1.22472	.00000	.61090	128
Std. Predicted Value	-2.396	2.214	.000	1.000	128
Std. Residual	-1.894	1.989	.000	.992	128

a. Dependent Variable: GPA

2 *Is there a significant difference in terms of performance (through GPA) between the students who sat for the placement test and those who did not?*

To examine which group of students had the highest average GPA, an independent samples t test was conducted to assess the difference in terms of performance in the department of English. The results of the analysis showed that there was very little difference in terms of GPA between the two groups. (Those who sat for the test=3.169, and those who did not take the test=3.395. see Table No.10) Specifically, Levene's test showed that this difference was significant ($p<$ .05): t (334) = 2.57, and p=.011 (see Table No.11).

Table No. 10

T-Test

Group Statistics	Testnotest	N	Mean	Std. Deviation	Std. Error Mean
GPA	0	208	3.3959	.83409	.05783
	1	128	3.1698	.69196	.06116

Table No. 11

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
GPA	Equal variances assumed	3.483	.063	2.571	334	.011	.22615	.08797	.05310	.39920
	Equal variances not assumed			2.687	305.700	.008	.22615	.08417	.06051	.39178
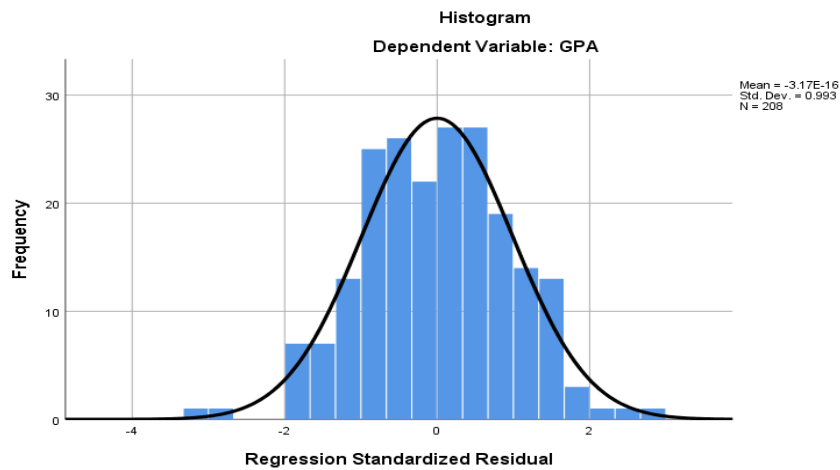
Chart No. 1: *Regression Standardized Residual*

Discussion

Educational institutions use entrance screening tests as a key tool in order to predict readiness of the students and mitigate the situation of false-positive students. Screening at the entrance level is the mechanism to assess the abilities, skills and knowledge among students before they get admitted to a certain institutions or programs. There are a number of benefits of using entrance tests by the institutions as they help in identification of students who are ready to perform at different academic levels. If the ability of students is identified at an early stage, the receiving institutions can be in a better position to provide resources and support to the students to make them more successful. The support given to students includes counseling, tutoring and other resources that can help students to mitigate the challenges they might face at the academic level. On the other hand, entrance

screening provides an opportunity to the institutions to reduce the students of false-positive who get admitted in the institutions. Screening the students at the initial stage of admission, higher education institutions are in better position to examine the situation of student whether he or she is ready to get admitted in the target program. Therefore, this study was designed to examine the role of an entrance test to predict students' readiness and reduce false positive students.

This study found that HSGPA was the strongest predictor of success at the university compared to GAT, SAAT & ELPT scores. This finding is consistent with the results of Alghamdi and Al-Hattami (2016) who found that HSGPA significantly predicted the students' performance at college through their GPA. In addition, this study pointed out that when other criteria of success such as ELPT scores and GAT scores were added to the HSGPA, they best predicted the students' performance at university. This finding is in accordance with Belfield and Crosta (2012) who suggested that "the optimal decision rule may be to combine information from a placement test and a high school transcript". Moreover, the results of Alnahdi (2015) study showed that "the best predictor of success at the university was the combination of HSGPA and National Achievement Test (NAT), as measured by GPA".

This study also found that there was very little difference in terms of GPA between those who sat for the test (2016 and earlier cohort) and those who did not (2018 & 2019). This finding may indicate that the placement test had little effect on the 2016 and earlier cohort of students. In addition, it could also show that the HSGPA was a good predictor of the 2018 & 2019 cohort of students' performance. Actually, when the ELPT was abolished for the new plan, admission into the department was based solely on students' HSGPA. The cutoff score of HSGPA was raised to minimize misplacement decisions. However, staff members still complained about the low proficiency of these students who found themselves in the wrong department. A reinstatement of the placement test in addition to transferring underperformed students into other departments were among the solutions provided.

However, it appears that, based on the findings above, using HSGPA along with ELPT scores would make placement decisions more accurate. That is because ELPT scores alone were found in this study and the literature reviewed to have positive—but weak—associations with college GPA. (Belfield & Crosta, 2012). Additionally, ELPT scores offer just a snapshot of the complex concept of college. Likewise, though HSGPA was a strong predictor of performance at university, it still had been challenged by some researchers to be the most valid measure of HS achievement to predict academic success (Vulperhorst et al., 2018). Therefore, basing placement decisions on multiple measures "could reduce severe placement errors by about 15 percent" (Scott-Clayton, 2012).

The findings of this study above might also explain why weak students based on their scores at admission could not survive in the department. That is, their HSGPA or their ELPT scores were below the cutoff score. On the other hand, one possible explanation for why those students who met the entry requirements succeeded, especially those who had good HSGPAs, could be because the educational demands at the university resembled in some way high school demands. In other words, successful students were better prepared for their university. Khoshaim (2017) noted that "recent studies have suggested that high school graduates are now more ready than before for higher education".

Conclusion

The basic purpose of this research is to examine the relationship among different success criteria (i.e. HSGPA, GAT, SAAT, ELPT & GPA) for study at an undergraduate level in order to predict readiness among Saudi students and reduce false positives. The results revealed that HSGPA was the strongest predictor of success at university compared to GAT, SAAT & ELPT scores. Moreover, this study found that there was very little difference in academic performance between the students who sat for the ELPT and those who did not. In other words, the placement test had a small role in predicting success in the department.

These findings might inform our decisions when placing or admitting students in departments of English. That is, students who are below the average cutoff scores in any of the aforementioned criteria of success should not be admitted into the department. If they were not enrolled in remedial courses, such students would soon suffer and might not be able to cope with the demands of skill courses, let alone content courses. Nevertheless, this study recommends that we need to be cautious when interpreting HS transcripts since only those course grades pertinent to the target major should be counted when determining college readiness (i.e., English courses in HS for the English departments at universities). In addition, students should be informed in advance that quick preparation for the placement test would help in getting the required score. The reason is that some students "tend to overestimate their level of preparedness, even though many of them feel they have problems with the language and with the course requirements" (Graham, 1987).

Implications

This study was designed to assess the role of an entrance test in minimizing false positive students and predicting their readiness. This research has several theoretical and practical implications. The findings of the study can help policy makers in making better decisions to improve the rate of success among the students. This study highlights the need for additional resources and materials in order to increase the validity of these tests. The results of the study also confirm the need to provide more support for students who are ready to study at an undergraduate level. In doing so, the overall performance of the institution as well as the students will likely improve. The result of this study has theoretical implications as well. This study stresses the role of assessment tools in minimizing false positives and thus improve readiness among students. Above all, it adds to the literature addressing this important issue in the context of Saudi Arabia.

Limitations and Future Research Directions

The current study has some limitations that need to be acknowledged. First, the sample of the study, though representative of the population of the English department, was taken from one university in Saudi Arabia. Thus, a larger student sample from different Saudi universities might give us a more intelligible understanding of college readiness and identify the criteria that would best predict academic success. Second, this study used a quantitative approach to investigate the research problem. Therefore, a replicate qualitative study with interviews or semistructured questionnaires would give a closer look at the students' opinions and insights. Third, this study used students' GPA as an indicator of academic success at university. Because GPA does not fully capture the

complex nature of learning, future research may wish to include "multiple perspectives on the meanings of such performance, notably those of both faculty members and students and those represented by different inquiry methodologies" (Lee & Greene, 2007).

Acknowledgements

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