The Predictive Validity of Islamic Azad University's Entrance Examination: Does Access Mean Success?

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Abstract

The main purpose of the present research was to study the predictive value of the Islamic Azad University's Entrance Examination (IAUEE) in Iran administered to those applied for English Language courses. It, furthermore, attempted to investigate probable correlation between English Language students' academic achievement regarding their Grade point Average (GPA) and their entrance admission test results and their sex, field of study, or age. To conduct the research, ٢٨٢ senior undergraduate students who were admitted to study in all English language fields in Islamic Azad University, Roudehen Branch were randomly selected. Data were collected regarding their performances in Entrance Examination and their GPA during the first three years of their study. Data analysis indicated that students' total score in IAUEE had a better predictive value than the English subtest score. Out of three English majors under study, admission exam for ELT students had a much more recognized predictive value than for students in other courses. Moreover, while boys' English proficiency subtest was a better predictor of their academic achievement, girls' total score proved so.

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Introduction

Students in many countries are required to take an entrance examination into their academic institutions. Some of these institutions administer certain types of well-established globally-recognized examinations like TOEFL, IELTS, SAT1 (Scholastic Aptitude Test), ACT (American College Testing Program) etc., while others administer locally-developed examinations to screen students for pursuing their academic career. The major purpose behind any one of these examinations, no matter well-established standardized or locally-developed ones, is the assessment of the proficiency in English language so as to determine eligibility criteria.

Working on the predictive value of the high-stakes tests is not a new trend. As long as students are screened into undergraduate and graduate courses through the admission tests, studying the influences of these tests on the future achievement of the students is of utmost importance. The nature of these tests, in fact, dictates that educational experts discover to what extent admission tests can predict the academic success of the students in future.

Many studies have examined the predictive value of admission tests to academic institutions. Huong (2001) found a similarity of construct between the IELTS test battery and Grade Point Average (GPA) among Vietnamese students sponsored by the Australian Agency for International Development (AusAID) at Australian universities. In her research to investigate the predictive validity of IELTS test as an indicator of future academic success, Dooey (1999) failed to offer conclusive evidence about the validity of IELTS as a predictor of academic success.

Powers (2001) also indicated that there was a significant positive relationship between both Undergraduate Grade point Average and GRE general test scores with first-year graduate grades in veterinary medicine. In her report on the predictive validity of BMAT for the 1st year examination performance at the University of Cambridge, Emery (2007) could not find any relationship between two variables and concluded that the reason for poor performance at university are many and continued "An entrance test can only predict those who can: not necessarily those who will" (p. 6). Others also had the same results. A study by Sireci and Talento–Miller (2006) looked at the predictive value of Graduate Management Admission Test (GMAT) and GPA data from 11 graduate management schools. They found the predictive value of GMAT analytical writing scores as relatively low accounting for only about 1% of the variation in graduate GPA, after accounting for undergraduate GPA and GMAT scores (p. 2).

In a meta-analytic study by Morrison and Morrison (1995) conducted on published studies, they examined the relationship between performance on the GRE and GPA. The results of this study revealed that the quantitative and verbal components of GRE possess minimal predictive value.

Ramist, Lewis, and McCauley-Jenkins (2002) investigated the correlations between SAT II Subject Tests and freshmen GPA. They found out that there was a correlation between composition section and freshmen GPA. Marvin and Simner (1999) also concluded that TOEFL scores just correlated with the first year performance in university English courses. However, this correlation, as they found out, may not continue beyond first year.

Some researchers took into account two independent variables of admission tests and participants' GPA in previous stage of their study. The results of a study Kuncel, Hezlett, and Ones (2001) demonstrated that the GRE and UGPA are generalizably valid predictors of graduate grade point average.

There are still many other studies conducted in different parts of the world which have left us with more or less the same results (Snyder & Elmore, 1982; Shepard, 1979; Nagi, 1975; Merritt, 1972; Ayers & Peters, 1971; Camp, Drummond, Carter, & Parker, 1988; Hosseini, 1978; Paolillo, 1982; Baldauf & Dawson, 1980).

A close look at literature indicates that no uniform conclusion has ever been attained regarding the predictive validity of the well-established allegedly-standardized examinations in the world including IELTS, GRE, GMAT, and TOEFL. The situation seems to be more undetermining with the locally-developed examinations like the ones constructed and administered by the National Organization for Educational Measurement or Testing Center for the Islamic Azad University. These are two major authorities that are assigned to construct and administer the University Entrance Examinations in Iran. The former works for state-run universities and the latter for Islamic Azad University with 305 national and international campuses. If a significant predictive value is obtained for the admission test in Islamic Azad University (IAU), any one taken part in this examination can predict his/her success in the future career as a student. Moreover, university officials can view this examination as an efficacious placement instrument.

This paper was aimed at (1) determining the validity of University Entrance Exam (UEE) in Iran being held by the Testing Center for the Islamic Azad

University in the prediction of the students' academic achievement in Roudehen Branch, and (2) investigating the degree of predictability of this examination among students of different sex and field of study. Based on the above-mentioned objectives, the following questions emerge:

1. Is there a relationship between the results of IAUEE (Islamic Azad University Entrance Examination) in Iran and the students' success in university?

2. Is the degree of prediction more among girls' or boys' score in IAUEE?

3. Do scores of the students studying English Language Teaching (ELT), Translation (Trans.), and Literature (Lit.) demonstrate a significant difference in the degree of prediction?

Methodology

Participants

The population of this study included all undergraduate students who were admitted to the faculty of English language and literature at Islamic Azad University Roudehen Branch in 2005 (N= 452). Stratified random sampling was applied to select 282 students as members of sample group. They were both male (24%) and female (76%) in three different fields of study in a way that 44% were in English Literature, 29% in English Translation, and the rest (27%) were in English Teaching. They were all Iranian with Persian language as their native language.

Design and Procedure

This study is a descriptive kind of research. Moreover, since it seeks the probable relationship between several pairs of data, it is a correlational one.

Two sets of data were obtained from the university's administrative office. One was related to their results in IAUEE including their average and subtests. There are 4 subtests but the one whose result I inserted in my study was written English language which generally consisted of grammar, vocabulary, and reading comprehension sections.

The second piece of data was the students' grade-point average (GPA) during their first three years of study as they were freshmen, sophomores, and juniors: a year average for each year and a total GPA for all three years.

Pearson product-moment correlations were computed between IAUEE total score and the English subtest with the samples' total GPA at the end of their sixth semester and their three year-average GPAs. Besides, the correlations between their total and English subtest in IAUEE and the participants' major and gender were calculated.

Results

Having statistically analyzed the data, the following results were revealed:

1. First of all a correlation between the total score of the students (IAUEEt) and English proficiency subtest (IAUEEl) indicates a rather high correlation (r =0.74) (The other subtests were Persian Literature, Arabic Language as a foreign language, and religious information).

Table 1
Correlation between IAUEEt and IAUEEl

		IAUEEt	IAUEEl
IAUEEt	Pearson Correlation	1.000	0.736
	Sig. (2-tailed)		0.000
	N.	282	282
IAUEEl	Pearson Correlation	0.736	1.000
	Sig. (2-tailed)	0.000	
	N.	282	282

2. The total score of the students in admission exam shows a significant correlation, though not high, with Students' total GPA at the 0.01 level (Table 2). The same also goes with the subtest of English and their total GPA. It also clearly indicates that students' total score in IAUEE has a better predictive value than the subtest score, while no such conclusion can be made comparing their GPAs at the end of the first year. This refutes the first hypothesis.

Table 2
Correlation between IAUEE and GPA

	GPA1	GPA2	GPA3	GPAt
IAUEEt	0.31	0.21	0.3	0.43
IAUEEl	0.31	0.2	0.23	0.34

3. According to table 3, correlation more or less exists between the Entrance Examination, both total and English subtest score, among the students who study English Language Teaching, Literature, and Translation. Nevertheless, the noteworthy point from this table is that the correlation between ELT students and

their score in entrance examination shows a higher value than the others. This dictates that admission exam for ELT students have a much more recognized predictive value than for students in other courses. Such result also supports the third hypothesis which claims the lack of uniformity among the degree of predictability of students' success based on IAUEE.

Table 3
Correlation between IAUEE and GPAt Divided by Their Majors

	GPAt (Lit.)	GPAt (ELT)	GPAt (Trans.)
IAUEEt	0.25	0.43	0.33
N.	125	75	82
IAUEEl	0.22	0.41	0.25
N.	125	75	82

4. The interesting point about the correlation coefficient among boy and girl students is that IAUEE is of more predictive value for boys than girls. The reason might be that girls are more motivated to be successful after being admitted to the college. At the same time, predictability of boys' total GPA is higher with their English subtest score rather than their total one, while for girls this is their total score in entrance examination, and not their English subtest score, that predicts their success in his academic career. The second hypothesis is here supported.

Table 4
Correlation between IAUEE and GPAt Divided by Their Gender

	GPAt Male	GPAt Female
IAUEEt	0.44	0.35
N.	66	216
IAUEEl	0.51	0.28
N.	66	216

Discussion and Conclusions

This study was set up to deal with the major question regarding the predictive value of Entrance Examination in Islamic Azad University in Iran. The study showed that there was such value. However, the students' total score in the examination was a better predictor than the English language subtest which was beyond my expectation. A look at the other subtests of the IAUEE (Persian Literature, Arabic language, and religious information) and the courses they had sat the examination for, that is, English-related courses, encourage us to expect that English subtest could be a more valid predictor. Nonetheless, it proved otherwise. GPA of freshmen was also equally predictable by the entrance examination and its English proficiency subtest.

The results of this study were in line with certain studies conducted so far. This study supports, in one way or another, the results of the studies by Huong (2001), Power (2001), Ramist, Lewis and McCauley-Jenkins (2002), Marvin and Simner (1999), and Kuncel, Hezlett, and Ones (2001). They found out that the entrance examinations (in their case, IELTS, GRE, SAT II, and TOEFL) indicated a certain degree of predictive value for the students/ academic success. This is in spite of the fact that, like Ramist, Lewis and McCauley-Jenkins (2002), this study further restrict the predictive value for the freshmen. A number of studies also failed to offer conclusive evidence with which the results of this study more or less contradicted such as Dooey (1999), Emery (2007), Morrison & Morrison (1995), to name just a few. They found out that entrance examination possessed minimal or no

predictive value and could not hence be considered as a valid source of predicting academic success of the students.

The authorities in the faculty should hear these messages from this study:

1) They had better use IAUEE total score regarding any further planning for students.

2) The predictive value is much stronger among ELT students.

3) The boys' IAUEE results are more dependable as the signal of their success in their study.

4) Total GPA is a more reliable index to count on than year-average GPAs for freshmen and sophomores.

5) Test constructors in IAU Testing Center are suggested to benefit the result of the study to ameliorate the quality of exam development.

My suggestion to those in charge in the IAU Testing Center is to add two more subtests of listening comprehension and test of spoken to get a better view of applicants' proficiency in English and, hence, more predictable success in future. As an alternative, there can be an interview to measure their English language proficiency. This can help either to screen those qualified applicants for the course or to assign some pre-requisite courses to compensate their low command of English before they formally commence with the academic curriculum.

As any college or university attempts to recruit the most talented applicants with promising future to join them, they require a precise instrument to predict their academic success and save every penny they invest.

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