The Predictive Validity of Entrance Examinations at the Ethiopian Civil Service College

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Abstract: The purpose of this study was to examine the validity of the locally developed college entrance examinations at the Ethiopian Civil Service College (ECSC). The validation aspect is assessed in the context of the prediction of college performance. The subtests for the year 2000 and 2001 entrance examination scores were used to predict the academic success of students who were attending the ECSC. A total of 1026 students' results were included in the validation study. Descriptive statistics and multiple regression equation were employed in the data analysis. The results indicated that the English language subtest has proved to be an important predictor of college performance for the degree program. The same is true of the year 2000 Physics subtest for the Municipal Engineering field. However, it was found that the independent effect of Mathematics and Law subtests in the prediction of College performance is minimal. It is, therefore, concluded that the entrance examination employed by the ECSC as an admission test has considerable predictive power in relation to college success, particularly for first year studies.

Introduction

Colleges and universities traditionally utilize one of the two methods for admission, namely selective or open recruitment method. Selective admission institutions use several elements in selecting students. These include such quantitative elements as grade point average, class standing and scores on standardized entrance examinations. Institutions also use personal histories (biographical information, activities, interests, experiences, and references), essays, and interviews in making their decisions. A number of open admission institutions admit all students who meet the minimum criteria, such as holding a high school diploma (Camara and Echternacht, 2000).

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In some parts of the world, college entrance examinations are administered to students during their senior year of high school. Such tests have been used for college admission and placement for most of the 20th century. That is, standardized admission tests are designed to aid college and university admission officers in evaluating the qualification of applicants for admission Eckland (cited in Austin and Garber, 1982).

More importantly, prior to the selection of candidates, decisions must be made on how to select for particular type of training related to students' abilities. Regarding the importance of decisions on admissions, Thorndike and Hagen (cited in Heywood, 1977) have suggested that a decision to select a student for a course or program should be oriented towards maximizing the learning opportunities.

Developed countries use mostly standardized achievement tests to supplement teacher-made tests. This helps to maintain the quality of educational decisions made by educators and to minimize problems associated with teacher designed tests (Hoge and Butcher, 1984). In a country where standardized achievement tests are not in use, one has to depend largely on teacher-made tests to make different educational decisions.

In a local context, the ECSC utilizes selective methods for admission. Administering entrance examination, which is a series of hour-long multiple choice and essay type examinations developed by the College academic staff, is one of the special features of the College. The selection for admission to the college is based on the results of the entrance examination given by the College. Subjects included in the entrance examination are deemed to have sufficient cognitive domain to provide a suitable preparation for future college study. Though the ECSC depends on its entrance examinations, sometimes examinations may be limited to predicting the future performance of students.

Therefore, the existence of valid admission tests to select competent civil service trainees to the college is vital. The research question, which logically follows from this exposition, is "*To what extent are the current admission tests at the ECSC valid in predicting a trainee's future success at diploma and degree levels?"*

Literature Review

Tests are measuring devices or procedures designed to provide a source of objective and reliable information to serve as inputs for decision making. In many circumstances, a test or an examination is useful to distinguish between people of higher and lower competences.

In general, tests are given in order to make an important decision. For instance, an institution may decide that some individuals are acceptable while others are not due to their test scores/results. This feature of acceptance and rejection is central to a selection decision (Cronbach and Glassser, cited in Nitko, 1983). As far as selection is concerned, Sax (1974) suggests that selection decisions demand the ability of the test to predict success and failure with a minimum risk both to the institution and to the individual involved. The institution should discover those candidates who are best able to profit from the teaching that it has to offer. Moreover, selection decisions are greatly improved when a close correspondence exists between the testing task and those skills, abilities and attitudes required for success in the institution.

Even though tests are used to make important decisions about individuals, unfortunately one feature that all tests share in common is their limited accuracy. They rarely provide an exact measure of variables that are believed to have important effects on individual traits. In reality, there is no method that guarantees complete accuracy (Curzon, 1999, Hoffman, cited in Gronlund, 1981). For instance, examinations rarely produce objective assessment, for they

often reflect the examiner's subjective standards. This might distort the candidate's true level of attainment.

Despite criticism, tests generally continue to give fair information necessary to make decisions about individuals (Wigdor and Garner, 1982). When tests are used for selection, it is imperative to show that the scores bear a relationship to success in the program for which the institution or organization has used to select capable people. If investigation does not show that these tests can distinguish between those likely to succeed and those that do not, such tests need to be improved.

Admission tests can be used to help an institution to assess the information it receives from high schools about students applying for admission. In selection decisions, the concern of the institution is to make accurate decisions based on students test scores in recruiting eligible, and competent candidates to the college (Thorndike & Hagen, cited in Heywood, 1977). While making placement decisions, the concern of the institution is to create learning environments in which all students will learn. Hills, Hirsch and Subhiyah (cited in Mzumara, Shermis, and Averitt, 1999) define placement as a process by which students are assigned to courses commensurate with their past achievements in order to facilitate expeditious further learning. The underlying idea is that students differ. They may differ in their levels of preparation, in their adeptness at learning, in their interests, in their ability to organize for themselves, and so on.

As a result, for efficient instruction, different approaches are made for different students or groups of students. Ideally, a student is placed in the learning situation that is best for him/her (Hills, Hirsch and Subhiyah, cited in Mzumara, Shermis, and Averitt, 1999). The ECSC utilizes its entrance examination both for the purpose of selection and for placement decisions. This means matching students with instruction appropriate to their academic preparation and ability level on degree and diploma programs.

Another use of test results, which is growing in importance, is concerned with the prediction of a learner's future behavior (Childs, 1990; Ornstein, 1995). Tests have been found to relate to future outcomes or events, thus creating the possibility of being able to predict a person's future performance based on his or her test scores. A student's marks in a first level examination may be used to forecast performance in an advanced level course. Some colleges and universities may accept a student's performance in this type of test as a prediction of his or her likelihood of success on a higher-level course (Curzon, 1999).

College entrance examinations are not intended to assess student's achievement. However, they may be one important predictor of how well students will do in college (Ornstein, 1995; Childs, 1990). For example, the Scholastic Aptitude Test (SAT) is intended to predict students' grades during the first year of college and does not claim to measure the achievement of students during their time at a high school (Camara and Echternacht, 2002).

Austin and Garber (1982) have pointed out that admission tests have a predictive power in college, independent of one's high school grades. This is partly because grades depend considerably on the academic and competitive environment of a particular high school a student has attended. Several studies in Ethiopia have revealed that an entrance examination serves as an admission test and that it is the best predictor of academic performance in both vocational and professional training institutes. For instance, a validity study conducted by Tamiru (1992) found that the entrance examination is the best potential predictor of the performance of candidates trained at the institute. Other studies have explained that aptitude test might be considered as the best predictor in academic performance in college (Lakew, 1972; Mittman, 1972; Mekonnen et al., 1991). The study conducted by Mekonnen et al. (1991) shows a moderate correlation coefficient of 0.53 between the locally designed aptitude test scores and the freshman Grade Point Average (GPA).

In another instance, the validity study conducted by Alvidres and Withworth (1981) revealed that a locally developed entrance examination lacks predictive validity. The study found a correlation coefficient of 0.36 between a mathematics entrance examination and the university GPA and a correlation coefficient of 0.26 between the English entrance examination and the university GPA.

Methods

Subjects

This study used the entrance examinations scores and data from a total of 1026 students (M=939, F=87) who entered, as College freshmen, in the year 2000 and 2001 at the ECSC. In the year 2000 and 2001 the freshman scores of 482 (M=455, F=27) students and 544 (M=484, F=60) students were analyzed respectively. In the study, 8.56 per cent (N=96) of students with incomplete and/or missing scores were excluded from the data analysis.

Procedure

For the validity study, the students' entrance examination scores for the subtests, their freshman first term scores for each subject, and their first term grade point average were collected from the College Registrar's Office. For analysis, standardized scores were computed for the entrance examination scores of he subtests, the freshman first term scores of the respective subjects, and the first term grade point average.

Variables

In this study, four predictor variables and one criterion measure were employed. The predictor variables consisted of students' entrance examination scores on the four subtests: *English language, Mathematics, Physics and Law scores*. The criterion measure was the students' *first term grade point average (FTGPA)* in the college.

Statistical Analysis

The present study employed some aspects of descriptive statistics and multiple regression techniques to provide validity evidence for the entrance examinations for the years 2000 and 2001. In addition, simple correlation and regression analyses were used to demonstrate the relationship between predictor scores and outcome variables.

The rationale for the validation was as follows. To the extent that the usefulness of an entrance examination depends on the existence of statistical relationships, such evidence is clearly essential to validation. Thus, by measuring the strength of this statistical relationship, evidence can be obtained on the validity of entrance examination scores for making selection decisions.

Results

Table 1: Means and Standard Deviations of the Four Subtests and FTGPA

Year	Subtests	Intended Majors								
		Law		Economics	Accounting		Development Administration		Urban Planning	Municipal Engineering
		Degree (N=130)	Diploma (N=46)	Degree (N=65)	Degree (N=108)	Diploma (N= 42)	Degree (N=41)	Diploma (N= 0)	Diploma (N= 0)	Diploma (N= 50)
2000 intake	x_1= Eng.	**55.79** (9.65)	**45.26** (6.09)	**58.59** (11.34)	**54.04** (10.83)	**47.55** (8.31)	**61.34** (8.84)	-	-	**58.04** (11.02)
	X_2= Math's	-	-	**61.03** (12.88)	**60.72** (11.63)	**44.81** (9.75)	**57.17** (13.22)	-	-	**50.44** (13.57)
	x_3= Physics	-	-	-	-	-	-	-	-	**58.08** (13.06)
	X_4= Law	**60.16** (9.84)	**47.20** (8.13)	-	-	-	-	-	-	-
	Y=FTGPA	**2.34** (0.66)	**2.27** (0.62)	**2.78** (0.68)	**2.62** (0.58)	**2.38** (0.55)	**2.66** (0.41)	-	-	**2.53** (0.69)
		(N=103)	(N=32)	(N=65)	(N=127)	(N=41)	(N=71)	(N=32)	(N=41	(N=32)
2001 intake	x_1= Eng.	**61.35** (8.37)	**51.59** (7.60)	**61.53** (8.01)	**55.44** (8.48)	**45.44** (9.78)	**59.23** (7.69)	**49.19** (8.99)	**57.03** (8.24)	**53.12** (13.40)
	X_2= Math's	-	-	**65.04** (8.84)	**66.59** (10.06)	**52.32** (10.69)	**55.36** (11.74)	**47.73** (10.52)	**72.04** (10.62)	**67.19** (12.44)
	x_3= Physics	-	-	-	-	-	-	-	**57.76** (8.60)	**56.16** (9.06)
	X_4= Law	**66.05** (6.56)	**49.56** (7.28)	-	-	-	-	-	-	-
	Y=FTGPA	**2.45** (0.60)	**2.25** (0.62)	**2.75** (0.61)	**2.48** (0.66)	**2.25** (0.66)	**2.45** (0.67)	**2.28** (0.75)	**2.68** (0.54)	**2.43** (0.91)

Figures in bracket represent the standard deviations

Table 1 presents the means and standard deviations of the four subtest scores and the first year, first term grade point average (FTGPA) for each intended major. As expected, the diploma program students had substantially lower mean scores in all the four subtests when compared to the degree program students. A z-test was carried out to establish the differences between diploma and degree students in the subtests of the entrance examination. Statistically

significant differences were found among the predictor variables, indicating that degree students outperformed diploma students in each of the entrance examinations in this study. The data indicate that the entrance examination is useful for initial placement of students in their learning. That is, an entrance examination result is useful to assign students who have performed well to the degree program and those students who have not performed well enough to the diploma program.

Table 2: Regression of FTGPA on the Four Subtests

Intended Major	Exams	Model	Statistics	Year 2000		Year 2001	
				Degree (N=344)	Diploma (N=138)	Degree (N=366)	Diploma (N=178)
Law	English + Law	1. English	R-Square	0.19***	0.00	0.14***	0.00
			MSE	0.35	0.39	0.31	0.38
		2. Combined	R-Square	0. .28***	0.13	0.19	0.02
			MSE	0..31	0.34	0.29	0.37
Economics	English + Math	1. English	R-Square	0.28***	-	0.10**	-
			MSE	0.33	-	0.36	-
		2. Combined	R-Square	0. 39***	-	0.16***	-
			MSE	0.28	-	0.31	-
Accounting	English + Math	1. English	R-Square	0.21***	0.02	0.13***	0.05*
			MSE	0.26	0.30	0.38	0.42
		2. Combined	R-Square	0.32***	0.10	0.23***	0.08*
			MSE	0.23	0.28	0.34	0.41
Development Administration	English + Math	1. English	R-Square	0.17*	-	0.11**	0..06
			MSE	0.14	-	0.39	0.52
		2. Combined	R-Square	0.20*	-	0.12**	0..08
			MSE	0.14	-	0.39	0.51
Urban Planning	English + Math	1. English	R-Square	-	-	-	0.26***
			MSE	-	-	-	0.23
		2. Combined	R-Square	-	-	-	0.42
			MSE	-	-	-	0.17
Municipal Engineering	Physics + English	1. Physics	R-Square	-	0.18**	-	-
			MSE	-	0.39	-	-
		2. Combined	R-Square	-	0.19*	-	-
			MSE	-	0.39	-	-
Municipal; Engineering	English + Math	1. English	R-Square	-	-	-	0.33**
			MSE	-	-	-	0.56
		2. Combined	R-Square	-	-	-	0.39
			MSE	-	-	-	0.51

R-square values significant at *P< 0.05, **P< 0.01 and ***P< 0.001.
MSE= Mean Square Error.

Table 2 shows the results of multiple regression analyses for each group, using the intended major. With respect to the Law Faculty, the results for the year 2000 data indicate that both the English Language and Law subtests jointly accounted for approximately 28 per cent of the variance in the FTGPA. However, when a stepwise multiple regression analysis was performed, approximately 19 per cent of the variance in the FTGPA is explained by the English Language subtest alone. The Law subtest score contributing to the remaining 9 per cent of the variance in the FTGPA.

From the 2001 data, the result indicates that the two subsets together accounted for approximately 19 per cent of the variance in the FTGPA and the English Language subtest alone explains approximately 14 per cent of the variance in the first term GPA. These findings are also statistically significant for the degree program. On the other hand, the results of the diploma program in both years indicate that the contributions of the two subsets either independently or jointly are negligible. The description indicates that both subtests in 2000 made a greater contribution to the prediction than in 2001. In both years, the English Language subtest is an important variable in the prediction of first year college success. The data also indicate that there is a difference in relation to prediction between the degree and diploma programs.

Referring to the Economics stream, from the year 2000 data one can observe that approximately 39 per cent of the variance in the criterion variable FTGPA is explained by the regression model with two predictors, English Language and Math's subtests. In addition, approximately 28 per cent of the variability in the FTGPA is accounted for by the independent contribution of the English Language subtest. These are statistically significant. In addition, 9 per cent of the variation in the FTGPA is due to the contribution of the Math's subtest alone.

The results of the year 2001 data indicate that both predictors accounted for approximately 16 per cent of the variance in the

FTGPA. Similarly, about 10 per cent of the variance in the FTGPA is contributed by the English Language subtest alone. These findings are also statistically significant. The remaining 6 per cent of the variance in the FTGPA is explained by the Math's subtest. The description indicates that the two subtests in the year 2000 had more predictive power than in the year 2001. The data also indicate that among the subtests considered, the English Language subtest had a strong predictive power in relation to first year college achievement.

With regard to the Accounting stream, the year 2000 data indicates that approximately 32 per cent of the variance in the criterion variable FTGPA is the joint contribution of both the English Language and Mathematics subtests. About 22 per cent of the variance in the FTGPA is explained by the English Language subtest alone. These findings are statistically significant in relation to the degree program. In addition, 10 per cent of the variance in the FTGPA is the contribution of Mathematics subtests score. From the year 2001 data, the result indicates that approximately 22 per cent of the variance in the FTGPA is explained by the subtest. Thirteen per cent of the variance in the criterion variable is contributed by the English Language subtest alone. These findings are also statistically significant for the degree program.

On the other hand, the results from the diploma program indicate that the composite contribution of the two subtests; English Language and Math tests, on FTGPA in the year 2000 are not statistically significant. However, the year 2001 is statistically significant, with a very low contribution. The description shows that both subtests in the year 2000 had more predictive power when compared to that of the year 2001 and there is a difference in contributions between the degree and diploma programs. The data also indicate that an important predictor variable, in both examination years, is the English Language subtest.

Concerning the Development Administration group, the year 2000 data revealed that the two subtests, English Language and Math,

together contribute 20 per cent of the variance in the first year first term GPA. Approximately 17 per cent of the variance in the FTGPA is explained by the English Language subtest. These findings are also statistically significant for the degree program. The inclusion of a Math subtest score in the regression model does not affect the result. The contribution of Math to the prediction of the total variance in the FTGPA is slight.

On the other hand, the results of the diploma program indicate that the contribution of the two subtests independently or jointly is very low, and it is statistically not significant. An important variable in the prediction of the variance in the first year college success in the regression model is the English Language subtest. The data also revealed that there is a difference in prediction between the degree and diploma program and even between the years 2000 and 2001. The prediction is more in the year 2000 when compared to the year 2001.

Regarding the urban planning stream, a stepwise regression model was employed. The result indicates that about 42 per cent of the variance in the criterion variable (FTGPA) is accounted for by both the English Language and Math subtests. This finding is statistically significant. As the contribution of the Physics subtest is negligible, it is excluded from the regression model. Approximately 26 per cent of the variance in the FTGPA is explained by the English Language subtest, with the exclusion of the Math and Physics subtest. This finding is also statistically significant. The remaining 16 per cent of the variance in the FTGPA is the contribution of Math. The description indicates that the English Language subtest has more predictive power for first year college success relative to Math and Physics subtests.

With respect to the Municipal Engineering stream, again a stepwise regression model was employed. The results of the year 2000 data indicate that nearly 18 per cent of the variance in the criterion variable FTGPA is explained by the regression model, with one

predictor (Physics). This finding is statistically significant. As the joint contributions of the English Language and Math subtests in FTGPA are negligible, the regression model excludes both subtests. In other words, the inclusion of both the English Language and Math subtests in the regression model does not affect the result.

On the other hand, the results of the year 2001 data revealed that 33 percent of the variance in the FTGPA is explained by the English Language subtest, with the exclusion of Math and Physics subtests. This finding is statistically significant. Although the English Language and Math subtests accounted for about 39 percent of the variance in the FTGPA, the finding is not statistically significant. The inclusion of a Math subtest in the regression model affects the result. The description indicates that an important variable in the prediction of first year college success in the year 2000 is the Physics subtest, while in the year 2001 it is the English Language subtest.

In an effort to present a more accurate representation of the relationship between the subtests of English Language, Math, Physics, Law and FTGPA in each group of intended major, the Mean Square Error (MSE) was used (See Table 2). The MSE is a measure of the degree of variability of the points around a regression line. It can be used as an indicator of the strength of the relationship between predictors and criterion. The smaller the MSE the stronger the relationship between predictor(s) and criterion.

Table 3: Pearson's Correlation Coefficients of Variables Used in the Study

Intended Measures	Year	Program	Correlation Coefficient between							
			Eng & Law	Eng & Math	Eng & Physics	Eng & Law	Eng & FTGPA	Math & FTGPA	Physics & FTGPA	Law & FTGPA
Law	2000	Degree	0.02	-	-	-	0.43***	-	-	0.32***
		Diploma	-0.79***	-	-	-	0.02	-	-	0.20
	2001	Degree	0.7	-	-	-	0.37***	-	-	0. 26**
		Diploma	-0.40**	-	-	-	0.5	-	-	0.10
Economics	2000	Degree	-	-0.27*	-	-	0.53***	0.19	-	-
	2001	Degree	-	-0.20	-	-	0.31**	0.18	-	-
Accounting	2000	Degree	-	-0.13	-	-	0.46***	0.26**	-	-
		Diploma	-	-0.83***	-	-	0.13	0.05	-	-
	2001	Degree	-	-0.30***	-	-	0.36***	0.12*	-	-
		Diploma	-	-0.69***	-	-	0.22	-0.03	-	-
Dev't. Adm.	2000	Degree	-	0.02	-	-	0.42***	0.18	-	-
		Diploma	-	-	-	-	-	-	-	-
	2001	Degree	-	-0.24*	-	-	0.34***	-0.04	-	-
		Diploma	-	-0.32*	-	-	0.25	0.05	-	-
Urban Planning	2000	Diploma	-	-	-	-	-	-	-	-
	2001	Diploma	-	-0.16	0.26*	0.32*	0.51***	0.31*	0.29*	-
Municipal Engineering	2000	Diploma	-	0.25*	0.12	0.28*	0.8	0.14	0.43***	-
	2001	Diploma	-	-0.05	0.17	0.34*	0.57***	0.21	0.20	-

*Significant at *P< .05, **P< .001 and ***P< .0001*

To substantiate the results of regression analysis, a correlation analysis is also presented. In predictive validity, the correlation

coefficients indicate the degree of relationship that exists between the predictor and the criterion.

The results of the intercorrelations among the four predictor variables and the first term GPA for each intended major are shown in Table 3. Almost in all intended majors except the 2000's Municipal Engineering stream, the English language subtest had the highest statistical significant correlation with the first term College GPA for the degree program. Nevertheless, in 2000 for the Municipal Engineering group, the Physics subtest had the highest statistical significant correlation with the first term College GPA. In both cases, these correlations imply that the scores of the subtests are helpful in the prediction of College success. The remaining subtests show that they have a slight relationship with FTGPA. The data indicate that other subtests of the entrance examinations have less prediction on student's first term College success.

On the other hand, in the case of the diploma programs, particularly in Law, Accounting and Development Administration streams, there is no statistically significant correlation between each of the subtests and the first term college GPA. This indicates that the subtests do not play an important role in the prediction of first term college success.

Discussion

This study has examined the validation of entrance examinations at the college. The validation aspects of the entrance examinations were assessed in the context of their prediction of academic success in the college. The relationship of the predictors to an appropriate criterion of college success is an indicator of effectiveness.

With regard to validity, as mentioned above, the present study emphasizes the predictive validity of college entrance examinations. The findings of this study indicate that the college entrance examination is a good predictor of first term college performance. Studies conducted by (Kobrin and Milewski, 2002; Camara and

Echternacht, 2002) have shown that the SAT (entrance examination) and high school grade point average are the most accurate predictors of first year college performance. Local studies by (Mekonnen et al., 1986; Tassew et al., 1990; and Darge et al., 1994) also reported that high school grade point average is a good predictor of academic success in a college or university.

In the present study, a comparison of the results of the regression analysis across programs (degree and diploma) revealed that the degree program had the highest R-square of the first term GPA with the English Language and Math subtests combined. These findings are statistically significant. In the case of the diploma program, the results indicate that the R-Square of the first term GPA is very low within each of the subtests of the entrance examination. The descriptive statistics also reveals that diploma students had lower mean scores in all the subtests. Thus, one can say that the college entrance examination seems to be more appropriate for the degree program.

The reasons for the degree and diploma program differences in Law, Accounting, and Development Administration seem not to be a consequence of the entrance examination. Perhaps it is a consequence of the freshman courses, institutional and personal factors. For example, as the ECSC students are adults, there may be difficulties of adjusting themselves to a higher education environment. This may generally decrease the predictability of first year achievement.

In general, results indicated that the English Language subtest is an important predictor of college success in all areas of intended majors for the degree program. Perhaps one possible explanation for this is that English Language test developers seem to have knowledge of test construction principles. English Language exam also predicts a statistically significant proportion of variability in the first term GPA, after taking into account the variance in FTGPA accounted for by other subtests. However, the English Language test scores combined

with other subtest score results are a more accurate predictor of college success than either one measure alone or any other combination of measures. The same is true with the year 2000 Physics test score for the prediction of first term GPA for Municipal Engineering students. Overall, there is a strong positive reliability between English Language test score and FTGPA, and between the year 2000 Physics test score and FTGPA.

Put differently, the study found that when individual course grades are used as the criteria, it appears that the English Language subtest is slightly more effective in predicting course grades than the other subtests. Nevertheless, the improvements are small. But prediction is reached using both predictors, the English Language subtest contributing substantially to increasing the accuracy of the prediction.

The relationship between predictors such as the English Language, Math, Physics, and Law scores and a criterion of college success is also measured by computing a correlation coefficient. In validity studies, correlation coefficients are sometimes called validity coefficients (Camara and Echternacht, 2000). Higher correlations reflect a stronger association between predictors and the criteria. In the present study, in almost all intended majors the English Language subtest had the highest statistical significance correlation with the first term college GPA. The same is true for the Physics subtest for the Municipal Engineering students in the year 2000. From this description, one can infer that both subtests are useful in predicting success.

To sum up, results from the study indicate that English Language subtest scores have a substantially higher predictive power than any other subtests, across all areas of intended majors.

Summary and Conclusion

This study has focused on examining the validation of locally developed college entrance examinations. To this end, a validity

study was conducted to determine the effectiveness of the predictors of success in college.

When separate regression equations were estimated for each intended major in each year, the following findings emerged. The multiple correlations of English Language subtest score are higher within all areas of intended majors except the Municipal Engineering stream in the year 2000. It is also highly correlated with first year college performance in all areas of intended majors. The same is true of the Physics subtest score for the Municipal Engineering field in the year 2000.

The effects of combined subtest scores are larger than a particular score across all areas of intended majors. Similarly, the effects of different combinations of predictor variables were studied. The addition of other subtest scores to the English Language improves the prediction of college success. For example, the English Language and Math aggregate improved the prediction of success in the first year studies for the Business and Economics Faculty; the English Language and Physics aggregates improved the prediction of success in first year studies for the Technology Faculty; and English Language and Law improved the prediction of success in first year studies for the Law Faculty.

The English Language test has proved to be an important predictor of success in college for the degree program. Its validity as a predictor of success has been shown throughout different intended majors.

In general, the study showed the Ethiopian Civil Service College entrance examination has considerable predictive power in relation to college success, particularly in first year studies. That is, the findings of this study suggest that students with a high score in the English language subtest will do better in college freshman courses. Therefore, the English subtest was a more accurate predictor of students' future success in the College. Though other subtests have less prediction, they play considerable role in college success when

they are combined with the English language subtest. Thus, the locally developed College entrance examination helps to identify better candidates who will succeed in their College studies.

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