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Graduate Management Admission Council® Creating Access to Graduate Business Education<sup>#</sup>

## GMAT<sup>®</sup> Validity Study Summary Report for 1997 to 2004

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The Graduate Management Admission Test® (GMAT®) is a standardized test used by graduate management programs around the world to help assess applicant qualifications. GMAT® scores are typically used by admissions professionals along with other characteristics, such as interviews and undergraduate grade point averages, to evaluate the fit of candidates to their individual program. Expected first year academic performance is critical, but not the sole criterion when making admissions decisions.

To help programs better understand the predictive value of the GMAT<sup>®</sup> exam and other admissions criteria, the Graduate Management Admission Council<sup>®</sup> (GMAC<sup>®</sup>) offers a Validity Study Service (VSS) to any school that would like to participate. More than a thousand studies have been conducted since the VSS was instituted in 1977. This report summarizes the results from 273 studies involving 41,338 students conducted during the calendar years 1997-2004. Because all studies ask for standard information, such as GMAT<sup>®</sup> scores and undergraduate grade point average (GPA), and because all studies were conducted using the same analyses, the information can be summarized and compared to look at general findings.

#### **Related Literature**

Testing standards developed jointly by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME) stress the importance of providing validity evidence for the proposed uses of tests (AERA, APA, & NCME, 1999). In the case of admissions tests such as the GMAT<sup>®</sup> exam, the ideal situation would be to conduct a validity study for every program that uses the scores to help select successful candidates for the program. Several researchers have conducted validity studies on GMAT<sup>®</sup> scores and their use in individual programs (e.g., Adams & Hancock,

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2000; Benson, 1983; Bottger, & Yetton, 1982; Carver & King, 1994; Marks, Watt, & Yetton, 1981; McClure, Wells, & Bowerman, 1986; Newman, 1986; Nilsson, 1995; Pieper, 1969; Rothstein, Paunonen, Rush, & King, 1994; Waters, 1968; Wright & Palmer, 1994; and Youngblood & Martin, 2000).

Some programs may not have the resources or the sample size necessary to conduct a local validity study. Validity evidence for these programs could rely on other research if that research can be generalized. Validity generalization can be gleaned from results combined across studies such as statistical summaries or meta-analyses (AERA, APA, & NCME, 1999). Support for such validity generalization can be found in large-scale studies by Crooks and Heuvelmans (1999); Kuncel, Crede, and Thomas (2004); Olsen (1957); Powers and Moss (1980); Sireci and Talento-Miller (in press); Wightman and Leary (1985); and Zhao, Patsula, Stone, Paez, Babula, Tye, and Cruz (2000), which combine validity evidence of GMAT<sup>®</sup> scores across several programs.

The recent validity study conducted by Kuncel, Crede, & Thomas (2004) is of special note. Summarizing the results of more than 300 individual validity results, the authors found moderately strong relationships between GMAT<sup>®</sup> scores and first year grades. The meta-analytic methods used allowed the correlations to be more accurate representations of expected population values due to corrections made for restriction of range and criterion unreliability. The calculated validity values had relatively small standard deviations, suggesting that much of the variability observed across studies can be attributed to statistical artifacts (Kuncel et al., 2004).

This report adds to existent literature on the generalizability of GMAT<sup>®</sup> validity by summarizing individual studies and by examining the generalizability across different program features such as program type, institution type, and program location.

#### Methods

Predictive validity is the relationship between a predictor or combination of predictors, such as test scores and grades, and an outcome, such as grades in a graduate management program. For the GMAT® VSS, undergraduate grades and GMAT® scores are standard predictors and mid-program grades are the standard criterion included in every study. Schools have the option to tailor the study by including additional predictor, criterion, and grouping variables, although those additional variables are not included in this analysis. The outcome, mid-program grades, represents grades halfway through a program and includes the grades of most of the core courses. Because the core courses among graduate management programs are likely to be similar, this outcome is expected to be comparable across schools.

In this study, simple correlations are used to indicate the relationships between individual predictors. Multiple regression analyses are used to calculate validity values for combinations of predictors. Validity values of 0.3-0.4 are considered good for admissions (Kaplan & Sacuzzo, 1997).

All validity values in this study were adjusted due to restriction of range. Due to the selectivity of the admission process, individuals included in a validity study represent only a subset of the applicant pool. Correcting for restriction of range adjustment allows the validity to be generalized to the entire applicant pool. Corrections are made by adjusting correlations based on the ratio of the variance of the selected sample available to the variance of the entire applicant pool.

The bivariate correlations were adjusted using the following formula from Hunter and Schmidt's (1990) book:

$$r_{ij}^{*} = \frac{Ur_{ij}}{\sqrt{(U^2 - 1)r_{ij}^2 + 1}}$$

where  $r_{ij}^*$  is the adjusted bivariate correlation of variables i and j,

r<sub>ij</sub> is the observed bivariate correlation, and

$$U = \frac{\sigma_{pop}}{\sigma_{obs}}$$

Regressions were then computed from the adjusted correlations matrices with all variables in the equation. On average, the adjustment resulted in increases of less than 0.10. Stolenberg & Relles (1985) effectively argue that sending scores to a program is the beginning of the application process. Therefore, for the purposes of the VSS studies, the applicant pool was defined as all individuals who sent GMAT<sup>®</sup> scores to the program or institution within the most recent three year period.

Validity values for individual predictors and combinations are summarized in this report and compared to make determinations about the effectiveness of the predictors. Validity comparisons by program features are made to determine the extent to which validity values can generalize. Validity is first compared across studies from full-time, part-time and executive MBA (EMBA) programs to describe differences observed among program types. Validity values for programs located in private schools are compared to those in public institutions. Then differences in validity are examined for programs located within the United States compared to those outside the United States.

#### Results

During the eight years represented, 273 studies were completed through VSS for 173 different schools. The adjusted validity coefficients for all 273 studies are shown in the Appendix.

Although all schools were asked to submit data on the standard predictors, some did not include information on GMAT<sup>®</sup> AWA scores. If complete data was not available for at least 25 cases or students, the analysis for that combination of variables was not calculated. Therefore, not all analyses have data available from all 273 studies. Table I shows the summary results for the standard combinations. The table shows that the variables examined are effective predictors of mid-program grades, especially when used in combination, and that validity varies considerably among programs.

Table I. Summary of	Validity	Coefficie	nts for VS	5S 1997-20	004	
	N	Mean	SD	25%	Median	75%
Undergraduate GPA	264	0.283	0.128	0.196	0.285	0.374
GMAT® Verbal	273	0.323	0.139	0.227	0.326	0.415
GMAT <sup>®</sup> Quant	273	0.331	0.166	0.233	0.340	0.444
GMAT® AWA	222	0.184	0.137	0.101	0.188	0.277
GMAT® Total	272	0.459	0.145	0.370	0.459	0.554
Verbal + Quant	267	0.452	0.137	0.361	0.439	0.545
Verbal + Quant + AWA	263	0.513	0.131	0.431	0.504	0.607
Total + AWA	262	0.518	0.135	0.434	0.514	0.613
Verbal + Quant + UGPA	222	0.473	0.131	0.379	0.467	0.551
Total + UGPA	215	0.479	0.132	0.397	0.476	0.559
Verbal + Quant + AWA + UGPA	214	0.525	0.127	0.440	0.515	0.615
Total + AWA + UGPA	213	0.530	0.128	0.448	0.523	0.626

Figure I shows a comparison of the individual bivariate predictors and the Quant-Verbal combination. The combination of Verbal and Quantitative score is included because the GMAT<sup>®</sup> Total score is based on performance in both the Verbal and Quantitative sections. On average, the GMAT<sup>®</sup> Verbal and Quantitative sections have higher predictive validity than undergraduate GPA. GMAT<sup>®</sup> AWA has relatively low average validity. Though it has a modest average validity value, the variability in GMAT<sup>®</sup> AWA predictive validity shows that it is a valuable predictor for students in some programs.



Figure I. Comparison of Validity Results for Individual Predictors

Overall, the GMAT<sup>®</sup> Total score is the best individual predictor, and its validity coefficient is similar to the combination of the Verbal and Quantitative scores.

Adding AWA to either GMAT<sup>®</sup> Total or the combination of Verbal and Quantitative scores results in higher validity. The highest validity results when the

GMAT<sup>®</sup> factors are combined with undergraduate GPA. For the combinations with all variables, even the lowest quartile (25%) has very good validity values.

#### **Program Type**

Not all of the VSS studies specified the type of program being studied. Some included more than one program type within a single study, and there were some program types specified, such as PhD programs, which were represented by very few of the 273 studies within the larger sample. Three program types were identified for further investigation based on their representation in the sample: full-time, part-time, and EMBA programs. Examining validity results for these program types revealed some differences. Table 2 shows the median validity values for the three program types examined and Figure 2 show a visual comparison of the values.

Table 2. Median	Predictive Validity	by Program Type	
	Full-Time	Part-Time	EMBA
N	90	20	16
Undergraduate GPA	0.296	0.267	0.238
GMAT® Verbal	0.323	0.328	0.460
GMAT <sup>®</sup> Quant	0.314	0.383	0.562
GMAT <sup>®</sup> AWA	0.217	0.164	0.241
GMAT® Total	0.467	0.480	0.580
Verbal + Quant + AWA + UGPA	0.503	0.494	0.654
Total + AWA + UGPA	0.529	0.557	0.632

Figure 2. Median Validity Results by Program Type



The most striking differences exist for the EMBA programs compared to the other two program types. For all but one validity comparison, EMBA programs showed higher average validity than either the full-time or parttime programs. The one exception was the lower average validity for undergraduate GPA for EMBA programs compared to the other program types. The lower average validity for undergraduate GPA may result in part from the design of the EMBA programs. Because these programs typically require substantial work experience, more time has passed between undergraduate study and EMBA enrollment. The study habits and skills used to earn the undergraduate GPA may not be as relevant as the reasoning skills assessed by the GMAT<sup>®</sup> exam.

When comparing full-time and part-time programs, there is no clear pattern for the GMAT<sup>®</sup> scores. For instance, although the validity for GMAT<sup>®</sup> Quantitative scores is higher for part-time programs, the validity for GMAT<sup>®</sup> AWA scores is slightly higher for full-time programs. For the combinations of variables, the validity results are similar between the two program types. On the whole, it appears there is little difference in validity of GMAT<sup>®</sup> scores and undergraduate GPA when predicting grades in either full-time or part-time programs.

#### **Institution Type**

The dataset included 165 studies for institutions with an identification of either public (109 institutions) or private (56 institutions). The median values for each institution type are given in Table 3 and illustrated in Figure 3. Comparisons of the average values showed no meaningful differences in validity by program type. This suggests that the conclusions made based on GMAT<sup>®</sup> scores and undergraduate GPA or the combination of those factors are equally valid at public and private institutions.

Table 3. Median Predict	tive Validity by Institutio	on Type
	Public	Private
N	109	56
Undergraduate GPA	0.269	0.263
GMAT® Verbal	0.318	0.330
GMAT <sup>®</sup> Quant	0.338	0.362
GMAT <sup>®</sup> AWA	0.178	0.168
GMAT® Total	0.457	0.458
Verbal + Quant + AWA + UGPA	0.516	0.514
Total + AWA + UGPA	0.518	0.517



Figure 3. Median Validity Results by Institution Type

#### **Program Location**

All studies were classified by program location. Non-US programs included 20 studies for programs located mostly in Europe (N=15) with 4 studies from Canadian programs and I from Asia. Table 4 shows the mean and standard deviation values for the two groups, and Figure 4 illustrates the median validity values. Few non-US programs had much information available for undergraduate GPA, so the combinations used in the comparisons used only GMAT<sup>®</sup> scores. There appear to be a few differences in validity: Non-US programs had

lower average validity for undergraduate GPA and GMAT<sup>®</sup> Quantitative scores but higher average validity for GMAT<sup>®</sup> AWA scores. The higher validity for AWA scores appears to influence the combinations of GMAT<sup>®</sup> scores, which are also higher for non-US programs. It is especially worthy to note that there is considerably more variability in the validity coefficients for non-US programs, indicating that there is much less consistency across variables for these schools. Further research examining different locations is suggested.

Table	4. Summary of Predi	ctive Validity by Pro	gram Location	
	L	JS	Non	-US
	Mean	SD	Mean	SD
Undergraduate GPA	0.285	0.122	0.247	0.230
GMAT® Verbal	0.320	0.138	0.354	0.149
GMAT <sup>®</sup> Quant	0.338	0.159	0.227	0.232
GMAT <sup>®</sup> AWA	0.179	0.134	0.254	0.160
GMAT® Total	0.458	0.143	0.483	0.164
Verbal + Quant + AWA	0.470	0.131	0.516	0.127
Total + AWA	0.476	0.132	0.543	0.123
Ν	253		20	

Figure 4. Median Validity Results by Program Location



#### Conclusions

This is the largest summary of GMAT<sup>®</sup> VSS studies conducted to date. The data show that the GMAT<sup>®</sup> exam has exceptionally high validity for most programs. The interquartile range of the predictive validity of the GMAT<sup>®</sup> Total score, AWA score and undergraduate Grade Point Average is 0.448 to 0.626, with a median of 0.523. When one considers the range of variables that can have an effect on a student's First Year Average, such as motivation, job considerations, family considerations, course preferences, professor preferences, teaching quality, and grading quality, the predictive validity of these core admission data is quite impressive.

The following findings are of special note—

- GMAT<sup>®</sup> scores consistently outperform undergraduate GPA as a predictor of early academic success.
- There are no meaningful differences in mean predictive values across public versus private schools.
- The average predictive validity of the GMAT<sup>®</sup> Verbal, Quantitative and Total sections is higher for Executive MBA programs than it is for full-time or part-time programs.

• The AWA test tends to predict better for non-US programs than for US programs and the Quantitative section tends to predict less well for non-US Programs.

When examining the validity data in this study, one should recognize that there is a great deal of variability across programs and that relative importance for each of the investigated variables differs for each program. This is to be expected. There are meaningful differences in curriculum, both in terms of the courses that make up the first year and the content within the courses. Furthermore, there are differences in grading policies from professor to professor, as well as differences across programs in their applicant pools and student bodies. While one can expect the validity results seen here to generalize, because of all the differences across programs every program would be best served by conducting a local validity study using their own data.

#### **Contact Information**

For questions or comments regarding study findings, methodology or data, please contact the GMAC Research and Development department at research@gmac.com.

#### References

- Adams, A. & Hancock, T. (2000). Work experience as a predictor of MBA performance. *College Student Journal, 34,* 211-216.
- American Educational Research Association, American Psychological Association, National Council on Measurement in Education. (1999). *Standards for Educational and Psychological Testing*. Washington, DC: American Educational Research Association.
- Benson, G. (1983). GMAT—Fact or fiction: A look at the validity of the exam. Paper presented at the Annual Meeting of the Rocky Mountain Educational Research Association. Tucson, AZ: November 2-5, 1983. ED248274
- Bottger, P. & Yetton, P. (1982). Student assessment and GMAT: Quantitative versus Verbal components in performance on examinations and assignments. *Australian Journal of Management, 7*, 9-18.
- Carver, M.R. & King, T.E. (1994). An empirical investigation of the MBA admission criteria for nontraditional programs. *Journal of Education for Business, 70*, 94-98.
- Crooks, S. & Heuvelmans, A. (1999). *The GMAT as a Predictor of Academic Performance on Eight European MBA Programs.* A Study for the Graduate Management Admission Council (GMAC) by the National Institute for Educational Measurement (CITO). Arnhem, The Netherlands: CITO.
- Kaplan, R. & Sacuzzo, D. (1997). Psychological Testing: Principles, Applications, and Issues (Fourth Edition). Pacific Grove, CA: Brooks/Cole Publishing Company.

- Kuncel, N., Crede, M. & Thomas, L. (2004). A comprehensive meta-analysis of the predictive validity of the Graduate Management Admission Test (GMAT) and undergraduate grade point average (UGPA). Presented at the Annual Meeting of the Society for Industrial and Organizational Psychology, April 2-4, Chicago, IL.
- Marks, R., Watt, P. & Yetton, P. (1981). GMAT scores and performance: Selecting students into a graduate management school. *Australian Journal of Management, 6*, 81-102.
- McClure, R.H., Wells, C.E. & Bowerman, B.L. (1986). A model of MBA student performance. *Research in Higher Education, 25*, 182-192.
- Newman, J. (1986). A comparison of the rate of success between provisionally accepted and initially matriculated students in the Dowling Master of Business Administration program. ERIC Document: ED296688.
- Nilsson, J.E. (1995). The GRE and the GMAT: A comparison of the correlations to GGPA. *Educational & Psychological Measurement, 55*, 637-640.
- Olsen, M. (1957). The Admission Test for Graduate Study in Business as a Predictor of First-Year Grades in Business School, 1954-1955. ETS Statistical Report SR-57-3. Princeton, NJ: Educational Testing Service.
- Pieper, W. (1969). An analysis of applicants admitted to the master's program of the Graduate School of Business Administration at Berkeley. ERIC Document: ED030396.
- Powers, D. & Moss, P. (1980). A Summary of the Results of the Graduate Management Admission Council (GMAC) Validity Study Service for 1979-1980. Princeton, NJ: Educational Testing Service.
- Rothstein, M.G., Paunonen, S.V., Rush, J.C. & King, G.A. (1994). Personality and cognitive ability predictors of performance in graduate business school. *Journal of Educational Psychology, 86*, 516-530.
- Sireci, S. & Talento-Miller, E. (in press). Evaluating the predictive validity of Graduate Management Admission Test<sup>®</sup> scores. *Educational and Psychological Measurement*.
- Stolzenberg, R. & Relles, D. (1985). Calculation and practical application of GMAT predictive validity measures. GMAC Occasional Papers. McLean, VA: GMAC.
- Waters, E. (1968). The Admission Test for Graduate Study in Business and the adult part-time student. ERIC Document: ED030029.
- Wightman, L. & Leary, L. (1985). GMAC Validity Study Service: A Three-year Summary (1981-82 through 1983-84). Princeton, NJ: Educational Testing Service.
- Wright, R. & Palmer, J. (1994). GMAT scores and undergraduate GPAs as predictors of performance in graduate business programs. *Journal of Education for Business, 69,* 344-348.
- Youngblood, S.A. & Martin, B.J. (1982). Ability testing and graduate admissions: Decision process modeling and validation. *Educational and Psychological Measurement, 42*, 1153-1162.
- Zhao, J.C., Patsula, L., Stone, E., Paez, R., Babula, J., Tye, E. & Cruz, D. (2000). *GMAT Validity Study Service: A Three-year Summary (1996-97 through 1998-99)*. McLean, VA: Graduate Management Admission Council.

### Appendix

						Table A-	I. Predict	ive Validit	y for Stud	ies I-2I						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
Ι	106			Non-US	0.554	0.297	0.185		0.385	0.337	0.638	0.642				
2	155			US	0.447	0.272	0.379		0.463	0.419	0.548	0.577				
3	113			US	0.333	0.411	0.398		0.451	0.548	0.595	0.517				
4	73			US	0.183	0.226	0.409		0.502	0.435	0.440	0.503				
5	394			US	0.458	0.487	0.464	-0.027	0.667	0.627	0.720	0.752	0.686	0.717	0.786	0.809
6	199		Private	US	0.240	0.144	0.286	0.138	0.275	0.288	0.347	0.334	0.301	0.280	0.352	0.335
7	187		Private	US	0.346	0.267	0.434	0.275	0.425	0.463	0.535	0.505	0.493	0.444	0.554	0.515
8	352		Public	US	0.288	0.384	0.370		0.526	0.514	0.547	0.557				
9	128			US	0.360	0.243	0.409	0.102	0.478	0.480	0.555	0.553	0.481	0.479	0.555	0.554
10	161		Public	US	0.250	0.191	0.538	0.024	0.485	0.540	0.569	0.514	0.540	0.507	0.569	0.534
II	148			US	0.473	0.355	0.490	0.112	0.653	0.598	0.707	0.745	0.604	0.666	0.715	0.763
12	69			US	0.378	0.247	0.246		0.455	0.305	0.438	0.534				
13	98			US	0.222	0.541	0.598		0.653	0.706	0.708	0.657				
I4	148			US	0.334	0.327	0.397	0.309	0.506	0.503	0.554	0.556	0.540	0.526	0.581	0.570
15	177			US	0.257	0.484	0.496	0.220	0.736	0.676	0.685	0.743	0.676	0.737	0.685	0.744
16	194			US	0.077	0.399	0.235	-0.093	0.432	0.437	0.438	0.433	0.588	0.529	0.588	0.529
17	73		Private	US	0.188	0.224	0.329		0.336	0.358	0.377	0.356				
18	116			US	0.143	0.209	0.267		0.380	0.302	0.313	0.385				
19	I4I			US	0.272	0.023	0.382		0.280	0.393	0.451	0.350				
20	82			US	0.096	0.215	0.281	0.225	0.297	0.298	0.301	0.300	0.323	0.316	0.325	0.317
21	103		Public	US	0.371	0.210	0.234	0.451	0.279	0.296	0.439	0.430	0.494	0.471	0.588	0.571

						Table A-2	2. Predicti	ve Validity	v for Studi	es 22-43						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
22	119		Public	US	0.246	0.502	0.179	0.291	0.461	0.502	0.507	0.470	0.508	0.476	0.512	0.481
23	100		Public	US	0.559	0.185	0.262	-0.190	0.398	0.288	0.577	0.605	0.453	0.559	0.701	0.754
24	174		Private	US	0.384	0.389	0.373	0.013	0.495	0.496	0.579	0.578	0.539	0.528	0.625	0.612
25	177		Public	US	0.360	0.434	0.281		0.536	0.484	0.547	0.589				
26	292			US	0.399	0.590	0.674	0.271	0.733	0.819	0.855	0.778	0.819	0.733	0.855	0.778
27	308			US	0.378	0.602	0.666	0.304	0.739	0.820	0.850	0.777	0.821	0.741	0.850	0.778
28	98			Non-US	0.157	0.331	0.523	0.182	0.577	0.549	0.553	0.579	0.550	0.581	0.554	0.583
29	41			US	0.262	0.236	0.576	0.071	0.532	0.590	0.615	0.558	0.592	0.544	0.619	0.574
30	60			US	0.243	0.233	0.508	0.034	0.44I	0.527	0.552	0.471	0.533	0.457	0.561	0.491
31	136		Public	US	-0.108	-0.057	-0.044	0.151	-0.044	0.066	0.116	0.110	0.208	0.179	0.243	0.224
32	104			US	0.251	0.208	0.495	0.660	0.456	0.521	0.541	0.477	0.847	0.702	0.852	0.707
33	124		Public	US	0.307	0.327	0.318	0.178	0.439	0.434	0.480	0.484	0.436	0.440	0.481	0.484
34	96			US	0.230	0.395	0.317	0.289	0.440	0.439	0.459	0.458	0.451	0.455	0.468	0.471
35	118		Public	US	0.246	0.331	0.105	0.204	0.317	0.332	0.388	0.371	0.341	0.332	0.394	0.381
36	III			US	0.023	0.498	0.470	0.097	0.610	0.633	0.644	0.621	0.649	0.618	0.657	0.627
37	97			US	0.320	0.250	0.443	0.117	0.510	0.479	0.540	0.554	0.479	0.514	0.541	0.564
38	118		Public	US	0.364	0.275	0.452	0.056	0.392	0.509	0.583	0.491	0.516	0.407	0.597	0.516
39	414			US	0.490	0.415	0.422		0.591	0.551	0.681	0.710				
40	103			US	0.134	0.306	-0.098	0.093	0.165	0.317	0.318	0.185	0.336	0.168	0.339	0.185
41	99		Public	US	0.172	0.208	0.398	0.188	0.436	0.417	0.427	0.440	0.430	0.436	0.437	0.441
42	98		Public	US	0.294	0.074	0.449	0.046	0.349	0.467	0.532	0.416	0.468	0.369	0.532	0.442
43	182			US	0.322	0.355	0.393	0.258	0.449	0.510	0.556	0.506	0.526	0.466	0.566	0.518

						Table A-	3. Predicti	ve Validity	v for Studi	es 44-66						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
44	384		Private	US	0.420	0.404	0.392	0.172	0.655	0.496	0.591	0.715	0.497	0.662	0.594	0.724
45	130			US	0.274	0.326	0.358		0.400	0.398	0.457	0.459				
46	129			US	0.296	0.418	0.477		0.519	0.559	0.596	0.561				
47	79		Private	US	0.318	0.433	0.132		0.388	0.453	0.518	0.458				
48	76			US	0.160	0.109	0.428		0.381	0.429	0.434	0.381				
49	55			US	0.010	0.521	0.480		0.706	0.620	0.636	0.724				
50	102			US	0.403	0.450	0.617		0.590	0.675	0.723	0.649				
51	92			US	0.298	0.260	0.251	0.039	0.343	0.319	0.391	0.408	0.326	0.349	0.408	0.423
52	150			US	0.135	0.256	0.251	0.051	0.343	0.336	0.342	0.349	0.354	0.359	0.361	0.366
53	I47		Public	US	0.194	0.333	0.440	0.277	0.444	0.475	0.486	0.458	0.502	0.465	0.509	0.475
54	103			US	0.297	0.460	0.613		0.662	0.701	0.724	0.688				
55	155		Private	US	0.096	0.423	0.384	0.168	0.433	0.475	0.475	0.434	0.477	0.434	0.477	0.434
56	143			US	0.333	0.184	0.481	-0.039	0.541	0.488	0.538	0.576	0.511	0.596	0.563	0.633
57	283		Private	US	0.164	0.198	0.439	0.108	0.399	0.452	0.470	0.415	0.453	0.401	0.470	0.418
58	I47		Private	US	0.256	0.304	0.304	0.309	0.332	0.401	0.419	0.365	0.446	0.394	0.457	0.413
59	219		Public	US	0.340	0.351	0.311		0.472	0.408	0.479	0.522				
60	57			US	-0.061	0.506	-0.088	0.333	0.537	0.555	0.566	0.559	0.574	0.571	0.589	0.599
61	110		Private	US	0.296	0.545	0.336	-0.013	0.609	0.596	0.630	0.637	0.682	0.661	0.720	0.691
62	106			US	0.439	0.330	0.434	0.194	0.454	0.498	0.615	0.581	0.498	0.455	0.616	0.581
63	58			US	0.382	0.349	0.062		0.470	0.349	0.482	0.562				
64	377			US	0.364	0.500	0.597	0.126	0.679	0.713	0.749	0.719	0.723	0.689	0.762	0.732
65	422			US	0.361	0.447	0.518	0.160	0.662	0.625	0.671	0.703	0.627	0.666	0.675	0.709
66	94		Public	Non-US	0.072	0.700	0.363	0.430	0.634	0.771	0.771	0.634	0.775	0.671		

						Table A-	4. Predicti	ve Validity	for Studi	es 67-88						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
67	97		Public	Non-US	0.039	0.202	0.432	0.365	0.608	0.463	0.464	0.609	0.560	0.626	0.561	0.626
68	104		Public	US	0.326	0.095	0.505	-0.073	0.383	0.505	0.550	0.440	0.517	0.441	0.569	0.509
69	88			US	0.263	0.351	0.168	0.200	0.344	0.354	0.410	0.391	0.355	0.349	0.410	0.394
70	39		Private	US	0.320	0.192	0.156		0.254	0.224	0.365	0.379				
71	418			US	0.434	0.461	0.607		0.730	0.712	0.781	0.794				
72	126			US	0.447	0.217	0.040	0.033	0.213	0.217	0.468	0.456	0.242	0.222	0.488	0.466
73	101			US	0.174	0.214	0.382	0.364	0.430	0.436	0.446	0.436	0.545	0.489	0.554	0.492
74	94		Private	US	0.448	0.170	0.164	-0.162	0.211	0.194	0.474	0.479	0.308	0.315	0.513	0.520
75	87		Public	US	-0.042	0.384	0.332	0.157	0.450	0.429	0.437	0.461	0.431	0.452	0.439	0.462
76	92			US	0.364	0.291	0.258		0.350	0.336	0.448	0.458				
77	163		Private	US	0.119	0.111	0.274	0.105	0.233	0.275	0.283	0.244	0.285	0.236	0.291	0.245
78	193		Private	US	0.278	0.340	0.305		0.365	0.412	0.428	0.391				
79	178		Private	US	0.263	0.363	0.400		0.577	0.499	0.527	0.597				
80	II4		Public	US	0.155	0.487	0.233	0.280	0.490	0.526	0.528	0.496	0.527	0.510	0.529	0.512
81	106		Private	US	0.012	0.447	0.319	0.207	0.553	0.543	0.551	0.560	0.545	0.553	0.552	0.560
82	234			US	0.526	0.358	0.296	0.329	0.472	0.429	0.609	0.633	0.465	0.502	0.619	0.639
83	78		Public	US	0.193	0.207	0.165	-0.013	0.276	0.258	0.298	0.314	0.305	0.306	0.347	0.348
84	202			US	0.302	0.161	0.233	0.025	0.279	0.267	0.371	0.374	0.277	0.297	0.382	0.393
85	205			US	0.358	0.137	0.390		0.405	0.391	0.486	0.485				
86	234			US	0.230	0.403	0.315	0.044	0.602	0.471	0.493	0.613	0.495	0.620	0.520	0.633
87	97			US	0.221	0.172	0.379	0.201	0.417	0.382	0.439	0.459	0.398	0.418	0.449	0.459
88	118		Public	US	0.310	0.364	0.586	-0.047	0.687	0.635	0.654	0.700	0.686	0.756	0.706	0.772

						Table A-5	5. Predictiv	e Validity	for Studie	es 89-110						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
89	306		Public	US	0.368	0.408	0.353	0.188	0.475	0.505	0.563	0.542	0.505	0.476	0.564	0.542
90	99		Public	US	0.361	0.088	0.231		0.228	0.236	0.411	0.399				
91	126		Public	US	0.118	0.133	-0.115	0.030		0.187	0.206		0.190		0.210	
92	234	FT	Private	US	0.526	0.358	0.296	0.329	0.472	0.429	0.609	0.633	0.465	0.502	0.619	0.639
93	131	PT	Public	US	0.349	0.440	0.393		0.453	0.574	0.617	0.520				
94	99	FT	Public	US	0.377	0.132	0.391	0.165	0.341	0.391	0.511	0.453	0.407	0.341	0.520	0.453
95	52	FT		US	0.296	-0.209	0.443	0.198	0.112	0.588	0.629	0.299	0.679	0.200	0.708	0.336
96	398	FT		US	0.284	0.435	0.479	0.123	0.628	0.603	0.630	0.653	0.607	0.635	0.637	0.662
97	100			US	0.176	0.098	0.347	-0.240	0.352	0.348	0.360	0.359	0.477	0.539	0.494	0.549
98	99	PT	Private	US	0.344	0.362	0.301	0.078	0.417	0.390	0.477	0.498	0.412	0.436	0.501	0.519
99	126			US	0.211	0.349	0.238	0.058	0.409	0.427	0.450	0.432	0.447	0.412	0.471	0.435
100	521		Private	US	0.395	0.513	0.575		0.715	0.689	0.730	0.752				
101	634			US	0.471	0.548	0.562		0.707	0.701	0.769	0.773				
102	570			US	0.517	0.527	0.616		0.733	0.726	0.809	0.815				
103	185	FT	Public	US	0.450	0.182	0.556	0.154	0.584	0.565	0.666	0.680	0.575	0.584	0.670	0.681
104	98	PT	Private	US	0.214	0.372	0.100	0.370	0.316	0.378	0.411	0.351	0.440	0.418	0.466	0.443
105	77	FT	Private	US	0.258	0.523	0.392	0.265	0.506	0.571	0.655	0.592	0.576	0.506	0.660	0.592
106	101	PT		US	0.471	0.422	0.426	0.260	0.527	0.524	0.634	0.636	0.529	0.531	0.634	0.636
107	145	FT	Public	US	0.211	0.501	0.288	0.121	0.685	0.565	0.573	0.688	0.592	0.696	0.602	0.700
108	92			US	0.456	0.283	0.218	0.119	0.383	0.336	0.517	0.542	0.339	0.386	0.522	0.548
109	100	FT	Public	US	0.142	0.219	0.342	0.118	0.381	0.363	0.372	0.388	0.364	0.381	0.372	0.389
110	213	FT	Public	US	0.370	0.511	0.453	0.254	0.651	0.617	0.654	0.682	0.619	0.654	0.655	0.683

						Table A-6.	Predictive	e Validity	for Studie	s 111-132						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
III	105	FT	Public	US	0.200	0.369	0.197	0.450	0.475	0.388	0.399	0.482	0.488	0.548	0.492	0.549
112	148	FT	Private	US	0.151	0.279	0.368	0.274	0.425	0.415	0.423	0.433	0.443	0.443	0.447	0.448
113	94	FT	Public	Non-US		0.295	0.193	0.273	0.420	0.338			0.361	0.431		
II4	233	FT		Non-US	-0.013	0.397	0.077	0.246	0.498	0.397	0.401	0.509	0.399	0.502	0.404	0.513
115	96		Private	US	0.347	0.292	0.445	0.206	0.487	0.504	0.550	0.536	0.508	0.487	0.553	0.536
116	180	FT	Public	US	0.067	0.305	0.257	0.131	0.397	0.348	0.349	0.398	0.350	0.398	0.350	0.399
117	284	FT		US	0.184	0.398	0.313		0.430	0.435	0.444	0.440				
118	145		Private	US	0.265	0.312	0.355	0.494	0.439	0.455	0.487	0.473	0.622	0.577	0.636	0.599
119	96	FT	Private	US	0.399	0.208	0.320	0.169	0.286	0.344	0.487	0.455	0.351	0.293	0.488	0.456
120	100	FT	Public	US	0.298	0.334	0.312	0.472	0.357	0.454	0.496	0.412	0.562	0.516	0.577	0.540
121	100	FT	Public	US	0.391	0.290	0.395	0.145	0.423	0.456	0.544	0.522	0.456	0.423	0.545	0.523
122	101	FT		US	0.412	0.403	0.231		0.357	0.405	0.546	0.514				
123	121		Public	US	0.328	0.262	0.252	0.124	0.425	0.367	0.455	0.496	0.368	0.425	0.455	0.496
124	100	FT	Public	US	0.354	0.227	0.111	0.369	0.327	0.246	0.408	0.455	0.393	0.427	0.487	0.512
125	85	FT		US	0.201	0.529	0.270	0.232	0.634	0.541	0.547	0.636	0.542	0.634	0.548	0.636
126	99	PT		US	0.363	0.431	0.455	0.250	0.527	0.548	0.598	0.582	0.551	0.531	0.599	0.582
127	204			US	0.314	0.177	0.207	0.221	0.252	0.255	0.371	0.367	0.298	0.282	0.395	0.382
128	239	FT	Public	US	0.262	0.253	0.340	0.152	0.488	0.391	0.435	0.518	0.396	0.488	0.437	0.518
129	208		Private	US	0.225	0.203	0.323	0.123	0.452	0.367	0.396	0.471	0.370	0.453	0.397	0.472
130	143		Public	US	0.243	0.345	0.171	-0.017	0.325	0.349	0.379	0.357	0.374	0.340	0.408	0.376
131	97	FT	Public	US	0.168	0.246	0.383	0.125	0.478	0.403	0.417	0.489	0.403	0.481	0.417	0.493
132	88	FT		US	0.336	0.176	0.066	0.228	0.192	0.177	0.354	0.354	0.246	0.258	0.383	0.383

					,	Table A-7	. Predictive	e Validity	for Studies	s 133-154						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
133	119	FT	Private	US	0.082	0.318	0.065	0.093	0.357	0.319	0.323	0.358	0.326	0.358	0.331	0.359
134	100	FT	Public	US	0.448	0.432	0.444	0.302	0.544	0.597	0.690	0.637	0.613	0.558	0.694	0.638
135	116	FT	Public	US	0.010	0.128	-0.038		0.075	0.159	0.162	0.077				
136	137	FT	Public	US	0.260	0.395	0.432	0.266	0.557	0.567	0.592	0.582	0.582	0.572	0.601	0.592
137	101	FT	Public	US	0.407	0.330	0.141	0.329	0.271	0.341	0.473	0.444	0.390	0.370	0.496	0.486
138	89	FT	Public	US	0.215	0.137	0.337	0.126	0.290	0.355	0.395	0.327	0.371	0.292	0.405	0.327
139	100	FT	Private	Non-US	0.543	0.399	0.540	0.438	0.643	0.613	0.727	0.731	0.669	0.673	0.766	0.748
140	102	FT	Private	Non-US	0.135	0.288	0.393	-0.093	0.434	0.427	0.431	0.438	0.512	0.530	0.514	0.533
I4I	153	FT	Private	Non-US		0.253	0.505		0.461	0.518						
142	200	FT		Non-US	0.011	0.312	0.388	0.201	0.676	0.452	0.458	0.685	0.457	0.679	0.463	0.688
143	107	FT	Public	US	0.679	0.345	0.227	0.180	0.391	0.365	0.711	0.722	0.365	0.391	0.714	0.725
I44	III	FT	Private	US	0.475	0.348	0.308	0.324	0.498	0.447	0.592	0.625	0.486	0.531	0.613	0.644
145	III	FT		US	0.424	0.382	0.315	0.313	0.401	0.403	0.484	0.482	0.426	0.429	0.496	0.497
146	96	FT	Public	US	0.496	0.466	0.512	0.233	0.557	0.629	0.738	0.685	0.629	0.557	0.740	0.685
147	79	EMBA	Public	US	0.034	0.581	0.629	0.290	0.652	0.832	0.846	0.662	0.832	0.658	0.847	0.670
148	155		Public	US	0.192	0.313	0.332	0.334	0.436	0.436	0.444	0.444	0.481	0.477	0.486	0.482
149	98	FT	Public	US	0.254	0.463	0.200	0.192	0.483	0.467	0.482	0.499	0.468	0.487	0.483	0.501
150	100	EMBA	Public	US	0.132	0.514	0.597	0.345	0.584	0.701	0.703	0.584	0.712	0.603	0.714	0.604
151	98	FT	Public	US	0.176	0.136	0.046	0.134	0.123	0.137	0.208	0.195	0.157	0.157	0.217	0.214
152	119	FT	Public	US	0.245	0.452	0.345	0.301	0.610	0.523	0.538	0.621	0.534	0.618	0.545	0.626
153	62	FT	Public	US	0.253	0.410	0.454	0.033	0.439	0.527	0.542	0.464	0.565	0.470	0.583	0.496
154	70	FT	Public	US	0.373	0.179	0.285		0.302	0.302	0.433	0.428				

						Table A-8	. Predictive	e Validity	for Studie	s 155-176						
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
155	346	FT	Public	US	0.298	0.462	0.504	0.033	0.715	0.637	0.665	0.736	0.664	0.746	0.697	0.772
156	III	FT	Public	US	0.441	0.168	0.313	0.114	0.305	0.327	0.504	0.491	0.328	0.305	0.505	0.493
157	117			US	0.194	0.184	0.373	-0.042	0.403	0.389	0.399	0.410	0.415	0.456	0.428	0.466
158	102		Public	US	0.182	0.287	0.043	0.245	0.233	0.290	0.309	0.266	0.310	0.293	0.329	0.317
159	205	FT	Private	US	0.153	0.314	0.238	0.277	0.370	0.373	0.387	0.386	0.401	0.406	0.411	0.416
160	202	FT	Private	US	0.295	0.320	0.522	-0.044	0.619	0.582	0.617	0.649	0.624	0.686	0.662	0.718
161	110	EMBA		US	0.133	0.309	0.662	0.223	0.680	0.667	0.668	0.680	0.671	0.685	0.671	0.686
162	82	FT	Private	US	0.173	0.079	0.367	0.154	0.369	0.367	0.391	0.396	0.380	0.370	0.399	0.396
163	101	FT	Public	US	0.236	0.313	0.528		0.751	0.571	0.585	0.756				
164	108	FT	Private	US	0.301	0.493	0.347		0.468	0.508	0.561	0.528				
165	98	FT	Private	US	0.226	0.202	0.422	0.140	0.472	0.430	0.460	0.496	0.431	0.476	0.461	0.502
166	98	EMBA	Public	US	0.128	0.318	0.562	0.160	0.470	0.599	0.599	0.470	0.599	0.470	0.599	0.470
167	101	EMBA	Private	US	0.244	0.280	0.347	0.114	0.456	0.400	0.430	0.477	0.400	0.459	0.430	0.481
168	132	FT	Public	US	0.327	0.294	0.349	0.068	0.506	0.434	0.508	0.565	0.440	0.516	0.516	0.578
169	108	ΡT	Private	US	0.097	0.313	0.451		0.462	0.500	0.500	0.462				
170	90	EMBA	Private	US	0.099	0.562	0.356	0.246	0.475	0.619	0.620	0.477	0.624	0.479	0.625	0.480
171	131	FT	Public	US	0.250	0.379	-0.117	0.257	0.468	0.408	0.483	0.505	0.409	0.479	0.483	0.515
172	421	FT	Public	US	0.319	0.266	0.338	0.177	0.449	0.376	0.474	0.528	0.376	0.451	0.474	0.533
173	75	FT	Private	US	0.285	0.148	0.400	0.127	0.418	0.401	0.456	0.460	0.406	0.420	0.458	0.464
174	377	PT	Private	US	0.378	0.342	0.454	0.098	0.498	0.501	0.570	0.566	0.506	0.507	0.581	0.581
175	104	FT	Public	US	0.159	0.358	0.253	0.292	0.346	0.418	0.424	0.359	0.458	0.411	0.463	0.418
176	185	FT	Public	US	0.262	0.189	0.216	0.231	0.239	0.254	0.328	0.318	0.307	0.292	0.354	0.343

	Table A-9. Predictive Validity for Studies 177-198															
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
177	148	FT	Private	US	0.455	0.338	0.447	0.138	0.563	0.508	0.619	0.642	0.512	0.578	0.624	0.662
178	98	FT	Public	US	0.137	0.384	0.155	0.210	0.301	0.397	0.399	0.309	0.397	0.312	0.400	0.318
179	321	FT	Public	US	0.211	0.261	0.272	0.182	0.449	0.349	0.380	0.467	0.356	0.449	0.385	0.468
180	158	FT	Private	US	0.237	0.405	0.168	0.310	0.477	0.439	0.465	0.496	0.450	0.496	0.472	0.511
181	I47	EMBA	Public	US	0.124	0.656	0.425	0.330	0.613	0.671	0.672	0.613	0.671	0.619	0.672	0.619
182	116	FT		US	0.180	0.456	0.202	0.232	0.542	0.491	0.499	0.547	0.492	0.543	0.500	0.548
183	209	FT	Private	US	0.374	0.452	0.202	0.248	0.543	0.487	0.565	0.603	0.487	0.547	0.566	0.605
184	148			US	0.210	-0.056	0.206	0.088	0.173	0.223	0.305	0.248	0.274	0.174	0.338	0.248
185	88	EMBA	Public	US	0.197	0.456	0.477	0.055	0.610	0.596	0.606	0.620	0.623	0.637	0.636	0.648
186	101		Private	US	0.197	0.523	0.545	0.332	0.661	0.627	0.631	0.664	0.628	0.661	0.632	0.664
187	103	FT	Public	US	0.350	0.134	0.411	0.127	0.466	0.411	0.496	0.525	0.416	0.467	0.498	0.529
188	194	FT	Public	US	0.194	0.298	0.327	0.225	0.647	0.414	0.439	0.657	0.430	0.648	0.451	0.658
189	173	ΡT	Public	US	0.236	0.416	0.312	0.150	0.613	0.459	0.481	0.623	0.463	0.621	0.487	0.632
190	119	FT		US	0.486	0.232	0.478	0.145	0.526	0.496	0.640	0.663	0.498	0.528	0.641	0.665
191	499	FT	Public	US	0.284	0.369	0.425		0.565	0.515	0.542	0.587				
192	96	EMBA	Private	US	0.389	0.452	0.561	0.151	0.565	0.664	0.718	0.636	0.672	0.570	0.730	0.644
193	103	EMBA	Public	US	0.259	0.393	0.477	0.236	0.461	0.538	0.565	0.497	0.539	0.464	0.565	0.497
194	132	FT	Public	US	0.383	0.498	0.324	0.232	0.577	0.526	0.607	0.645	0.526	0.577	0.609	0.646
195	95	EMBA	Public	US	0.393	0.348	0.600		0.575	0.633	0.682	0.637				
196	109	EMBA	Public	US	0.401	0.479	0.528	0.375	0.553	0.643	0.686	0.612	0.675	0.594	0.711	0.644
197	107	FT		US	0.295	0.357	0.222	0.205	0.421	0.392	0.458	0.482	0.393	0.426	0.458	0.483
198	98	FT	Private	US	0.510	0.391	0.447	0.100	0.44I	0.498	0.622	0.584	0.515	0.452	0.640	0.602

	Table A-IO. Predictive Validity for Studies 199-220															
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
199	89		Public	US	0.415	0.178	0.213		0.260	0.247	0.436	0.434				
200	119		Public	US	0.179	0.406	0.388	0.140	0.549	0.547	0.555	0.557	0.550	0.550	0.559	0.559
201	103	FT	Public	US	0.306	0.388	0.301	0.217	0.496	0.440	0.498	0.545	0.448	0.503	0.501	0.548
202	191	FT	Public	US	0.120	0.249	0.200	0.011	0.287	0.271	0.288	0.303	0.312	0.316	0.320	0.326
203	136	FT	Public	US	0.159	0.301	0.212	0.163	0.284	0.337	0.350	0.304	0.338	0.287	0.350	0.307
204	78	EMBA	Private	US	0.365	0.510	0.618	0.519	0.648	0.702	0.731	0.685	0.773	0.718	0.792	0.745
205	93		Public	US	0.535	0.241	0.377	0.098	0.344	0.401	0.620	0.582	0.401	0.345	0.631	0.595
206	121	EMBA	Private	US	0.231	0.464	0.506	0.303	0.547	0.571	0.580	0.558	0.578	0.555	0.588	0.567
207	116	FT	Public	US	0.090	0.241	0.076	0.251	0.195	0.242	0.249	0.208	0.277	0.267	0.278	0.268
208	161	FT	Public	US	0.397	0.439	0.155	0.357	0.434	0.460	0.545	0.538	0.488	0.498	0.557	0.567
209	137	EMBA	Public	US	0.286	0.093	0.592	-0.037	0.673	0.593	0.624	0.691	0.598	0.732	0.631	0.754
210	363	FT	Public	US	0.383	0.324	0.518		0.650	0.564	0.630	0.701				
211	102	FT		US	0.317	0.314	0.429		0.415	0.476	0.509	0.461				
212	91		Public	US	0.236	0.205	-0.045	0.210	0.106	0.217	0.285	0.238	0.244	0.211	0.298	0.279
213	102			Non-US	0.552	0.511	0.312		0.744	0.548	0.692	0.831				
214	97			Non-US		-0.013	0.125		0.053	0.145						
215	115	FT		Non-US	0.431	0.345	0.102	0.161	0.356	0.354	0.524	0.511	0.354	0.358	0.524	0.512
216	104		Public	US	0.468	0.041	0.362	0.092	0.301	0.363	0.563	0.517	0.370	0.301	0.564	0.520
217	98			US	0.381	0.295	0.313	0.262	0.393	0.350	0.474	0.501	0.370	0.403	0.479	0.503
218	129		Public	US	0.463	0.364	0.373	0.174	0.503	0.505	0.633	0.631	0.506	0.504	0.633	0.631
219	126	EMBA	Public	US	0.460	0.546	0.566		0.662	0.711	0.794	0.753				
220	131		Public	US	0.267	0.336	0.343	-0.318	0.472	0.434	0.479	0.510	0.669	0.694	0.721	0.734

	Table A-II. Predictive Validity for Studies 22I-242															
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
221	102		Public	US	0.275	0.484	0.136	0.281	0.360	0.488	0.512	0.413	0.490	0.396	0.513	0.433
222	50	FT	Public	US	0.559	0.429	0.638	0.340	0.654	0.674	0.803	0.785	0.695	0.666	0.816	0.791
223	178		Public	US	0.185	0.255	0.014	0.069	0.311	0.256	0.272	0.322	0.274	0.315	0.295	0.330
224	150	FT	Public	US	0.329	0.256	0.215	0.238	0.327	0.333	0.425	0.421	0.364	0.361	0.442	0.440
225	100	PT	Public	US	0.162	0.395	0.301	0.085	0.555	0.462	0.464	0.556	0.484	0.569	0.487	0.570
226	97	FT	Private	US	0.158	0.281	0.235	-0.010	0.384	0.327	0.338	0.392	0.378	0.421	0.391	0.430
227	96	PT	Private	US	0.100	0.294	0.281	0.317	0.371	0.351	0.352	0.372	0.406	0.416	0.406	0.416
228	74		Private	US	0.191	0.315	0.409	0.284	0.469	0.454	0.456	0.469	0.481	0.483	0.481	0.483
229	123	FT	Public	US	0.385	0.371	0.261	0.354	0.488	0.427	0.529	0.575	0.470	0.525	0.558	0.599
230	246	PT	Public	US	0.169	0.243	0.373	0.177	0.430	0.420	0.432	0.440	0.426	0.430	0.437	0.440
231	100		Public	US	0.312	0.043	0.211	0.067	0.200	0.215	0.370	0.331	0.225	0.200	0.373	0.332
232	163		Private	US	0.249	0.321	0.277	0.378	0.399	0.394	0.409	0.413	0.463	0.459	0.471	0.466
233	125		Public	US	0.298	-0.012	0.385	0.141	0.407	0.385	0.472	0.465	0.454	0.407	0.520	0.466
234	III	FT	Public	US	0.143	0.223	0.294	0.217	0.472	0.362	0.369	0.474	0.383	0.473	0.388	0.476
235	160	PT	Private	US	0.392	0.373	0.531	0.023	0.736	0.568	0.620	0.766	0.586	0.776	0.642	0.807
236	131	FT	Public	US	0.322	0.315	0.520	0.239	0.681	0.577	0.613	0.704	0.595	0.681	0.626	0.704
237	110		Public	US	0.419	0.175	0.340	0.126	0.449	0.363	0.515	0.558	0.366	0.455	0.515	0.567
238	120	PT	Public	US	0.271	0.151	0.319	0.021	0.433	0.329	0.395	0.481	0.335	0.458	0.404	0.507
239	102	FT	Public	US	0.226	0.498	0.374	0.259	0.552	0.569	0.588	0.568	0.569	0.556	0.588	0.572
240	119		Private	US	0.232	0.396	0.113	0.073	0.387	0.416	0.455	0.438	0.431	0.401	0.473	0.456
241	129		Public	US	0.311	0.637	0.124	0.313	0.636	0.64I	0.686	0.666	0.641	0.638	0.689	0.667
242	97		Public	US	0.368	0.529	0.468		0.732	0.665	0.698	0.759				

	Table A-12. Predictive Validity for Studies 243-264															
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
243	186	PT	Private	US	0.400	0.551	0.485	0.076	0.579	0.614	0.664	0.637	0.636	0.594	0.691	0.657
244	100		Private	US	0.287	0.244	0.530		0.536	0.540	0.557	0.551				
245	100			Non-US		0.477	-0.122	0.467	0.403				0.548			
246	269			Non-US		0.243	0.095	0.111	0.352				0.300			
247	127			Non-US		0.237	0.582	0.021	0.681				0.680			
248	380			Non-US		0.385	0.048	0.353	0.436				0.476			
249	100			Non-US		0.513	0.077	0.389	0.555				0.570			
250	265			Non-US		0.509	-0.170	0.156	0.456				0.529			
251	165	FT		US	0.363	0.321	0.248	0.270	0.507	0.396	0.493	0.575	0.418	0.518	0.503	0.580
252	72			US	0.286	0.440	0.078	0.298	0.502	0.440	0.497	0.539	0.448	0.518	0.501	0.550
253	72			US	0.286	0.440	0.078	0.298	0.502	0.440	0.497	0.539	0.448	0.518	0.501	0.550
254	248			US	0.243	0.198	0.063	0.244	0.257	0.200	0.295	0.326	0.257	0.300	0.331	0.356
255	248			US	0.243	0.198	0.063	0.244	0.257	0.200	0.295	0.326	0.257	0.300	0.331	0.356
256	131	FT		US	0.405	0.630	0.266	0.291	0.705	0.635	0.688	0.751	0.637	0.706	0.691	0.751
257	102	FT		US	0.410	0.022	0.342	0.228	0.274	0.360	0.529	0.457	0.436	0.304	0.572	0.468
258	202	PT		US	0.224	0.296	0.620	0.294	0.566	0.624	0.638	0.579	0.646	0.571	0.658	0.583
259	II4			US	0.112	0.369	0.479		0.629	0.534	0.534	0.629				
260	129	PT		US	0.275	0.197	0.265	0.023	0.352	0.294	0.374	0.416	0.307	0.373	0.384	0.434
261	516	PT		US	0.264	0.234	0.211	0.192	0.371	0.279	0.351	0.418	0.291	0.374	0.357	0.420
262	605	PT		US	0.292	0.159	0.323	0.064	0.430	0.331	0.404	0.479	0.332	0.445	0.407	0.497
263	271	PT		US	0.221	0.278	0.402	0.361	0.519	0.437	0.458	0.533	0.502	0.546	0.515	0.557
264	271	ΡT		US	0.221	0.278	0.402	0.361	0.519	0.437	0.458	0.533	0.502	0.546	0.515	0.557

	Table A-I3. Predictive Validity for Studies 265-273															
#	N	Туре	Inst	Location	UGPA	Verbal	Quant	AWA	Total	VQ	VQU	TU	VQA	TA	VQAU	TAU
265	128			US	0.275	0.140	0.257	0.040	0.369	0.266	0.349	0.421	0.270	0.388	0.358	0.446
266	128			US	0.275	0.140	0.257	0.040	0.369	0.266	0.349	0.421	0.270	0.388	0.358	0.446
267	122	FT		US	0.381	0.371	0.230	0.217	0.475	0.406	0.504	0.554	0.406	0.475	0.504	0.554
268	122	FT		US	0.381	0.371	0.230	0.217	0.475	0.406	0.504	0.554	0.406	0.475	0.504	0.554
269	91			US	0.363	0.394	0.332	0.187	0.477	0.442	0.511	0.538	0.443	0.479	0.515	0.542
270	230			US	0.375	0.302	0.276	0.151	0.528	0.382	0.486	0.592	0.383	0.528	0.486	0.593
271	230			US	0.375	0.302	0.276	0.151	0.528	0.382	0.486	0.592	0.383	0.528	0.486	0.593
272	94			US	0.233	0.191	0.031	0.330	0.137	0.191	0.273	0.244	0.330	0.330	0.364	0.364
273	102			Non-US	0.231	0.402	0.101	0.364	0.280	0.483			0.521	0.379	0.554	0.407

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