

The Relation of Emotional Intelligence to Academic Success

Kimberly A. Barchard, University of British Columbia

Kimberly A. Barchard

Department of Psychology

University of British Columbia

2136 West Mall

Vancouver, BC, V6T 1Z4

Canada

Contact: Kim Barchard, University of British Columbia, kane@interchange.ubc.ca
Kim expects to be moving to the University of Nevada, Las Vegas, in mid-August, 2001.

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ABSTRACT

A great deal of excitement surrounds the claim that emotional intelligence predicts success at work, at school, and in relationships. For example, TIME magazine claimed “emotional intelligence may be the best predictor of success in life, redefining what it means to be smart” (1995). Unfortunately, little research has been done to either support or refute this claim. The purpose of this study was to examine the predictive validity of emotional intelligence in the realm of academic success, and to compare its validity to that of traditional cognitive abilities and personality dimensions. In addition, emotional intelligence will be more practically useful if it allows us not just to predict academic success, but also to improve our prediction when the cognitive and personality domains are already being measured. Therefore, the incremental predictive validity of emotional intelligence was also examined.

Over 300 psychology undergraduates completed batteries of emotional intelligence, cognitive abilities, and personality dimensions, and gave permission for their grades to be obtained from university records. Of these, 110 subjects had complete data on all variables. From this data, it appears that emotional intelligence predicts academic success, and can improve our prediction when the cognitive and personality domains have already been measured. In fact, in this sample, the emotional intelligence measures were better able to predict academic success than either the personality or cognitive variables. This result does not mean that emotional intelligence *is more important* than those other domains (emotional intelligence was given more testing time and used a greater range of test types, and there is likely restriction of range in the cognitive variables), only that it can be useful in the prediction of academic success.

Second, several of the specific facets of emotional intelligence also have incremental predictive validity. Interestingly, if cognitive and personality variables have been entered into the multiple regression equations first, some facets of emotional intelligence (such as Social Insight) are positively related to academic success (have positive Beta-weights), while others are negatively related. These findings should be extended to other areas of success, and should be repeated with larger samples.

INTRODUCTION

A great deal of excitement has surrounded the possible predictive ability of emotional intelligence. TIME magazine claimed that “emotional intelligence may be the best predictor of success in life, redefining what it means to be smart” (1995), and Goleman (1995) claimed that emotional intelligence can predict success at home, at work, and at school, as well as or better than IQ. Unfortunately, little evidence exists to either support or refute these claims.

What is emotional intelligence? Unfortunately, no simple answer to this question exists, as emotional intelligence has been defined in different ways by different authors. Some researchers, such as Mayer, Salovey, and Caruso (1999), define emotional intelligence as a cognitive ability: it is the ability to think intelligently about emotions. It may include the ability to understand emotions in oneself and others, knowledge of how different situations cause different emotions and how emotions change over time, and the ability to manage one’s own and others’ emotions. Others define emotional intelligence more broadly, also including personality variables such as persistence and optimism (Goleman, 1995), the tendency to make decisions based on feelings rather than logic (Tett, Wang, Gribler, & Martinez, 1997), and/or the tendency to express one’s emotions non-verbally (Tett et al., 1997). In addition, the concept of emotional intelligence overlaps with constructs such as social intelligence (the ability to understand others and act wisely in social situations), empathy (the ability to understand others’ feelings and the tendency to experience others’ emotions vicariously), alexithymia (difficulty understanding and describing feelings), and emotion regulation (the ability to regulate ones’ emotions as desired). Indeed, tests that were originally designed to measure these four constructs are now often used as measures of emotional intelligence. The fourteen subcomponents of emotional intelligence that were included in this research are listed in Table 1.

Thus, quite a wide range of variables might be labeled as belonging to the concept of emotional intelligence, and some of these variables may be able to predict success. In the realm of academic success, however, only three studies have examined the predictive validity of emotional intelligence per se (Swart, 1996; Bar-On, 1997; Schutte et al., 1997) and all three used self-report measures. Cognitive abilities can predict approximately 20% of the variance in life success (Goleman, 1995), corresponding to a correlation of about .45. There is little evidence to support or refute the claim that emotional intelligence can predict academic success to the same degree. Schutte et al.’s research indicates the emotional intelligence may predict about 10% of the variance in academic success. Furthermore, even if emotional intelligence could predict 20% of the variance in academic success, this would not be very useful to us if it predicted the *same* 20% as traditional cognitive abilities and personality variables. Emotional intelligence will only be useful if it allows us to *improve* our prediction of success. No published studies have addressed this issue.

In this paper, I compare the predictive validity of emotional intelligence with that of traditional cognitive and personality variables, in the realm of academic success. In addition, I examine the incremental predictive validity of each of these three domains, to determine if emotional intelligence can improve the prediction of academic success, when these better-known variables have already been taken into account.

METHOD

Participants and Procedure

Ninety-three men and 210 women volunteered for this study in exchange for Psychology course credit. These participants ranged in age from 17 to 48, with a mean of 20.3 and a standard deviation of 3.6. Most participants identified themselves as Asian (49%) or White (38%). All subjects spoke English as their first language or had spoken English for at least 10 years and rated themselves as very comfortable reading and writing English.

Most participants (n = 190) volunteered for approximately 2 hours of research. These participants completed 12 cognitive tests in a one-hour group-testing session, and a number of emotional intelligence tests in a second one-hour session. A small number of these participants (n = 29) elected to return for one additional hour of testing, in return for feedback on their personality and the chance to win \$1000.

A second group of participants (n = 119) volunteered for approximately 3.5 hours of research, and were able to complete a larger number of tests. They completed the 12 cognitive tests in a one-hour group-testing session, a number of emotional intelligence tests in a second 1.5-hour session, and two take-home questionnaire packages. Of these, 40 men and 70 women completed all measures.

Predictor Measures

Cognitive Domain

A battery of 12 timed cognitive tests was used (see Table 2) with both samples of participants. These tests were designed to measure four different first-stratum cognitive abilities (see, e.g., Carroll, 1993): Verbal Ability and

Verbal Closure were selected to represent two types of Crystallized Intelligence, while Inductive Reasoning and Visualization were selected to represent Fluid Intelligence. A composite was then created for each of these first-stratum cognitive abilities, by taking the mean z-score of the three tests designed to measure it.

Personality Domain

Goldberg (1999a, 1999b) created 10-item public-domain measures of constructs similar to the 30 NEO-PI-R facets (Costa & McCrae, 1992) of the Five-Factor Model of personality. Participants in the smaller sample completed 8-item versions of 23 of these scales. These 23 scales were selected based on their apparent relevance to the construct of emotional intelligence, thus ensuring that the incremental predictive validity of the emotional intelligence measures is not over-stated, but perhaps reducing the incremental predictive validity of the personality measures as well. Composite scores for each dimension were calculated as the mean z-score of the component scales. See Table 3.

Only a few participants ($n = 29$) in the larger sample completed any measures of personality. These participants completed 10-item public-domain scales for each of the Big Five dimensions (Goldberg, 1999a). The internal consistencies were as follows: Extraversion, .90; Agreeableness, .88; Conscientiousness, .77; Neuroticism, .88; and Openness, .86.

I combined the data from the two different measures to maximize the available sample size. Pooling the two types of data allowed me to obtain a sample size of 47 males and 96 females on these personality variables.

Emotional Intelligence Domain

Because emotional intelligence is a relatively new construct, only a few tests have been designed to measure it. Therefore, when looking for measures of different aspects of emotional intelligence, tests in the related areas of social intelligence, empathy, alexithymia, and emotion regulation were also considered. In the end, 31 different measures of emotional intelligence were included. To simplify the analysis, these measures were grouped together based on the apparent similarity of the underlying constructs. This resulted in a total of 14 categories. Within each category, different methods (e.g., self-report questionnaires versus maximal-performance tests) were then distinguished. This resulted in a total of 20 different types of emotional intelligence measures. For each type, a composite score was obtained by taking the mean z-score from the component measures. The 20 types of emotional intelligence tests, the measures upon which they are based, and the internal consistencies of the composites are listed in Table 4.

One test – the Levels of Emotional Awareness Scale (Lane, Quinlan, Schwartz, Walker, & Zeitlin, 1990) – consists of open-ended questions, and is scored according to scoring manual guidelines. In this study, each protocol was independently scored by two research assistants, and disagreements were resolved. The inter-rater reliability of this procedure was assessed using a subsample of 40 participants, by comparing the scores given by one pair of markers with the scores given by another pair of markers. The average correlation among the three different pairs of markers was .96.

Criterion Measure

Both groups of participants gave the researcher explicit permission to access their year-end grades through their official university records. These grades are the mean percentage obtained in all courses attempted over the academic year (September 1999 – April 2000).

Data Analysis

In the first stage of the analysis, I examined the ability of each domain to predict academic success – both on its own and in combination with the other domains – using multiple regression. Thus, each domain was considered as a whole. Only subjects with complete data on all variables were used, to allow comparison of results from different multiple regression models.

Second, I examined the measures within each domain, to determine which were the most useful in predicting academic success. Two different statistics were used: 1) the correlation between each predictor and academic success, and 2) the increase in the squared multiple correlation coefficient. This second statistic assesses incremental predictive validity, and was calculated in two stages. First, all of the measures from the other two domains that had had significant relations with academic success were entered into the regression equation. To ensure that the incremental predictive validity of a domain was not over-stated, measures were included at this stage if their p -value was less than .10. Second, each measure in the remaining domain was entered into the equation, and the increase in R^2 was noted. Pairwise deletion was used in calculating these multiple regressions, to make full use

of the available data. However, in calculating the significance of the increase in R^2 , the number of subjects with complete data was used. This makes these significance tests somewhat conservative.

Finally, the best predictors from the three domains were compared to determine if emotional intelligence predicts academic success as well as the other domains do.

RESULTS AND DISCUSSION

Examining Each Domain As A Whole

The three domains were used to predict academic success, both individually and in combination (see Table 5). These multiple regressions were calculated separately for men and women, because the relations among the emotional intelligence, cognitive, and personality variables were different for men and women (Box's $M = 707.4$, $\text{Chi-square}(435) = 493.8$, $p = .027$).

When considering domains individually, the R^2 and adjusted R^2 values appeared to be highest for the emotional intelligence domain. Following the advice of Tabachnik and Fidell (1996) and Steiger and Browne (1984), I compared these three multiple correlations using Z_{I}^* (Dunn & Clark, 1969). For men, the multiple correlation was significantly higher for emotional intelligence than for personality ($Z = 2.98$, $p = .003$) or the cognitive domain ($Z = 2.61$, $p = .009$). For women, the multiple correlation for emotional intelligence was significantly larger than that of the cognitive domain ($Z = 2.48$, $p = .013$), but the difference between the emotional intelligence and personality domains only approached significance ($Z = 1.86$, $p = .063$). When considering pairs of domains, the pairs that included emotional intelligence appeared to have higher R^2 and adjusted R^2 values than the combination of personality and cognitive domains; however, no significance tests were conducted. Finally, the combination of all three domains of course had the highest R^2 values of all, and had high adjusted R^2 values for both sexes. These analyses were repeated using pairwise deletion, and the general pattern of results was the same.

These multiple correlations were then examined to determine if the addition of certain domains increased the ability to predict academic success (see Table 6). For women, there were two significant results. First, when the 20 measures from the emotional intelligence domain were added to the multiple regression after the 4 measures from the cognitive domain, the R^2 value increased by .424 ($p = .04$). Similarly, when emotional intelligence was added to the cognitive and personality domains, R^2 increased by .385 ($p = .04$). A much smaller increase in the R^2 value for the addition of the cognitive to the personality domain came close to significance, because of the smaller number of predictors involved. For men, quite large increases in R^2 failed to reach significance, probably due to a lack of power associated with the small sample size ($n = 40$).

Finally, returning to Table 5, the adjusted R^2 values for the cognitive domain are somewhat lower than the 20% figure quoted by Goleman (1995). There are many possible explanations for this. One possibility is restriction of range in either the predictors or criterion. Restriction of range in the predictors (cognitive abilities) is particularly likely, given that participants are all university students. These R^2 and adjusted R^2 values would likely be larger in a community sample or a sample of university applicants. Increases in the correlations for the personality and emotional intelligence variables would also be possible, but their increases would likely not be as large, because these domains do not have a large influence on university admissions decisions. A second explanation for the low adjusted R^2 values is the type of tests used. Only short group-administered paper-and-pencil tests were used. If longer tests or individually-administered tests were used, larger values would likely result.

Examining Specific Measures Within Each Domain

Within each domain, the predictive validity and the incremental predictive validity of each measure was assessed. The incremental predictive validity of each measure was calculated in two steps. First, academic success was predicted using just those variables from the other two domains that had significant ($p < .10$) correlations with academic success. Then, the variable in question was added, and the increase in the R^2 value was noted (see Tables 7, 8, and 9).

Cognitive Domain

Both Verbal Ability and Verbal Closure had significant correlations with academic success. In addition, Verbal Ability increased the squared multiple correlation coefficient by .022 ($p < .01$), thus indicating that Verbal Ability can explain 2.2% of the variance in academic success, when personality and emotional intelligence variables have already been taken into account.

Personality Domain

Two of the five personality measures (Conscientiousness and Agreeableness) have significant correlations with academic success. Neither of these variables were able to significantly improve the prediction of academic success, although the increases in R^2 were relatively large and approached significance. One variable was able to improve academic success: Extraversion explained an additional 3.6% of the variance in academic success, when cognitive and emotional intelligence variables had already been taken into account.

Emotional Intelligence Domain

Four of the 20 emotional intelligence variables were significantly related to academic success. These were Social Insight, maximum-performance tests of Emotional Understanding, Positive Expressivity, and the open-ended maximum-performance test of Emotional Understanding. None of these variables were able to significantly improve the prediction of academic success when cognitive and personality variables had already been taken into account; however, one of these variables, Social Insight, explained 2.3% additional variance, an increase which came close to reaching statistical significance ($p = .054$).

Two additional variables, Attending to Emotions and Emotion-Based Decision-Making, significantly improved the prediction of academic success when cognitive and personality variables had already been taken into account. These variables explained an additional 4.8% and 3.1% of the variance, respectively. These variables did *not* have significant correlations with academic success, however. These variables are therefore intriguing. The reader will note that the correlations with academic success were in fact *negative* for these two variables. In addition, the Beta-weights for those measures were negative, indicating that higher scores on those measures predict lower grades (once cognitive and personality variables have been taken into account). This finding is important because it shows that *when all else is equal*, some aspects of emotional intelligence predict *lower* grades, while other aspects of emotional intelligence predict *higher* grades.

Comparing the Best Individual Predictors from the Three Domains

The best individual predictors from each of the three domains were selected, and their correlations with academic success were compared, to determine if emotional intelligence could predict academic success as well as the other two domains can. The best predictors from the three domains were Verbal Ability ($r = .29$), Conscientiousness ($r = .24$), and Social Insight ($r = .24$). These correlations were compared using William's (1959) T2 statistic, and are not significantly different.

The similarity of the best correlations for the three domains should not be taken to mean that personality and emotional intelligence are as important to academic success as intellectual ability. As already mentioned, the magnitude of the correlations and changes in R^2 values reported for the cognitive measures have been restricted by considering only people who are already attending university, and would likely increase if this study were repeated in a non-university setting or using a pool of university applicants.

CONCLUSIONS

The popular media has sometimes claimed that emotional intelligence is more important than IQ, in terms of success in a variety of areas. This study has drawn a more complicated conclusion. When considering just one measure at a time, in some contexts – such as a student population in which the range of intellectual ability is restricted and grades are the criterion for success – emotional intelligence can predict success as well as traditional cognitive abilities or personality dimensions, as evidenced by the equality of the bivariate correlations of the best measures from each of the three domains. Maximum-performance measures of emotional intelligence appear to be better predictors than self-report measures. Future research should attempt to extend this finding by determining which aspects of emotional intelligence predict success in what types of academic programs, and by examining the predictive validity of emotional intelligence in other areas of success.

On the other hand, when considering more than one domain at a time – as you might if you were considering adding measures of emotional intelligence to an existing test battery – then incremental predictive validity must be examined. In that situation, the picture is more complicated. Some measures of emotional intelligence (such as maximal-performance measures of Social Insight) may be associated with higher levels of academic achievement, whereas others (such as self-report measures of attending to one's emotions and of basing decisions on emotions rather than logic) are associated with lower levels of achievement. Future research should include larger samples (some relatively large increases in R^2 were not statistically significant with my sample sizes) and should examine the incremental predictive validity of emotional intelligence in other areas of success.

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AUTHOR NOTE

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Table 1
Subcomponents of Emotional Intelligence

Subcomponent	Definition
Understanding Emotions	The ability to recognize one's own emotions, as they occur, and to understand emotions in general
Emotional Integration	The ability to generate, use, and feel emotions as necessary to employ them in other mental processes
Recognizing Emotions in Others	The ability to recognize the non-verbal emotional expressions of others
Perception of Emotions in Objects	The ability to perceive emotions in inanimate objects
Social Insight	The ability to forecast the thoughts, feelings, and actions of others
Managing Emotions in Oneself	The ability to regulate one's own emotions
Managing Emotions in Others	The ability to regulate others' emotions
Positive Expressivity	The tendency to express one's positive emotions
Negative Expressivity	The tendency to express one's negative emotions
Attending to Emotions	The tendency to attend to emotions and be aware of them
Emotion-Based Decision-Making	The tendency to make plans and decisions based on one's feelings rather than basing them on logic
Responsive Joy	The tendency to become happy or cheerful when in the presence of other people who are happy or cheerful
Responsive Distress	The tendency to become distressed when in the presence of other people who are distressed
Empathic Concern	The tendency to feel concern or sympathy for those who suffer

Table 2
Cognitive Measures

Measure	Source	Inter-Rater Reliability	Internal Consistency
Verbal Ability			
Advanced Vocabulary Test I	French Kit	1.00	.55
Inventive Opposites	Thurstone ^c	.98	.69
Reading I	Thurstone	.98	.60
<i>Composite</i>		.99	.82
Verbal Closure			
Rearranged Words	Barchard ^a	1.00	.80
Hidden Words	French Kit ^b	.99	.80
Incomplete Words	French Kit	.97	.48
<i>Composite</i>		1.00	.72
Inductive Reasoning			
Letter Sets	French Kit	.99	.63
Figure Classification	French Kit	1.00	.34
Number Series	Thurstone	1.00	.66
<i>Composite</i>		.99	.80
Visualization			
Form Board	French Kit	.99	.46
Paper Folding	French Kit	1.00	.71
Surface Development	French Kit	1.00	.73
<i>Composite</i>		1.00	.81

Note. Shortened versions were used for most of these tests.

a. Created by Kim Barchard, modeled after the Scrambled Words test from the French Kit.

b. Ekstrom, French, and Harman (1976).

c. Thurstone (1934).

Table 3
The IPIP Measures of the 30 NEO-PI-R Constructs

Facet	Coefficient Alpha of 10-item scale in Goldberg (1999b)	Coefficient Alpha of 8-item scale in this study
E1: Friendliness	.87	.91
E2: Gregariousness	.79	.87
E3: Assertiveness	.84	.79
E4: Activity level	.71	-
E5: Excitement-Seeking	.78	-
E6: Cheerfulness	.81	.77
<i>Composite</i>		.94
A1: Trust	.82	
A2: Morality	.75	.74
A3: Altruism	.77	.82
A4: Cooperation	.73	.70
A5: Modesty	.77	-
A6: Sympathy	.75	.76
<i>Composite</i>		.91
C1: Self-efficacy	.78	.71
C2: Orderliness	.82	-
C3: Dutifulness	.71	.68
C4: Achievement-striving	.78	.82
C5: Self-discipline	.85	.88
C6: Cautiousness	.76	.64
<i>Composite</i>		.91
N1: Anxiety	.83	.84
N2: Anger	.88	.89
N3: Depression	.88	.89
N4: Self-consciousness	.80	-
N5: Immoderation	.77	.68
N6: Vulnerability	.82	.84
<i>Composite</i>		.94
O1: Imagination	.83	.78
O2: Artistic Interest	.84	.76
O3: Emotionality	.81	.69
O4: Adventurousness	.77	.76
O5: Intellect	.86	.82
O6: Liberalism	.86	-
<i>Composite</i>		.90

Note. Not all facet scales were used in this study.

Table 4
Internal Consistencies of Emotional Intelligence Measures

Category	Type of Measure ^a	Measures and Subscales ^c	Internal Consistency ^e
Emotional Understanding	MP	MSCEIT blends	.58
		MSCEIT progressions	.50
		MSCEIT transitions	.57
		MSCEIT analogies	.37
		<i>Composite</i>	.71
	MP open-ended	LEAS, 5-item version	.59
	MP-SR mixture ^b	TEIS emotional appropriateness	.36
	SR	TAS-20 difficulty describing feelings ^d	.83
		TAS-20 difficulty identifying feelings ^d	.82
		<i>Composite</i>	.88
Emotional Integration	MP	MSCEIT synesthesia	.80
		MSCEIT facilitation	.82
		MSCEIT sensation translation	.74
		<i>Composite</i>	.87
Recognizing Emotions in Others	MP	MSCEIT faces	.79
		OGSI expression grouping	.31
		<i>Composite</i>	.61
	SR	TEIS emotion in others – non-verbal	.80
Perception of Emotions in Objects	MP	MSCEIT landscapes	.85
		MSCEIT designs	.82
		<i>Composite</i>	.89
Social Insight	MP	OGSI cartoon predictions	.44
		OGSI missing cartoons	.55
		OGSI social translations	.64
		<i>Composite</i>	.70

Table 4 con't

Category	Type of Measure	Measures and Subscales	Internal Consistency
Managing Emotions in Self	MP	MSCEIT emotion management	.81
	SR	TMMS repair	.81
		TEIS regulation of emotion in the self <i>Composite</i>	.87 .90
Managing Emotions in Others	MP	MSCEIT emotions in relationships	.78
	SR	TEIS regulation of emotion in others	.82
Positive Expressivity	SR	Positive Expressivity Scale ^f	.79
Negative Expressivity	SR	Negative Expressivity Scale ^f	.74
Attending to Emotions	SR	TMMS attention	.82
Emotion-Based Decision-Making	SR	TEIS flexible planning	.83
Responsive Joy	SR	QSE positive sharing	.79
Responsive Distress	SR	TEIS empathy	.87
Empathic Concern	SR	IRI empathic concern	.78

a. MP = Maximal Performance; SR = Self-Report.

b. For each item, one end of the Likert scale is considered to be an appropriate emotional reaction; the other, inappropriate. People may obtain low scores because they do not understand their emotions (maximal performance) or because they have unusual emotional reactions (self report). Therefore, this scale is considered a mixture of the two methodologies.

c. MSCEIT = Mayer-Salovey-Caruso Emotional Intelligence Test Research Version 1.1 (Mayer et al., 1999); LEAS = Levels of Emotional Awareness Scale (total scores from 5-item short-form; Lane et al., 1990); TAS-20 = Toronto Alexithymia Scale (Bagby, Parker, & Taylor, 1994; Bagby, Taylor, & Parker, 1994); TEIS = Tett's Emotional Intelligence Scale (Tett, Wang, Gribler, & Martinez, 1997, cited in Mayer, Salovey, & Caruso, 2000); OGSII = O'Sullivan and Guilford's Tests of Social Intelligence (for each scale, part I was used; O'Sullivan, & Guilford, 1976); TMMS = Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995); IRI = Interpersonal Reactivity Index (Davis, 1980; 1983); QSE = A Quick Scale of Empathy (Caruso & Mayer, 1997, cited in Mayer, Caruso, & Salovey, 1999; Caruso & Mayer, 1999).

d. The scoring of these test were reversed so that high scores would represent the ability to understand emotions.

e. These are the internal consistencies obtained in this study, for all measures except the MSCEIT subscales. For those measures, the internal consistencies were obtained from J. D. Mayer (personal communication, July 2000).

f. The Positive Expressivity and Negative Expressivity scales were created for this research, because existing measures of Expressivity often combine Positive and Negative Expressivity, or include other constructs, such as Emotional Intensity.

Table 5
 Predictive Validities of the Three Domains

Domains Used as Predictors	Number of Predictors	Multiple R	Multiple R ²	Adjusted R ²
MEN				
Cognitive	4	.49	.243	.157
Personality	5	.44	.193	.075
Emotional Intelligence	20	.79	.624	.228
Cognitive, Emotional Intelligence	24	.85	.727	.289
Cognitive, Personality	9	.63	.394	.212
Personality, Emotional Intelligence	25	.86	.736	.265
Cognitive, Emotional Intelligence, Personality	29	.91	.819	.294
WOMEN				
Cognitive	4	.25	.063	.006
Personality	5	.37	.137	.070
Emotional Intelligence	20	.60	.360	.099
Cognitive, Emotional Intelligence	24	.70	.487	.214
Cognitive, Personality	9	.46	.208	.090
Personality, Emotional Intelligence	25	.69	.472	.172
Cognitive, Emotional Intelligence, Personality	29	.77	.594	.299

Note. These regressions were based upon the 40 men and 70 women with complete data on all measures. R² values are given to three decimal places to allow more accurate comparisons among the different multiple regressions.

Table 6
 Incremental Predictive Validities of the Three Domains

First Multiple Regression	Second Multiple Regression	Increase in R ²	F	p
MEN				
Cognitive	Cognitive, EI	.484	1.32	.29
Personality	Personality, EI	.543	1.44	.25
Cognitive, Personality	Cognitive, Personality, EI	.425	1.17	.41
Cognitive	Cognitive, Personality	.055	.419	.83
WOMEN				
Cognitive	Cognitive, EI	.424	1.86	.04
Personality	Personality, EI	.335	1.40	.18
Cognitive, Personality	Cognitive, Personality, EI	.385	1.90	.04
Cognitive	Cognitive, Personality	.145	2.20	.07

Note. Sample sizes were 40 for men and 70 for women. EI = Emotional Intelligence.

Table 7
Predictive Validities of the Cognitive Measures

Measure	Correlation	Increase in R ²
Verbal Ability	.29***	.022+
Verbal Closure	.15*	.005
Visualization	.06	.001
Inductive Reasoning	.09	.001

Note. For the correlations, the sample size was 301. For the increase in R², a sample size of 114 was used to calculate significance.

+ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 8
Predictive Validities of the Personality Measures

Measure	Correlation	Increase in R ²
Extraversion	.01	.036*
Agreeableness	.23**	.030+
Conscientiousness	.24**	.029+
Neuroticism	-.04	.011
Openness	.11	.002

Note. For the correlations, the sample size was 142. For the increase in R², a sample size of 114 was used to calculate significance.

+ $p < .10$. * $p < .05$. ** $p < .01$.

Table 9
 Predictive Validities of the Emotional Intelligence Measures

Measure	Type of Measure ^a	Correlation	Increase in R ²
Emotional Understanding	MP	.23***	.005
	MP open-ended	.13*	.002
	MP-SR mixture	.03	.000
	SR	.04	.006
Emotional Integration	MP	.04	.001
Recognizing Emotions in Others	MP	.10+	.000
	SR	.10+	.000
Perception of Emotions in Objects	MP	.04	.001
Social Insight	MP	.24**	.023+
Managing Emotions in Self	MP	.02	.002
	SR	.01	.015
Managing Emotions in Others	MP	.15+	.001
	SR	.04	.000
Positive Expressivity	SR	.19*	.008
Negative Expressivity	SR	-.10	.000
Attending to Emotions	SR	-.03	.048*
Emotion-Based Decision-Making	SR	-.06	.031*
Responsive Joy	SR	.11	.000
Responsive Distress	SR	.12	.000
Empathic Concern	SR	.09	.004

Note. For the correlations, sample sizes ranged from 114 to 302. To calculate the significance of the increases in R², sample sizes ranging from 114 to 143 were used.

a. MP = Maximal Performance; SR= Self Report.

+ $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.