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Relevance of General Education: An Assessment of Undergraduate Business Students

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Abstract

In this study, the relevance of general education among undergraduate business students is assessed. Zaichkowsky's (1985) personal involvement inventory (PII) is used to assess perceived relevance. Data are collected via a survey administered to undergraduate business students at a Midwest, regional state university. The cognitive dimension of the involvement construct was evaluated with 7-point semantic differential-type scales measuring five items: important, relevant, means a lot to me, valuable, and needed. The affective dimension of the involvement construct was evaluated with exciting, appealing, and fascinating items also measured on a 7-point semantic differential-type scale. The results suggest strong support for the reduced set of eight-items from Zaichkowsky's (1994) scale modification. The proposed scale reduction appears to capture both affective and cognitive dimensions within the context of higher education.

Key words: *General education; business education; Personal Involvement Inventory.*

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Introduction

Many business students view general education courses, such as English, Math, Humanities, and Sciences, as courses to get out of the way in their freshmen and sophomore years, before they can begin their business courses in their junior and senior years. This is expounded by Advanced Placement (AP) and dual-credit courses offered to high school students, encouraging students to complete general education courses as quickly and as cheap as possible (Felder, 2018). This trend contributes to a decline in enrollments in general education courses at the collegiate level and a perception among students that general education courses are not as important as courses in their chosen major, such as business (Felder, 2018). For example, at Ohio State, 20% of incoming students have utilized AP courses to complete nearly a full year's worth of general education requirements, causing a drop in credit hour enrollments (Woodhouse, 2015). This trend is not just happening at Ohio State, it is occurring in other states as well (Felder, 2018).

Whether general education courses are taken in high school or in college, the issue is that many business students are not exploring or integrating the general education courses into their understanding of how and why the world works as it does (Stewart, 2010). This leads the authors to question if business students perceive their general education as relevant. This study will analyze the level of involvement and relevance of general education courses amongst students majoring in business. This study will also investigate if there is a difference between affective and cognitive involvement, according to business majors, when applied to general education.

Literature Review

Business Education

At its most basic level, 'the purpose of education is to provide a foundation for how to live life' (Houston Jr., 1996, p. 12). John Henry Newman posits that university education is different from instruction for a vocation or a profession. According to Newman, 'the purpose of a university education is the achievement of a particular expansion of outlook, turn of mind, habit of thought, and capacity for social and civic interaction' (Newman, 1996, p. XV). Alfred North Whitehead states, 'a liberal education imparts knowledge of the masterpieces of thought, of imaginative literature, and of art' (Whitehead, 1952, p. 46).

Corporate professionals are seeking graduates with the ability to clearly communicate (both written and verbal), be persuasive, listen, analyze questions and problems, propose solutions, be able to work in teams, be flexible, be able to handle ambiguous situations, and be presentable (Scott, 2014). 'Students need the insights of psychology, sociology, anthropology, and humanities fields such as history, politics, literature, and ethics in order to develop the disciplined perspective they will need as future business persons who can grasp their shifting responsibilities and be prepared to respond quickly to new contexts' (Colby, Ehrlich, Sullivan, & Dolle, 2011, p. 48). The areas of problem solving, leadership, interpersonal skills, communication skills, external environments, international dimensions of business, entrepreneurship, and ethics are the right opportunities to consider within higher education curriculum and teaching, not technical skills, techniques, or methods (Scott, 2014).

'While we cannot teach everything, we can prepare students to learn almost everything.' (Scott, 2014, p. 27). An undergraduate business education should educate students not only for the first job, rather for the whole career (Gordon & Howell, 1959). With the student's entire career in mind, memorizing terms and facts or training in

routine skills is not as helpful as developing problem solving, organizational, and socially constructive skills in our students (Gordon & Howell, 1959).

Business education should provide a foundation of business knowledge and skills within a broad, liberal education. By expanding the knowledge of business to include different values, cultures, and business practices helps develop students as ethical leaders for a global society. Designed correctly, business education can supplement the critical reasoning skills and educational breadth requirements of a liberal education (Stewart, 2010).

Getting an undergraduate degree in business is not about getting a job or making more money. 'The purpose of a business education at the undergraduate level is not to train for a specific job but rather to develop students "as ethical, committed, and engaged human beings and citizens' (Colby, Ehrlich, Beaumont, & Stephens, 2003, p. 4). It is about making a meaningful life. Recent college graduates say a meaningful, rich, fulfilling life is, 'A happy family life. Joyful and nurturing relationships, fulfilling and fairly compensated work. A sense of peace and spiritual well-being. Meaningful commitments to important organizations, causes, or institutions. And of course, a steady supply of fun, pleasure, color and excitement' (Abowitz, 2006, p. 21). Paid work is included as a component of a meaningful, rich, fulfilling life, but clearly, it is not the only component (Abowitz, 2006). The impact of this type of educational experience may not be realized until long after graduation.

Involvement

Involvement has frequently been used as a construct in consumer behavior to measure an individual's interest in a given product. Zaichkowsky defines involvement as 'a person's perceived relevance of the object based on inherent needs, values, and interests' (1985, p. 342). Involvement has been measured in various contexts; including attitude formation and change (Petty, Cacioppo, & Schumann, 1983), information search (Bloch, Sherrell, & Ridgway, 1986), and information processing (Greenwald & Leavitt, 1984).

Involvement can be classified into high involvement and low involvement among consumers. High involvement occurs when a consumer is interested in how a product is made, reads articles on the product, compares the product with competitors, recognizes differences among brands, and selects one brand over another (Zaichkowsky, 1985). On the other hand, low involvement occurs when a consumer does not actively research the product, does not compare brands, and has no preference for one brand or another (Zaichkowsky, 1985). High involvement represents many 'bridging experiences' where a consumer makes a connection between the product or item and themselves (Krugman, 1965, p. 355).

Zaichkowsky's (1985) Personal Involvement Inventory (PII) was developed to measure an individual's level of involvement with a particular product. The original scale consisted of 20 items measuring an individual's motivation of involvement rated on a seven-point semantic differential scale. The original scale's focus was on products, advertisements, and purchase decisions. The average Cronbach Alpha of the PII relating to products is .95 - .97 and .96 when analyzing advertising (Zaichkowsky, 1994).

Since the initial development of the scale, studies have shown the use of PII in other contexts of involvement and assessed the need for all 20-items included in the scale (Lichtenstein, Bloch, & Black, 1988; Stafford & Day, 1995). The concern with the 20 scale items was repetition of similar ideas. Zaichkowsky (1994) recognized the concern of redundancy and reduced the 20-item scale down to 10-items. Nine of the items came from the original PII plus an addition item, involving/uninvolving, was

added. Zaichkowsky (1994) wanted to make sure the shorter version still measured cognitive involvement and affective involvement. Cognitive involvement includes the knowledge and rational experience an individual experiences (Zaichkowsky, 1994). Affective involvement represents the emotion or feeling one receives from an event or experience. Students who are more cognitively involved may be more receptive to communications focusing on specific attribute and benefit information (Celuch & Taylor, 1999). Conversely, affectively involved students, may be more receptive to communications emphasizing feeling states and/or self-image orientations (Celuch & Taylor, 1999).

One of the main purposes of this research is to determine if the PII scale is appropriate for measuring the level of involvement in general education at the university level. It can be argued that students are consumers of education and the level of involvement would be important to analyze. The second purpose of this research is to analyze the eight-item scale for fit. The eight-item scale was introduced by Celuch and Taylor (1999). The eight-item scale still maintains the affective and cognitive involvement.

Null Hypothesis 1 (H_{01}): Business students will not perceive their general education coursework as relevant measured by the cognitive dimension of the PII scale.

Null Hypothesis 2 (H_{02}): Business students will not perceive their general education coursework as relevant measured by the affective dimension of the PII scale.

Null Hypothesis 3 (H_{03}): The PII scale is not appropriate for measuring the level of involvement in general education at the university level:

Methodology

Undergraduate business students at a Midwest, regional state university were surveyed in 2017. Surveys were administered in core business classes, required by all business majors, to ensure representation of all majors within the School of Business. The surveys were all completed using paper and pencil. Students were invited to participate, but not required. Written consent from each student was obtained in accordance with the guidelines of the Institutional Review Board (IRB) at the researchers' home university. Also, no incentive was given for participation. The survey instrument was pre-tested using 23 college students. The purpose of the pre-test was to identify any issues of wording or clarity of the questions. The feedback from student participants assisted in the refinement of the instrument. The data collected was not used in final data analysis.

Five questions on the survey were related to demographics. The remainder of the survey assessed the perceived relevance of general education to a business degree using a seven-point semantic differential-type scale. Zaichkowsky's full 20-item (1985) personal involvement inventory (PII) was used to assess perceived relevance. A total of 169 completed surveys were analyzed in the study.

Findings

The first step in the data analysis was to assess demographics. The demographic categories considered gender, age, ethnicity, year in school, and major. Percentages in the following discussion do not necessarily sum to 100% due to rounding, multiple ethnic backgrounds, or double/triple majors. Fifty-seven percent of respondents were male and 43% female. Eighty-eight percent of respondents were between the ages of 18-23, while 12% were 24+ years old. Seventy-eight percent of respondents were white, 15% Asian or Pacific Islander, 3% Hispanic or Latino, 3% Black or African

American, 1% Native American, and 1% other. Twenty-nine percent of respondents reported being first-year students, 11% sophomores, 24% juniors, 27% seniors, and 6% exchange students. Majors are differentiated within the School of Business; 14% Accounting or Professional Accountancy, 5% Banking, 4% Economics, 10% Finance, 7% International Business, 38% Management, 4% Management Information Systems, 18% Marketing, and 22% other.

Students were asked to rate the relevance of their general education as a whole to their business degree. Table 1 reveals that students found general education important, useful, valuable, and beneficial with the highest reported means. It also demonstrates that students perceived general education as not very exciting or interested, indicated by the low mean scores.

Table 1:
Descriptive Statistics for 20-Item PII Relevance Dimensions of General Education

Dimension of Relevance	Mean	Std Deviation
Important*	5.27	1.54
Of concern to me	4.87	1.63
Relevant*	4.90	1.64
Means a lot to me*	4.64	1.68
Useful	5.20	1.58
Valuable*	5.31	1.43
Fundamental	4.86	1.56
Beneficial	5.15	1.53
Matters to me	4.69	1.75
Interested	4.59	1.75
Significant	4.87	1.56
Vital	4.57	1.45
Interesting	4.11	1.79
Exciting^{+}	3.94	1.66
Appealing^{+}	4.35	1.68
Fascinating^{+}	4.14	1.52
Essential	4.80	1.62
Desirable	4.41	1.58
Wanted	4.42	1.75
Needed*	4.91	1.81

* Items related to cognitive dimension
$^{+}$ Items related to affective dimension

While Zaichkowsky's original 20-item instrument was used for data collection, Celuch and Taylor recommend the use of a 'reduced eight-item subset that appears as a relatively reliable and valid measure of the affective and cognitive dimensions of the involvement construct.' (Celuch & Taylor, 1999, p. 109). As such, the remaining data analyses focus on the eight-item PII subset. The cognitive dimension of the involvement construct includes the following items: important, relevant, means a lot to me, valuable, and needed. The affective dimension of the involvement construct includes exciting, appealing, and fascinating items.

A correlation analysis was conducted using SPSS to get a preliminary measure of strength and direction of association between two factors. A correlation matrix is show in Table 2. Due to the non-normality of the data, Spearman's Rho was used.

Table 2:
Factor Correlation Across Eight-Item PII Relevance Dimensions

Dimension of Relevance	I	R	M	V	N	E	A	F
Important (I)	1.00							
Relevant (R)	.677**	1.00						
Means a lot to me (M)	.696**	.590**	1.00					
Valuable (V)	.768**	.739**	.676**	1.00				
Needed (N)	.784**	.661**	.670**	.752**	1.00			
Exciting (E)	.657**	.623**	.675**	.629**	.701**	1.00		
Appealing (A)	.635**	.672**	.651**	.651**	.630**	.815**	1.00	
Fascinating (F)	.606**	.605**	.651**	.615**	.646**	.812**	.740**	1.00

**Correlation is significant at the 0.05 level (2-tailed)

In the correlation analysis, the items within the cognitive dimensions were found to more strongly correlate to other items within the cognitive dimension (important, relevant, means a lot to me, valuable, and needed). The same was found for the item correlation within the affective dimension (exciting, appealing, and fascinating). An aggregate score was calculated for the affective dimension and the cognitive dimension. A paired-samples t-test was then conducted to compare the scores of the cognitive dimension versus the affective dimension. There was a significant difference in the scores for the cognitive dimension (M=5.01, SD=1.41) and the affective dimension (M=4.14, SD=1.51); t(168)=-12.08, p=.000. These results suggest that students' perception of general education, as it relates to their business degree, are more cognitively involved than affectively involved.

As a result of the above findings, null hypothesis 1 is rejected. The data shows that students perceive their general education coursework as relevant measured by the cognitive dimension of the PII scale. Null hypothesis 2 is supported. Students did not perceive their general education coursework as relevant measured by the affective dimension of the PII scale.

Two post-hoc analyses were conducted to explore potential differences between demographic groups of students. First, an independent samples t-test was conducted to compare how female and male students perceive the cognitive and affective dimensions of relevance. There was no significant difference between how female (M=5.24, SD=1.39) vs. male students (M=4.83, SD=1.41) perceived the cognitive dimension of relevance. Similarly, there was not a significant difference between how female (M=4.30, SD=1.65) vs. male students (M=4.03, SD=1.39) perceived the affective dimension of relevance. Second, the scores of freshman versus students were compared for both dimensions of relevance. There is a significant difference between how freshman (M=5.42, SD=1.00) vs. seniors (M=4.61, SD=1.37) perceive the cognitive dimension of relevance; t(92)=3.30, p=.001. There is a significant difference between how freshman (M=4.59, SD=1.26) vs. seniors (M=3.76, SD=1.44) perceive the affective dimension of relevance; t(92)=2.97, p=.004. Essentially, freshmen business students found general education, both cognitively and affectively, more relevant than senior business students. This finding provides cause for future research.

The next step in the data analysis was to conduct an exploratory factor analysis (EFA) to determine if a single factor adequately describes the collected data. The EFA analysis of the eight-item subset included factor extraction using principal components and varimax factor rotation. Two factors were set to extract. Coefficients of .40 or less were suppressed. The rotation converged in three iterations.

Table 3:
Component Matrix for Eight-Item PII Relevance Dimensions

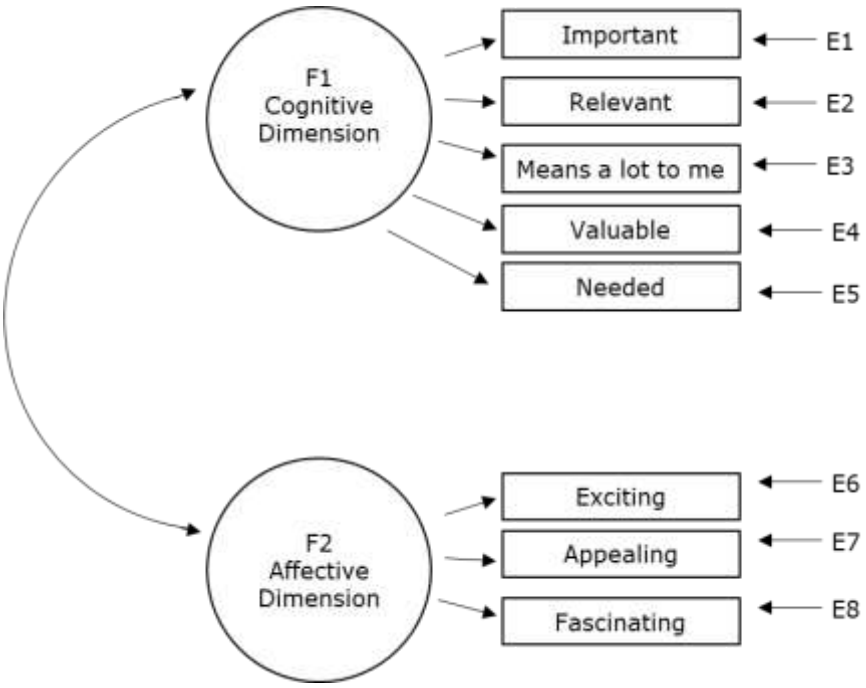
Dimension of Relevance	1	2
Important (I)	.846	
Relevant (R)	.757	
Means a lot to me (M)	.667	.506
Valuable (V)	.834	
Needed (N)	.768	.421
Exciting (E)	.400	.859
Appealing (A)	.469	.784
Fascinating (F)		.861

Note: Extraction Method: Principles Component Analysis
Rotation Method: Varimax with Kaiser Normalization
Rotation converged in 3 iterations.

The final step in the investigation was to utilize Structural Equational Modeling (SEM) to assess the construct validity and theoretical relationship among a set of concepts represented by multiple measured variables (Hair, Black, Babin, & Anderson, 2009). A single group measurement model was developed and administered. The measurement model specifies the indicators for each construct and enabled an assessment of construct validity (Hair et al., 2009).

The measurement model in SEM defines relations between the scores on the measuring instrument and the underlying constructs they are designed to measure. The measurement model, as shown in Figure 1, shows the relationships between the observed measured items and the unobserved latent factors. The rectangles represent the observed measured items or the observed survey scale items while the circles signify the latent variables that are measured by the observed measured items. The single-headed arrows represent the impact of one variable on another, while the double-headed arrows represent covariances or correlations between pairs of variables (Byrne, 2006).

Figure 1:
Measurement model. The factors include the affective dimension and the cognitive dimension.



A single-group measurement model was run using EQS in robust mode to adjust for the non-normality of the data. The first observed measured item for each unobserved latent factor was fixed to one in order to address model identification.

Goodness-of-fit indicates how well the specific model reproduces the observed covariance matrix among the indicator items (Hair et al., 2009). Due to the limitations cited in literature with the Independence Model Chi-Square test statistic, the goodness-of-fit measures evaluated for the present study include Bentler and Bonett's (1980) Normed Fit Index (NFI) and Bentler's (1990) Comparative Fit Index (CFI) (Byrne, 2006). The third fit measure used in this study is the Root Mean Square Error of Approximation (RMSEA), which corrects for both model complexity and sample size by including each in its computation (Hair et al., 2009). These fit measures are summarized in Table 4. The NFI and CFI fit measures for represent a well-fitting model (Byrne, 2006). The RMSEA indicates a reasonable fit.

Table 4:
Measurement Model Fit Measures

Fit Measure	
Reliability Coefficient Rho	.955
Bentler-Bonett Normed Fit Index (NFI)	.971
Comparative Fit Index (CFI)	.990
Root Mean-Square Error of Approximation (RMSEA)	.055

Null Hypothesis 3 was tested using Structural Equational Modeling (SEM) to assess the construct validity and theoretical relationship. Given the well-fitting model, the eight-item PII scale is appropriate for measuring the level of involvement in general education at the university level. As a result, Null Hypothesis 3 is not supported.

Conclusion

This study provided the first analysis of the appropriateness of the PII scale for measuring the level of involvement in general education at the university level (H3). The impact and relevance of general education was examined among business students specifically. Empirical results presented in this paper demonstrate strong support for the reduced set of eight-items from Zaichkowsky's (1994) scale modification. The proposed scale reduction appears to capture both affective and cognitive dimensions within the context of higher education.

A key finding of this study is that students perceived their general education coursework as relevant measured by the cognitive dimension of the PII scale (H1), but not by the affective dimension of the PII scale (H2). Students ranked important, useful, valuable, and beneficial as highest in terms of relevance of general education to their business degree, while the lowest included interesting, exciting, appealing, and fascinating. At least in this sample, students recognized, cognitively, the functional purpose of general education. On the other hand, students in this sample are less oriented toward the emotional purpose of general education. While students find general education important and valuable, they do not find it very exciting or fascinating. This has implications for liberal arts faculty. First, faculty should consider presenting their topics in more appealing or interesting ways. This also has communications implications for liberal arts departments. Since students are more cognitively involved, liberal arts departments should focus on communicating the key attributes and benefits of general education.

Limitations and Future Research

A limitation of the present study is that data were collected only from students in business courses. This study should be replicated in other professional majors, such as engineering or law. Further, this study was only administered at one university. As such, the use of a single business school and university limits the generalizability of our findings. Future research should be conducted at other universities in other parts of the country.

The post-hoc analysis of demographic groups pinpointed a significant difference between freshman and seniors and their perceived relevance of general education on both cognitive and affective dimensions. The current study could be retested using a larger and more diverse sample of freshmen and seniors. Structural equation modeling and a multi-group analysis could then be conducted to determine if there is equivalence or variance across the groups.

Another limitation is that, like other studies using Zaichkowsky's PII scale, this study relies on self-assessment. This research focused on the relevance of general education as a whole, not specific courses within general education requirements. And finally, we contend that the impact of the general educational experience may not be realized until long after graduation. The study should be expanded to business school alumni. The data from the alumni could be analyzed to determine whether the perceived relevance is consistent with current business students and/or if the relevance changes after a student graduates and/or has gained personal and professional life experiences. This research could also be extended to other geographical locations to determine if location (urban versus rural, east coast versus west coast) affects the value perception of a liberal arts education.

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