

# UTILIZING MORAL REASONING ASSESSMENT TO INFORM CHARACTER EDUCATION IN COLLEGE LEVEL BUSINESS PROGRAMS

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## ABSTRACT

This study examines moral reasoning levels in undergraduate and graduate college students studying business at a small faith-based liberal arts institution in the Midwest. Founded by the Ursuline Sisters of Cleveland in 1871, Ursuline College was the first women's college in Ohio and one of the first in the United States. Specifically, this study examines "Is there a difference between the moral reasoning levels of Ursuline College undergraduate business students and graduate MBA students by age and years of education?" Utilizing the Defining Issues Test-2 (DIT2), data were collected from three groups of students: (1) traditionally aged undergraduate business majors enrolled in a non-accelerated program; (2) non-traditionally aged undergraduate business majors enrolled in an accelerated degree completion program; and (3) graduate level MBA students. Ursuline data were analyzed using factorial ANOVA. Contrary to research asserting that the number of years of education is the primary predictor in moral reasoning development, this study indicates significant differences when age and major are factors.

## Keywords

DIT2, Moral Reasoning, Character Education, Undergraduate and Graduate Business Education

## 1 PURPOSE AND BACKGROUND OF THE STUDY

This study is a first effort to assess the existing levels of moral reasoning of undergraduate and graduate students enrolled in traditional and non-traditional Ursuline College business programs. The need to perform this assessment is a direct result of the College's Assessment of Student Learning function and efforts. In the convention of liberal arts learning, an Ursuline education is designed to develop the whole person. The seven academic learning goals are essential aspects of an Ursuline education for both graduate and undergraduate students:

- i. *Analyze and Synthesize* by examining and distinguishing constituent elements (analysis) and

combining parts or elements into a whole (synthesis).

- ii. *Communicate Effectively* by exchanging ideas, thoughts, opinions or feelings through a common system of language, symbols, signs or gestures appropriate for everyday living.
- iii. *Interact Socially* by engaging in behavior that permits effective relationships in both one-to-one and group situations.
- iv. *Make Decisions Based on Values* by making discriminations based upon the consideration of what the individual prizes as ethical, socially worthwhile, good, beautiful, and true.
- v. *Respond to Beauty* by integrating the cognitive and affective domains in a personal experience of the arts.
- vi. *Solve Problems* by finding a solution to a question or situation that presents uncertainty or difficulty.
- vii. *Take Responsibility for Society* by accepting the obligation to respond to unjust or oppressive social situations.

([www.ursuline.edu/Academics/Studies.../academic\\_goals.html](http://www.ursuline.edu/Academics/Studies.../academic_goals.html))

These learning goals were implemented by the Ursuline Studies Program in 1992 when the women-focused curriculum was adopted. Still relevant, they are mirrored in the Essential Learning Outcomes identified by the American Association of Colleges and Universities (2007). Research conducted with employers (Hart Research Associates & AACU, 2010) also align these goals with successful employment after college ([www.ursuline.edu/Academics/Studies.../academic\\_goals.html](http://www.ursuline.edu/Academics/Studies.../academic_goals.html)).

In this study, we aim to measure and provide evidence for the three learning goals linked to moral reasoning: (1) Make Decisions Based on Values, (2) Solve Problems, and (3) Take Responsibility for Society.

Moral reasoning is a key concept central to ethical decision making and behavior (Bazerman & Tenbrunsel, 2011; Forte, 2005; Langford, 1995; Lennick & Kiel, 2008; Pennino, 2010). Studies in leadership, management, and business related education examine ethical practices, human actions and choices as a means to assess the implications of moral development, moral intelligence and ethical practices (McFerran, Aquino, & Duffy, 2010; Reed Blasi & Aquino, 2008; Trevino, 1992; Weber & McGivern, 2009). Stages or levels of moral reasoning as applied to ethical behavior and practices are cited and studied in graduate and undergraduate business textbooks (George, 2006; Hellreigel & Slocum, 2011; Whetton & Cameron, 2011). They have also been discussed in professional publications such as the New York Times (April 21, 2011), the Journal of Business Ethics (Brower & Shrader, 2000) and Public Relations Strategist (Kruckenberg, 1997).

Research on moral reasoning indicates that the amount of education is key to ascertaining an individual's moral compass (Bebeau & Thoma, 2003; Rest, Narvaez, Thoma, & Bebeau, 2000). This assertion has been widely accepted in social science circles (Thoma, Narvaez, Rest, Derryberry, 1999; Washatka, 2010). The implication is that an 18-year-old freshman will have moral reasoning scores equal to those of a 50-year-old freshman as they each have experienced 13 years of education (Rest, Narvaez, Thoma, & Bebeau, 2000; Rest, 1994). Within the context of the DIT2 measurements, our results support the extant body of research. However, our research also indicates that age, and by association experience, correlated more strongly with moral reasoning scores than did education level.

Limited research exists on a longitudinal body of students of varying ages and life experiences (e.g., traditionally-aged undergraduate business students and adult learner undergraduate business students) to gauge a correlation between years of education and moral reasoning, and life experience and moral reasoning (Washatka, 2010). Therefore, in an attempt to add to the body of research, this study examines existing levels of moral reasoning of students enrolled in Ursuline College business programs and tested the question, "Is there a difference between the moral reasoning levels of Ursuline College undergraduate business students and graduate MBA students by age and years of education?"

## 2 METHODOLOGY

Utilizing the DIT2 instrument, data were collected from three groups of Ursuline College Business students: (1) traditionally aged undergraduate business majors enrolled in a non-accelerated program; (2) non-traditionally aged undergraduate business majors enrolled in an accelerated degree completion program; and (3) graduate level MBA students.

## Reliability and Validity of the DIT2 Instrument

The following information regarding the DIT2 is written by the DIT2 test-guide developers and researchers and copied from the most current 2003 DIT2 Guidebook. Within this context, Beneau and Thoma (2003) offer this documentation as the official prose of the validity and reliability of the DIT2 assessment. We offer this explanation in its entirety as one foundational portion of a larger multifaceted study about student learning at Ursuline College:

"The DIT is a paper-and-pencil measure of moral judgment derived from Kohlberg's theory of moral reasoning (Kohlberg, L. [1984] Essays on moral development: The nature and validity of moral stages, Vol. 2. San Francisco, Harper & Row.) Instead of scoring free-responses to hypothetical moral dilemmas in an interview (as in the Kohlberg procedure), the DIT presents 12 issues after a hypothetical dilemma for a subject to rate and rank in terms of their importance. Hence the DIT data consists of ratings and rankings instead of interview responses that are then scored by a trained judge according to a scoring manual. Instead of envisioning the scoring process as classifying responses into Kohlberg's 6 stages, the DIT analyzes responses as activating three schemas. The scores represent the degree to which a subject uses the Personal Interest, Maintaining Norms, or Postconventional Schema. The schemas have a close relation to Kohlberg's stages, yet they are different. As with Kohlberg's theory, the schemas scores purport to measure developmental adequacy --in particular, how people conceptualize how it is possible to organize cooperation in a society. In short, the DIT is a measure of the development of concepts of social justice.

Validity for the DIT has been assessed in terms of 7 criteria (Postconventional. Rest, Narvaez, Bebeau & Thoma, 1999, cite over 400 published articles): (1) Differentiation of various age/education groups --studies show that 30% to 50% of the variance of DIT scores is attributable to level of education. (2) Longitudinal gains-- a 10-year longitudinal study of men and women, of college-attendees and non-college subjects from diverse walks of life show gains; a review of a dozen studies of Freshman to Senior college students (N>500) show effect sizes of .80, making gains in DIT scores one of the most dramatic effects of college. (3) The DIT is significantly related to cognitive capacity measures of Moral Comprehension (r .60s), recall and reconstruction of Postconventional moral arguments, Kohlberg's interview measure, and (to a lesser degree) to other cognitive developmental measures. (4) The DIT is sensitive to moral education interventions One review of over 50 intervention studies reports an Effect Size for dilemma discussion interventions to be .41 ("moderate" gains) whereas the Effect Size for comparison groups was only .09 ("little" gain). (5) The DIT is significantly linked to

many “prosocial” behaviors and to desired professional decision making. One review reports that 37 out of 47 correlations were statistically significant. (6) The DIT is significantly linked to political attitudes and political choices--in a review of several dozen correlates of political attitudes, the DIT typically correlates in the range, =.40 to .65. When coupled with measures of cultural ideology, the combination predicts up to 2/3s of the variance of controversial public policy issues (such as abortion, religion in the public school, women’s roles, rights of the accused, rights of homosexuals, free speech issues). (7) Reliability is adequate. Cronbach alpha is in the upper .70s / low .80s\* Test-retest reliability is about the same. Further, the DIT shows discriminant validity from verbal ability/general intelligence and from Conservative/Liberal Political attitudes--that is, the information in a DIT score predicts to the 7 validity criteria above and beyond that accounted for by verbal ability or political attitude. The DIT is equally valid for males and females. No other variable or other construct predicts the pattern of results on the 7 validity criteria as well as moral judgment.

DIT-2 is an updated version of the original DIT devised 25 years ago. Compared to the original DIT, DIT-2 has updated stories and is also a shorter test, has clearer instructions, retains more subjects through subject reliability checks, and in studies so far, does not sacrifice validity. If anything it improves on validity. The correlation of DIT-1 with DIT-2 is .79, nearly the test-retest reliability of DIT-1 with itself. However when the new index (N2), and the new subject reliability checks (New Checks) are applied to DIT-1, the older and longer DIT-1 shows the same validity as DIT-2 (Bebeau & Thoma, 2003, p.30).

**Analysis**

Following the adoption of a methodological design (factorial ANOVA) two research questions were posed:

1. Is there a statistically significant difference in Moral Reasoning Score (N2Score) between undergraduate and graduate students?
2. Is there a statistically significant difference between a person's Moral Reasoning Score (N2Score) and level of education and age?

The convenience sample included 179 students. Data were collected fall, spring and summer terms (2010-2011) from students voluntarily taking the test during class time. One-way Analysis of Variance (ANOVA) was used to determine if there was a statistically significant relationship for student N2 scores between levels of education (undergraduate and graduate). One-way ANOVA further examined the N2 scores for students in the three programs: (1) traditional undergraduate; (2) UCAP/non-traditional undergraduate; and (3) graduate. Further tests to determine between

programs using Sheffe post hoc criteria for significance were conducted. Factorial ANOVA tests, examining the effects of each year in the undergraduate program (freshman, sophomore, junior and senior) and age on the student N2 scores were performed.

**3 RESULTS**

**Research Question 1**

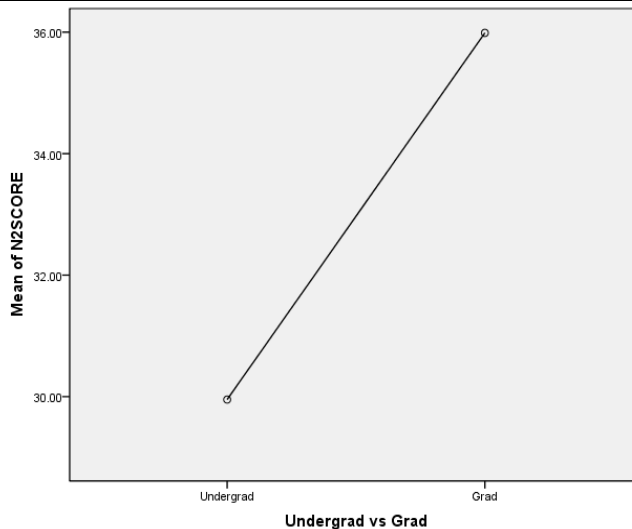
Is there a statistically significant difference in Moral Reasoning Score (N2Score) between undergraduate and graduate students?

For the first research question, a One-way Analysis of Variance (ANOVA) was used to determine if there was a statistically significant relationship for student N2 scores between levels of education (undergraduate and graduate). The results from the One-way ANOVA indicated a significant difference ( $F(1, 171) = 5.22, p = .024$ ) such that the N2 scores were higher for graduate students ( $M = 36.48, SD = 15.04$ ) than for undergraduate students ( $M = 28.67, SD = 15.81$ ).

**ANOVA**

**N2SCORE**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1263.775	1	1263.775	5.224	.024
Within Groups	41368.301	171	241.920		
Total	42632.076	172			



Since there are two undergraduates programs as well as the graduate program, one-way ANOVA further examined the N2 scores for students in the three programs – traditional undergraduate, UCAP/non-traditional undergraduate and

graduate. Results from this analysis again indicated a statistically significant difference ( $F(2, 176) = 5.53, p = .005$ ) such that the N2 scores were higher for graduate students ( $M = 36.48, SD = 15.04$ ) than for traditional undergraduate students ( $M = 28.67, SD = 15.81$ ) and UCAP/non-traditional undergraduate students ( $M = 35.92, SD = 12.38$ ). These results for research question one followed Rest's (1994) assertion that the number of years of education is the primary predictor in moral reasoning development as graduate students will have completed at least a bachelor's degree prior to entering graduate school and therefore have a greater number of years of education than the undergraduate business student.

**Research Question 2**

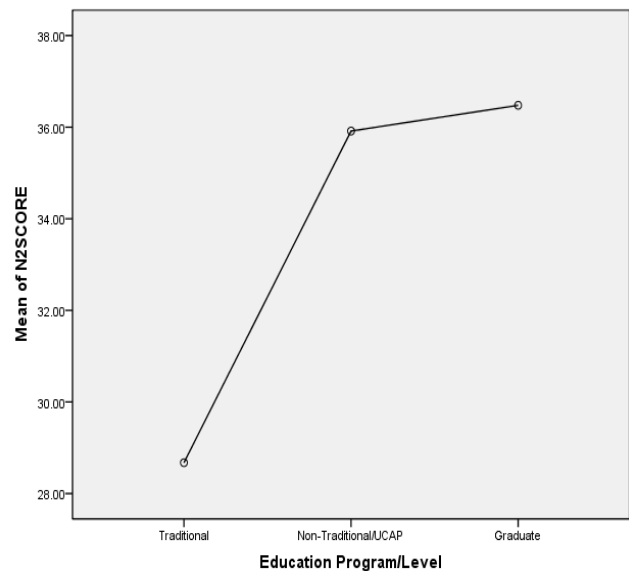
Is there a statistically significant difference between a person's Moral Reasoning Score (N2Score) and level of education and age?

We further tested where significant differences occurred between programs using Sheffe post hoc criteria for significance. The results indicated significant differences between the N2 scores for traditional undergraduate students compared to graduate students ( $M_{diff} = -7.80, SD = 2.57, p = .011$ ) with graduate students having higher N2 scores, but the results were non-significant for UCAP/nontraditional undergraduate students compared to graduate students ( $M_{diff} = -.56, SD = 3.79, p = .989$ ). These results seem to indicate that differences in N2 scores are attributable to factors other than educational level. Typically, UCAP/nontraditional undergraduate students are 24 years of age and older, with most students' ages ranging between 30 and 45 years old. They have had significant personal and professional life experiences. These experiences include but are not limited to family responsibilities such as parenthood, caring for aging and/or ill relatives; and years in the workforce in varying capacities ranging from short-term minimum wage jobs to developed careers.

**ANOVA**

N2SCORE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2553.148	2	1276.574	5.531	.005
Within Groups	40623.143	176	230.813		
Total	43176.292	178			



Finally, factorial ANOVA tested the effects of each year in the undergraduate program (freshman, sophomore, junior and senior) and age on the student N2 scores. A significant difference was found for freshmen ( $F(2, 26) = 4.66, p = .04$ ) and a marginally significant difference for sophomores ( $F(2, 13) = 4.029, p = .066$ ). However, there was no significant difference for juniors ( $F(2, 26) = 0.83, p = .776$ ) or seniors ( $F(2, 53) = 0.19, p = .666$ ). Pairwise comparisons tested the effect of age on student N2 scores for each year in the undergraduate programs. Results indicate lower N2 scores for freshmen students in their twenties than in their thirties ( $F(2, 26) = 3.889, p = .035$ ). No significant differences were found for other age groups or other years of undergraduate education.

**4 CONCLUSION**

The implications of this study will help drive curriculum development that applies enhanced approaches to character education for traditionally-aged, business and non-business majors. Research supports the impact and benefits of character building educational experiences (Bloodgood, Turnley, & Murdrack, 2010; Weber & McGivern, 2009; Washatka, 2010; Worthington, 2009).

As part of our assessment of student learning processes and efforts, this research has revealed gaps in how we ready our students for professional life. Development for character education efforts will be explored. Our goal is two-fold: (1) to enhance recognition in the traditional student population; and (2) to heighten awareness in the nontraditional student population about the implications of justifying professional decisions based solely on bottom line and short term goals. Research indicates this practice has encouraged the "ethical fading" that has been so pervasive in the recent business landscape (Bazerman & Tenbrunsel, 2011; Kidder, 2009; Reed, Blasi, Aquino, 2008).

As academic professionals, our hope is to better understand this issue and contribute to a reversal of ethical fading. This effort may be accomplished through strengthening and developing college curricula and providing specific and meaningful learning experiences addressed in liberal arts education. We also aim to promote and develop moral reasoning abilities so that students can successfully integrate them into academic, professional, social, and personal situations.

#### ACKNOWLEDGEMENTS

The authors wish to acknowledge the Ursuline College Administration, President Sr. Diana Stano, Vice President of Academic Affairs Dr. JoAnne Podis, and School of Graduate and Professional Studies Dean Dr. Debra Fleming, for their support providing this opportunity to conduct our study. We also wish to thank Suzanna Schroeder-Green, Head of Library Electronic and Media Services for her continuous support and most excellent assistance.

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