Preliminary Investigation of the Affective Domain Questionnaire based on Krathwohl, Bloom, and Masia's (1964) Taxonomy

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Background

Krathwohl, Bloom, and Masia's (1964) taxonomy was used to develop an Affective Domain Questionnaire.

Responding	
2.1	Acquiescence in responding
2.2	Willingness to respond
2.3	Satisfaction in response
Valuing	
3.1	Acceptance of a value
3.2	Preference of a value
3.3	Commitment
Organization	
4.1	Categorization of a value
4.2	Organization of a value system
Characterization by a value	
5.1	Generalized set
5.2	Characterization

Krathwohl et al . Definitions

RESPONDING, the individual is perceived as responding regularly to the affective stimuli.

2.1 Acquiescence in responding, s/he is merely complying with expectations (e.g., at the request of his teacher).

2.2 Willingness to respond, s/he responds increasingly to an inner compulsion (e.g., has an interest in social problems broader than those of the local community).

2.3 Satisfaction in response, s/he responds emotionally as well (e.g., works with clay, especially in making pottery for personal pleasure).

VALUING describe increasing internalization.

3.1 Acceptance of a value (e.g., continuing desire to develop the ability to write effectively and hold it more strongly),

3.2 Preference for a value (e.g., seeks out examples of good art for enjoyment of them to the level where s/he behaves so as to further this impression actively),

3.3 Commitment (e.g., faith in the power of reason and the method of experimentation).

ORGANIZATION

4.1 Conceptualization of a value (e.g., to find out and crystallize the basic assumptions which underlie codes of ethics)

4.2 Organization of a value system (e.g., weighs alternative social policies and practices against the standards of public welfare).

Background (Cont'd)

CHARACTERIZATION

5.1 Generalized set (e.g., views all problems in terms of their aesthetic aspects, or readiness to revise

judgments and to change behavior in the light of evidence).

5.2 Characterization (e.g., develops a consistent philosophy of life).

AFFECTIVE DOMAIN QUESTIONNAIRE (ADQ)

The first edition (FE) of the ADQ consisted of six items (i.e., one question for subdivision) which measured the Responding and Valuing categories (Krathwohl, Bloom, & Masia, 1964, p. 95). The ADQ second edition (SE) measured four categories: responding, valuing, organization, and characterization. ADQ-SE is comprised of 30 questions (i.e., three items for each of the 10 subcategories). Hilty, Hinze, & Clark (2018) reported coefficient alpha reliability estimates for the ADQ-FE ranging from .803 to .911.

Aim

Study 1
The purpose of this study was to analyze the factor structure of the Affective Domain Questionnaire: Second Edition (ADQ-SE).

Study 2
Based on the factor structure found in the initial study, the psychometric qualities of the common factors would be subject to evaluation.

Methods

Study 1
The participants were approximately 500 Bachelor of Science in Nursing (BSN) students in an undergraduate program.
Hypothesis 1: Using SPSS 25, the exploratory principal axis factor analysis (EPAFA) was used to determine if the ADQ multi-dimensional construct (i.e., two or more common factors).
Hypothesis 2: Determine if the reliability estimate(s) would be greater than .80 for engagement common factors.

Study 2
The participants (N=111) were senior level BSN students in an undergraduate program. Hypothesis 1: There would be a difference between the Hilty (2017) competitive greatness scale scores (high and moderate-low scoring groups) when compared to the ADQ common factors (SPSS 25, Independent *t*-test).

Results

Study 1
Hypothesis 1. The EPAFA found three common factors accounting for 58% of the variance. The first factor combined the questions measuring the Krathwohl et al (1964) theoretical categories of 2.1, 2.2, 2.3, 3.1 (refer to the table in the first column). The second factor groups the questions measuring theoretical categories 3.2, 3.3, 3.4, 4.1, 4.2. The third common factor assembled the questions measuring the 5.1 and 5.2 categories.

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Results (Cont'd)

Study 1

Hypothesis 2: The coefficient alpha reliability estimates were greater than .80 (First Factor, .895; Second Factor,.931; Third Factor, .896).

Study 2

Hypothesis 1: The competitive greatness (CG) scale was used to divide the nursing student sample into two groups. The high scoring CG group (N=62) and the moderate-low scoring group (N=49) had comparable numbers of participants. Independent *t*-test (N=111) analyses found significant differences between the two CG groups and the second factor (p=.032) and the third factor (p=.001). There was no significant difference between the two CG groups and the first factor (p=.141).

Discussion

Krathwohl et a. (1964) theorized the role of affect in learning and processing information involved 10 stages. Hilty et al. (2018) developed the ADQ instrument to measure the Krathwohl et al (1964) stages. The ADQ consists of 30 questions with three questions designed to measure the 10 stages. In study 1, the EPAFA analysis found three common factors with coefficient alpha reliability estimates ranging from .895 to .831. The independent t-test (using the CG scale to differentiate high versus moderate-low students) found the second and third common factors significantly differentiated students engaging in continuous self-improvement.

Conclusions

Regarding labels for the three common factors, preliminary names could be …

- Factor 1 - Responding & Valuing (2.1, 2.2, 2.3, 3.1)
- Factor 2 - Valuing & Organization (3.3, 3.4, 4.1, 4.2)
- Factor 3 - Characterization (5.1 ,5.2

References

- Hilty, D. (2017). *Preliminary investigation (phase 1) evaluating relationship among Big Five personality factors, team spirit, and Wooden's competitive greatness construct*. Poster Presentation at Lilly Conference at Traverse City, Michigan.
- Hilty, D., Hinze, A., & Clark, K. (2018, February). *Using Krathwohl's (1964) taxonomy to develop an affective domain questionnaire*. Poster Presentation at Lilly Conference at Anaheim, California.
- Krathwohl, D.R., Bloom, B.S., & Masia, B. B. (1964). *Taxonomy of educational objectives, Book II: Affective domain.* New York, NY. David McKay Company, Inc.