Domain specifications and content representativeness of the revised Value Orientation Inventory

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Ennis, C. D., & Chen, A. (1993). Domain specifications and content representativeness of the revised Value Orientation Inventory. *Research Quarterly for Exercise and Sport, 64* (4), 436-446. DOI: 10.1080/02701367.1993.10607597

Abstract:

Value orientations represent theoretical belief systems that guide teachers' curricular decision making. Research using the Value Orientation Inventory (VOI) to examine physical educators' value orientations in school settings found inconsistencies between the inventory findings, descriptions of class environments, and teachers' self-reports of their curricular goals. This article reports the VOI revision process that included (a) literature and research reviews resulting in domain specifications and new VOI item development and (b) item ratings that provide evidence of content representativeness for the revised items. The reviews supported four of five orientations that formed the original theoretical framework for the VOI: disciplinary mastery, learning process, self-actualization, and ecological integration. The fifth orientation, social reconstruction, was not supported by school-based research. Findings were more consistent with a social responsibility orientation. New items (K = 150) were written based on the literature reviews. The new items were sent to university and public school teachers (N = 298) to assess content representativeness. Eighty-one percent of the item means were > 4.0 on a 5-point scale. The social responsibility items were found to be domain representative and were included in the revised inventory.

Keywords: teacher beliefs | value orientations | social responsibility | curriculum | domain specifications

Article:

Value orientations represent educators' belief systems about what content is taught, how it is taught, and to what extent the content is learned (Pajares, 1992). Educational values and value orientations focus on the normative enterprise of education by addressing questions of relative worth (Eisner, 1992). Limitations in resources such as time, personnel, equipment, and space often require advocates (e.g., physical educators, supervisors, university faculty) representing

different philosophies or belief systems to compete for funding and visibility in the curriculum. Schubert (1990, pp. 212-213) explains that questions of relative worth are not new to educational decision making.

> From Plato in the West and Confucius in the East, to John Dewey and Alfred North Whitehead in this century, one finds the question of worth to be central to the ancient and modern worlds of educational discourse .... Classic statements on education throughout history ... always couched arguments about what is worth knowing in a context of social and individual improvement.

In physical education, Ennis and Hooper (1988) developed the Value Orientation Inventory (VOI) to examine physical educators' priorities for curricular decisions. The conceptual framework for the VOI articulates the role of educational values and beliefs in school-based curricular decision making. Ennis and Hooper reported domain specifications and item development for the original inventory. Within this conceptualization, theory and practice reside in an interactive or reflexive relationship in which each articulates, transforms, and builds on the other (Freire, 1972, p. 96). The relationship between theory and practice is viewed as noncausal; one does not determine the other (Grundy, 1987). In other words, when conducting theoretically based research in clinical settings, theoretical and practical interpretations must be permitted to inform each other and expand our insight into the curriculum-in-context. The initial theoretical conceptualization for value orientations was derived from extensive commentary in the curricular literature (e.g., Eisner & Vallance, 1974; Jewett & Bain, 1985) coupled with the acknowledgment that the teacher's values and belief systems influenced curricular decision making.

Results of VOI research (Ennis, Chen, & Ross, 1992; Ennis & Zhu, 1991) suggest that physical educators have strong value priorities and can identify curricular goals consistent with their beliefs. Follow-up studies (Ennis, Ross, & Chen, 1992) to examine teachers' goals within each value orientation produced specific examples of curricular decisions, problematic curricular issues, instructional tasks, and evaluative procedures. These findings were instrumental in the development of a more responsive and realistic interpretation of the theoretical curricular literature as it relates to and reflects curricular decision making in school settings. The limitations of the VOI were also identified, primarily within the social reconstruction orientation. Inconsistencies were documented between the teachers' reported goals for social interaction, teamwork, and cooperation and the social reconstruction focus on justice, reform, and the central role of the student as a change agent in this process.

The theoretical focus for the social reconstruction perspective is firmly established in the theoretical literature, but it is not as apparent in the observations and self-reports of most physical educators interviewed. When teachers who placed a high priority on the social reconstruction orientation were observed and interviewed, they expressed goals that were consistent with the overall goal of social responsibility but were unrelated to goals of social reconstruction as represented in the theoretical curricular literature. For the VOI to be a valid and reliable indicator of teachers' goals for physical education, it must be revised to reflect the reflexive growth in our understandings about theory and practice. Therefore, findings (e.g., Ennis, Chen, & Ross, 1992; Ennis & Zhu, 1991) were used to generate alternative hypotheses to

revise and enhance the VOI to reflect more accurately teachers' curricular priorities within school-based physical education.

A research program was conducted to revise the original VOI (Ennis & Hooper, 1988) based on findings from school-based physical education research. This article presents (a) a description of the literature and research reviews that served as the foundation for domain specifications and item development and (b) evidence of content representativeness for the revised VOI items. It represents one in a series of studies to establish the validity and reliability of the new instrument. Specifically, in the first section, theoretical domain specifications and evidence from school-based research are synthesized to clarify the theoretical foundation for the revised instrument. The second section reports research to examine item validity based on ratings of physical education professionals. Data were used to provide evidence of construct validity and to modify and select items for the revised VOI.

The significance of this research lies in the synthesis of results from school-based research with theoretical curricular ideologies. A detailed theoretical framework articulated within domain definitions and specifications provides the foundational structure necessary to make both theoretical and practical decisions regarding the relevance and application of value orientation theory. The resulting inventory can be used by curricular researchers and staff developers working directly with physical educators in school settings. The VOI facilitates the description and understanding of physical educators' value profiles and provides a rationale for teachers' curricular and instructional decisions documented in schools (e.g., Ennis, Ross, & Chen, 1992; Ennis & Zhu, 1991).

Domain Specifications for the Value Orientations

Value orientations appear to influence the selection of curricular goals, instructional strategies, and evaluative procedures consistent with teachers' educational beliefs and priorities for students (Pajares, 1992). Each value orientation or domain represents a theoretical value perspective as described and defined by physical education teachers in school settings. Each draws its foundation from an integrative, reflexive approach to curricular theorizing. The research was designed both to develop domain specifications for the value orientations and to revise VOI items based on the new specifications. Within this process the curricular literature was reexamined to update or modify the original theoretical domain specifications. The items were then rewritten to synthesize the theoretical knowledge base with value orientation research findings from school-based physical education settings.

Domain Specifications

Content representativeness describes a form of construct validity that examines the accuracy with which statements or concepts represent a larger domain of information (Fitzpatrick, 1983; Messick, 1989). A value orientation domain includes all possible concepts that should be represented when describing the value perspective. Instruments that claim to be content representative should include items representing every category or concept within the domain. Evidence to support the content representativeness of inventory items can be accumulated using criterion-referenced measurement. Popham (1975) explains that the essence of criterion

referenced measurement is a carefully delineated domain of behaviors and the ability to compare an individual's performance to domain statements. Domain definitions written for theoretical value orientations included both a general statement describing the major components within the value domain and a more detailed subcomponent outline. The orientation or domain components for the value orientations were identified through a content analysis of curricular literature.

The literature review included three levels of analysis. First, general curricular texts (e.g., McNeil, 1990) were examined to determine major value orientation categories. Second, articles and books describing a particular scholarly value position were reviewed to identify orientation components and examples in educational settings (e.g., Rogers, 1983). Third, curricular research was examined to determine the extent to which these domains were documented in school settings (e.g., Atkins, 1986). The three-level content analysis was then repeated within the physical education literature.

In physical education, Jewett and Bain (1985) articulated domain specifications for four value orientations: disciplinary mastery (DM), learning process, (LP), self-actualization (SA), and ecological integration (EI) (see Note 1). These four orientations served as the theoretical foundation for the original VOI and were supported in school-based physical education research. The fifth orientation, social reconstruction (SREC), though strongly advocated by critical theorists in both general education and physical education (e.g., Delpit, 1988; Griffin, 1985), was not supported as a primary orientation by physical education teachers based on school-based values research (Ennis, Ross, & Chen, 1992). An alternative value orientation, social responsibility (SRESP), was posited for examination within this research. The theoretical and research basis for the VOI orientations will be discussed briefly, followed by a section devoted to the social reconstruction/responsibility debate.

Table 1. Domain specifications for the disciplinary mastery orientation

Domain Sentence: Students gain proficiency in fundamental movement, skill, sport, and fitness activities; a cognitive understanding of rules, strategies, and scientific principles associated with increased performance; and an appreciation of these in an active, healthful lifestyle.

The curricular focus is placed on the following major concepts:

A. Knowledge base
   1. Students learn physical skills and activities.
      a. Students learn fundamental movements, skills, and sports.
      b. Students learn exercise sequences and routines that contribute to fitness.
   2. Students develop cognitive understandings.
      a. Students understand rules and strategies.
      b. Students learn scientific principles (e.g., biomechanical, physiological).
      c. Students learn movement concepts (e.g., body, space, effort, relationships).
   3. Students learn to value and appreciate physical activity.
      a. Students value the importance of skill and knowledge in an active lifestyle.
      b. Students appreciate the role of knowledge as a necessary component of performance.

B. Competence
   1. Students master criterion-referenced standards.
   2. Students compare their own performance to others using norm-referenced measures.
   3. Student proficiency is based on developmentally or experientially appropriate criteria.

C. The knowledge base is transmitted to each new generation of students.
   1. Students learn skills and knowledge that enable them to participate with others.
   2. Students learn skills and knowledge that enable them to participate in active, healthful lifestyles.

Disciplinary Mastery

The disciplinary mastery orientation is defined as the mastery of fundamental core knowledge and performance skills considered essential to the knowledge base. The curricular focus emphasizes the major concepts of the knowledge base, competence, and knowledge transmission outlined in Table 1. Value Orientation Inventory research (Ennis, Chen, & Ross, 1992) indicated that many physical education teachers do not profess disciplinary mastery goals to the degree advocated by professional textbooks and documents (e.g., National Association for Sport and Physical Education, 1992). Physical educators who placed a high priority on disciplinary mastery goals ranged from 7% in an Eastern urban school district (Ennis, Chen, & Ross, 1992) to 24% in three school districts in the Upper Midwest (Ennis & Zhu, 1991). Follow-up research (Ennis, Ross, & Chen, 1992) revealed that disciplinary mastery teachers believe they can increase student performance on skills and fitness content, despite limitations in class size, scheduling, prior student experience, and facilities and equipment availability.

Table 2. Domain specifications for the learning process orientation

Domain Sentence: Students learn *how to learn* movement. sport, and fitness content and *how to use* information from the body of knowledge to solve related problems. Process skills are integrated across lessons and units in systematic progressions to facilitate the learning of increasingly complex skills.
The curricular focus is placed on major concepts:
A. Learning how to learn
1. Students acquire process knowledge associated with learning movement. sport, and fitness concepts that is integrated across content (e.g, thinking skills, observation, movement analysis, utilization of feedback).
2. Students synthesize scientific concepts necessary to explain efficient performance within and across skill, sport, and fitness components (e.g., accuracy, velocity).
B. Applying knowledge
1. Students use knowledge and skills to solve relevant movement. sport, and exercise problems.
2. Students recognize relationships between familiar situations and new situations.
3. Students recognize movement and fitness concepts integrated across major knowledge and performance categories (e.g., object manipulation, balance).
C. Developing systematic learning progressions
1. Students develop an understanding of content relationships that facilitate the addition of new knowledge to prior knowledge.
2. Students participate in tasks planned to introduce increasingly complex skills.

Learning Process

The programmatic focus within this orientation is placed on process skills that facilitate learning (Kilpatrick, 1918). Table 2 articulates the domain specifications within the categories of learning how to learn, application of knowledge, and systematic learning progressions. Value Orientation Inventory research indicated that the percentage of learning process teachers ranged from 12% in an Eastern urban school district (Ennis, Chen, & Ross, 1992) to 28% in the Upper Midwestern districts (Ennis & Zhu, 1991). Learning process teachers use skill, sport, and fitness content as the basis for problem development. Value Orientation Inventory results indicated the disciplinary mastery and learning process orientations share common components, such as the emphasis on skill, sport, and exercise that serves as the end product in the disciplinary mastery orientation and the process or means to learning independently in the learning process orientation. This relationship is reflected in a moderate positive correlation (.49, Ennis, Chen, & Ross, 1992; .48, Ennis & Zhu, 1991) documented in VOI research.

Self-Actualization

Self-actualization advocates articulate curricula that address personal growth and student autonomy (Maslow, 1979). Tasks and activities are planned to provide opportunities for students to achieve success believed to contribute to the development of independence, individuality, and positive student growth outlined in Table 3. The percentage of physical educators placing a high priority on self-actualization ranged from 9% in the Eastern urban school district (Ennis, Chen, & Ross, 1992) to 26% in the Midwestern school districts (Ennis & Zhu, 1991). Skills and fitness content serves as a means to this end rather than the primary goal within this curriculum. Often, however, students must develop fitness, skills, and sport strategies necessary to perform effectively and realize success.

Table 3. Domain specifications for the self-actualization orientation

Domain Sentence: Students learn to become increasingly self-directed, responsible, and independent. They are encouraged to learn about themselves as they grow and develop their own characteristics and abilities.

The curricular focus is placed on the following major concepts:

A. Independence
   1. Students learn to be self-directed.
   2. Students participate in tasks designed to develop responsibility.
   3. Students learn to work autonomously.

B. Individuality
   1. Students are encouraged to define their own needs and interests.
   2. Students are placed in situations where they will gain self-knowledge /self-understanding.
   3. Students develop awareness of their own unique capabilities.
   4. Students are encouraged to pursue activities consistent with their personal needs /interests.

C. Positive student growth
   1. Growth is defined individually (e.g., knowledge, skill/fitness, personal/social development) for each student.
   2. Growth is marked by success in tasks considered to be relevant to the student.
   3. Students participate in program options designed for their own needs.
   4. Students design their own programs.

Table 4. Domain specifications for the ecological integration orientation

Domain Sentence: Students learn to search for personal relevance as they integrate and balance their own needs and interests within the larger social and natural environment. They use knowledge both to respond to changes in their lives and to determine their own future.

The curricular focus is placed on the following major concepts:

A. Personal search for knowledge that is meaningful and interesting
   1. Students participate in a variety of experiences.
   2. Students learn to identify experiences that are useful and/or enjoyable.

B. Integration of individuals' needs with the natural and social environment
   1. Students participate in tasks that integrate individual goals with group goals.
   2. Students learn to apply knowledge and skill to solve personal and social problems.

C. Balance between societal expectations, student needs, and subject matter demands
   1. Curriculum is flexible to respond to diversity within and among students and situations.
   2. Program goals focus on long-term balance, although specific situations may require emphasis on one component over others.

D. Creation of opportunities in which to participate in the future
   1. Students begin to identify and learn to participate in activities that they consider relevant.
   2. Students acquire skills of critical questioning, decision making, and problem solving to project, modify, and extend skills and knowledge in preparation for changing lifestyles.

Ecological Integration

Ecological integration advocates seek a balance between student needs, group needs, and subject matter demands. Domain specifications presented in Table 4 include relevance, integration, balance, and a futuristic perspective (Jewett & Ennis, 1990). Research to examine ecological integration suggested it was given a high priority more often than most other orientations. The percentage of EI teachers ranged from 25% in the Eastern study (Ennis, Chen, & Ross, 1992) to 31 % in the Midwestern study (Ennis & Zhu, 1991). Follow-up research (Ennis, Ross, & Chen, 1992) indicated that ecological integration teachers were often more frustrated with time constraints imposed on physical education than were teachers with a high priority in other orientations. They argued that adequate time was required to integrate knowledge, individual, and social goals within the curriculum.

Social Domain

Social reconstruction. The original VOI theoretical framework included social reconstruction as the fifth value orientation. Curricular efforts to encourage social reform outlined in Table 5 emphasize an enhanced awareness of social needs, the role of the student as a change agent, and strategies to create a better environment (e.g., Delpit, 1988; Fordham, 1988; Griffin, 1985; Lucas, Henze, & Donato, 1990). In VOI research, physical educators who placed a high priority on social reconstruction ranged from 26% in the Midwestern study (Ennis & Zhu, 1991) to 57% in the Eastern study (Ennis, Chen, & Ross, 1992).

Table 5. Domain specifications for the social reconstruction orientation

Domain Definition for Social Reconstruction (Original Value Orientation Inventory[a]): Students develop an awareness of social issues and learn skills and strategies necessary to change personal or group behaviors to create a better environment for all individuals regardless of race, class, gender, or physical ability.
The curricular focus is placed on major concepts:
A. Awareness of social needs/concerns/issues
1. Students develop sensitivity, empathy, and respect for group concerns.
2. Students realize the value of group goals in meeting individual needs (working for the greater social good).
B. Students learn skills necessary to act as a change agent within and for the group.
1. Students acquire the skills necessary to advocate effectively for self and others.
2. Students develop insights and strategies to work collectively for social justice (e.g., questioning the dominant viewpoint, negotiation, persuasion).
3. Students are empowered to make decisions necessary to test alternate solutions and select the best alternative.
4. Students are empowered to create or implement change.
C. Students learn skills and strategies necessary to create a better environment/society for all individuals regardless of race, class, gender, or physical ability.
1. Safe environment: physical safety (i.e., freedom from violence and abuse) and emotional safety **(i.e.,** freedom from derogatory comments)
2. Equal access to opportunity: knowledge, learning, meaningful activity

[a]Ennis & Hooper, 1988.

The Ennis, Chen, and Ross (1992) research led to two follow-up studies using in-depth interviews and stimulated recall (Ennis, in press) to examine teachers' conceptualizations of social reconstruction goals in their physical education programs. Interviews with five socially oriented high school teachers (Ennis, Ross, & Chen, 1992) failed to identify goals consistent

with the social reconstruction focus. Teachers identified as having a high priority for social reconstruction strongly advocated social goals such as cooperation, participation, teamwork, responsibility, and respect for others. They did not initiate discussion of issues related to social justice, equity, or the student as a positive change agent for social reform as suggested by the literature (e.g., Ellsworth, 1989). For example, they did not describe efforts to teach students to critically question negative student interactions or to negotiate problems with others instead of using physical or violent behaviors. When asked specifically about these issues, physical educators were unable to cite instances in their classes where this was a curricular or instructional goal.

In a second study (Ennis, in press), 11 high school and middle school physical educators with a high priority on the VOI for social reconstruction viewed a videotape of their physical education classes and discussed their goals and expectations for students. They frequently mentioned responsibility, cooperation, participation, and teamwork as curricular goals but did not address issues of equity, social change, or justice. It was clear that these teachers advocated strong social goals, but these goals were not consistent with the justice and reform emphases within the social reconstruction orientation.

Social responsibility. An additional review was conducted to examine literature on "social curricular goals" to identify other curricular perspectives and formulate counterhypotheses. The teachers' descriptions of curricula to enhance student social interactions, cooperation, teamwork, and respect for others appeared most consistent with educational research findings associated with the construct of social responsibility. Ford, Wentzel, Wood, Stevens, and Siesfeld (1989, p. 406) defined social responsibility as the "adherence to social rules and role expectations." Other researchers (e.g., LeCompte, 1978) documented explicit curricular goals (as stated in curricular guides and lesson plans) for socializing children into adult society. Wentzel (1991, p. 2) pointed out that "character development and social responsibility in general have been stated as explicit objectives for public school in almost every educational policy statement since 1848, being promoted with the same frequency as the development of academic skills."

Table 6. Domain specifications for the social responsibility orientation

Domain Definition for Social Responsibility (Revised Value Orientation Inventory): Students learn social rules and norms for personal conduct that lead to appropriate social interactions of cooperation, teamwork, group participation, and respect for others.
The curricular focus is placed on the following major concepts:
A. Positive social interactions
1. Students are encouraged to develop sensitivity and respect for group concerns.
2. Students learn social and interpersonal skills necessary to engage and affiliate.
3. Students learn social rules and norms necessary to interact with group members.
B. Cooperation/teamwork
1. Students are taught that group goals take priority over individual needs.
2. Students learn the importance of personal skills/knowledge to contribute to group success.
C. Participation
1. Students participate in tasks that emphasize the role of individual involvement in reaching group goals.
2. Students participate in tasks that emphasize the role of group involvement in setting and meeting personal goals.
D. Respect for others
1. Students learn to respect the rights of others.
2. Students learn to acknowledge the role of authority figures in social settings.

Social responsibility as a value orientation is seen as more than discipline or class management, although these may represent part of its manifestation. Teachers devote significant amounts of time teaching students to behave and act responsibly. Reinterpretations of research (Ennis, in press; Ennis, Ross, & Chen, 1992) using definitions of social responsibility rather than social reconstruction lead to a more consistent theory-practice match. Domain specifications for the social responsibility orientation, provided in Table 6, include positive social interactions, teamwork/ cooperation, participation, and respect for others. The social responsibility value orientation was hypothesized to be more consistent with the stated goals of teachers with a high priority for social curriculum than the social reconstruction perspective. University pedagogists and public school physical educators rated items that reflected both the social reconstruction and social responsibility orientations. Both the social reconstruction and the social responsibility components of the domain were tested to provide additional evidence to support or reject their inclusion in the revised VOI.

Item Development

Results of the content analyses were used to develop and revise VOI items. Ethnographic data (e.g., Ennis, Ross, & Chen, 1992) from field notes, interviews, and school documents were used as a guide when developing the domains. When possible, direct quotations from physical educators formed the basic sentence structure for the items. Efforts were made to reflect the intent of teacher statements within the item structure. Items were written to reflect the theoretical and practical interpretations of each component of the domain. Item stems were standardized to read "I teach," "I encourage," "I plan," "I discuss," and "I require" to reflect the teachers' conceptualizations of the teaching-learning process. The item pool for the social domain included items for both the SREC and SRESP categories. At the completion of the item development process, 115 theoretically based items formed the new item pool. Approximately 23 items were written in each domain or orientation. A summary of item origin is reported in Table 7. Of the 115 items, 3 original VOI items (2.6%) remained unchanged, 37 items (32.2%) received minor wording changes for clarification and item stem standardization, and 75 new items (65.2%) were written (see Note 2).

Table 7. Summary of item development

Revision	***n***	**%**
Theoretically based items		
Items unchanged from original VOI	3	2.0
Minor wording changes to original VOI items	37	24.6
New items	75	50.0
Total	*115*	*76.6*
Foil or confederate items		
New items	35	23.3
Total items developed	*150*	*100.0*

Note. VOI = Value Orientation Inventory.

In addition, 35 items were written as foils or confederate items. These items were written to reflect misconceptions about each value orientation. For instance, the foil, "I use students' suggestions so they will enjoy class," was placed in the self-actualization domain. It implies that

teachers use student suggestions to enhance student enjoyment and the entertainment value of the class and not because it will increase student learning based on enhanced content relevance. Item foils were placed randomly with theoretically based items as a test of item design and rating processes. A total of 150 items resulted from the item development process (see Table 7). Items were then sent to physical education professionals to rate the consistency of the item with the domain sentence.

Content Representativeness of VOI items

Subjects

University pedagogists and physical education teachers *(N*= 298) evaluated each item's content relevance and representativeness. The university pedagogists (*n* = 140) represented individuals with curricular and instructional interests in elementary, middle, and secondary physical education. Each was currently involved in preparing and supervising preservice teachers. Approximately 63% had evaluated the original items (Ennis & Hooper, 1988). Half of those in the university sample had attended the National Association for Sport and Physical Education's Critical Crossroads Conference on Secondary Physical Education held in December, 1991, while the remainder indicated an interest in children's physical education and teacher education. The school-based physical educators (*n* = 158) taught elementary (*n* = 46), middle (*n* = 55), and high school (*n* = 57) students. They were selected randomly from physical educators who had attended AAHPERD-sponsored conferences in 1991 and were considered to be active professionals. Respondents were informed of the research purpose and the specific ways their responses would be used.

Data Collection

Rating forms were developed to evaluate the extent to which each item represented its corresponding domain sentence. Respondents rated item consistency using a 5-point scale (5 = *very consistent with the domain sentence;* 1 = *not consistent*). Because a large number of items (*K*= 150) were rated, items were placed randomly on four alternate forms (Forms A-D). Each form contained 60 items, with an equal number representing each domain. Half were common to all forms, while the remaining 30 items were unique to each form. In other words, 30 of the 150 items were sent to all respondents (*N* = 298), while the remaining 120 were randomly assigned to one of four alternate forms. Each form was sent to 74 subjects. Each domain sentence and its corresponding items (both theoretically based and foils) were randomly assigned and presented on a separate page to minimize confusion. Forms were assigned randomly to each respondent. In addition to item rating, respondents were asked to comment on item relevance and wording by writing directly on the form. They were encouraged to provide a rationale for the rating, raise questions, or identify inconsistencies, thus providing additional information to assess the item's content relevance.

Data Analysis

Ratings were analyzed descriptively. Items with means > 4.0 on the 5-point scale were considered acceptable. The 4.0 criterion was selected as a rigorous test of item consistency. Chi-

square analyses were used to examine patterns in the responses across group (university/public school), sex, and rating form (A-D). Respondent comments written on the rating forms were categorized and analyzed using constant comparison (Glaser & Strauss, 1967).

Results

Respondents returned 77.5% (231) of the rating forms. A summary of respondent demographics is reported in Table 8. Respondents were primarily female, Caucasian, and taught in university programs. Additional evidence of construct validity was provided through the examination of patterns in the responses. There were no significant differences by sex [χ^2 (1, N= 223) 1.0, p> .05] or rating form [χ^2 (3, N= 231) = 4.14, p> .05]. There was a significant difference by teaching level [χ^2 (1, N= 209) 12.17, p < .01]. This was identified within both the LP [χ^2 (4, N = 209) 9.23, p < .05] and the DM [χ^2 (4, N = 209) = 6.09, p < .05] domains. Differences were noted within Rating Categories 4 and 5. University pedagogists rated items more conservatively with fewer *very consistent* ratings. However, because the criterion was 4.0, this difference had little effect on item inclusion with the exception of six items discussed below.

Table 8. Demographic data for respondents

Category	*n* (*N* = 231)	%	% responding
Group			
University (*n* = 140)[a]	127	55.0	90.7
Public school (*n* – 158)	104	45.0	65.8
Sex			
Female (*n* = 190)	144	62.3	75.8
Male (*n* = 108)	87	37.7	80.5
Ethnicity			
Caucasian (*n* = 271)	216	93.5	79.7
African-American (*n* = 15)	9	3.9	6.0
Hispanic (nonwhite) (*n* = 12)	6	2.6	5.0
Alternate rating forms			
Form A (*f* = 75)[b]	57	24.7	76.0
Form B (*f* = 75)	62	26.8	82.6
Form C (*f* = 74)	56	24.2	75.7
Form D (*f* = 74)	56	24.2	75.7

[a]Number in original sample.
[b]Number of forms sent to respondents.

Respondents rated 80.9% (93) of the theoretically based items acceptable for inclusion in the revised VOI. Within the DM orientation, 87.5% of the items were rated > 4.0, while 81.8% of the LP items were acceptable. Approximately 77% of the SA, 88% of the EI, and 68.2% of the social items met the criterion. This research examined items separately within the SREC and SRESP categories of the social domain. All items (k = 11) within the SRESP categories met the criterion (M = 4.6, SD= .12), while 6 of the 11 items in the SREC focus did not (M = 4.0, SD= .47). This difference suggested that many physical educators at both the university and public school level did not perceive social reconstruction components to be consistent with the social domain orientation. This finding added strength to the decision to reconceptualize the social domain orientation within the social responsibility perspective. Social responsibility items meeting the criterion emphasized the goals of teamwork, cooperation, respect, and positive group interactions.

When the data were disaggregated by university and public school groups, six items with means > 4.0 received group ratings that were significantly different. Four items were rated > 4.0 by university respondents, while public school respondents rated them < 4.0. For example, the LP item, "I teach students how to break down movement, skill, and fitness tasks to emphasize the most critical components for learning," received means of 4.7 *(SD*= .70) from university pedagogists and 3.7 *(SD*= 1.15) from public school teachers. Although the overall *M* of 4.26 made it eligible for inclusion in the final item pool, it was deleted because of the disagreement. Two items were rated > 4.0 by public school teachers but did not meet the criterion for university raters. One EI item, "I teach students about heart rate and pacing so they can monitor their own performance in the future," received means of 3.62 *(SD* = 1.26) by university respondents and 4.63 *(SD*= .88) by public school teachers. These six items were deleted from further consideration based on these differences. Thirty-five item foils were randomly placed among the theoretically based items. Of these, 32 (91.4%) did not meet the criterion.

Three foils received ratings > 4.0 by both university and public school groups. They were added to the item pool but flagged for further testing.

Respondents' Comments

Respondents included 577 comments (Form A= 125, Form B = 125, Form C = 127, Form D = 200) on the rating forms regarding item relevance or suggestions for rewording, deleting, or accepting items. Of the 231 respondents, 48.5% commented about one or more items. Of these, 42.0% were public school teachers. Of the 127 university pedagogists responding, 46.4% included comments. Comments were categorized into four groups: rewording (63.2%), clarification (25.4%), relevance within the school setting (8.7%), and representative of the domain (2.9%). Within the rewording category, respondents suggested alternative phrasing for items. They identified potential conflicts or inconsistencies that caused confusion. When analyzing the comments in the rewording category, minor changes were made to 16 items.

Clarification comments were phrased in the form of a question (e.g., Do you mean...?). They typically included the respondents' impression of the item as currently phrased. When analyzing these comments, no change was made when the respondents' conceptualization was consistent with the item intent. Revisions were made when several respondents identified the same concern. Five items were revised based on clarification comments. The third category, relevance within the school setting, included comments about items perceived to be inappropriate in the school context due to limitations in time, scheduling, or the presence of single-sex classes. In each case, other comments about the items were positive, suggesting that in some situations it was possible to implement the curricular goal.
Therefore, no revisions were made to items based on comments within this category. Responses in the category, representative of the domain, centered on the ecological integration domain. Because this value orientation represents a balance or integration of subject matter, student, and social goals, items frequently referred to components also found in other orientations. The EI item focus emphasizes a blend of the three without giving preference to one over the others. For instance, the item "I teach students to find a balance between their personal abilities and the goals of the team" received a mean of 4.39 (*SD*= .80), suggesting that most respondents

perceived the item to represent the domain sentence. Two items were flagged for further testing based on domain placement concerns.

Forty-one percent of the comments were attracted by foil items. One item, "I organize teams composed of both boys and girls so that the boys will learn to respect the girls," received comments from 46 respondents ($M = 3.40$, $SD = 1.38$) and was not included in the item pool. This item attracted comments in all four categories described above. Four items with means > 4.0 were not placed in the final item pool based on comments from respondents. In addition, respondents were critical of the domain sentence component that promoted the social reconstruction concept of student as a change agent. This reinforced concerns about this category and provided additional impetus for changing the theoretical framework.

Discussion

This research was conducted to provide evidence of item content relevance and representativeness for the revised VOI items and to examine counterhypotheses to replace the social reconstruction domain with that of social responsibility. Evidence of item content representativeness was examined by comparing the item with the domain sentence for each value orientation. Most items were found to be consistent, with some minimal item rewording and clarification based on respondent comments. The relatively high number of acceptable items (81%) was probably related to the systematic synthesis of the theoretical curricular literature with practitioner perspectives collected in school-based physical education research.

The systematic process of organizing and categorizing observation, interview, and inventory data over several research studies provided a stronger foundation for item writing and revision than was available when the original VOI was developed (Ennis & Hooper, 1988). The use of physical educators' terms, expressions, and phrases appeared to contribute to content relevance. Comments from university and public school teachers were generally positive and suggested that the items represented the implementation of value orientations as curriculum-in-context. The revision of the social domain to emphasize the social responsibility orientation suggests that teachers attracted to the social category should find a more consistent item fit with their educational value orientation.

The social responsibility orientation can be documented theoretically within the curricular and educational literature and may be especially attractive to physical educators working in urban school districts (Ennis, Ross, & Chen, 1992). Additional research is necessary to examine characteristics and goals of teachers who place a high priority on the social responsibility orientation. Clearly the change from the social reconstruction to the social responsibility orientation represents a major revision in the theoretical framework and will require extensive research to provide evidence of its validity.

This study represents one part of a research program to provide evidence of construct validity and estimates of reliability for a revision of the value orientation domains and the VOI. Research is currently being conducted to examine item reliability in each domain within a forced-choice inventory format. This format is particularly useful for instruments designed to examine questions of relative worth in curricular decision making. Value orientation research can increase

our understanding of physical educators' rationales for curricular decisions within the school setting. Because it is based on a framework that synthesizes theory and school-based research, it can be useful in explaining the influence of belief systems on educational decisions in the planning-teaching process. Studies of curriculum-in-context have the potential to increase our understanding of movement, sport, and fitness curricula by examining connections between teachers' educational values and the extent to which their students learn in physical education.

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Notes

1. Jewett and Bain (1985) originally termed the ecological category, *ecological validity.* This was changed to *ecological integration* in response to reviewer comments on the Jewett and Ennis (1990) article. The new term minimizes confusion with the psychometric construct of validity while emphasizing the integration of subject matter, student, and social curricular goals.

2. A list of items is available from the authors.