The Journal of Extension

Volume 44 | Number 4 Article 10

8-1-2006

Avoiding the "Rut" in Program Development and Delivery: Improving Our Understanding of Learning Style Preferences

Gregory A. Davis
The Ohio State University, davis.1081@osu.edu

Recommended Citation

Davis, G. A. (2006). Avoiding the "Rut" in Program Development and Delivery: Improving Our Understanding of Learning Style Preferences. *The Journal of Extension, 44*(4), Article 10.
https://tigerprints.clemson.edu/joe/vol44/iss4/10

This Research in Brief is brought to you for free and open access by the Conferences at TigerPrints. It has been accepted for inclusion in The Journal of Extension by an authorized editor of TigerPrints. For more information, please contact kokeefe@clemson.edu.

August 2006 // Volume 44 // Number 4 // Research in Brief // 4RIB1

Avoiding the "Rut" in Program Development and Delivery: Improving Our Understanding of Learning Style Preferences

Abstract
A better understanding of learning style preferences can help us to avoid developing and delivering our educational programs from the perspective of our preferred learning style alone. A study of community development educators found most preferred to learn in a social context; take energy from the surrounding environment; gather information using the senses; make sense of this information using logic and objectivity; and orient themselves in an ordered, structured manner. Results have implications for planners of professional development activities, for administrators charged with forming and managing programming teams, and for Extension professionals motivated to better meet clientele needs.

Gregory A. Davis
Extension Specialist
The Ohio State University
Columbus, Ohio 43210
davis.1081@osu.edu

Extension and its clientele base continue to change. Changes in the profession, our clientele, and recent technological advances require Extension educators to re-think traditional programming delivery methods and formats. Because we tend to teach the way we prefer to learn (Dunn & Dunn, 1979; Gregorc, 1979; Witkin, 1973) and because we learn best when instructional style matches our preferred style of learning, understanding how people prefer to gather and react to information, or *learn*, is a critical component in the development and delivery of effective educational programming.

Purpose and Objectives

Our educational interactions are enriched when we know about ourselves as teachers and our audience as individual learners (Hoover & Connor, 2001). To better understand ourselves and our audience, we have studied learning style preferences of educators with traditional Extension backgrounds in agriculture and natural resources (Hudson, 1997; Sparks, 2001), 4-H youth development (Hudson, 1997; Rollins & Yoder, 1993), and family and consumer sciences (Hudson, 1997). We have also studied learning style preferences of Extension volunteers (Hoover & Connor, 2001) and Extension clientele (Iddings & Apps, 1992; Rollins & Scholl, 1992).

However, we have yet to study the learning style preferences of educators with less traditional Extension backgrounds in community development. In an effort to help Extension community development professionals re-think the way they design and deliver educational programming, preferred learning styles of Extension community development professionals in Ohio were examined in 2004.

Methodology

Community development Extension educators attending state program meetings (N=103) conducted Spring 2004 constituted the accessible population. While study results were generalized only to the 67 professionals providing useable data, a sampling of non-respondents revealed that non-respondent characteristics (age, gender, length of tenure, and educational attainment) did not vary significantly from the accessible population.

Learning style preference was measured by Herman Witkin's Group Embedded Figures Test (GEFT)

and Champagne and Hogan's Personal Style Inventory (PSI), a variation of the Myers-Briggs Type Indicator. Both instruments are designed to be easily administered in group settings. Both were used in this study to explore the presence of some level of association (Holsworth, 1985; Canning, 1983 in DiTiberio, 1996), which is the focus of a second article.

Witkin's GEFT describes learning style in terms of field dependence/field independence, which characterizes how one is oriented to the surrounding field. The GEFT is a standardized instrument designed to measure learning style preference on a bipolar continuum that is value neutral and does not have a clear high or low end (Witkin, Oltman, Raskin, & Karp, 1971).

Field-*dependent* individuals typically learn best in a social context and prefer group studies, projects, and work. Such individuals prefer a "spectator approach" to learning that is typically structured and organized by instructor-defined goals (Cano, 1993; Garger & Guild, 1984; Witkin, Moore, Oltman, Goodenough, Friedman, Owen, & Raskin, 1977).

Field-*independent* individuals typically learn best in an independent context and prefer individual studies, projects, and work. Such individuals prefer competition, choice of activities, and ability to design learning goals and directions themselves (Cano, 1993; Garger & Guild, 1984; Witkin et al., 1977).

The national mean score for the GEFT is 11.4. Field-independent learning style preferences range above a score of 11.4. Field-dependent learning style preferences range below a score of 11.4 (Witkin et al., 1971).

Witkin reported a GEFT reliability coefficient of .82. Correlation coefficients for instrument validity were .82 and .79 involving male and female university students, respectively (Witkin et al., 1971).

The PSI was developed by Hogan and Champagne (1979) and served as an abbreviated version of the popular Myers-Briggs Type Indicator (MBTI), generating preference scores for how people prefer to gather information and relate to their surrounding environment. Similar to the MBTI, the PSI consists of four dichotomous scales for attitude, perception, judgment, and function.

One's attitudes toward life involve "a readiness of the psyche to act or react in a certain way" (Jung, 1976, p. 414). One provides energy to objects and people of the surrounding environment, sharing spontaneous thoughts, defined as extraverted (E), or one takes energy and interest from the surrounding environment and contemplates thoughts, described as introverted (I).

The manner in which one becomes "aware of things, people, events, or ideas" (Myers, McCaulley, Quenk, & Hammer, 1998, p. 12) is described in our preference toward sensing-intuition (S-N). Information is gathered using sight, sound, taste, and smell, described as sensing (S), or through use of one's unconscious or gut feelings, described as intuition (N).

Individuals focus their mental activity or react to the information that is sensed or felt in different ways (Myers et al., p. 13). One makes sense of this information or perceptions through the use of logic and objectivity, described as thinking (T). The opposite type of reaction involves personal reflection and consideration for others, described as feeling (F).

One's orientations toward the outer world are described in terms of preferences toward structure or spontaneity. One whose orientation toward life is characteristically ordered, structured, and decisive is considered to be a judging type, (J). Conversely, an orientation toward life that is "open, curious, and interested" is described as a perceptive attitude, (P) (Myers et al., p. 14).

Reported PSI reliability coefficients were .60, .74, .66, and .61 for the attitude (E-I), perceiving function (S-N), judging function (T-F), and orientation (J-P) dimensions, respectively. Hogan and Champagne (1980) reported Phi correlations of .78, .55, .90, and .71 respectively, for the four dichotomies measured by the PSI.

Results

Over half (55%) of the study population was male. Age ranged from 24 to 66, with a mean age of 45 years. Approximately 60% of subjects had 6-20 years experience. Subjects with less than 6 years of experience comprised 30% of the population. More than 60% possessed a graduate or doctoral degree. Almost 30% of those studied had an academic background in business or economics. Over one fourth (28%) had academic training in education or the social sciences. Nearly one fourth (24 %) had an academic background in agriculture or natural resources.

GEFT Scores

More (57%) Extension community development professionals in Ohio indicated a preference for a field dependent learning style than a field independent learning style. These findings were consistent with previous research using the GEFT to describe Extension professionals (Baker et al., 1997 in Hoover and Connor, 2001). The overall GEFT mean score was 10.4 compared to the national mean of 11.4. The standard deviation was 5.29. The mode was 18.

Table 1.
Group Embedded Figures Test Scores for Community Development Extension

Educators in Ohio

GEFT	Frequency	Percent
Field Dependent		
1	1	1.5
2	2	3.0
3	5	7.5
4	1	1.5
5	7	10.4
6	4	6.0
7	2	3.0
8	6	9.0
9	5	7.5
10	4	6.0
11	1	1.5
Field Independent		
12	4	6.0
13	1	1.5
14	4	6.0
15	3	4.5
16	3	4.5
17	6	9.0
18	8	11.9

PSI Scores

Consistent with research involving university instructors (Lawrence, 1993), nearly one in four Extension community development professionals in Ohio could be described as quiet, serious, thorough, dependable, practical, matter of fact, realistic, logical, focused, and organized--characteristics of the ISTJ type combination (Myers et al., 1998).

Table 2.
Type Opposite Preferences of Community Development Extension Educators in Ohio

MBTI Combination	**Frequency**	**Percent**
ISTJ	16	23.9
ISFJ	7	10.4
INFJ	2	3.0
INTJ	8	11.9
ISTP	3	4.5
ISFP	0	0.0
INFP	3	4.5
INTP	3	4.5
ESTP	3	4.5
ESFP	1	1.5
ENFP	3	4.5
ENTP	0	0.0
ESTJ	6	9.0
ESFJ	3	4.5
ENFJ	6	9.0
ENTJ	3	4.5
TOTAL	67	100.0

Conclusions and Implications

The Extension educators studied typically learn from a global perspective framed by personal surroundings. They make broad, general distinctions among concepts and typically prefer interacting and working with others in practical, useful activities. They value social reinforcement

and the opinions of others and typically prefer focus, structure, and organization to their environment.

Knowing the preferences of Extension community development program professionals can be useful in organizing and implementing professional development activities. For example, to make an annual program retreat meaningful to participants and worthwhile to the organization, organizers should ensure the event's agenda takes into account the different learning style preferences of the participants. Participants who prefer a structured, organized environment will prefer an agenda with clearly stated objectives and opportunities for working collaboratively. Such individuals will be more apt to offer their personal opinions and experiences to the group when they feel as though the retreat environment is conducive to such exchanges.

Conversely, retreat participants with a learning style preference characterized by a desire to work independently, a desire to "cut the fluff and get the work done," and an indifference to the feelings of others would prefer there be no annual program retreat at all. To attempt to meet the needs of these participants, retreat organizers would be wise to involve participants in the development of the program agenda, ensure a sufficient amount of time throughout the event for "individual brainstorming" and permit an occasional deviation in the retreat agenda in order to allow for the sharing of solutions to problems.

Knowing something about the preferences of Extension community development professionals can also be useful in organizing programming teams. It is relatively easy to assemble teams of individuals who think, talk, teach, and learn alike. Such teams operate in relative harmony developing, implementing, and evaluating educational programming. But such like-minded teams cannot fully reach their potential.

Understanding differences in learning style preference enables the development of dynamic programmatic teams that can take into account the differences in clientele learning styles. Such teams can also begin to "think outside the box" and can benefit substantially from diversity of thought. Programming quality can be improved, teaching and learning can be improved, and the organization overall can be strengthened as a result. Truly effective program teams have taken their individual differences into account. Those that have yet to be formed require program leaders and administrators to recognize the learning style differences among professionals as they lead team formation efforts.

If community development educators typically prefer engaging in practical activities with others in a structured, focused learning environment, they would tend to prefer to develop and deliver practical educational programs that involved clientele in a structured, focused learning environment as well. When program participants' learning style preferences are similar, this teaching approach can lead to effective learning.

However, for those program participants who prefer to learn differently, this teaching style can be problematic. If for nothing other than to better meet the needs of our program participants, as educators we need to recognize that we have preferred learning (and teaching) styles and seriously consider what we can do to avoid getting stuck in the comfortable "rut" of developing and delivering our educational programs from the perspective of our preferred learning style alone.

Extension can no longer operate from an educational paradigm that is based upon simply providing information to clientele. Today's information-based society dictates that we add value to information if Extension is to survive. Truly and genuinely connecting with our learners can provide Extension a competitive advantage--the time to improve our understanding of differences in learning style preference is now.

References

Cano, J. (1993). Learning styles. In E. Norland, J. Heimlich, B. Seevers, K. Smith, & Jones (Eds.), *Understanding and teaching the adult learner.* San Francisco: Jossey-Bass Publishers.

DiTiberio, J. K. (1996). *Education, learning styles, and cognitive styles.* In A.L. Hammer (Ed.), *MBTI applications: A decade of research on the Myers-Briggs Type Indicator.* Palo Alto, CA: Consulting Psychologists Press.

Dunn, R. S., & Dunn, K. J. (1979). Learning styles/teaching styles: Should they . . . can they . . . be matched? *Educational Leadership, 36,* 238-244.

Garger, S., & Guild, P. (1984). Learning styles: The crucial differences. *Curriculum Review,* 9-12.

Gregorc, A. F. (1979). Learning/teaching styles: Potent forces behind them. *Educational Leadership, 36,* 234-237.

Hogan, C. & Champagne, D. W. (1980). *Annual handbook for group facilitators*, J. William Pfeifzer and John E. Jones, Editors, San Diego, California: University Associates, Inc.

Hogan, C. & Champagne, D. W. (1979). Supervisory and management skills: A competency based training program for middle managers of educational systems. Privately published, 1979.

Hoover, T, & Connor, N. J. (2001). Preferred learning styles of Florida Association for Family and Community Education Volunteers: Implications for professional development. *Journal of Extension* [On-line], 39(3). Available at: http://www.joe.org/joe/2001june/a3.html

Hudson, M. A. (1997). The relationship between learning style and selected characteristics of Northeast District Ohio State University Extension Agents. Unpublished masters thesis, The Ohio State University, Columbus.

Iddings, R. K., & Apps, J. W. (1992). Learning preferences and farm computer use. *Journal of Extension* [On-line], 30(3). Available at: http://www.joe.org/joe/1992fall/a4.html

Jung, C. G. (1976). Psychological types. Princeton University Press, Princeton, NJ.

Lawrence, G. (1984). A synthesis of learning style research involving MBTI. *Journal of Psychological Type, 8*, 2-15.

Myers, I. B., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998). *Manual: A guide to the development and use of the Myers-Briggs Type Indicator*. Palo Alto, CA: Consulting Psychologists Press.

Rollins, T. J, & Scholl, J. F. (1992). Learning styles of 4-H members. *Journal of Extension* [On-line], 30(1). Available at: http://www.joe.org/joe/1992spring/rb1.html

Rollins, T. J. & Yoder, E. P. (1993). Agents' learning styles. *Journal of Extension* [On-line], 31(2). Available at: http://www.joe.org/joe/1993summer/rb1.html

Saunders, K., & Gallagher, T. (2003). Decision-making styles: An exploration of preferences of on- and off-campus faculty. *Journal of Extension* [On-line], 41(3). Available at: http://www.joe.org/joe/2003june/a1.shtml

Sparks, B. R. (2001). The relationship between learning style and selected characteristics of West Virginia University Agricultural and Natural Resources Extension Agents. Unpublished masters thesis, The Ohio State University, Columbus.

Witkin, H. A. (1973). *The role of cognitive styles in academic performance and in teacher-student relations.* Princeton, NJ: Educational Testing Service.

Witkin, H. A., Moore, C. A., Oltman, P. K., Goodenough, D. R., Friedman, F., Owen, D. R., & Raskin, E. (1977). Role of the field-dependent and field-independent cognitive styles in academic evolution: A longitudinal study. *Journal of Educational Psychology, 60,* 327-332.

Witkin, H. A., Oltman, P. K., Raskin, E., & Karp, S. A. (1971). *Group embedded figures test manual.* Palo Alto, CA: Consulting Psychology Press.