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Winter 1980

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Learning Styles: A Tool for Faculty Development

DANIEL W. WHEELER

Research Base

Learning style is a broadly used term which has its origin in work by Thelen (1954):

“The most significant quality of a good teacher is that he is able to meet his own needs through playing the roles required to make activities educative for students. Learning by students is complicated by the fact that different kinds of learning require different roles and that learning experience is complex, involving thoughts, feelings, actions, emotions and desires.”

Grasha and Reichmann (1975) developed a questionnaire to assess student learning style. This instrument allows the student to identify preferred styles described as Independent, Dependent, Avoidant, Competitive, Collaborative and Participant. This material has been used in various faculty development programs.

Kolb (1976, 1977) developed a self-report instrument, The Learning Style Inventory, to measure perceived learning styles. The instrument uses as its basis the experiential learning model with its origin in the work of Jung (1923) and Lewin (1945).

The Learning Style Inventory has been used to assess individual preference for the four identified learning abilities as shown in Figure 1. Concrete experiences (CE), reflective observation on these experiences (RO), abstract conceptualization of these experiences (AC), and testing these concepts in new situations (AE). This learning cycle involves the use of all four of the styles, but research has shown that individuals have tendencies to prefer one or more of the dimensions.

Gregorc (1979) defines learning style as "the personally preferred way of dealing with information and experience for learning that crosses content areas—your style is you in action in all aspects of life." As used in this article, learning style refers to the preferred way of acquiring information.

Gregorc Material: The Validity Question

Preliminary studies with both undergraduate and graduate education students at the University of Nebraska at Omaha have indicated a high correlation between the Kolb instrument and the Gregorc adaptation. Both appear to measure much the same phenomenon and correlate between similar items from .71 to .84.

For those particularly interested in classical studies of validity, Kolb (1976) does present some normative data, and others may want to create a larger data base to examine possibilities for predicting student success or, possibly, predictions for learning successes associated with faculty development for both versions. However, this effort will address tendencies and observed relationships based upon Gregorc's work and responses from classroom and workshop participants.

Learning Style and the Environment

There has been considerable discussion in the literature about the effect the environment has on preferred learning styles. The majority of this work, by Plovnick (1975) and Wunderlich & Gjerde (1978), has included studies of medical students. In these studies, many medical students seemed to enter medical school with a strong abstract sequential orientation which appeared to be the original environmental expectation. However, as time in medical school progressed, the environment seemed to demand a more concrete orientation. The lone exceptions were in the areas of surgical and private practice medicine, in which the learning style remained stable throughout medical school.

This research emphasizes that students are capable, at least the ones who remain in medical school, of using various styles depending upon environmental expectations. Thus, even though learning styles do have a strong personal style basis, there are strong effects in the environment which influence the use of learning orientations. For faculty development, the lesson appears to be that there should

always be appeals to natural learning styles, but that the environment can also be structured to influence the use and development of alternate styles.

APPLICATION TO FACULTY DEVELOPMENT

Table 1 represents some learning and style characteristics which can be useful in making environments and materials more geared to faculty primary learning preferences. The table provides some ideas on how to assess and help faculty assess their preferred orientations. In addition to using the learning style inventory instrument, observations can be made on preference or dominance of: style of dress, presentation mode, environment, response to authority, mode of operation in a group, as well as response to feedback. A reading of all of these factors should provide a solid indication of primary learning styles which will allow an appeal to strength(s) and subsequent ease of a faculty member entertaining information.

An Individual Description

A specific example would be Professor A, who demonstrates the following in style and approach to learning:

wears "gray flannel" attire; neatly dressed;

has "the answer" to most situations;

makes data fit into conceptual models;

indicates any authority as the "top person" in that particular academic discipline—not local colleagues;

constantly develops models and designs;

can read about an experience and enjoy it vicariously—does not have to actually "do it."

This information would suggest a primary orientation for Professor A of abstract sequential. To get Professor A involved in faculty development, assuming any degree of openness to the idea, would require the use of materials and teaching modes described in Table 2. Successful practices would need to emphasize written materials, outside authorities, and studies that emphasize the conceptual aspects of faculty development.

To stress, at least in the initial phases, such activities as group

TABLE 1
STYLISTIC CHARACTERISTICS OF DOMINANT LEARNING STYLES

Characteristics	CS Concrete Sequential	AR Abstract Random	AS Abstract Sequential	CR Concrete Random
Dress	meticulously dressed; color coordinated; perfectly matched	bright colors; not necessarily "coordinated"	neatly dressed but more in grays or moderate colors	variable dress
Sensing	uses five senses; direct experience essential	seems to have a "6th sense" with people; tuned in to body language, color and mood	uses conceptual pictures—models, charts, and words—to decode	uses insight; good at suggesting alternatives
Answers	sees situations in blacks or whites	sees situations in grays; feels the situation	sees "the answer" to situations; makes appeals to outside authority	sees multiple answers to situations
Payoffs	desires direct, concrete payoffs	gets payoff from the group experience and personal experience within the group	payoff involves a theoretical, evaluative orientation (how well does the situation meet the model)	payoff involves problem-solving and finding different solutions
Feedback Expectations	expects feedback on what they're doing "wrong"; often don't give feedback if a person is doing what's expected	expects approval feedback; uses "rose-colored glasses"; much non-verbal feedback	expects corrective feedback from "significant others"; expects excellent performance	expects various feedback—both corrective and approval oriented

Direction	expects and follows step-by-step direction	desires a great latitude of freedom within overall guidelines; doesn't like emphasis on sequence	follows logical overarching guidelines and procedures	follows overall guidelines but expects consideration of alternatives within those guidelines
Relationship to Authority	accepts official authority	authority is person-centered and in the authenticity of the situation	referent authority (e.g. the biggest name in the field) rather than legal authority	accepts many different authorities if they are assumed to be legitimate
Environment	low tolerance for distraction in the environment	enjoys a "busy" environment (lots of things going on)	low tolerance for distractions in the environment	enjoys an environment with many stimuli
Overall Orientation	sees discrete parts	sees a whole	sees models or designs with logical parts	sees a whole with overlapping parts

Adapted from Tony Gregord
(University of Connecticut)

TABLE 2
MATERIALS AND ENVIRONMENTS THAT APPEAL TO VARIOUS LEARNING STYLES

<i>Especially for CS Use</i>	<i>Especially for AR Use</i>
Programmed instruction	Movies, filmstrips and records
"Show and Tell" Workshops	Group discussion
"Nuts and Bolts" Workshops	Television
Field trips	Short readings or lectures which lead into discussion of the material presented
Computer-assisted instruction	Bright-colored, "busy" environment
Use of study carrels and quiet environment	Materials that have a creative design through color or printing
Use of handbooks that give step-by-step procedures	
<i>Especially for AS Use</i>	<i>Especially for CR Use</i>
Extensive reading assignments	Games and simulations
Lectures	Independent projects
Instructional audio tapes	Problem-solving activities
Slides	Short presentations
Use of study carrels or direct teacher-learner situation (without interference of others)	Rich environment—people and materials
Materials that emphasize academic legitimacy of faculty development	Materials that have "eye-catching" colors and design

exploration, "nuts and bolts" workshops or a film would not be helpful to getting Professor A engaged. Typical responses from Professor A to group discussions or problem-solving would be, "These people don't know any more than I do." "This is just sharing ignorance." "Who is the most noted authority and what does that person say?" Typical responses to "how to" workshops would be, "This is so tedious." "How does this fit together with such and such?" "What model are you using?"

At a later date, Professor A may want to further develop other learning styles, but that process takes time to develop and the initial needs for a particular way of acquiring information have to be met first. Table 2 provides additional descriptive information denoting the other three learning styles.

Personal Interactions

In most, if not all personal relationships, there are times of conflict. One of the bases of this conflict is personal learning style, since the dominance of a particular mode indicates a preference for how one acquires information, and it may not be another person's way. An example is a situation of a person with a dominant abstract learning style discussing some idea or issue with a person operating from a concrete emphasis. The abstract orientation would suggest

generalizations and models while the concrete orientation would seek examples and specific situations. Unless the two people using the two different forms recognize that these are two valid but distinctly different ways of acquiring information, without an emphasis on one being right and one wrong, they will have difficulty finding common ground.

Similar misunderstandings become apparent between sequential and random orientations. A sequential mode would indicate that deductive step-by-step sequences are reality while a random orientation would emphasize the inductive and personally-influenced pattern or non-patterned behavior.

Awareness of these potential conflicts with preferred learning styles can allow for clarifications and an appreciation of how to work toward common understandings. This awareness can also help people in faculty development approach a colleague in a manner that is complementary to the faculty members' individually preferred learning styles rather than continually creating difficulties by emphasizing non-primary styles.

Committee Work

Much of the work in higher education is done, or at least attempted, by committees. North (1980) suggests that for meetings to be productive, they should be structured according to purpose and various members should be assigned to be responsible for specific aspects of the meeting. Specifically, each meeting would have a chair, a results person, and a process person.

Choosing members with specific, predominant learning styles could enhance these three roles. Members with a strong sequential orientation could aid in keeping the committee focused on tasks while others with more of a random orientation would be appropriate for attending to process and suggesting alternatives.

For these learning styles to be useful to committees, a norm that all styles are legitimate and beneficial would be necessary. In far too many committees, a segment believes that if content tasks are not being accomplished at every stage then nothing is happening. Often the solution seems to be to find a task master who can push items through and not worry about how it is done, or the other extreme of not defining any tasks. Acceptance of the various roles people have in the committee and an understanding of the kind of style orientation needed to perform these roles can be a growth experience for

all members of the committee and can contribute toward a more productive group, both in content and process.

Coursework and Students

Much of the work in faculty development affects, or at least should affect, students. Considerable energy is expended in working with faculty on course evaluations and course development. Teachers who seriously consider the concept of learning style cannot avoid reorienting their coursework. As Table 2 indicates, lecture may be effective for students with a predominant abstract sequential learning style, but for other students it presents a basic discrepancy with their learning preference.

There are the students and adults that Gregorc (1979a and 1979b) describes as "perfect diamonds," that is, all four of their learning styles are equally effective, but the usual pattern observed is for an individual to have one, or possibly two, primary learning styles. Those students with more equalized learning style preferences often are effective learners regardless of the style of the teacher. However, the more usual pattern is for students to have learning orientations not necessarily complimentary with the teacher's presentation mode. Gregorc (1977, 1979a, 1979b) indicates that possibly five percent of the population can be referred to as "perfect diamonds," but the other ninety-five percent have a strong preference for one, or sometimes two, learning styles. This research, if applied to faculty, indicates that professionals in faculty development need to help faculty understand the importance of providing for these differences in their courses and not assuming all their students have the classic abstract, sequential orientation, or a "perfect diamond."

Certainly, students need exposure to various environments which emphasize their development of the use of various learning styles and need aid in, as Cross (1976) suggests, diversifying learning strategies. Highly successful courses do incorporate opportunities for students to use these various ways of acquiring information.

Faculty Development Orientation

During a 1979 POD Conference session, it was suggested by this author that there be an attempt to examine a possible relationship between learning styles and the professional orientation of faculty development professionals. Participants in the workshop were asked

to identify their preferred mode by the Learning Style Inventory and then to indicate their particular faculty development orientation—personal development, instructional development, or organizational development.

Although the data was preliminary and certainly imperfectly collected, there appeared to be a definite relationship between a practiced faculty development orientation and the preferred learning style of the person providing leadership in faculty development. This is shown in Table 3.

TABLE 3
RELATIONSHIP BETWEEN FACULTY DEVELOPMENT ORIENTATION AND LEARNING STYLE PREFERENCE

<i>Faculty Development Orientation</i>	<i>Learning Style Preference</i>
Instructional Development	Abstract Sequential—Concrete Sequential
Personal Development	Abstract Random—Concrete Random
Organizational Development	Abstract Sequential—Abstract Random

In addition to providing personal awareness to each person in faculty development, the connection suggests some particular implications. For example, if a program has a strong personal development orientation, those faculty more interested in instructional development may sense there is no place for them. Conversely, in a basic instructional development orientation, those desiring personal development opportunities may develop a sense of alienation.

There is a suggested relationship by Phillips (1979) between faculty development orientation and the Jung (1923) “personality types.” These “tendencies,” along with some suggested learning style preferences, are summarized in Table 4.

TABLE 4
RELATIONSHIPS AMONG FACULTY DEVELOPMENT ORIENTATION, JUNG’S PERSONALITY TYPES AND LEARNING PREFERENCE

<i>Approach to Faculty Development</i>	<i>Jung’s Types</i>	<i>Learning Style Preference</i>
Personal Development	Feeling Type	Abstract Random
Organizational Development	Intuitive Type	Concrete Random
Instructional Improvement	Sensing Type	Concrete Sequential
Instructional Development	Thinking Type	Abstract Sequential

The intent in diagraming the “Jungian types” and learning styles is to provide some sense of how these styles are a factor in personality “traits” and provide additional data for awareness on how to approach faculty. Every faculty development program should

provide opportunities for these different orientations to be included and for them to express themselves. Different orientations and styles contribute to a richness and acceptance of diversity in faculty development.

CONCLUSION

The learning style materials, particularly as adapted by Gregorc, have a potential for use in faculty development. The concept, when used to generate alternate approaches in how to work with faculty and ways to appeal to the natural learning tendencies of faculty, can legitimize various ways of learning and create new opportunities for growth.

BIBLIOGRAPHY

- Cross, Patricia. *Accent on Learning*. San Francisco: Jossey-Bass, 1976.
- Grasha, Tony and Riechmann, Sheryl. "Student Learning Styles," *Handbook for Faculty Development*. Washington, D.C.: CASCA, 1975, pp. 31-44.
- Gregorc, Anthony. "A New Definition for Individuals." *NASSP Bulletin*, Feb. 1977, pp. 20-26.
- Gregorc, Anthony. *Moving Toward Self-Directed Learning*, in Della-Dora & Blanchard (Eds.). Alexandria, VA: ASCD, 1979.
- Gregorc, Anthony. ASCD Workshop. Lincoln, NE, Nov. 1979.
- Jung, Carl G. *Psychological Types*. London: Pantheon Books, 1923.
- Kolb, D. A. *Learning Style Inventory Technical Manual*. Boston, MA: McBer & Co., 1976.
- Kolb, D. A., Rubin, I., and McIntyre. *Organizational Psychology: An Experiential Approach*, (3rd ed.). Englewood Cliffs, NJ, 1977.
- Lewin, Kurt. *Sociometry*. Research Center for Group Dynamics. 8 (2), 1945, 9.
- North, Joan. "Guidelines and Strategies for Conducting Meetings," *POD Quarterly*, Vol. 2, No. 2, Summer, 1980.
- Phillips, Stephen R., "Programs and Practitioners: We Do What We Are," *POD Quarterly*, Vol. 1, No. 2, Summer, 1979.
- Plovnick, M. "Primary Career Choices and Medical Student Learning Styles," *J. of Medical Education*, 1975, 50, pp. 849-55.
- Thelen, Herbert. *Dynamics of Groups at Work*. Chicago: The University of Chicago Press, 1954.
- Wunderlich, R. and Gjerde, C. "Another Look at Learning Style Inventory and Medical Career Choice," *J. of Medical Education*, 1978, 53, pp. 45-54.