Self-understanding is critical to effective teaching and leadership. This article reviews the importance of self-knowledge as a cornerstone in education programs, then describes a process for developing self-understanding and some of the assessment instruments used in these programs. Finally, the paper summarizes the data provided by 281 students who were enrolled in a preservice undergraduate or graduate program providing some insights into the personalities, learning styles, and beliefs of the participants, and indicating several trends. The data revealed that a person in education would likely be a concrete sequential learner, who holds progressive views, has a personality that is energized by being with people, makes decisions on his or her feelings, likes to get information through details, and likes to do things in steps one at a time. The results suggested several areas for further study, including the need to include people with different styles and beliefs in discussions and decisions; further reflection on what educators believe; and investigations of gender and personality and learning style relationships. (Contains 23 references.) (ND)
Who Are We As Instructional Leaders:  
A Statistical Analysis

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WHO ARE WE AS INSTRUCTIONAL LEADERS:
A STATISTICAL ANALYSIS

Abstract

Self-understanding is critical to effective teaching and leadership. This article discusses a practice used in teacher education programs that promotes this ability. It also discusses an analysis that was done on the data provided by the 281 participants. The information provides some insights into the personalities, learning styles, and beliefs of the participants and suggests the need for further study. The results for the participants suggest that a person in education would likely be a concrete sequential learner, who holds progressive views, and has a personality that is energized by being with people, makes decisions on their feelings, likes to get information through details, and likes to do things in steps one at a time.
WHO ARE WE AS INSTRUCTIONAL LEADERS: A STATISTICAL ANALYSIS

There is a leadership crisis among the many disasters in the American educational system. As a consequence, the 1990's will be known as yet another decade of educational change that lost momentum. A key aspect to effective change is sadly lacking in education. Educators must become leaders who are clearly moving toward a new vision that is deeply centered in self-understanding and knowledge (Sheive, 1987). This kind of transformational leadership is strongly needed (Brandt, 1992, Deal 1990, Covey, 1989, Tichy, 1986, Kanter, 1983, Burns, 1978) and is likely to have a positive effect in schools.

John Gardner (1990) has asserted that all great teachers are leaders. The image of teacher as leader is also shared by Thomas Sergiovanni (1990, 1992). As this image comes to play and flows from the thoughts on transformational leadership proposed by James Burns (1978), it contends that this kind of person is concerned with higher-order needs for esteem, autonomy, and self-actualization. It purports that "leaders and followers are united in pursuit of higher level goals common to both" (Sergiovanni, 1990, p. 23). In order to be effective in this emerging leadership role there is an implicit given that the person has time to be reflective and has a good grasp of themselves as a person. In order for
teachers to become this kind of leader they must understand themselves including their personal beliefs and personality traits.

Based on the need for self-understanding, a promising practice was developed by the primary author and is being used in teacher education programs in Indiana, Washington and New York. This strategy, as discussed in Promising Practices (Cromwell, 1994), attempts to promote self-understanding and is the basis of this article. These self-analysis experiences provide a critical step that has enhanced these programs as they prepare educators to deal with change and restructuring.

In this article, I review the importance of self-knowledge as a cornerstone in education programs. I next describe a process for developing self-understanding and some of the assessment instruments used in these programs. These instruments are designed to promote self-analysis and provide data that is briefly summarized. Finally, I present a profile of the people involved in the programs and a discussion of implications for the future of teacher education.

The Importance of Self-Knowledge to Reform in Education

Reform in schools is not a new idea; in fact, reform is
an item on the agenda that has preoccupied each generation. In the 1990's educators are once again faced with reform, or to use this generation's preferred word, "restructuring." Whatever the word, the need for continued improvement in the performance of educational institutions cannot be denied (Bonstingl, 1992). The support for this need to reform is everywhere. Any person who has seen media reports or been in an inner city school should readily see the needs. As reported on "Primetime," the ABC News show, the need is spreading well outside the inner city and seems to be affecting schools everywhere. One of the teachers on that show was quoted as saying, "We are facing a melt down" (Gordon, 1992). The United States education system of the 1990's is failing many students.

Efforts at restructuring this failing system may have lasting effects if the process, as well as the content, of education is reviewed. Educators seem to swing from one current fad to the next (Slavin, 1989). The pendulum swings between various schools of thoughts that periodically take on new labels and names. There appears to be no anchor to keep schools clearly focused. This present reform movement will merely be a bandaid approach if it is reduced to a contest for curriculum content. Lasting impact of educational reform requires teachers and administrators to develop new skills that will encourage the process of reflection and solidly ground them with an understanding of
self. Dewey’s (1938) premise that being reflective is critical to education is the cornerstone for the program described in this article.

The ability to be reflective, however, requires certain special skills inherent in every person, but not often developed or used in education reform movements. These skills are not necessarily related to the development of new courses, teaching techniques, or curriculum ideas and schools of thoughts. They are often not part of teacher education programs, nor are these reflective skills regularly practiced by teachers in their daily activities. These skills are, however, related to empowerment and the development of each teacher/educator into a yet to be labeled role (Brandt, 1992). At this time, the role is closest to being defined in the label of "transformational leader" (Burns, 1978). This role moves teachers from a more passive transactional factory worker model which "produces" students and learning, to transformational education leaders, who are actively involved in the process. In this role, educators are responsible, accountable, and authentic (Brandt, 1992, Sergiovanni, 1992).

Self-knowledge and the willingness to constantly be developing and growing is the foundation to empowerment and strongly connected to effective restructure. Reform calls for people who are comfortable with who they are and are
willing to take risks. It is from solid self-understanding and risk taking that one will see individual improvement in the role of teacher and transformational leader, as well as improvement in educational organizations and systems. The first self-evident step is to know who "I" am - to know one's self.

The Instruments Used in the Programs

To help educators develop self-understanding, various assessment instruments and activities were introduced into courses or aspects of the different education programs referred to in this article. This step is presently an important part of the graduate and undergraduate education program at a liberal arts college in New York. It was also part of two other programs in education and supervision at Indiana University East and at City University in Seattle, Washington. These programs lead to certificates in education and administration. The primary author instituted the process in these education programs hoping to provide an important step to effective change in the system: That is to say, a systematic process for looking at self and encouraging the journey of self-understanding was added to the programs.

The self-reflection experiences were highly valued by the participants and produced some very good discussions;
ninety-five percent of the participants ranked this area the highest on a scale used to evaluate the programs. The participants often stated that the process, activities, and instruments helped them reflect on who they are and gave them the opportunity to review the literature regarding how others function. Illumination and insights frequently seemed to be part of these sessions, as the students remembered something they did or some action of another person. The statements of the participants seem to validate that true insights stem from knowing about how learning styles, personalities, and beliefs affect an individual. Self-understanding is central to authentic leadership. It is also helpful to the present school reform movement, which calls on people from different backgrounds, styles, personalities, and beliefs to work together for effective change. This change calls for leaders/educators who can bring people together to work for a common vision. Understanding of self enhances the ability to work together (Keirsey & Bates, 1984).

Knowledge of self is the foundation for teachers as they move into the role of change agents (Kanter, 1983). At various times in each program the participants took assessment tools that were scored and discussed. There are numerous assessments that can promote self understanding. For example, the participants took the Gregorc Learning
Style Inventory (1982), the Myers-Briggs personality test (Keirsey & Bates, 1987), and a philosophy survey test (Sadker, 1991).

The Gregorc Learning Style Inventory is a self-analysis tool "designed to assess a person's perceptual and ordering-mediation abilities" (Guild, 1985). It looks at how a person takes in the world, or perceives it and places it on a continuum between abstract and concrete. It also looks at the way an individual puts things together or orders things that have been perceived and this is also on a continuum between sequential and random. This leads to four possible scores in the areas of Concrete Sequential (CS), Concrete Random (CR), Abstract Random (AR), and Abstract Sequential (AS). The higher the score for any of these styles would suggest that it is that person's preference.

The Myers-Briggs personality test and is based on Jungian typologies. According to this theory, as summarized by Morford and Willing (1991), people differ along four dimensions. They focus on and are energized by the inner selves (introvert/I) or by the external world (extrovert/E); they primarily perceive the world around them concretely and factually (sensing/S) or imaginatively, wholelistically and abstractly (intuitive/N); the primary basis for their decisions are principles and logic (thinking/T) or how the decisions effect people (feeling/F); and how much need they have for order, control and closure (judgment/J) or if that
need is not great and they prefer a much more opened ended process (perception/P). Flowing from this Myers and Briggs (1985) have identified sixteen personality types, each identified by four letters.

Sadker and Sadker (1991) state that "behind every school and every teacher is a set of related beliefs -- a philosophy of education." They devised a survey questionnaire that provides scores in five philosophical areas--essentialism, perennialism, progressivism, existentialism, and behaviorism. According to these authors, these philosophies of education represent some distinct beliefs. Essentialism focuses on teaching whatever academic and moral knowledge is needed for children to become productive citizens; essentialists would urge that schools get back to the basics and teach the core academic subjects. Perennialism focuses on universal truths that have withstood the test of time and would urge that students read great thinkers and books. Progressivism is based on the belief that learning should be relevant to the learner and so the focus would be on the personnel experience, interests and needs of the student. Existentialism flows from the core belief in the importance of free will and would focus on helping the student understand their uniqueness. Behaviorism is founded on the view that people are primarily products of their environment and that they
learn if they are rewarded for proper academic and moral behavior. Behaviorist would break down material into small lessons, test the students after the lesson, and reward them for proper responses. While none of these schools of philosophies exist in pure form they do represent distinct sets of beliefs. This survey of philosophical beliefs is designed to provide scores in each of the areas suggesting a preference or an alignment with that set of beliefs.

The instruments used (the Gregorc Learning Style Inventory, The Myers-Briggs Personality Inventory, and the Survey on Educational Philosophies) are tools. These instruments provide a way for the teachers to begin reflecting on who they are. A brief description of the results of these assessments will be found in the next section. The assessment tools, exercises, and time for reflection seemed to help the participants understand themselves and that in turn will likely help promote effective leadership and supervision (Burns, 1978, Bennis, 1985, Tichy, 1986).

The Process and Analysis

Participants in these programs were given the aforementioned assessment instruments. Although the primary purpose in administering the instruments was to assist in the process of self-reflection, data were recorded and
analyzed.

To date, there have been a total of 281 participants included in the data collected. There were 203 females and 78 males. There were 109 undergraduates and 172 graduates. The participants were all in a college program, either at the preservice undergraduate or graduate level. Each participant, by program design, was a future teacher, a teacher with some classroom experience, or a person pursuing a school psychologist certificate. The description in this article is based on data collected from 1991 to 1995.

The initial analysis was descriptive and produced a profile of the people involved in the programs. A Chi Square analysis was done to determine if there was any significant relationship among the variables.

Results

The tests (the Myers-Briggs Personality, the Philosophy, and the Gregorc Learning Style) were administered to each participant, scored, and entered into a data base. The profile of the participants involved in these programs suggest that the most common Myers-Briggs typology, out of the possible sixteen types, was ESFJ (Extrovert, Sensing, Feeling, Judging) with 19.5% of the participants falling into this category. The typology ENFJ (Extrovert,
Intuitive, Feeling, Judging) was the second highest type represented with 14.3%.

The mode for this group of participants on the Gregorc Learning Styles Inventory was concrete sequential (CS) with 41% reporting this style, versus the other learning styles of abstract random with 34%, abstract sequential with 18.5%, or concrete random with 18%. The results total more than one hundred percent because there were 37 double entries. This was due to the fact that these participants had tying scores in two learning style preferences.

The philosophy test results showed the mode for the educators was the progressive school of thought with 69.5% of the participants in this school. This is in contrast to the other philosophical beliefs. They are the essential, perennial, existential, or behavioral schools of thought.

Undergraduates were significantly more likely to be an abstract random (AR) Gregorc learning style (44%) than would graduates (31%), \( (1, n=275) = 4.68, p=0.03 \). Undergraduates were significantly more likely to be a concrete random (CR) (26%) learning style than would graduates (12%), \( (1, n=275) = 8.84, p=0.0029 \). There was a significantly greater chance that a graduate student would be an Abstract Sequential (AS) (23%) than an undergraduate (11%), \( (1, n=275) = 5.96, p=0.01 \). There was no statistically significant relationship between academic status (graduate/undergraduate) and the Concrete Sequential (CS)
learning style, \((1,N=275)=.2007, \varphi=.65\). However, status did provide much information in regards to the Gregorc learning style.

Using gender as a variable suggested other relationships. Males were significantly more likely to be a concrete random (CR) (25%) learning style than females (14%), \((1,n=275)=4.05, \varphi=0.04\). Males were significantly more likely to be an abstract sequential (AS) (28%) learning style than females (15%), \((1,n=275)=6.10, \varphi=0.0135\).

The participants also provided qualitative data in written evaluations and comments. Ninety-five percent of the educators said on the final evaluation form that the self reflection activities and assessments were very helpful on a five point scale. The participants stated that they valued the sessions that helped them think about themselves; specifically, they valued the sessions that spent time on their personality types, learning styles, and beliefs. They also indicated that there was little time in the normal course of the daily activities of teaching to do much of this kind of reflection. Some of their comments were:

"Looking at personalities was very helpful to me in my work and in my personal relationships."

"I found the sharing about learning styles and personalities key."
"I do not often have time to do this kind of reflection."
"I think the work on understanding how I function and how others do will be helpful in my work in my school."
"The work on personalities and styles was great."
"The sharing about beliefs is really good and we as teachers do not have much chance to do this. It was great."

Discussion and Implications

This work indicates some interesting trends. The descriptive analysis would seem to suggest that the most common teacher involved in this study would be a concrete sequential (CS) learner, who holds progressive philosophical views, and has a personality that is energized by being with people, makes decisions on their feelings, likes to get information through details, and likes to do things in steps one at a time (ESFJ) (Keirsey & Bates, 1984).

The mode for this group of teachers on the Myers-Briggs test (ESFJ) concurs with other studies (Morford and Willing, 1991, McCaulley, 1985, Keirsey and Bates, 1984). The importance of these results may be that the teachers need to be sensitive to their personality types and aware of the normal operational behavior that may flow from that
typology. Educators must begin to be aware that there are different types in their classrooms and in the general population. According to Myers (1985) there are sixteen types. Careful reflection on that reality and deliberate attempts to address this issue in teaching, planning, and decision making may be useful. As restructuring moves forward, it may be a good idea to invite some individuals with typologies that are least represented in teachers, educators, and administrators to be involved in this process. If dominant ESFJ types make all the decisions without sensitivity to other types and their needs, the results may not address the present needs in education.

The results of the profile of these educators, with regard to the learning style inventory and the philosophy beliefs, suggest that there may be a similar need to include people with different styles and beliefs in the discussions and decisions. Concrete Sequential (CS) styles were dominant and the preferences that flow from that style can be strong. This style desires facts, details, steps, sequential outlines, structure and learning that is realistic. There are styles which have different needs.

While there does not appear to be any significant evidence as to the philosophical beliefs in the general population, the mode found in this study seems important. Sixty-nine percent of the participants indicated that the
progressive school of thought best represent their beliefs about learning and schools. The progressive school holds that the student's interest and experience is key to learning. This belief and the other aspects of this school of thought does not seem totally congruent with various efforts at restructuring (eg. outcome based education, national standards and test). It also does not appear totally congruent with common classroom practices that are often framed by the behaviorist, which was the lowest reported preference among these participants.

This study suggest further reflection on what do educators believe. The participants stated that they had rarely been asked to spend time reflecting on these issues. Effective reform calls for a common vision that is based on beliefs, and certainly the effort would be enhanced if the beliefs are congruent with the actions of educators and leaders. In addition, the least represented styles and even philosophical beliefs may need to be actively recruited as teachers and participants in education are involved in restructuring. It would seem that a balance of personality types, learning styles, and beliefs would lead to the best well rounded decisions.

The results of the chi square suggest further studies to investigate gender and personality and learning style relationships. It would also be interesting to further study the relationship between education status and learning
styles. Some interesting questions are suggested. Is there a relationship between gender and learning style? The study suggest that males are more likely to be Concrete Random (CR) and Abstract Sequential (AS). If it is true that there are more females than males in education, what does this mean in regards to learning style preference? Does the education system encourage women to change styles to the dominant style in the system which is CS? or does the system discourage men and those with different styles from entering or staying in the system? Is the dominant learning style in education Concrete Sequential (CS) because there are more women in this profession than men? Further study is greatly suggested as the system attempts to understand how men and women learn, and then, how that influences how they teach. It might also provide insights for the entire system.

The results of the relationship of education status and learning style preference also raises questions. Does the education system (as suggested by the higher likelihood that the graduates would be Abstract Sequential - AS) affect learning styles? Undergraduates were more likely to be Abstract Random and Concrete Random. These styles are not as often represented in the system as the concrete sequential style. Since random styles, as well as abstract, are not as represented, do people who do not have sequential
styles drop out of the system? Further discussion and study in these areas are suggested.

Further research on personality types, learning styles, and beliefs of educators is not only essential for education programs, but also for programs in supervision and administration. Anyone actively involved in restructuring the present educational system may benefit from knowing the results of such research. Individuals would be helped if they know themselves and it seems reasonable that organizations and systems could be helped as well.

Education reform would be more effective if it were a systematic change process based on a good understanding of the people involved in schools. The implications from these programs and this process would suggest that understanding self needs to be an ongoing area of focus. Teacher education programs and programs designed to help develop leadership abilities should consider including self-reflection activities. The understanding of self is central and, while valued by the educators in this study, was not generally given the necessary time in their daily life. The best efforts for reform will flow from this reflection, and may be the best hope for reforming education. We will help each learner "reach for the stars" if we truly understand ourselves.
References


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