

**Creative Problem Solving Preferences of Secondary
Educators and Administrators:
An Executive Summary of Michael Mann's Master's Project**

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Introduction

In 2003 Mann set out to examine the cognitive style preferences of 200 urban educators across 11 academic departments within the same district. Each participant completed the measure *FourSight* and received their creative profile of their style preference. The results from the measure were used to answer the following questions:

1. What is the relationship between a teacher's *FourSight* style preference and the subject area that he/she teaches?
2. Are there similarities or differences within each of the departments?

Pertinent Background Information

FourSight: The Breakthrough Thinking Profile, is a measure that has been around for nearly ten years. It was designed by Dr. Gerard J. Puccio to identify a person's cognitive style preferences to help them become more aware of "their natural strengths when solving problems creatively" (Puccio, 2002, p.1). By becoming aware of one's strengths and weaknesses one can learn how to improve their creative problem solving skills. They are also able to be more tolerant of those whose preferences are different from theirs.

FourSight: The Breakthrough Thinking Profile is broken into four cognitive style preferences; Clarifier, Ideator, Developer, and Implementer. A Clarifier is defined as someone who "likes to make sure he or she has a clear understanding of the problem" (Puccio, 2001, p.9). An Ideator tends to "think in more global and abstract terms" (Puccio, 2001, p. 9). A Developer "likes thinking about and planning the steps to

implement the idea” (Puccio, 2001, p.9). The Implementer “enjoys giving structure to ideas so that they can become a reality” (Puccio, 2001, p. 9).

By identifying and understand one’s cognitive style preference it is believed that one can achieve greater success in the area of creative problem solving.

Description of Population and Method

This study included 200 Buffalo Public School teachers and administrators from 17 different schools across all discipline areas. The majority of the participants (87.5%) were from the secondary level of instruction. The participants were placed into eleven different categories according to subject area. The following academic areas were identified at the secondary level of instruction: Art/Music, Business/Technology, English, Foreign Language, Health/Physical Education, Mathematics, Science, Social Studies, and Special Education. Table 1.1 shows the break down of the sample population according to academic area.

Table 1.1 Sample Population

Academic Area	Percentage of the Sample Population
Administration	5%
Art/Music	8%
Business/Technology	7%
English	9.5%
Foreign Language	4%
Health/Physical Education	3.5%
Mathematics	9%
Science	7.5%
Social Studies	22%
Special Education	17%
Elementary Education	7.5%

(Percentages from Mann, 2003, p.16)

There were 87 males and 113 females who participated in the study with an average age of 42. The ethnic breakdown of the sample population is as follows: 167 participants identified themselves as Caucasian, 21 participants were identified as being African-American, eight participants were identified as being of Latin decent and four participants were Middle Eastern.

The measure *FourSight: The Breakthrough Thinking Profile*, version 6.2 was used to determine the participants cognitive style preferences. The measure consisted of 41 statements that the participants rated using a Likert-type response scale. This scale allows the participants to rate themselves according to the extent that they feel the statement describes them. The scale's responses range from "Not like me at all" to "Very much like me". The responses earn a point value based on where the participant places his "x". The points range from a 1, being assigned to the 'Not like me at all' response, to a 5. Each participant's measure was evaluated and his cognitive style preference was identified.

Upon completion of the measures and the identification of the cognitive style preferences the information was broken into 11 subject area groupings. The *FourSight* preference scores were compared for statistically significant differences two different ways. "First, the statistical averages were calculated for each of the four preferences in all 11 subject groups" (Mann, 2003, p. 20) and compared. Then, the percentage of participants in each group who expressed high and/or low preferences was calculated and compared.

Findings

The data indicated that “half of all teachers sampled are high Clarifiers, and nearly one third of teachers sampled are low Ideators and Implementers” (Mann, 2003, p. 59). For nine out of the eleven academic areas, Clarifier was the dominant preference. The two academic areas whose dominant preference was not Clarifier were the Elementary Education and Art/Music departments. These departments preferred the preferences Ideator and Implementer. Of the Art/Music teachers, 38% of them had high Ideator preferences and 31% had high Implementer preferences. In the Elementary Education department, 47% had high Ideator preferences and 40% had high Implementer preferences.

When examining the Developer preference the scores were balanced in all the academic areas, except for the Art/Music and Elementary Education departments. With more than twice the average of the other departments, these two departments had individuals with significantly low Developer preferences; 40% of the Art/Music department and 47% of the Elementary Education department.

Another significant difference found between departments occurred with the Administrators and Health/Physical Education departments. These two departments expressed very low Ideator preferences, 50% and 57% respectively. In addition, 50% of the Mathematics department expressed low Implementer preferences.

From the study it is clear that most teachers fall into the *FourSight* preference of Clarifier. However, due to the nature of the job other departments need to be more open to finding new approaches to teaching in limited surrounding and therefore, lean towards Ideator and Implementer preferences. By beginning to gain insight into the style

preferences of teachers, schools can capitalize on their strengths to build stronger teams and schools to improve the overall success of their buildings. This information can be beneficial if it is implemented in the most productive and positive way.

References

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