

Early Assessments of Leadership Qualities in Graduating Capstone Classes of seniors at Pepperdine University

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The critical need for effective leadership has never been more evident than it is today given the recent global economic meltdown of financial markets. A crisis of leadership is brewing. It has led to a call for organizations to evaluate the leadership potential of all current employees and every new hire. Since students will become new hires, an answer to this question is very significant. See the GBR article on the Importance and need for Authentic Visionary Leadership¹

Students as leaders in development also need to be educated for Authentic and Visionary leadership

This paper demonstrates how it is possible to identify the next generation of leaders **early**, using a tested methodology. Research data from worldwide samples, for more than two and a half decades using the Decision Style Inventory (DSI)² developed by Alan Rowe, Ph.D., distinguished Professor, University of Southern California (USC), established benchmark population norms that measure decision styles of different population groups in management and in executive MBA programs.

Dr. Seshan also worked with Rowe on the third edition of the same book. While Seshan has taught three sections of Business Policy Strategy and Ethics-the Capstone Class at Pepperdine University for 23 years, Mann has been mostly involved with MBA and doctoral programs. Sometimes as full time but mostly as an Adjunct Professor, because he likes to maintain a hands-on involvement in his own and other businesses. In 2002, for the first time Mann became an Adjunct at Pepperdine to help Dr. Seshan with a fourth capstone course section, in order to handle the needs of expanded enrolment. Mann also uses the DSI in his team formation process. During their association, Seshan realized that the DSI seemed to distinguish which students were more likely to become team leaders.

Discovery of the Critical Relationship between Leadership and the DSI

Dr. Seshan discovered that a Dominant Conceptual score was the most significant indicator of leadership potential among the students in his Capstone policy courses over the past 23 years]. [Observing how students volunteered for demanding leadership roles, and succeeded, Seshan realized that these exceptional students also scored above average on the DSI, which was also used to measure company executives in the corporations examined for class projects.

Dr. Richard B. Mann, PhD, first started working with the concepts for the DSI when he enrolled in a special 16 unit program, Decision Systems Analysis created by Dr. Rowe. In 1975 Mann became a doctoral candidate with Rowe as Chair. Mann's Dissertation tested and validated the DSI using four factors in 12 hypotheses. The four factors were the Decision Styles of CEOs and other top executives, the subject's task, the company's environment, and the company's structure. Two classes of top executives, Strategic Managers, and Financial Manager, were compared. The results strongly indicated (alpha of .0001) that success, achievements, and satisfaction correlated significantly with DSI scores. The results are explained in the fourth edition of Strategic Management, A methodological approach, 1994³. Mann was a co-author. Rowe and Mann have maintained a close consulting and research connection ever since, writing, consulting, and doing additional research. Highlights of this and other research indicate that the DSI is a good forecast indicator of top executive success

Mann's work with executives, EMBA's, and doctoral candidates indicated a Dominant Analytical score combined with a Very Dominant Conceptual score is the hallmark of a successful CEO and other top executives. There seems to be a growth pattern from Directive-Behavior scores for the majority of undergraduates to dominant Analytical scores for MBAs, Analytical plus Conceptual for CEOs, and Conceptual for PhDs. Therefore, students grow from one pattern to another with more education and experience. With the result that an emerging Conceptual style at the undergraduate level is an early indication of leadership potential in a student, nurturing and developing this potential is a forward-looking approach to creating Authentic Visionary Leaders⁴

Cognitive Aspects of Decision Style:

Why has the DSI become a key element in determining whether a person has the capability for top leadership success? Primarily it is because Cognitive Complexity is a critical aspect of having the mental ability to handle the many independent variables it takes to see the Big Picture as viewed for a top executive position.

Cognitive Complexity on the y-axis of Figure 10B.1 is a person's ability to consider many interdependent variables simultaneously. One element of Cognitive complexity is the ability to differentiate and discriminate among bits of data. Such activity is a left hemisphere brain function. Another element of Cognitive Complexity is the ability to combine data in unique ways to find new constructs or complex rules. This is a right-hemisphere brain function. This ability to combine the two brain hemispheric activities is called "Integration". As, strategy involves many complex, interdependent variables, the manager's ability to comprehend and deal with a given

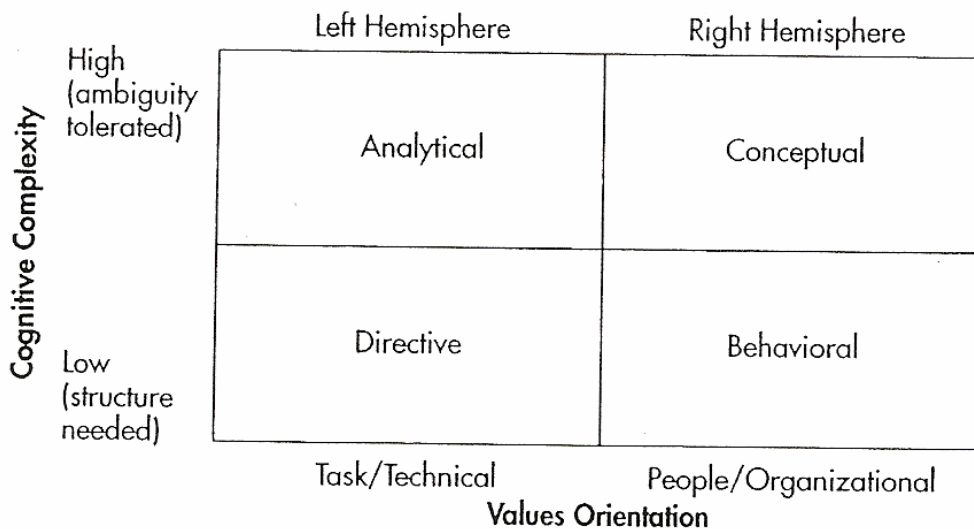
situation depends on his or her Cognitive Complexity. Individuals with a high level of cognitive Complexity have little difficulty in observing patterns of interrelatedness among data. Conversely individuals with a low cognitive complexity tend to rely on a few specific rules as the basis for interpreting the data in a given strategic situation.

Students were observed in behavior that demonstrated this “integration” ability as another indicator of Leadership qualities.

Relationship between High DSI Conceptual scores and student team leaders

The Decision Style Inventory (DSI) has been used for years to develop leaders. Historically, studies have shown that the take-off point for the comparisons of various population groups is the general population averages for each of the four Styles in the DSI: Directive, Analytical, Conceptual, and Behavioral components of the DSI Model. For the US, these Population average scores are 75, 90, 80 and 55 from a possible maximum total of 300 points.

Given that this DSI Model plots “Values Orientation” on the x-axis and “Cognitive Complexity” on the y-axis, the leadership indicators are those decision makers who have higher scores in the Analytical and Conceptual components of the DSI Model. This propensity for executive leadership is measured by the magnitude of these scores being rated as “Dominant” or “Very Dominant.” Given that DSI results reflect a person’s cognitive complexity and values, the combination of the Analytical and Conceptual indicates a leader’s high degree of Cognitive Complexity to tolerate ambiguity. This is shown in Figure 10B.1⁵. Please note that the reference to the Left Hemisphere and Right Hemisphere on the x-axis refers to the brain and its lateral sides, of course. Also the Values Orientation on the x-axis refers to the range from Tasks that are technical to People and Organizational values. Some others characterize the x-axis as a stand-in for “Environmental Complexity” ranging on a Technical Environment to a softer people oriented environment.

FIGURE 10B.1**Cognitive Decision Style Model**

Source: Rowe, Alan J., Mason, Richard O., Dickel, Karl E., Mann, Richard B., Mockler, Robert J., "Cognitive Decision Style Model." Strategic Management: A Methodological Approach. Fourth Edition. Addison-Wesley. New York. Page 522. 1999.

The upper half of the figure includes "leaders" who are high on Cognitive Complexity Scale; this upper half separates these leaders, from the "managers" in the lower half of Figure 10B.1, containing the Directive and Behavioral Styles of the Cognitive Decision Style Model. Managers tend to be more "Dominant" in the Directive and Behavioral Styles of the DSI Model.

Background:

The DSI has a long history of success helping companies match people (managers) with managerial positions in business. The DSI emerged out of a special 16 unit Decision Systems Analysis (DSA) program created by Dr. Rowe in 1973 for corporate executive and Executive MBA candidates at the University of Southern California (USC). An entrepreneur and business man who was struggling because of the oil embargo enrolled in the DSA program and became a research assistant to Rowe. There was a recognition that certain qualities and attitudes seemed to correlate to executives in various types of managerial positions. Rowe established several indicators and parameters and began research. Mann was involved in collecting and helping analyze the data. The first DSI version was published in 1983 and has been used successfully since then. There are some 20 years of data in the current database.

Application of the DSI scores to Students to assess leadership traits early.

The answer to the question at the start of this paper was obtained by studying undergraduate business students who worked in teams to create a business strategy for a Fortune 500 company,

in their Business Policy, Strategy and Ethics classes; in all of these classes; there are three classes each semester; the DSI Test is administered regularly to every student for self-assessment and to help the students understand the behavior of corporate executives and leaders. The objective is to analyze the results of DSI and compare them to their leadership role in the teams. Results strongly indicate that students who were more conceptual engaged more successfully in leadership positions in class projects as well as in their teams.

The qualities of leadership emphasized in the Policy classes fall into the following characteristics:

- Conceptual + Analytical styles
- Simultaneous Multi-tasking abilities
- Combining Data in unique ways- a Right Brain Hemisphere style
- Pattern recognition of inter-relatedness
- Integration abilities
- Compiler activities and abilities to coordinate multiple Sections into One document.
- Future orientation
- Creative brain storming abilities
- Counterintuitive thinking
- Collaborative working style

Results of this study of undergraduate business students also demonstrate that this dominant preference is an early indicator of leadership capability. Confirming evidence of this is found in students taking lead roles on the Group Project Research Team's project, exhibiting executive leadership qualities, and improving their teams' scores relative to groups that lacked a member with executive leadership indicators. It was observed that those who had a "Dominant" score in the Conceptual style of the DSI instrument played a lead role within the team research project; these roles are even more visible when it comes to future oriented planning for the innovative and creative expansion of the chosen company's future recommended strategies. Another area of observed leadership behavior by these students acting as leaders is in the area of project integration through their roles as Head Compilers and Project Section Compilers. This job of the compilers included a lot of activities to coordinate the putting together of the Project research team's work product outputs in a collaborative and cohesive manner into a well integrated document, for approval by the Company's Board of Directors.

Data collection

Data was collected from graduating seniors in the Capstone Business Policy, Strategy and Ethics courses (from 2000 to 2006), which specialize in an in-depth strategic analysis of large, complex Fortune 500 companies using current, "live" case data analyses and application of business and financial, CIO fundamentals. Students work in teams to develop in depth, well researched and analyzed, real world corporate strategic plans. In applying this Test Instrument to the students

one needs to look-out for Team Leadership activities and Roles as a sign of ability to later develop into being Professional leaders in their respective fields.

This study shows that using the DSI Model will help to identify and build the next generation of leaders. Individuals, faculty and firms alike can benefit from using the DSI to identify potential executive leaders and nurture these characteristics.

The focus of this application of the DSI Model to the candidate students whose scores are being assessed in this Research Study, are all Capstone students from Pepperdine University

Description of Capstone Class:

The Capstone Class is conducted to have the Undergraduate Research team made up of the entire class so that they can develop collaborative workable and effective strategies. These strategies are expected to be creative and innovative and not mere extensions of the companies' existing product lines.

Specific Leadership oriented student leaders

For example, one such outstanding student has the top half DSI Score of the combination of Conceptual and Analytical score equal to $109 + 88 = 197$. With a Directive score at 70 + Behavioral at 33, $D+B = 103$. So, $A + C = 197$ is greater than $D + B = 103$. For example, he demonstrates his creative potential, by virtue of his Piano scholarship which allows him to relax via piano playing while earning his way through the University, towards graduation. This individual is also a multi-linguist, in addition to being very creatively capable, is also fluent in the Chinese language, and has plans (a sign of being able to foresee the future! which is another leadership trait!) to do his MBA at a great School. Such plans are exactly on the mark, while his Analytical score is 109; it is already at the level that is typical of Ph.D. students. Furthermore, he is also very future aware and oriented to overcome obstacles to achieve his manifest destiny.

Similarly, Seshan had another student in a different Capstone class working on the Energy industry, who exhibited, a Conceptual style measured at 93 + Analytical at 64 = 157; his leadership score enables this student to be able to make a well rounded robust decisions especially on the Volleyball court, where he has earned numerous awards both individually and lead his group to Team awards. He wants to do everything to best of his ability another responsible leadership quality. I have observed his excellent performance set a new standard for his team members who are forced to meet the high levels of performance standards he sets for himself, but by example, for his team where his Behavioral score is 62 + Directive of 81 = 143 . In this case $A + C = 64 + 93 = 157$ which is $> D+B = 143$. This student also demonstrates outstanding skills to think on his feet when asked questions during his scholastic oral examinations.

Impact:

The implications for teaching future leaders in classes that emphasize future oriented strategy type of assignments which when combined with Conceptual and Analytical DSI styles surely leads to early recognition of potential Leaders.

This of course has broader implications for both teaching and learning in the field of Business and Management domestically and globally. For more information on the impacts of Strategic Management, Financial Analysis and Cash Flow, related to DSIs please refer to Endnote⁶.

Endnotes

¹ [Discovering Leadership Potential](#)

There is a critical, worldwide need for Authentic Visionary Leadership.

Richard Mann, PhD, V. Seshan, PhD, and Connie James, PhD

Authentic Visionary Leadership” Graziadio Business Report, October 2008 Publication

<http://gbr.pepperdine.edu>

² Rowe, Alan J., Mason, Richard O., Dickel, Karl E., Mann, Richard B., Mockler, Robert J., “Cognitive Decision Style Model.” Strategic Management: A Methodological Approach. Fourth Edition. Addison-Wesley. New York. Page 522. 1999.

³ Rowe, Alan J., Mason, Richard O., Dickel, Karl E., Mann, Richard B. and Mockler, Robert, J. “Strategic Management –A Methodological Approach, 4th Edition, Addison- Wesley, 1999 Pg. 521- .528

⁴ [Discovering Leadership Potential](#)

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⁵Rowe, Alan J., Mason, Richard O., Dickel, Karl E., Mann, Richard B., Mockler, Robert J., “Cognitive Decision Style Model.” Strategic Management: A Methodological Approach. Fourth Edition. Addison-Wesley. New York. Page 522. 1999.

⁶Seshan, V., Strategic Management –Financial Analysis and Cash Flow 9th EDITION Thomson Learning- 2008,
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