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WorkStyle Profile for Construction Students: A Time to Stretch

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This study is a follow-up to Badger and Wanner (1991) to explore the degree of alignment between the Constructors' PREFERRED approach to work and the ACTUAL requirements of their positions. In order to assess the impact of their implemented educational recommendations, the WorkStyle Patterns" Inventory (WSP)" was administered in 1994 to another group of construction students. A comparison between the two student groups reveals that individual preferences are difficult to influence, WorkStyle Alignment has not improved and the potential for Personal and Organizational Stress (based on work approach) for the 1994 study group is at higher levels than in the general workforce. Recommendations for educators, industry, and students are provided with an emphasis on a partnership requiring all to stretch beyond what is traditionally comfortable.

Keywords: Productivity, Organizational Effectiveness, WorkStyle Stress, Construction Management, Professional Development, Alignment

Introduction

In "The Educators Role, Aligning The Peg And The Hole," Badger and Wanner (1991) identified the primary role of the construction educator was to "meet the needs of the construction industry by providing quality graduates (who) bring technical knowledge to improve industry performance." They went on to identify a significant lack of alignment between PREFERRED WorkStyles and construction industry requirements as a key issue requiring the attention of both the educator and the construction industry. Badger and Wanner recommended the following three-pronged approach for improving the misalignment identified in the study:

1. Attract potential constructors with appropriate WorkStyle preferences for the Construction Profession (educator).
2. Integrate managerial and interactive skills in construction schools' curriculum to influence student preferences (more "management" in Construction Management, educator).
3. Be sensitive to workforce professional development and career pathing (industry).

Badger and Warmer's (1991) recommendations regarding educational approaches focused on the work preferences of students attracted to the program and the methods for educating these students. In an attempt to implement these recommendations, the Del E. Webb School of Construction (DEWSC) at Arizona State University modified their recruiting and educational approaches. A follow-up study to the Badger and Wander (1991) study was conducted in October, 1994, to assess the impact of implemented educator recommendations and to identify additional insights to provide direction for the future. This paper compares the results of the follow-up investigation with Badger and Warmer's (1991) initial work and provides further recommendations for improvement. Comparisons will be based upon the undergraduate student responses of both studies who respectively represent 38 (1991) and 49 (1994) students.

Alignment Instrument

The concept of alignment addressed by Badger and Wanner originated from The McFletcher Corporation's WorkStyle Patterns (WSP) Inventory. The WSP alignment assessment process is based on a comparison between actual work requirements and the way people prefer to approach work activities. This assessment determines WorkStyles; how an individual prefers to work (the want) and how an individual views his or her current position's ACTUAL work (the is).

This assessment also reveals the discrepancy between the individual's preferred approach to work and the position's required approach to work. Descriptive WorkStyle Profiles provide comparative data about the workforce and their work activities. This knowledge enables employees and employers to work together for closer alignment which creates greater organizational productivity and enhanced individual satisfaction.

The premise of the WSP[™] Alignment process is that each person prefers and each position requires different degrees of TASK, PROJECT, and ORGANIZATION Orientation activities. The degree to which a person prefers to exercise each Orientation determines his or her PREFERRED WorkStyle. The degree to which a position requires that each Orientation be carried out determines its ACTUAL WorkStyle.

There are four WSP Orientations which represent how an individual prefers to think about work or how the work requires whoever is in the position to think about the work. These Orientations are:

TASK

Identification with the Product or Service, through performing specific work activities.

PROJECT

Identification with Projects and their People through coordinating and linking activities.

ORGANIZATION

Identification with Goals and Results through initiating organizational activities.

ADAPTING

Identification with all three types of activities through a combined Orientation that balances all three Orientations in a responsive and supportive manner.

The inventory consists of 18 statements (9 PREFERENCE, 9 ACTUAL) with 4 responses per statement. Individuals rank the four responses per statement from 4 (meaning most) to 1 (meaning least). Completion of the WSP[™] Inventory generates numeric scores for each of the Orientations. These scores are used to determine a WorkStyle Profile. WorkStyle Profiles reflect the combination of Orientation scores, a "pattern" of the work approach. The WorkStyle Orientation represents the thinking mode to work, whereas the WorkStyle Profile represents the way to carry out that thinking. The degree of misalignment between the PREFERRED and ACTUAL Orientations and Profiles indicates potential individual and organizational stress, or productivity and individual satisfaction.

Changes in Educational Approach

Badger and Wanner (1991) identified significant misalignment in their study group as preferences to work independently conflicted with position requirements to work interdependently with improved coordination. In response to these findings and in an effort to improve the identified misalignment,

DEWSC modified its educational approach in two main areas: recruitment and group learning. While the changes to be discussed below are occurring in many educational arenas, the Badger and Wanner (1991) results provided an impetus to accelerate adoption of the following modifications at DEWSC.

Recruitment

The Del E. Webb School of Construction, in partnership with local industry, has developed the Construction Recognition Banquet as an annual recruitment event. The focus of the event is to expose high school students and education professionals to the exciting opportunities in construction. This banquet showcases construction and construction professionals to outstanding high school students, educators, and guidance counselors. Interaction and informal discussions between students, educators and professionals are key to the success of this event. This is accomplished by seating at least one representative of the local industry and one DEWSC faculty member or student at each table. The Outstanding Woman Contractor and Outstanding Minority Contractor awards are given at the event, and a keynote lecture is presented pertinent to the construction industry.

Following the observation of significant misalignment in the 1991 study, the emphasis of the presentations at the Construction Recognition Banquet have changed. The requirements that constructors be "team players," and be able to coordinate and manage complex projects with complicated staff requirements have been stressed in recent years. This theme is also reflected in revised recruiting videos and brochures in the hope of attracting more students with preferences in these critical areas.

Group Learning

In addition to recruiting students with preferences to work interdependently, the faculty at the School created increased opportunities for group learning, team experience, and coordination in the curriculum. Group projects have become a part of most courses within DEWSC. The objective of each project is to provide educational contact with a particular subject area. However, taken institutionally, the objective is to provide opportunities for students to develop skills for working in teams and understanding group dynamics throughout the educational process. Some faculty members argue that this goal is as important as the contact with the individual subject areas.

The operation of team assignments is different in each course. In some courses students are allowed to choose their own groups, while in other courses instructors determine group membership. Sometimes a group leader or spokesperson must be selected. Usually the group product consists of a written document and an oral presentation of results, though at times only a written report is required. By providing a variety of group experiences in different courses, each student experiences a number of group roles, a variety of group compositions, and a multiplicity of "ground rules." Team assignments are intended to serve as an experiential model for the operation of actual projects or project management after graduation, albeit on a smaller scale. In this way, the students should have an increased understanding for the character of the construction industry, and be better prepared to join its ranks as more productive members.

Evaluation/Discovery

In order to evaluate the impact of the change; in educational approach, a comparison between the student groups of the 1991 and 1994 studies is presented in this section. The 1994 data consists primarily of students in their last year of the program. Because most students who were seniors in 1994 were recruited prior to the change in recruiting approach, the data does not necessarily reflect the impact of the change. However, it does provide insight into the effect that more group learning opportunities

had on individual preferences.

WorkStyle PREFERENCE Results

Figure 1 presents the WorkStyle Patterns' Orientation comparison between the 1991 and 1994 study groups.

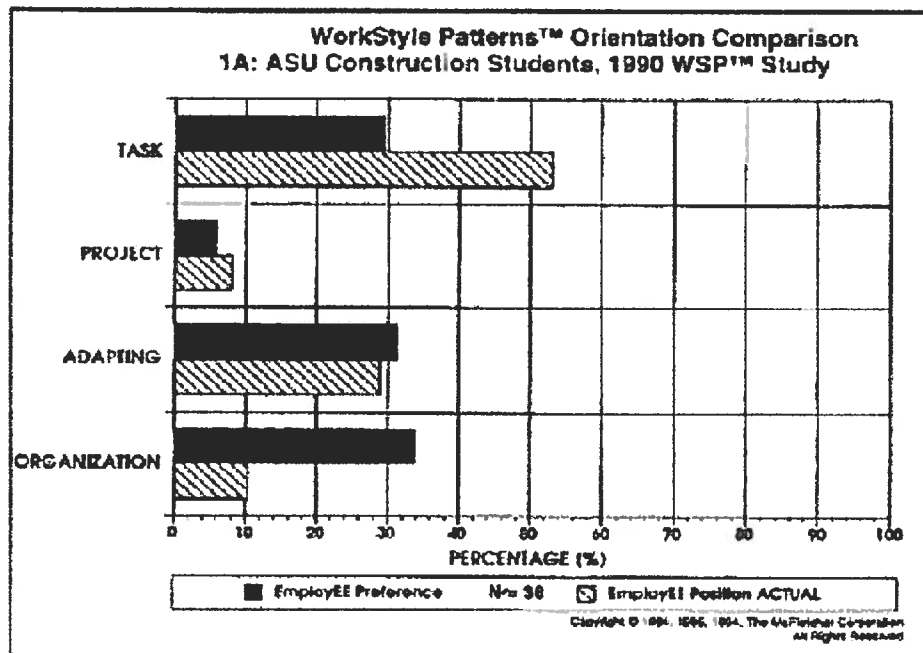


Figure 1A.

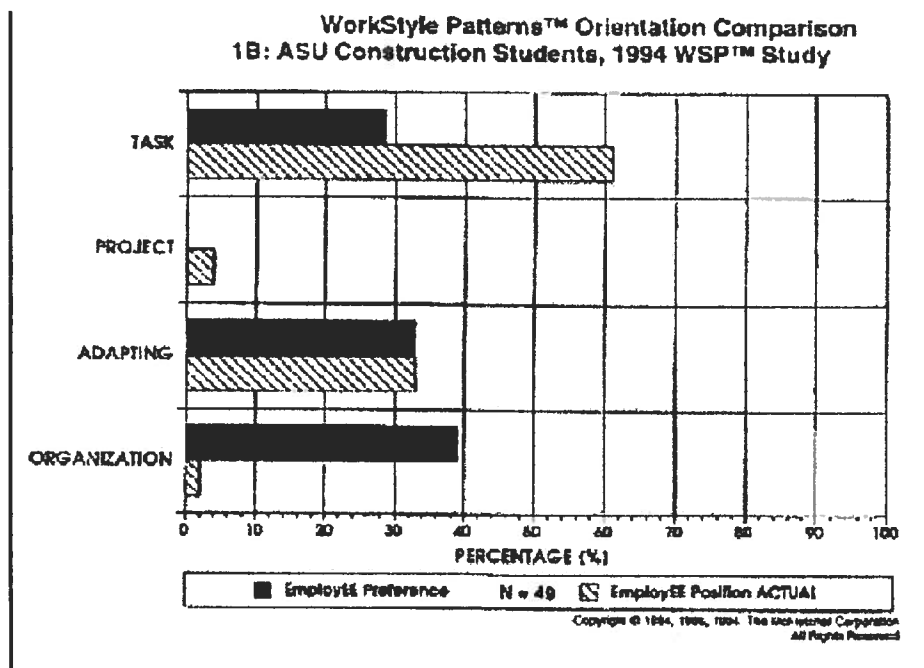


Figure 1B.

The WorkStyle PREFERENCE results (solid bars) in Figure 1 substantiate WorkStyle Patterns™

historical trends that skill development and training do not change individual preferences; but rather provide opportunities for individuals to effectively manage WorkStyle differences. A comparison of Figures 1A and 1B reveals similar percent ages for the TASK and ADAPTING approaches from the 1991 and 1994 study groups. The two figures also reveal an increase in the ORGANIZATION approach and a reduction in the PROJECT approach. The initial objective for instituting the educational changes described above was to reduce TASK Orientation and increase the PROJECT and ORGANIZATION Orientations of the graduates. However, based on these results, the increase in group learning activities appears to have had a negligible influence on student preferences away from the TASK Orientation. In other words, it is very difficult to change the way people like to do their work.

As stated before, the WorkStyle Patterns" Inventory requires respondents to rank four responses to each of the nine statements dealing with preference (from "4" meaning "most" to "1" meaning "least"). A review of response rankings of the 1994 study group for the WSP" Inventory PREFERENCE statements provides insight that supports the group's higher ORGANIZATION to influence goals and results and lower PROJECT PREFERENCES to coordinate projects and people.

Most Preferred Student Responses

The following responses are the study group's highest ranking responses for each of the nine statements dealing with preference:

- Know how the project fits into the larger context.
- Work with people who understand what the goals are.
- Work with people who have stimulating and innovative ideas.
- Respond to activities that require my specialized talents.
- Map out forthcoming events and requirements.
- Work in an environment where there is communication.
- View new experiences as opportunities.
- Carry out individual activities that show results.
- Set priorities and target dates.

The majority of these responses reflect a WorkStyle PREFERENCE to understand the whole and to be involved in a broader context.

Least Preferred Student Responses

The following responses are the study group's lowest ranking responses for each of the nine statements dealing with preference:

- Be in the middle of things.
- Participate only when something is interesting.
- Work with people who are willing to be a part of the group.
- Respond to people's needs and feelings.
- Schedule tasks for others.
- Work in an environment where others do not expect a lot in a short time.
- Observe and evaluate the reactions of others to new experiences.
- Coordinate own activities with those of others.
- Find people to help.

For the most part, these responses depict a low PREFERENCE for a work activities that includes group involvement and coordination.

Based on the trend from the comparison of Badger and Wanner (1991) with the 1994 data (Figure 1), the impact of modification in the DEWSC educational process has been negligible. However, there are certain benefits to the increased use of group learning outside of the hoped-for modification of PREFERENCES. The use of these tools introduces students to an interactive environment they will encounter upon entering the workforce. Additionally, there is evidence that student retention rates may be significantly increased over traditional approaches (National Training Laboratories).

Position ACTUAL Results

Similar to PREFERENCES, the ACTUAL Orientations are the nine statements (from "4" meaning "most" to "1" meaning "least") dealing with how individuals actually work. From an ACTUAL WorkStyle perspective, it is important to look at the subgroup (Construction Employed Students) of students who have or had employment in the construction industry and were able to use their construction industry position as their frame of reference in responding to the WSPO Inventory statements about how they perceived their ACTUAL work requirements. This subgroup comprised 55% of the original study group and 57% of the current study group participants-a majority in both .

While students' PREFERRED activities increased in ORGANIZATION Orientation to influence goals and results from 1991 to 1994, a comparison of the WorkStyle ACTUAL requirements depicted with striped bars in Figure 2 reflects reductions in both the ORGANIZATION and PROJECT requirements. The TASK requirements reflected a minimal increase (52%to 54%) while the ADAPTING approach posted the largest increase, from 24%to 39%. The TASK and ADAPTING Orientations comprised 93%, or 26 out of 28 of the total 1994 respondents of the Construction Employed Students Sub-Group. This is a little surprising when nine students held positions such as Owner, President, Construction Manager, Project Manager, Assistant Project Manager, Superintendent, and Foreman-positions which would be expected to reflect PROJECT and ORGANIZATION Orientations.

As was presented earlier in the discussion of PREFERENCE data from Figure 1, are view of ACTUAL Response Rankings supporting the 1994 Construction Employed Student Sub Group results presented in Figure 2 provides insight that supports the groups higher TASK and lower PROJECT and ORGANIZATION ACTUALS.

Most Required Work Activities for Construction Employed Students ACTUAL

The following responses are the study group's highest ranking response for each of the nine statements dealing with the positions' ACTUAL requirements:

- Contribute own skills and expertise.
- Focus on individual accomplishments and contributions.
- Concentrate on own immediate tasks and responsibilities.
- Decide who should be apprised of new information affecting operations.
- Be knowledgeable and communicative.
- Don't like to receive conflicting instructions.
- Need a productive environment and appropriate tools or processes.
- Advise appropriate person of incorrect work of others.
- Carry out tasks that contribute to organizational goals.

These activity responses largely reflect a WorkStyle ACTUAL that focuses on individual skills, responsibilities, and contributions.

Least Required Work Activities for Construction Employed Students ACTUAL:

Active participation in the educational and recruitment process to obtain high quality graduates. This would include attending banquets, being (providing) a guest lecturer, and participating in partnership organizations.

Participation in future alignment research activities by providing time, access to personnel, and funding to ensure a competitive edge.

A consistent commitment to professional development and career pathing for all employees to reduce turnover and retain high quality professionals.

A commitment to understanding the alignment concept and working with employees in the formulation of plans (individual and company) to constructively deal with misalignment to enhance profitability.

would be easy to stop here and place the total burden of misalignment and its resulting stress on educators and industry. However, it is important to identify that students are an important component in the alignment equation and need to:

Be realistic and patient about the amount of time required to work through TASK Oriented positions to get to the ORGANIZATION Oriented positions.

Understand the alignment concept and deal with misalignment constructively. Work with employers in the creation of plans to reduce both Personal and Organizational Stress.

Validate/clarify individual perceptions of ACTUAL work requirements with Employer ACTUAL requirements-IS versus SHOULD BE. Commit to and be accountable carrying out those requirements.

Be prepared to stretch between a PREFERRED approach to work and the required ACTUAL while developing a skill base to support preferences.

McFletcher research indicates that as alignment improves and/or misalignment is constructively managed, satisfaction and efficiency increase while turnover decreases. All should realize that individual preferences are strengths that individuals bring to organizations and will help maintain the vitality of the industry. Industry should work jointly with employees to utilize these strengths appropriately. The current misalignment gap will never disappear completely, but it will narrow as educators, industry, and students commit to working individually and collectively on the recommendations outlined above. All need to stretch.

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The McFletcher Corporation, WorkStyle Patterns""(WSPI) Inventory (Copyright 1979, 1982, revised 1984, 1988, and 1993), 10617 N. Hayden Road, Suite 103, Scottsdale, AZ 85260, (602) 991-9497.