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**Work Ethic Characteristics:
Perceived Work Ethics of Supervisors and Workers**

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Workplace supervisors and team leaders value workers who possess a positive work ethic. However, the work ethic embraced by supervisors may not coincide with those of the workers they manage. In his 1995 study, Church concluded that the behaviors of immediate supervisors directly affect work group climate and the performance of employees. Yet information regarding work ethic characteristics and the role these beliefs play in work performance is often misunderstood or misrepresented by human resource specialists and career and technical educators (Brauchle & Azam, 2004b; Cherrington, 1980; Church, 1995; Hatcher, 1993; Hill & Petty, 1995).

Studies have examined the connection between demographic variables and employee work ethics (Brauchle & Azam, 2004) as well as the part that mentor-apprentice relationships play in the acquisition of skills and knowledge in the workplace (Evanciew & Rojewski, 1999). While these and other studies have analyzed the effects of workplace organizational systems on work ethics and performance, few studies have focused on the compatibility of the beliefs that workers and supervisors bring to their roles in the workplace (Hollingsworth, 1995; Dagley & Salter, 2004). As industries concentrate on profitability and workplace improvement, little attention has been given to the interaction between the work ethics of workers and their supervisors (McCortney & Englels, 2003). Few researchers have compared the affective tenets of workers and supervisors, that is, their work attitudes, habits, and values, and the effect these attitudes have on performance and

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productivity (Church, 1995; Hollingsworth, Brewer & Petty, 2002).

The occupational work ethic is displayed in an employee's work behavior and is based on the employee's personal values and mores (Hill, 1992; Hill, 1997; Kazanas, 1978; Petty, 1995c). It is a culturally developed, affective behavior which is a combination of family, religious, and ethnic beliefs and values (Colson & Eckerd, 1991; Hill, 1996; Kazanas, 1978; Petty, 1995b). The workplace is becoming not only more culturally diverse but also more operationally complex (McCortney & Englels, 2003; Yankelovich & Immerwahr, 1984). As this diversity infuses the workplace, educators and human resource directors are challenged to find training and development solutions to bring congruence to the varying work ethics that intertwine in the workplace (Cherrington, 1980; Naisbitt & Aburdene, 1990; Petty, 1995c; Petty & Hill, 1994; Hill & Petty, 1995; Yankelovich & Immerwahr, 1984).

The purpose of this study was to compare the work ethics of supervisors with that of the employees they manage. The study investigated the occupational work ethics of both workers and their supervisors in a variety of businesses and industries to determine if there was a significant difference in the work ethics of these two groups as measured by the Occupational Work Ethic Inventory. Insights from this analysis can provide career and technical educators and human resource specialists with information to assist in group and team efforts, morale building, acceptance of change, and a better understanding of attitudes in the work environment.

Methods

The instrument used in this study was the Occupational Work Ethic Inventory (OWEI) which consists of fifty work ethic descriptors (Petty, 1993). The OWEI is based on a Likert-type scale for self scoring. The response items uses a stem of "At work I can describe myself as" followed by a numerical scale for rating each item in which 1 = never, 2 = almost never, 3 = seldom, 4 = sometimes, 5 = usually, 6 = almost always, and 7 = always. This scale is used in conjunction with the fifty descriptors of the work ethic and asks respondents to indicate the number most

accurately depicting their standard for each of the described occupational behaviors.

In developing this instrument, an extensive review of human resource literature regarding work attitudes, work values, and work habits identified the psychometric items used to measure work ethic (Petty, 1995; Petty, 1995c). Brauchle and Azam (2004b) have concluded that the OWEI's "factors are replicable in different populations and that evidence exists for construct validity of this instrument." It is also their opinion that "others can use these factors with confidence and without fear of population bias in their research" (Brauchle & Azam, 2004b, p. 128).

An exploratory factor analytic procedure to identify explanatory concepts established factorial validity for this study. Factor analysis is a technique used to identify the smallest number of descriptive terms to explain the maximum amount of common variance in a correlation matrix. Hill and Petty (1995) reported this validity procedure in their study of 1,151 workers from a variety of occupational areas. These procedures yielded a more objective, statistically based assessment of the items. The process followed was similar to that reported by Hill and Wicklein (1999) in their study involving a factor analysis of problem-solving mental processes.

Hill and Petty (1995) performed a principal-components analysis to extract the initial factors. Kaiser's criterion was then applied prior to factor rotation, thus retaining only those factors with an eigenvalue of 1.0 or greater. This procedure eliminated error variance that might otherwise be included along with common variance and specific variance (Tinsley & Tinsley, 1987). The study employed orthogonal rotation using a Varimax procedure (SAS©, 1989) to maximize parsimony. Extracted factors were examined using a content analysis to find the most concise list of items representative of the data collected.

The purpose of the factor analysis was to identify a concise list of constructs representative of work ethic as measured by the OWEI (Hill & Petty, 1995). Using squared multiple correlations as the initial communality estimates, principal-components analysis of the data yielded four factors to be retained which met the Kaiser's criterion. These factor matrices

collectively explained 48 of the 50 items contained on the OWEI and accounted for 38.86% of the total variance. The four-factor solution suggested by the analysis of data helped refine the description of the occupational work ethic and helped form a practical focus for relative comparisons of workers and supervisors. The factors identified were factor 1, interpersonal skills; factor 2, initiative; factor 3, being dependable; and factor 4, reversed items. A summary of these factors as described by Hill and Petty (1995) is shown in Table 1.

The first factor, interpersonal skills, consists of items related to working relationships with other people. The descriptors of this factor include personal characteristics that facilitate good interpersonal relationships and contribute to positive job performance in settings where cooperation is important. The items used to measure the second factor, initiative, represent characteristics which facilitate "moving up the ladder" on a job and suggest dissatisfaction with "status quo" performance. Some items included in this factor also point toward a willingness to stick with a job situation even when it is not going smoothly. The items included in the third factor, being dependable, describe qualities that pertain to fulfilling the expectations and the implicit agreements inherent in a work task. The attributes listed in this factor imply meeting at least the minimum expectations for satisfactory job performance but do not necessarily include going "beyond the call of duty." In the fourth factor, reversed items, the descriptors were stated in the negative on the OWEI. These reversed items were included in the instrument design in order to prevent research participants from developing a response pattern based on quickly marking a rating on the Likert scale without reading or legitimately responding to the actual item. Therefore, these negative (reversed) items that make up the fourth factor are not considered valid factors to describe the work ethic and were not used as a factor of work ethic in this study.

Procedures

Workers and work team supervisors comprised the independent variables for this study. These employees were selected based on the Standard Occupational Classification (SOC)

Table 1
Occupational Work Ethic Inventory Factor Loadings

OWEI Factor 1: Interpersonal Skills

<u>Loading</u>	<u>Mean</u>	<u>SD</u>	<u>Item</u>
.75	6.08	.94	courteous
.71	6.17	.90	friendly
.69	5.76	.97	cheerful
.69	6.01	.99	considerate
.69	5.84	.92	pleasant
.61	6.12	.86	cooperative
.57	6.12	.90	helpful
.57	5.831	.01	likeable
.49	5.931	.05	devoted
.45	6.21	.92	loyal
.43	5.871	.08	well groomed
.42	5.241	.27	patient
.40	6.111	.04	appreciative
.39	6.23	.98	hard working
.30	5.061	.57	modest
.29	5.941	.12	emotionally stable
.29	4.611	.52	stubborn

OWEI Factor 2: Initiative

<u>Loading</u>	<u>Mean</u>	<u>SD</u>	<u>Item</u>
.62	5.52	1.12	perceptive
.56	5.89	1.03	productive
.55	5.85	1.01	resourceful
.54	4.97	1.35	initiating
.54	5.75	1.21	ambitious
.53	5.79	1.10	efficient
.52	5.84	.98	effective
.47	5.59	1.10	enthusiastic
.46	5.96	1.11	dedicated
.44	5.61	1.16	persistent
.44	5.72	.93	accurate
.42	6.02	1.05	conscientious
.38	5.59	1.39	independent
.37	5.86	1.02	adaptable
.35	5.22	1.42	persevering
.31	5.51	1.32	orderly

OWEI Factor 3: Being dependable

<u>Loading</u>	<u>Mean</u>	<u>SD</u>	<u>Item</u>
.62	6.27	.92	following directions
.62	6.16	.97	following regulations
.56	6.36	.88	dependable
.56	6.36	.91	reliable
.48	6.09	.92	careful
.46	6.53	.90	honest
.38	5.82	1.18	punctual

OWEI Factor 4: Reversed Items

<u>Loading</u>	<u>Mean</u>	<u>SD</u>	<u>Item</u>
.62	5.79	1.51	hostile
.62	5.95	1.28	rude
.56	5.66	1.50	selfish
.56	5.35	1.73	devious
.51	5.99	1.45	irresponsible
.51	5.67	1.47	careless
.48	5.79	1.54	negligent
.40	5.17	1.41	depressed
.33	5.40	1.70	tardy
.31	4.16	1.92	apathetic

Note: 38.86% total variance accounted for

aggregate group classifications (Standard Occupational Classification Manual, 1980). The SOC aggregate groups are (a) administrative, engineering, scientific, teaching, and related occupations, including creative artists; (b) technical, clerical, sales, and related occupations; (c) service occupations, including military occupations; (d) farming, forestry, fishing, and hunting occupations; (e) precision production, craft, and repair; and (f) operators, fabricators, and laborers.

Businesses and industries that represented manufacturing, service, and communication industries in Tennessee, Alabama, North Carolina, South Carolina, Georgia, and Kentucky were randomly selected for the study. In each of the companies selected, a human resources representative was contacted to obtain his or her agreement to participate in the

study. These representatives also supplied the researchers with the approximate number of workers and their supervisors that could be surveyed. This selection process was repeated until a total of 3600 inventories could be distributed.

The dependent variables for this study consisted of the four factors of the occupational work ethic represented as subscales of the OWEI. After securing a research study agreement from a company, the company representative received a packet of OWEI questionnaires to distribute among the survey participants. Most representatives reported that employees completed the surveys at weekly safety meetings or through the company's internal mail system. Of the 3600 inventories distributed, 2,234 (62.05%) usable instruments were returned to the researchers for this study.

Data Analysis

To answer the research question—Is there a significant difference in the occupational work ethic of workers and supervisors?—analysis of variance (ANOVA) statistics were computed for each of the independent variables. All tests were accepted as significant at the $p < .05$ level. The dependent variables represented by the subscales of the OWEI are all related to the overall work ethic construct, but univariate analyses were used to examine each subscale component represented by the factors of interpersonal skills, initiative, being dependable, and the reversed instrument items. When significant differences were found, results of the F test were sufficient to identify higher mean subscale scores since the independent variable had only two levels, worker or supervisor (see Tables 2 and 3).

Demographic data were also summarized to provide insights into the nature of the participants. Eight hundred thirty-two (37.2%) respondents were employed in occupations classified as technical, clerical, or sales; more than in any other field. In other areas, 764 (34.2%) belonged to the administrative, engineering, scientific, teaching, and creative artist categories; 351 (15.7%), were classified as operators, fabricators, or laborers; 135 (6%) were in service occupations, including military occupations; 130 (5.8%) were employed in precision production,

craft, or repair; and 22 (1.0%) were involved in farming, forestry, fishing, or hunting (see Table 4).

Findings

A univariate analysis of variance that tested for significant differences in responses for each OWEI subscale showed that the workers and work team supervisors differed for two factors of the work ethic: factor 2, initiative, with $F = 19.87$

Table 2
Partial Correlation Coefficients for the Four Factorial OWEI Subscales

Source	Interpersonal Skills	Initiative	Being Dependable	Reversed Items
Interpersonal Skills	1.00	.69	.66	-.39
Initiative		1.00	.61	-.34
Being dependable			1.00	-.38
Reversed Items				1.00

Table 3
Multivariate Analysis of Variance for Mean Scores of Workers and Supervisors

	Hotelling-Lawley Trace	<i>df</i>	<i>F</i>	<i>pr > F</i>
Workers vs Supervisors	0.0370	4,2154	19.9021*	0.0001

* $p < .05$

Table 4
Occupational Demographics

Soc Occupational Area	<i>n</i>	%
Technical, Clerical, Sales	832	37.24%
Administrative, engineering, scientific, teaching	764	34.20%
Operator, fabricator, laborer	351	15.71%
Service occupations, military	135	6.04%
Precision production, craft, or repair	130	5.82%
Farming, forestry, fishing, hunting	22	0.98%
Total	2234	100.00%

and $pr > F = 0.0001$, $r^2 = 0.009126$, and factor 3, being dependable, with $F = 7.34$ and $pr > F = 0.0068$, $r^2 = 0.003391$. Two of the OWEI subscales were not significant at the .05 level. These were factor 1, interpersonal skills and factor 4, reversed items (see Table 5).

An examination of the summative mean scores revealed that supervisors scored significantly higher on factor 2, initiative, with a summative mean of 91.74 versus 89.70 for workers. However, supervisors scored significantly lower on factor 3, being dependable, with a summative mean of 43.07 versus 43.57 for workers (see Table 6).

Discussion

The work culture or environment or even the nature of the work itself may impact a worker's determination of the work ethic. This study's results showed that workers and supervisors differ in their self-rated perception of the occupational work ethic. While supervisors reported a significantly higher level of initiative than did their workers, they reported a significantly lower level of being dependable. By examining the specific differences between workers and supervisors in their self-scoring

of the OWEI and discussing probable explanations for these differences, it may be possible to better understand the intrinsic needs and expectations of all employees.

Table 5
Univariate Analysis of Variance of Workers and Supervisors for the Four OWEI Factors

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>r</i> ²	Cumulative Mean
			<i>error</i>				
Interpersonal Skills	1	137.932	88.3056	1.56	0.2115	0.000724	87.95
Initiative	1	2104.175	105.9159	19.87*	0.0001	0.009126	90.48
Being dependable	1	129.954	17.7045	7.34*	0.0068	0.003391	43.38
Reversed Items	1	0.22744	63.1889	0.00	0.9522	0.000002	23.696

* $p < .05$.

Table 6
Mean Scores of Supervisors and Workers for the Four Factorial OWEI Subscales

Source	Interpersonal Skills	Initiative*	Being Dependable*	Reversed Items
Supervisors	87.625	91.738	43.067	23.709
Workers	88.146	89.703	43.572	23.688

* $p < .05$.

Factor 1: Interpersonal Skills

Workers and supervisors showed no difference in the factor related to interpersonal skills, perhaps demonstrating the existence of a common personal work ethic in this area. Practicing courtesy, being friendly, cheerful and considerate is quite likely work behavior valued by all members of the workforce.

Factor 2: Initiative

Supervisors rated themselves significantly higher in the area of initiative than workers rated themselves. Closer inspection of the items that comprised this factor shows the various characteristics for which supervisors scored themselves higher.

Supervisors self-scored themselves as more perceptive than did workers. They also rated themselves as more productive than workers rated themselves. Likewise, supervisors viewed themselves as more resourceful than workers viewed themselves, and supervisors indicated they had more energy, ingenuity, and enthusiasm.

Supervisors scored themselves higher on many traits that may well have led them to their positions of supervisors. They saw themselves as more ambitious than workers saw themselves and reported themselves as more efficient and more effective. They ranked themselves as more enthusiastic, more dedicated, and more persistent than workers ranked themselves with these same traits. Compared to workers, supervisors saw themselves as more accurate and conscientious employees, and indicated that they are more adaptable, more persevering, and more orderly.

Factor 3: Being Dependable

Being dependable, the third factor of the OWEI, ranked significantly lower for supervisors than for workers. The highest loaded items for this factor were following directions and following regulations at .62. These were followed by being dependable (.56), reliable (.56), careful (.48), honest (.46), and punctual (.38).

Supervisors self-reported themselves as less likely to follow directions or regulations than did workers. This might mean that supervisors tend to be less reliable, but it could also suggest that supervisors are more autonomous and more empowered to think

independently. An empowered supervisor who is willing to break the chains of bureaucracy may make creative, production-improving decisions. This tendency would be less valued in a worker, whose role is not to act independently, but to follow procedure, directions, or regulations.

Supervisors also rated themselves as less dependable than workers rated themselves. This may be a reflection of the more free-spirited, entrepreneurial, and individualistic employees who become supervisors. On the other hand, workers, who reported themselves as more reliable, require this characteristic to maintain their jobs. These differences between workers and supervisors may reflect the disparity in the two groups' perceptions of job security and job expectations.

Workers, perhaps due to the nature of their work, reported themselves as more careful than did supervisors. And they may, in fact, need to be more alert to job-related dangers than do supervisors, who typically work more with people and are less exposed to occupational hazards.

Workers also self-reported higher levels of honesty than supervisors. Although one's self-perception of honesty is relative, it is possible that in their role as people managers, supervisors encounter more situations in which expediency leads them to be less than honest. Supervisors may feel they have leeway to behave in a less honest mode in order to achieve their companies' goals.

Workers indicated they are more punctual than supervisors indicated they themselves were. This may be a factor of the workers' status in the workplace which allocates them to positions where their job performance is more consistently monitored. Particularly if they are employed on an hourly basis, punctuality is required for them to keep their jobs. In contrast, salaried workers, rather than concerning themselves with punching a time clock, may focus their efforts more directly on getting the job done.

Conclusion and Recommendations

This study has delineated the differences in self-rated perceptions of the work ethic between workers and supervisors. As Church (1995) indicated, these differences may affect

employee outcomes and work perceptions and subsequently organizational performance and effectiveness. McCortney & Engels (2003) cite potential work ethic problems with the increasingly diverse workforce and the challenges this diversity brings to the traditional camaraderie of work. For the training and development specialist, knowledge of these differences can provide helpful information and insights. Human resource specialists seeking to improve employee performance could utilize this information as they develop training interventions for an organization.

A better understanding of the occupational work ethic and differences between workers and supervisors in their work ethic perceptions could have implications for improving career and technical education and training as well. Knowledge of these differences could guide career and technical educators in their development of instructional content designed to prepare people for work. Data based findings using an instrument such as the Occupational Work Ethic Inventory may offer guide posts for practitioners. The ability to rank or rate work ethic characteristics for groups of workers and their supervisors gives educators an edge in preparing students/trainees for the world of work.

The OWEI could be used as a job performance measurement tool for the job related attitudes necessary for workplace performance. In addition, information gained from this instrument can prove useful to trade and industry instructors and human resource trainers as they seek to effectively teach job performance competencies.

To date the OWEI has not been used to determine if workers perceptions towards their work ethic or the antecedents of these perceptions are culturally or organizationally based, although related studies of job satisfaction have investigated such links (Burke & Litwin, 1992; Hofstede, 1980; Katz & Kahn, 1978; Kim, Park, & Suzuki, 1990). Examining these connections and their implications for an organizational system could assist in developing career and technical education curriculum as well as human resource development models.

There are many unknowns concerning the work ethic and other affective domains of work. There may be differences in

opinions about what makes a good worker and often that view will depend on the work culture, environment, nature of work, and dozens of other variables. The more information available about the diversity in outlooks and viewpoints that commingle at the workplace, the more efficiently and productively an organization can operate.

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