Baseline Data from Murray State University Student Internships 2008-2012

Abstract

Murray State University student interns were evaluated for internship experiences from the summer of 2008 until the spring of 2012. Internship directors scored their student interns in twenty-seven different characteristics that each belonged to one of four domains: "Work Performance", "Employability", "Work Qualities", or "Personal Qualities." Characteristics were scored using a Likert scale of ''1'' (Unsatisfactory) to ''5'' (Excellent). The ensuing descriptive statistics showed that student interns on average scored ''4'' (Above Average) to ''5'' in all twenty-seven characteristics. With one exception, Murray State student interns were recommended for full-time positions by their internship directors. This data will be used as a comparative baseline for Murray State University's Quality Enhancement Plan (QEP) that promotes applying skills learned in the classroom to real-world settings.

Background

The Murray State University Quality Enhancement Plan (QEP) was created with two goals in mind: fostering an institutional environment that encourages and supports the use of classroom knowledge in a real world setting through experiential learning opportunities is one. Providing said experiential learning opportunities to benefit the Murray State community is the other. An important aspect of fostering the institutional environment is identifying and removing barriers to participation. For Murray State faculty and staff, this means identifying past and present student deficiencies and removing them through future education and training.

Providing experiential learning opportunities that benefit the community is a three-fold operation. First, increase the engagement in experiential learning by recruiting more students and employers. When through these opportunities students acquire valuable skills and job offers and employers identify and acquire employees, the operation is successful.

Second, quality experiential learning opportunities are provided when ideas exchanged. Exchange takes place through platforms and mediums such as workshops, online forums, and evaluations. Third, improving students' skills is paramount. Student skills that need to be tempered include critical and creative thinking, problem-solving, information literacy, and integrative learning. By improving these target skills, students will be better prepared in the classroom and the working world. Capable students and eager employers act on each other in a cyclical fashion, which benefits the entire Murray State community.

To foster an institutional environment that not only encourages and supports growth but also provides appropriate experiential learning opportunities, it is important to know how well the system in place works. This can be done by creating a baseline for comparison to provide information on past student experiences. The institutional environment can provide growth to

future students by reinforcing strengths and correcting deficiencies. Areas for improvement can

be identified and consequently instructors can better prepare students for real-world

opportunities. By comparing recent data to the baseline, the effectiveness of the QEP can be

determined and increased.

Method

Baseline data was acquired from evaluations of ninety-eight Murray State student interns.

These student internships were completed from the summer of 2008 until the spring of 2012.

Employers (supervisors/internship directors) graded their interns in twenty-seven different

characteristics. Each characteristic was part of one general domain: "Work Performance",

"Employability", "Work Qualities", or "Personal Qualities." Using a Likert scale ranging from

"1" (Unsatisfactory) to "5" (Excellent), employers scored each student intern on how well they

embodied the characteristic. The employer was able to write comments and suggestions for the

student intern. The evaluation also asked employers if they would consider hiring the student

intern and if the results of the evaluation were discussed with the student intern.

Results

Initially there were more than ninety-eight evaluations. This number was reduced when

evaluations were removed due to non-standard practices such as the use of alternate evaluation

forms, duplicates, and/or incomplete internships. Twenty incomplete forms were kept (20% of

sample). Incompleteness ranged from a single question being skipped (due to evaluator error or

questions not applying to a specific internship) to entire domains missing. The latter can be

attributed to missing pages or use of outdated versions of the evaluation being used. Descriptive

statistics were found for the remaining ninety-eight evaluations. On all twenty-seven characteristics and four domains, Murray State students average scores were between "4" (Above Average) and "5" (Excellent).

Of the ninety-eight student interns, ninety-seven (99% of sample) were recommended for hire by their internship director. Only one student was not recommended for hire. This particular student evaluation was an anomaly: it was the only evaluation that contained no written comments. Furthermore, this evaluation was one of twenty-six (27% of sample) not discussed with the student. While it was not determined, it is possible that discussion of evaluations with the student (or not) could have affected scores. The only other anomaly was a situation where the student intern was *her own* internship director. This situation led to the student intern completing her own evaluation. In the end this data was kept as the standard evaluation form was used.

The data was negatively-skewed and contained one outlier. The skew was a result of the high frequency of "4"s and "5"s on evaluations: most of the data collected was clumped into the upper half of the Likert scale. Using criteria of being three standard deviations or more from overall sample mean the outlier was identified. The outlier was the student intern who was not recommended for hiring. Because of this outlier and the skew of the data, medians were included in analysis. *Both* the mean and median were included; the median for the reason previously mentioned while the mean to show the variability in the data. Variability was important for comparing domains and characteristics to each other and to the sample mean; this allowed for strengths and weaknesses to be determined. Figure 1 shows the student means and medians for each of the domains and the overall sample.
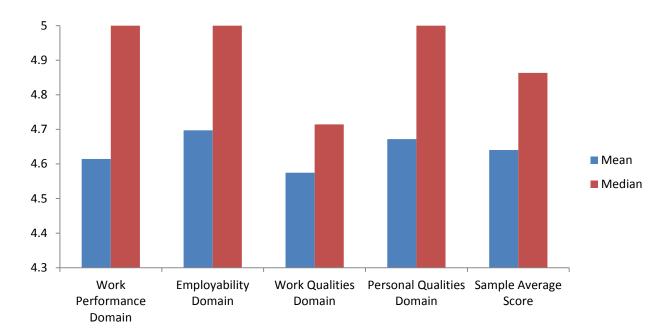
Figure 1: *Central Tendency of Evaluation Domains* (*N* =98)

Means and median s for the four domains varied as some were higher and some were lower than the overall sample. In other words, Murray State student interns performed better (higher means than the average) in some domains ("Work Performance" and "Employability") compared to others ("Work Qualities' and "Personal Qualities"). As a result, the overall average student intern performance fell between these four domains.

The first domain evaluated by employers was "Work Performance." See Figure 2 for specific characteristics evaluated. On a side note, this figure demonstrates why both the mean and median were included: while inherent skew in the data and the outlier necessitates the inclusion of the medians, the means were included to show how the average Murray State student intern varied across characteristics within the domain and across the entire evaluation.
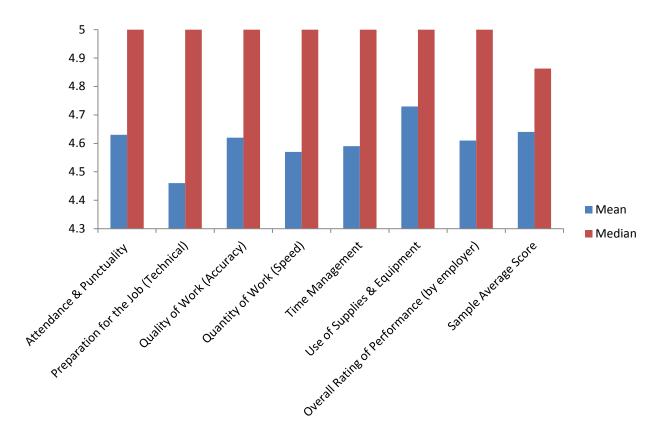
Figure 2: *Central Tendency of Work Performance Domain* (*N* = 98)

Student interns scored high in certain characteristics compared to others as seen in "Attendance & Punctuality," "Quality of Work," and "Use of Supplies & Equipment" because means higher in comparison to other characteristics and the sample mean. "Preparation for the Job (Technical)" and "Quantity of Work" had low means.

Figure 3 shows the average student intern scores for the "Employability" domain.
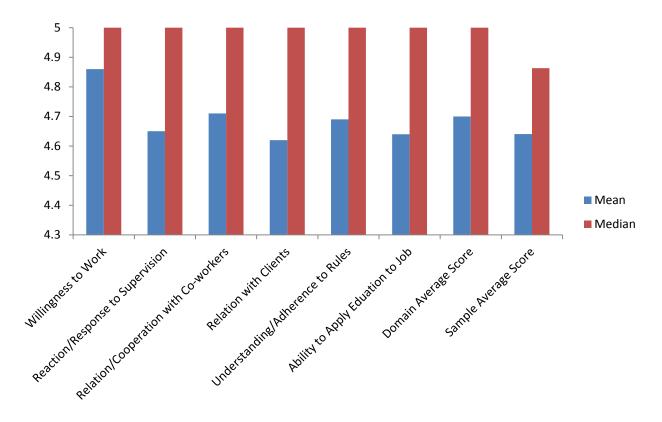
Figure 3: *Central Tendency of Employability Domain* (*N* = 98)

"Willingness to Work," "Relation/Cooperation with Co-workers" and "Understanding/ Adherence to the rules" showed high means. "Reaction/Response to Supervision," "Relation with Clients," and "Ability to Apply Education to job" showed low means in comparison.

The next domain assessed was "Work Qualities." Figure 4 displays the average student intern scores for this domain.
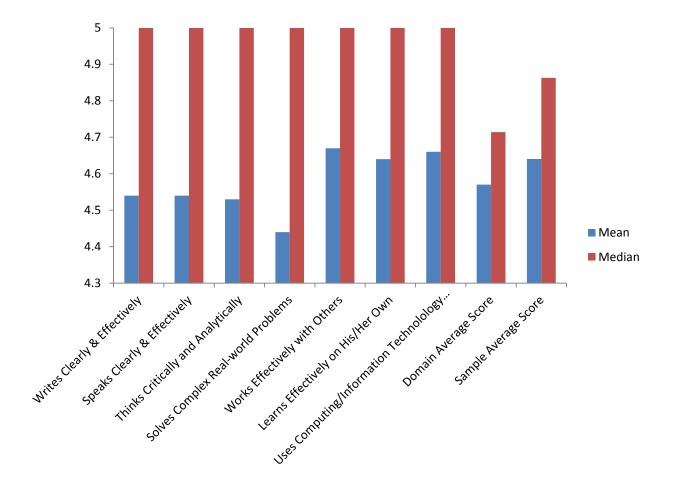
Figure 4: *Central Tendency of Work Qualities Domain* (*N* = 98)

Student interns showed high means in "Works Effectively with Others," "Learns Effectively on His/Her Own," and "Uses Computing/Information Technology Effectively." "Thinks Critically and Analytically" and "Solves Complex Real-world Problems" showed lower than average means.

The last domain assessed was "Personal Qualities." Refer to Figure 5 for the average student intern scores in this domain.
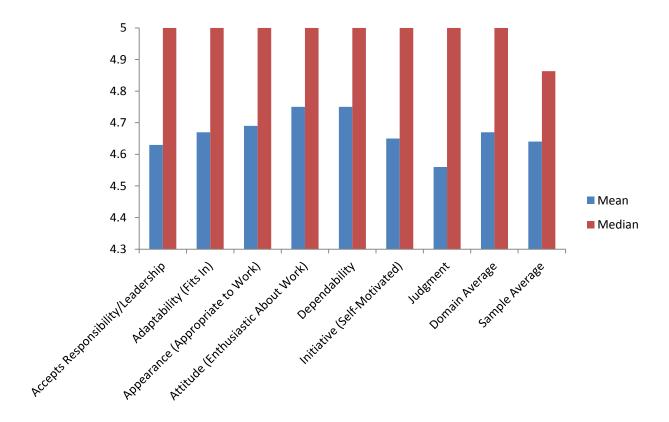
Figure 5: *Central Tendency for Personal Qualities* (*N* = 98)

"Appearance (Appropriate to Work)," "Attitude (Enthusiastic About Work)," and "Dependability" showed high means while the only characteristic that showed a noticeable low mean was "Judgment."

Discussion

In general, Murray State students are succeeding, but there are areas for improvement. Student interns show strengths in all four domains but there are deficiencies in three of the four domains as well. The "Employability" domain showed the highest means while the "Work Qualities" domain showed the lowest means. To determine if specific characteristics were strengths or deficiencies, the following operational definition was used: if a characteristic

had an average means .05 points or more *above* the overall sample mean it would be considered

a *strength*. If a characteristic had an average mean .05 points or more *below* the overall sample

mean it would be considered a *deficiency*.

It is prudent to note that this system of establishing strengths and deficiencies is *not*

standard practice. Originally, criteria that utilized standard deviations were going to be used.

But the small magnitude of differences between the characteristic means and the overall sample

mean did not allow for analysis (the resulting *z*-scores were too small). See Table 1 for data on

strengths and deficiencies.

Table 1: *Strengths and Deficiencies of Murray State Students in Work Performance,*

Employability, Work Qualities, and Personal Qualities (*N* = 98)

Characteristic	Mean	Difference	Designation	Domain
Preparation for the Job (Technical)	4.46	-0.18	Deficiency	Work Performance
Quantity of Work (Speed)	4.57	-0.07	Deficiency	Work Performance
Time Management	4.59	-0.05	Deficiency	Work Performance
Use of Supplies & Equipment	4.73	0.09	Strength	Work Performance
Willingness to Work	4.86	0.22	Strength	Employability
Relation/Cooperation with Coworkers	4.71	0.07	Strength	Employability
Understanding/Adherence to Rules	4.69	0.05	Strength	Employability
Writes Clearly & Effectively	4.54	-0.10	Deficiency	Work Qualities
Speaks Clearly & Effectively	4.54	-0.10	Deficiency	Work Qualities
Thinks Critically and Analytically	4.53	-0.11	Deficiency	Work Qualities
Solves Complex Real-world Problems	4.44	-0.20	Deficiency	Work Qualities
Appearance (Appropriate to Work)	4.69	0.05	Strength	Personal Qualities
Attitude (Enthusiastic About Work)	4.75	0.11	Strength	Personal Qualities
Dependability	4.75	0.11	Strength	Personal Qualities
Judgment	4.56	-0.08	Deficiency	Personal Qualities

Note. Overall sample mean used for comparison was 4.64.

Murray State Students possess about the same number of strengths as they do deficiencies.

Again, "Employability" as a domain showed strengths as the "Work Qualities" domain showed

deficiencies. Also, the "Personal Qualities" domain generally showed strengths while the "Work

Performance" domain showed deficiencies.

Part of Murray State's QEP is strengthening certain target skills in order to improve

student success. Table 2 represents these target skills and the particular evaluation

characteristic(s) that embody them. As a side note, the term "On Par" is introduced in this table.

A characteristic that is "On Par" shows a difference between the characteristic and sample means

that *is not* more than ±.04 points.

Table 2: *Target Skills in Quality Enhancement Plan* (*N* = 98)

Characteristic	Mean	Difference	Designation	Target Skills
Thinks Critically and Analytically	4.53	-0.11	Deficiency	1, 2, 3
Solves Complex Real-world Problems	4.44	-0.20	Deficiency	1, 2, 3, 4
Learns Effectively on His/Her Own	4.64	0.00	On Par	1, 2, 3, 4
Writes Clearly & Effectively	4.54	-0.10	Deficiency	4
Speaks Clearly & Effectively	4.54	-0.10	Deficiency	4
Uses Computing/Information Technology Effectively	4.66	0.02	On Par	4
Preparation for the Job (Technical)	4.46	-0.18	Deficiency	5
Use of Supplies & Equipment	4.73	0.09	Strength	5
Ability to Apply Education to Job	4.64	0.00	On Par	5

Note. Overall sample mean used for comparison was 4.64. 1 = Critical Thinking; 2 = Creative
Thinking; 3 = Real-world problem solving; 4 = Information Literacy; 5 = Integrative Learning.

These findings are significant to the QEP: each target skill needs to be addressed as each has

several deficiencies. Only one of the five target skills has a strength. This data is needs to be

used to target the areas needing improvement.

Suggestions

Some suggestions are recommended for the future. Adjusting how internship directors

evaluate their student interns is one. Most of the internships were completed at different

locations meaning that evaluations were filled out by different internship directors. Evaluations were not filled out exactly the same. In other words, each internship director had a different way of completing the evaluation which led to inconsistency. Much of this is unavoidable. However, a few changes could be made to increase consistency between raters. Consistency is important for determining the actual average performance of student interns.

Establishing a norm for comparison should be considered. One idea is clarifying that a "3" on the Likert scale is the target score on any given question. This heuristic could prevent internship directors from feeling pressure to give high scores. Reducing the Likert scale to a range of three ("1" through "3") may also help. Reverse-scoring the questions will make the rater pay more attention, reducing apathy in evaluation. Another effect of reverse-scoring is preventing 'autopilot' scoring (giving the same score on subsequent questions without fully comprehending the question). Setting a target date for when the evaluation should be completed (e.g., within one week of internship completion) may further reduce rater apathy and increase the amount of knowledge the rater has on the student intern for the evaluation, thus improving its quality. Establishing whether all evaluations or no evaluations will be discussed with student interns should improve consistency. A rater may change his or her scores in light of knowing that the student intern will eventually see them. It would be better for consistency if all raters followed the same procedure.

The second suggestion is getting feedback on the student interns who were not hired. Not being considered for hire is synonymous in this situation with student deficiency and failure in the QEP. In this scenario the employer is not gaining anything from the experiential learning opportunity nor is the student growing. Deficiencies need to be identified. In the case of the single student not being hired, contacting the internship director should have been done as no

written comments were provided on the evaluation.   Though the student may have received it

from the supervisor, Murray State did not receive enough feedback to identify and correct the

deficiency.   Knowing exactly what went wrong (through writing and/or through verbal

communication) would allow for the student to grow and specific improvements to be made to

the QEP.

Finally, certain professional qualities should be considered for designation as target skills

in school, these qualities are aligned with success and in a job with marketability

and effectiveness. Certain characteristics that embody professional qualities were taken from the

twenty-seven characteristics evaluated. Table 3 below represents these characteristics and how

well Murray State student interns display them.

Table 3: *Professional Qualities in Murray State Student Interns* (*N*=98)

Characteristic	Mean	Difference	Designation	Domain
Attendance & Punctuality	4.63	-0.01	On Par	Work Performance
Time Management	4.59	-0.05	Deficiency	Work Performance
Use of supplies & equipment	4.73	0.09	Strength	Work Performance
Understanding/adherence to rules	4.69	0.05	Strength	Employability
Works effectively with others	4.67	0.03	On Par	Work Qualities
Accepts responsibility/leadership	4.63	-0.01	On Par	Personal Qualities
Appearance (appropriate to work)	4.69	0.05	Strength	Personal Qualities
Dependability	4.75	0.11	Strength	Personal Qualities
Initiative (self-motivated)	4.65	0.01	On Par	Personal Qualities
Judgment	4.56	-0.08	Deficiency	Personal Qualities

These qualities/characteristics are universal to professional success be it in the classroom or workplace. While many of these qualities are being demonstrated by student interns, many could be improved through pedagogical intervention. For example, "Attendance & Punctuality," "Time Management," and "Understanding/Adherence to the Rules" could be worked on in a classroom setting with simple rules established by the instructor and discipline on the students' part. "Use of Supplies & Equipment" and "Appearance (Appropriate to Work)" could be practiced in classes that are applicable to the field of the student (e.g., creating class presentations using Microsoft PowerPoint or having a "Dress for Success" day). Working on group projects under instructor supervision students can improve "Work[ing] Effectively with Others," "Accept[ing] "Responsibility/Leadership," "Dependability," "Initiative (Self-motivated), and "Judgment." These qualities are easily improved and important to student intern success inside and outside of the classroom.