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THE WORK ETHIC GAP: COMPARING PERCEPTIONS OF STUDENTS, EDUCATORS, AND EMPLOYERS

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By

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THE WORK ETHIC GAP:
COMPARING PERCEPTIONS OF STUDENTS, EDUCATORS, AND EMPLOYERS

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ABSTRACT

THE WORK ETHIC GAP:
COMPARING PERCEPTIONS OF STUDENTS, EDUCATORS, AND EMPLOYERS

By

Joseph Routhier

Work ethic has been a constant, but elusive topic for decades. This study sought to identify the differences in perception of work ethic in between students, educators, and employers. Seventy-two participants observed videos of workers in various tasks and rated the perceived work ethic of the person in the video by using a sliding Likert scale. Additionally, participants were asked to comment as to why they rated the worker the way they did. Quantitative analyses were used to determine differences in the participant's work ethic ratings. Qualitative analyses interpreted respondents' comments to better understand the results. Results indicated that while educators assess work ethic with an eye for improvement and effort, employers assess work ethic with a focus on effective and efficient completion of a task. Students lack the experience to judge other's work ethic consistently.

DEDICATION

This thesis is dedicated to my parents, Peter K. and Rose M. Routhier, who gave me *my* work ethic and so much more.

ACKNOWLEDGEMENTS

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This thesis follows the format prescribed by the NMU Graduate Studies office and the *Publication Manual of the American Psychological Association (6th ed.)*.

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INTRODUCTION

The subject of work ethic has been both contentious and elusive in recent decades. Articles and studies have covered the range of employability skills, soft skills, and work ethic. Further discussions have varied from defining work ethic constructs to establishing rubrics so that students are assessed on the characteristics of work ethic. Despite years of critical banter, there is limited research on why the perception of work ethic is so varied among the most integral groups – educators, students, and employers. This study seeks to quantify the difference, if any, between these group's perceptions of work ethic and define *how* those perceptions differ.

What follows is a study that uses short video samples to simulate the brief observations that might occur in the work place or in the classroom, where a teacher or supervisor might develop opinions on an employee's work ethic. While it can be acknowledged that work ethic has more intangible qualities, this study will ask participants to consider those that might be visually assessed in a short period of time.

One of the goals in discovering how perceptions of work ethic differ between the three participant groups is to guide efforts in addressing the frustration between educators, students, and employers. Findings from this study could be used to develop professional development opportunities for educators. Similarly, the results could be shared with employers at workshops or conferences to recommend how to better train new employees. In short, understanding where people differ in their perceptions of work ethic, should help shape how those groups work toward a common plan of action.

CHAPTER 1: RESEARCH TOPIC

Work ethic has been a topic of contention for employers, employees, and educators for generations (Cassidy, 2006; Lerman, 2013; Lipset, 1990; Packer, 1992; Petty & Hill, 2005; Rosenbaum & Person, 2003; Rosenberg, Heimler, & Morote, 2012; Wall, 2011). Employers claim a lack of work ethic in new employees. Educators continue to attempt to implement curriculum changes that will teach work ethic through Career and Technical Education (CTE), Work Based Learning (WBL) programs, and School to Work (STW) initiatives (Friedel, 2011;. Griffin & Annulis, 2013; Hull, 2005; Packer, 1992; Wall, 2011). Employees claim they are already good workers and struggle to see their supervisor's concerns (Dunning, Heath, & Suls, 2004; Petty & Hill, 2005; Rosenberg et al., 2012). Clearly, there remains a lack of coherent communication about what work ethic is in practice and how best to address the frustration and concern of all three stakeholders: employers, employees, and educators (Riebe & Jackson, 2014; Rosenberg et al., 2012).

Research Problem and Justification

This section will define the topic of work ethic, for this study, and give a brief summary of reports and legislative movements that were key to the work ethic topic as a national interest.

The concept of work ethic can be traced back beyond the early 1900's as the Protestant Work Ethic (PWE). The PWE was a lifestyle of hard work, modest living, and personal discipline that had religious roots (Lipset, 1990). Today, most people relate to a more non-secular construct of attitudes and beliefs. In general terms, it is the belief that one is personally accountable for work done and that hard work is valuable (Hill & Petty,

1995). *For this study, work ethic was defined as behaviors that indicate a desire to complete a task well and efficiently.*

While its primary focus was educational in nature, when *A Nation at Risk* was published in 1983, it scrutinized the way young people were being prepared for work and college. This report is considered the precursor to the national attention and subsequent initiatives that would look to reform the educational system to increase work readiness in young people (Lerman, 2013).

The Secretary's Commission on Achieving Necessary Skills (SCANS) report, released in 1991, was apportioned by the Secretary of Labor. The report was meant to determine where there were gaps in the preparation of the younger generation for work in the future. Desired qualities were separated into "fundamental skills" and "workplace competencies"(Packer, 1992). While the report did site specific gaps in skill sets, it did not find fault with education so much as it provided a framework of what skills workers would need to be successful. One suggestion was a SCANS certificate that could have been awarded to students when they attained the desired competencies. Colleges and Universities could have used the certificate as part of their placement process, and employers could utilize it when sorting through applicants. However, in order for that system to have worked, it would have required change in both arenas. Employers and businesses would have to be more present and involved in providing working opportunities for students. Education would need to adopt and implement rigorous assessments for these skill sets (Lerman, 2013; Packer, 1992).

In 1994, the US Departments of Labor and Education created the School to Work Act to address the continued gap between existing abilities of the entry-level workforce

and the high expectations of employers. The Act focused on Work Based Learning (WBL) programs, School to Work (STW) programs, and changes in the middle and secondary curriculum to include more vocational learning (Brown, 2002).

Legislators continued to encourage schools to work with employers. Efforts to reform are evident in the continuation of the Carl D. Perkins Vocational and Technical Education Act. Initially started in 1984, the Act was reauthorized in 1998 and then again in 2006, as the Carl D. Perkins Career and Technical Education Act. The act offers over a billion dollars each year to CTE programs throughout the country. It requires schools to maintain articulation agreements with post-secondary institutions ("Carl D Perkins Career and Technical Education Act," n.d.). Although CTE programs get the advantage of federal funding, these programs have had to reconcile that support by evolving with the ever changing agenda of the political climate. Federal Perkins mandates continue to push for higher academic standards and the articulation with post-secondary schools. The origins of CTE, as a vocational preparatory tool, seem to be gone and instead, CTE has become a component of the larger educational agenda of increasing college enrollment (Friedel, 2011). Schools have embedded themselves in the Common Core State Standards (CCSS), developed in 2009. The Standards are supposed to reflect skills that young people need for success in college and careers, but Stephen DeWitt, senior director of public policy at the Association for Career and Technical Education (ACTE) isn't convinced. "The conversation about 'college and career readiness' was really only about college readiness at the time," (Deloza, 2013, p. 8). Educators continue to express concern that CTE and Common Core are operating from separate silos; that CCSS is an academic initiative focused only on those who are college bound (Pearson, 2015).

Purpose for the Study

There are a plethora of terms that are used in and around work ethic studies. Researchers discuss employability skills, technical skills, non-technical skills, soft skills, and work readiness skills. Further, when dissecting work ethic, employers often name other intangible qualities that might be a component of work ethic such as honesty, initiative, integrity, or motivation (Hill & Petty, 1995; Robles, 2012). Rather than become burdened in the minutia of terms and descriptors in an effort to establish guidelines for the research, a study was needed that allowed participants to choose their own words when discussing work ethic. The vocabulary that defines or describes people or situations should not be predetermined. With open dialogue, a study may better allow for discrepancies among the three stakeholder groups – employers, teachers, students – if there are any.

Research Question

This study sought out participants from three areas: educators, employers, and students. The goal was to further define the *differences* in their respective perceptions of work ethic. *The research question was, "How do employers', students', and teachers' perceptions of work ethic differ?*

CHAPTER 2: REVIEW OF EXISTING LITERATURE

There are numerous studies that have been instrumental in establishing a consistent conversation about work ethic. However, in the interest of brevity, not all of them can be considered here. Instead, in this section, some of the foundational studies will be examined along with those that are most similar to the interests presented in this paper. This section will also touch on the concept of social cognitive theory and how this effects evaluation of work ethic.

Despite the continued banter that work ethic is in decline in the United States and has been for several decades, Lipset (1990) did not agree. With the standard work week hovering around the 40 hour mark since 1945, he found no evidence to say America was doing less work or working poorly. Instead, he cited that in the post-World War II era, the relative upswing of the economy meant that some necessity-driven work was diminished. Since that time, more jobs have required some level of academic achievement; consequently, some people in lower level jobs may have felt a drop in their morale and satisfaction. However, when financial security was removed as a worry, Lipset found that most people would still choose to work.

In order to establish a common vocabulary, many researchers have used Occupational Work Ethic Inventory (OWEI) established by Hill and Petty (1995). The OWEI establishes 50 descriptors to identify work ethic competencies. Employees are asked to rate themselves when they use one of the descriptors to complete the sentence "At work I describe myself as …." They rank each statement using a range of 1 to 7, which correlates to the range of "never to always." These descriptors have been used repeatedly to measure beliefs and attitudes about work ethic, and the OWEI descriptors

were found to be replicable (Fox & Grams, 2007; Wall, 2011). However replicable, self-perception of work ethic fails to recognize that an employer's perception of work ethic is critical as well.

Some studies have compared work ethic assessments between supervisors and employees. In examining two more prominent studies, there were discrepancies between employers and their employee's. Employees consistently rated themselves higher than their supervisors rated them (Azam & Brauchle, 2003; Petty & Hill, 2005). Over-estimating one's abilities or potential may be attributed to inflated feelings of self-efficacy.

Social cognitive theory indicates that human agency is the ability of any person to act in a given structure or environment. It is common to model the behaviors of others; to try out certain actions, and then, interpret the results of those actions (Bandura, 1989, 2006; Pajares & Schunk, 2001). This level of autonomy and self-direction allows humans to develop a perception of self-efficacy - a belief of what they can or cannot do. Self-efficacy is a strong factor, ultimately, in what people can accomplish. Indeed, people do not even try something unless they have some belief that they can accomplish it (Bandura, 1989, 2006). It is important to note, however, that people tend to inflate their assessment of their own abilities and qualities (Dunning et al., 2004; Pajares & Schunk, 2001). This may be a factor when seeking an accurate assessment of work ethic between an employer and an employee.

Looking at various *types* of jobs did not improve clarity between employer expectations and employees' self-assessment. It did not matter if the job was classified as an "information" job – with higher order thinking skills, open ended problems, and

critical thinking components, or a "non-information" job - made up of simple, repeated tasks; in both cases, when using the OWEI, the employee's self-perceived work ethic was higher than the employer's evaluation of those employees. Further, employees with "information" jobs were consistently rated higher than those with "non-information" jobs (Azam & Brauchle, 2003).

Beyond employers and employees, it seems there is a lack of research that involves the group that legislators and laws continue to focus on – educators. A thorough study of the differences in perception should involve teachers, employers, and employees. One such study is a triangular study about employability skills that compared survey responses from students (potential employees), university faculty members, and human resource managers that recruited at the school. Rosenberg et al. (2012) looked a broader scope of employability skills, including leadership, literacy and numeracy, and the need for additional training after graduation. While Rosenberg did not focus in on work ethic as a specific survey component, the study does adequately address the most invested participants.

Theoretical Framework

While work ethic studies go back decades, much of the research seeks to define work ethic, define components of work ethic, or the research goes into the tangential areas of employability skills and soft skills. This section will explore the need for research that involves educators, students and employers.

Much of the work ethic research literature has sought to define or describe the components of work ethic. Researchers have generated categories, factors, and descriptors in an attempt to capture the intangible. Centered around the Protestant Work

Ethic (PWE), Furnham, (1990) developed seven questionnaire measures that were the basis for several of his studies. Those areas were: Centrality of Work, Self-Reliance, Hard Work, Leisure, Morality/Ethics, Delayed Gratification, and Wasted Time. Using these measures, he developed the Multidimensional Work Ethic Profile (MWEP). Further research has shown this to be a practical, empirical, and psychometrically sound measure of work ethic (Miller, Woehr, & Hudspeth, 2002).

Defining work ethic was approached in a different manner by Hill and Petty (1995) when they used 50 descriptor statements about work ethic to create the Occupational Work Ethic Inventory (OWEI). While these parameters were found to be replicable, they were still a personal reflection assessment. Most research in the work ethic arena consists of measuring a person's perception regarding the make-up or components of work ethic.

Furthermore, while much of the research indicates a lack of communication between educators, employees, and employers, there has been surprisingly little research to facilitate or further that communication (Azam & Brauchle, 2003). There have been, however, studies that compare how supervisors view work ethic and how their employees perceive it. Azam and Brauchle (2002) noted that supervisors and employees consistently disagree on the employee's work ethic; with employees rating themselves higher than their supervisors. But research that looks at work ethic from more than two perspectives is scarce.

Rosenberg et al., (2012) is one of the few studies that asked students, faculty, and those in human resources positions about work ethic and then compared the subsequent data sets. This triangular study looked at broad range of employability skills made up of

forty-seven constructs, with only seven of them directly focused on work ethic. Their findings indicated that while human resource offices wanted employees to obtain further training in work ethic, neither the students nor the faculty rated that as being important. Most importantly, they pointed out that, especially in entry level jobs, "understanding the importance of work ethic is one thing and being able to demonstrate it in a positive manner is another" (Rosenberg et al., 2012, p. 15). In their recommendations, Rosenberg et al., stressed the need for better communication between their participant categories – educators, students, and industry.

CHAPTER 3: METHODOLOGY

Study Design

This was a phenomenological fully integrated mixed method study. Quantitative data were collected concurrently with qualitative data during the survey. The qualitative data provided *complimentary* information and gave a deeper understanding of the quantitative data (Greene, 2008). This parallels Collins, Onwuegbuzie, and Sutton's (2006) rationale that qualitative data can be a significance enhancement.

While research of any kind must be scrutinized for its validity, in the field of mixed methods studies, the term *legitimation* has been used in recent years. Where validity is a term that can be applied to each of the data sets individually, the integration of the two kinds of data and how they are represented is better captured by the new terminology. Legitimation refers to the difficulty in making inferences between the data that are credible, trustworthy, or confirmable (Onwuegbuzie & Johnson, 2006).

Where the quantitative component of this study would indicate that participants differed or agreed on the perceived work ethic of the person in the video, that numeric value does not clarify what that perceived difference is; it does not describe it. By asking participants to comment on *why* they rated the work ethic the way they did, this study hoped to add dimension to story present in the numerical values. These comments offer insight as to what the participant was thinking when a work ethic value was chosen. This type of legitimation is weakness minimization legitimation (Onwuegbuzie & Johnson, 2006).

Participant Selection

This section will discuss the targeted participants and the methods used to contact them. It will also discuss how many participants responded to the survey and the remaining surveys after the data were culled for non-complete responses.

Participants for this study were students over the age of 18, secondary and post-secondary educators, and employers who typically hire entry level positions. Because these populations function in different areas at different times of the year, each group of participants was reached by mass emails. Surveys were sent out during the summer months, therefore students and teachers were sent emails outside of their respective schools. Employers were reached by accessing email lists through the Chamber of Commerce or local business organizations.

While this study did some snowball sampling on social media, the majority of the student data was from a mass email to all incoming college freshmen at Northern Michigan University. It is the assumption, at this point, that most of the participants have not held a full time job for longer than the summer months between their school sessions. As such, they represent the young adult emergent worker, between the ages of 18-24, who might be applying for an entry-level job.

Educators' emails were obtained through a local Regional Education Services Agency (RESA) and by contacting area principals. While the survey did ask participants to list previous work experience, it does not record how long the teacher has been in education. Similarly, this survey and research does not differentiate between core curriculum and CTE educators. A review of the literature surrounding employability

skills and work ethic indicates that all educators play a role in establishing these qualities in young people.

A few local employers were approached directly and asked to participate. Most employers, however, were reached by contacting Marquette Area Chamber of Commerce (MACC) and the Lake Superior Community Partnership (LSCP) to obtain business email addresses. Between both organizations, 60 emails were sent out to potential employers in the area.

Total respondents varied among the groups. All responses were culled to eliminate those entries that did not fully complete the survey. This reduced the number of completed surveys to 23 for educators and 19 for employers. Initial student responses numbered over 100 and even after the initial culling process, they had to be reduced. Student responses were assigned a random number by using a number generator and of those, thirty were selected for use in the study.

Data Collection

This section of the paper will discuss how the data was collected for the survey. All groups of participants were asked to watch the same short videos of another person completing a task. By observing and anonymously rating someone else, the self-assessment bias should be removed from the typical employer/employee evaluation comparison that was used in many other research studies. Participants then rated the work ethic of a specific person in the video by using a sliding Likert scale. The Likert scale was be anchored on both ends -a low numerical score of zero (0), assigned a descriptor of "Poor Work Ethic" and a high numerical score of one hundred (100), and an

assigned a descriptor of "High Work Ethic." Numerical values were be hidden from participants at all times.

Any long term assessment of work ethic is made up of a collection of small samples. This visual assessment is meant to simulate how an employer might observe an employee in a small time sample. Participants watched the videos to form an initial or emergent opinion about the employee's work ethic. As such, many of the intangibles are removed from the scope of this study and leave only subtle physical or observable traits that might be easy to address with employees and students. Just as it can be beneficial to watch a student work a math problem to understand where they are making their mistakes, this study seeks to pinpoint the difference between perceptions, so that these observable traits can be discussed and utilized as the first steps of helping young people develop stronger work ethic.

After each video and Likert scale, participants are asked to explain *why* they rated each worker the way they did. This qualitative component removes the researcher's inferences about each participant's rating. Not only does this offer more insight than strictly numerical data, but by allowing participants to choose their own words, the discussion is less predetermined or constrained than an OWEI study.

Analysis and Coding

As an initial comparison, work ethic Likert scores from all three groups were sorted by video and compared using a box plot. Each group's median was denoted, as were the quartiles above and below the median score. The resulting graph showed that the participant group scores *did* vary between videos. This verified that participants were able to differentiate between levels of work ethic; in other words, not all the videos were

rated the same. The video Stump Removal was used as our high work ethic indicator and indeed, it did show the highest rating when all the work ethic inputs were grouped together. Refer to Figure 1on page 17 and in the Appendix.

Because the response data was not normally distributed, an ANOVA could not be used. Therefore, all statistical analysis was done using a Kruskal-Wallis test. The Kruskal-Wallis test is a nonparametric test, similar to the ANOVA, that can be used to determine if there are statistically significant differences between two or more groups of an independent variable. Whereas an ANOVA uses means, the Kruskal-Wallis utilizes the medians of the group's responses. The null hypothesis is that the medians of all groups are the same. It should be noted, that while the Kruskal-Wallis test can indicate that one of the groups is statistically different from the others, it cannot indicate which group is different without other tests. Comparisons were done using a 95% confidence interval, therefore, if the test revealed a *p* value less than .05, one of the medians is statistically different from the others.

While most of the videos showed differences in median scores that were statistically insignificant, there were three videos that did show significance. In all of the videos where *p* was less than .05, the employer's median work ethic was the lowest of all the response groups. In video 1, *Long Arms*, however, the educators ranked work ethic as being higher than both the student and employer groups. The significance of all eight videos is covered later in the study.

Written comments and responses were run through a three-cycle process of in vivo coding. Using the participants' words, excerpts or phrases were highlighted into basic categories and then, later, categories were grouped into themes.

As comments were highlighted, connotation was indicated by a (+) for a positive remark and a (-) for a negative remark. An example of negative comment under the Interest/Motivation category would be, “Looks like they doesn’t care.” Alternatively, in that same category, a positive response would be, “He was engaged and really cared about doing a good job.” As another example, this time in the category of Body Language, a positive comment would be, “You can tell by his stance, he’s ready to do some real work.” Whereas, a negative Body Language comment would be, “just going through the motions,” or, “you don’t sit down to do that type of work.” This allows a quick visual assessment of the coded comment sheet to compare positive and negative responses.

The phrases from participant responses were sorted into sub-categories. Later sub-categories were grouped under a main theme. Final themes were: Effort/Try, Attitude, and Knowledge/Ability. Under the theme of Effort/Try, the sub-categories were: Lazy/Vigorous, Diligent/Endure, Body Language, Pace. The theme of Attitude included: Interest/Motivation, Focus, On Task, and Determined. The final theme of Knowledge/Ability had sub-categories of Aptitude/Ability, Effective/Ineffective, Safety, and Efficient. There were some comments that came up sparingly in participant responses. These were recorded and grouped into sub-categories, but ultimately, they were not used enough to bring in to the final themes. These categories were: Compared to Others, Supervision/Consequences, and Complaints. While these were not incorporated into the main data themes, they did provide insight into the way some participants evaluated work ethic scores.

CHAPTER 4: FINDINGS

The following section will discuss the results of the study. While there are visual summaries of the data in Figure 1 and Table 1, each video's work ethic scores will be discussed in detail throughout this section. Links to the videos will be provided so that readers with internet access can view them. Participant work ethic scores will be reviewed and statistical comparison test results will be discussed for each video. A review of participant comments will accompany the quantitative analysis for each video. Implications and recommendations will be discussed later in the paper.

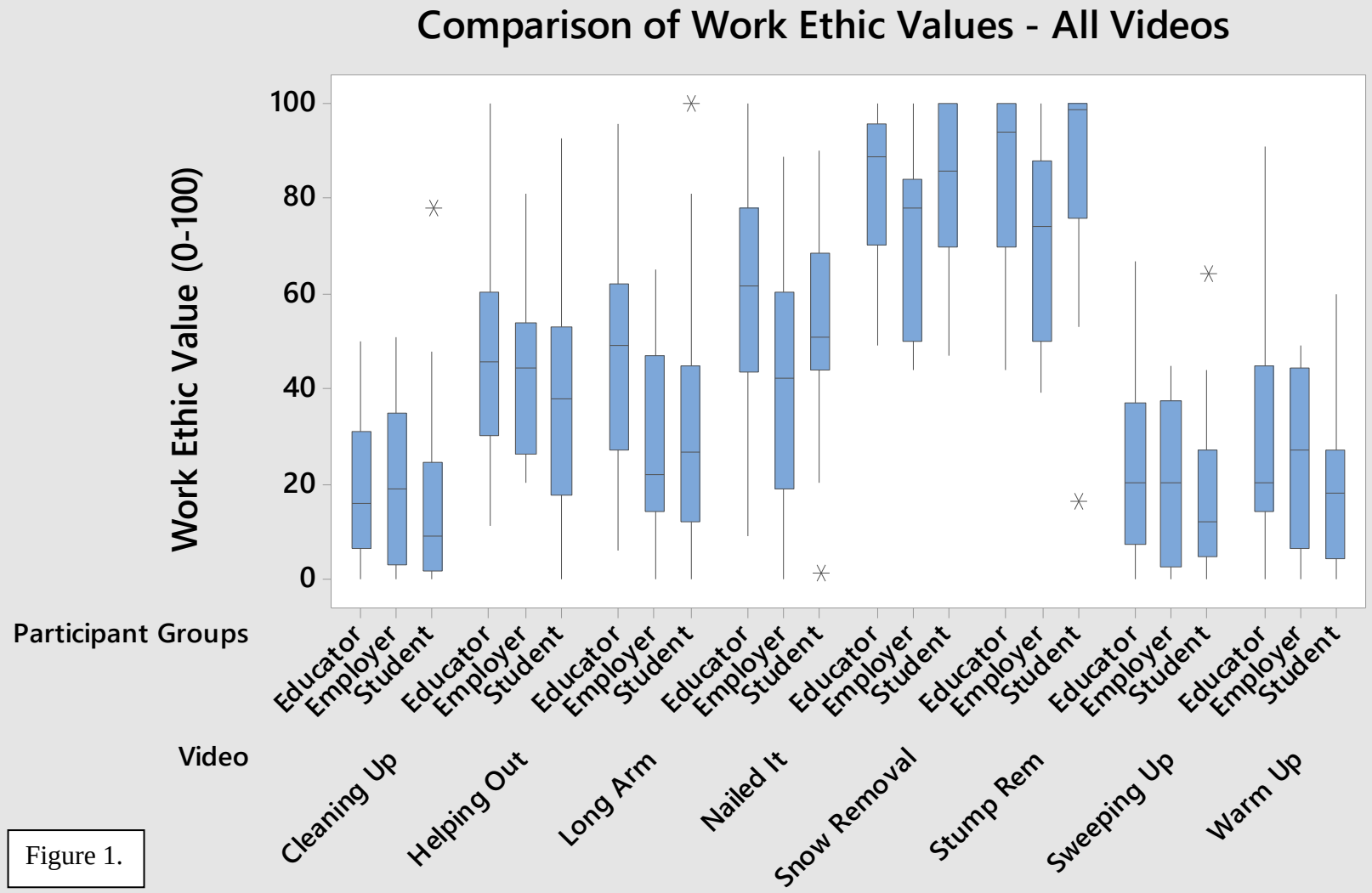
Comparison of Work Ethic Values - All Videos
Work Ethic Value (0-100)
100
80
60
40
20
0
Participant Groups
Educator
Employer
Student
Video
Cleaning Up
Helping Out
Long Arm
Nailed It
Snow Removal
Stump Rem
Sweeping Up
Warm Up

Figure 1.

Table 1. Median Work Ethic Scores by Group and Kruskal-Wallis Results.

	Median Work Ethic Scores by Group			
Video	Educator	Employer	Student	H
1 Long Arm	49	22	26.5	7.78**
2 Stump Removal	94	74	99	9.83***
3 Warm Up	20	27	18	3.14
4 Nailed It	61.5	42	51	6.38**
5 Sweeping Up	20	20	12	2.08
6 Snow Removal	89	78	86	5.62
7 Cleaning Up	16	19	9	2.16
8 Helping Out	45.5	44.5	38	1.60

*** = $p < .01$, ** = $p < .05$

Video clip 1 was entitled Long Arms. It can be seen here: https://vimeo.com/164937953. Work ethic scores from educators had a median of 49, while student and employer medians were 26.5 and 22, respectively. The Kruskal-Wallis test indicated one of the groups scores was statistically different from the other two (H = 7.78, p=.020). Refer to Figure 2 in the Appendix.

Educators were the most complimentary group with an upper score of 96 and nine positive comments on the subject's efforts. Positive responses tended to focus on the effort and diligence of the subject. Respondent statements included, "He stayed on task," or, "He didn't give up," and, "He kept working." Educators focused little on knowledge or aptitude for the task and even less on the pace of the subject and safety concerns.

Conversely, employer responses concentrated heavily on pace and the knowledge of how to correctly complete the task. Supporting statements included, "Wrong tool," and, "Maybe it was his first time with that tool." Another stated, "Instead of specifically understanding the task, he seems to be experimenting with it." The lack of safety equipment was also attributed to a deficiency of knowledge about the task. "Safety is the first priority," said one response; while another suggested the subject should have gathered a ladder or scaffold. Attitude and effort were nearly all negative with comments such as, "My first impression is that this person does not care about the job he is doing…"

Student responses nearly all focused on the subject's effort. "This person wasn't actually trying," wrote one participant. The word "try" in was used in a negative connotation more than a dozen times. Further, students seemed willing to use language that was more affronting, using the word lazy three times in their responses whereas the other participating groups did not use it at all.

Video clip 2 was entitled Stump Removal. It can be seen here: https://vimeo.com/167794049. Work ethic scores from students had a median of 99, while educator and employer medians were 94 and 74, respectively. The Kruskal-Wallis test showed one group's perception was significantly different than the others for this video ($H = 9.83$, $p = .007$). Refer to Figure 3 in the Appendix.

Effort was the trait that was most commented on for this video. While all the respondent groups mentioned the worker's diligence and pace, the students cited these traits most. Students gave over 30 positive comments, compared to only 15 remarks from employers. While students and employers commented differently when referencing

effort, both of the groups made seven positive comments about the worker's positive attitude.

While Educators were generally positive about the subject's work ethic, they were concerned about the effectiveness of the subjects effort. Comments included: "He may be working fast instead of effectively," and " …still doesn't seem to be moving much dirt." One employer noted a similar concern, stating, "Never mistake activity with achievement."

Employers were the most safety-concerned respondents, citing their concerns four times. Comments indicated that proper safety procedures and equipment are critical to employee performance. One commenter stated, "I'd have rated him higher if had appropriate footwear." Steel toed shoes or footwear was noted along with safety glasses by employers more than any other group; whereas, educators made no comment on safety wear.

Student responses were the most complimentary. One participant noted the subject's body language by commenting, "His stance is strong and proud. The way he carries himself, he seems to know what he is and has to do." Student language was, again, the most frank of the group with comments like, "He was working hard and with vigor," and, "Not lollygagging."

Video clip 3 was entitled Warm Up. It can be seen here: https://vimeo.com/164937978 . The median work ethic score from students was 18, while the educator median was 20 and the employer median was 27. The Kruskal-Wallis test showed that the difference between the group's work ethic scores was not statistically significant ($H = 3.14$, $p = .208$). Refer to Figure 4 in the Appendix.

As one could imagine, because this video focused on a Physical Education course, many comments were related to body language and pace. Educators were the most gracious with 11 positive comments; most of them with a positive empathetic connotation. One responded, “He may be working as hard as he can and persevering with a task that is very difficult for him.” Another educator found praise in a comparison, “After all, he is jogging and not sitting on the sides.”

Student responses, while eliciting a few understanding comments, were mostly made up of critical comments regarding the student’s effort. Frequent phrases centered on, “not trying,” or, “lazy.” A more insightful set of comments seemed to address a worker’s desire or personal interest in the task at hand. One participant said, “He just didn’t want to.” Still another said, “No care or motivation.” And a third said, “Has no passion or drive for what he is doing.”

Employer comments were less empathetic, with only one participant saying, “Could be doing his best.” Rather, more comments noted the shortcomings of the student’s running efforts by noting that he didn’t try to match the pace of others, he cut corners as he ran, and he got passed by his peers. Like the students, one employer noted this student, “lacks gumption or the desire to compete.”

Video clip 4 was entitled Nailed It. It can be seen here: https://vimeo.com/164937857 . The median work ethic score from students was 51, while the educator median was 61.5. Employers ranked the work ethic the lowest overall, with a median score of 42. Statistical analysis shows that one of these groups ranks worth ethic significantly different than the other two ($H = 6.38$, $p = .041$). Refer to Figure 5 in the Appendix.

Most notable here, was that body language was a contentious point in participant responses. Under body language, nearly all the comments were negative. Students commented negatively 5 times, employers agreed with 6 negative comments, and educators had 4 negative remarks. One educator had the lone positive comment, "It doesn't bother me he is seated."

Despite nearly all respondents praising the focus of the workers, not everyone looked at focus the same way. Not counting regular comments on, "being focused," the educators, in particular, used the phrase, "on task," six other times.

Being focused however, does not mean a worker is proficient or has the requisite ability for the job. Educators posted 6 negative comments about workers ability and students commented a mix of positive and negative ability comments. When comments are separated between having an aptitude or having an ability and actually being effective, employer comments stand out. Employers are much less concerned about assessing your ability to do the task; they are concerned with whether or not you are effective. The difference is subtle; but, whereas students and educators made note about the worker's personal abilities, the employer simply looked at whether or not the job was completed successfully.

Video clip 5 was entitled Sweeping Up. It can be seen here: https://vimeo.com/164937471 . The work ethic median score from students was 16, while the employer and educator median were the same, with a value of 20. While these were among the lowest scores for any of the eight sample videos, the work ethic scores were tightly grouped between the three participant groups. Thus, the statistical

comparison did not yield significance (H = 2.08, p =.354). Refer to Figure 6 in the Appendix.

Not only did this video yield low scores from all participating groups, a quick visual assessment of the coding sheet shows a mass of negative comments from every group. The only positive comment out of all written responses was from an educator who stated, "Again the student was on task. Perhaps he was never taught how to sweep? It depends on the teacher's expectations."

Most comments for this video addressed whether or not this student was being effective at the task of sweeping, a lack of interest or motivation in the task, the slow pace of the work, and the general lack of perceived effort.

Negative comments from educators included, "Complete apathy," and, "He appears to be doing the bare minimum." However, two respondents in this group wondered the same thing by citing, "Perhaps no one taught him," and, "Perhaps he was never taught how to sweep."

Students comments addressed effectiveness and included, "That's not sweeping, that's pushing a broom," and, "Isn't even attempting to sweep, he's just walking with the broom." Addressing body language another student said, "Poor posture. Sweeping actions indicate laziness." One student responses sided with the educators by saying, "…or nobody ever taught him how to sweep a floor."

Employer comments echoed similar sentiments citing the student worker's apathy, pace, and body language. One commented, "He's wasting time until the bell rings." Another stated, "lack of focus, horrible body language, and no sense of urgency."

Video clip 6 was entitled Snow Removal. It can be seen here: https://vimeo.com/164937974 . These work ethic medians were the second highest of any video. Student evaluations had a median of 86, while teachers and employers averaged 89 and 78 respectively. The statistical comparison for this video showed the difference between the participant group's median scores is not significant ($H = 5.62$, $p = .060$). Refer to Figure 7 in the Appendix.

Almost appearing as the antitheses of Video 5, the coded comments sheet is full of positive indicators. The only negative indicator came from a student comment of, "this person is working, but not very efficiently." This was countered by four other responses from participants citing the work as efficient because it was "consistent and effective."

The most commented upon category, among all groups, was effectiveness with 26 positive responses. Pace and effort were also commented on repeatedly.

Educators commented on the process as "methodical and purposeful." Others cited diligence and working independently.

Employers noted the appropriate clothing, consistent pace, and the well-cleared drive. One comment from an employer referenced other activities as distracting, "This guy is shoveling his driveway, not texting or smoking."

Students noticed that the shoveling removed the snow all the way to the cement and commented that the pace was complimentary to an effective completion. One said, "This person was exerting himself in order to achieve the task at hand. He was clearly engaged and fully applying himself, judging from the way he was handling the shovel and his pace of movement." Another remarked, "He's not leaving that little trail of snow after a pass with the shovel, which shows he's not lazy."

Other comments from respondents went further than simple mention of pace or effectiveness. Comments that stood out as offering additional insight were given by two educators and one employer. The first educator said, "It is difficult to assess work ethic as the goal of shoveling the driveway benefits him directly (as the homeowner) as opposed to (doing this for) an employer." This is the first time personal benefit has entered into comments. Another educator said, "Well done. Like my dad would do it." This marked the first comment that referenced respect, a generational gap, or a mentor example as a way of measuring work ethic. Lastly, an employer said, "(this video) doesn't give a person much of their (worker's) character, other than pushing a shovel on the driveway." Character as a trait of work ethic did not come up in any other responses.

Video clip 7 was entitled Cleaning Up. It can be seen here: https://vimeo.com/164937968 . The median work ethic scores for this video were the lowest of any of the videos. Student work ethic ratings had a median of 9, while educators and employers averaged 16 and 19 respectively. The Kruskal-Wallis test for this video showed no statistical significance ($H = 2.16$, $p = .340$). Refer to Figure 8 in the Appendix.

Between all the participant responses, more than 75% of the comments noted that the worker left the job unfinished. While some comments started by noting the student in the video at least made the effort to pick up the tools, they were overwhelmingly countered by the remarks about not seeing the task through to completion. Further, many participants said that the unfinished job simply made more work for others that were working.

More than half the student comments included the word lazy in some manner. An employer went further to say, "You can count on that kid to be the worst employer ever." The mean scores, accompanied by participant comments, seems to indicate that by not completing the task of putting the tools away, it negates most of the workers' efforts of picking up the tools at all. One employer said, "Minimal effort. Could have taken 5 more seconds to put the tools away and not just drop them."

Although the work ethic ratings were low, not all the comments were negative. One educator comment of "Maybe he didn't know where they tools went," gives the worker the benefit of the doubt. Likewise, one employer noted that both workers in the video had good pace by saying, "I will say that they were not sluggish or indecisive about their actions."

Video clip 8 was entitled Helping Out. It can be seen here: https://vimeo.com/164937995 . Educators gave the highest work ethic scores for this video, with a median of 45.5. Employers work ethic scores gave a median of 44.5, while the student median for perceived work ethic was 38. The statistical comparison for this video indicated no difference between the groups ($H = 1.60$, $p = .449$). Refer to Figure 9 in the Appendix.

This video seemed to give participants the most trouble when it came to trying to define the worker's actions in the video as giving the impression of positive work ethic or negative work ethic. Nearly every comment, from all groups, admitted that it was difficult to determine the worker's intention clearly in the video. While many gave the worker the benefit of the doubt, and said that he was helping out or teaching someone how to do the task (a positive comment), those same respondents countered that

statement with the idea that he should have had his own tool or been working as well (negative comment).

Participant statements seemed to comment on the duality of the situation in the video. One educator said, “He isn’t doing much himself, but at least appears to be trying to teach someone else.” Coding, as it was used in other segments, puts a negative comment mark under interest or effectiveness for “not doing much himself” but also requires a positive mark under interest or motivation for the perception that the student was “trying to teach someone else.”

Some respondents noted that the worker’s intention could have been two-fold. “He may be helpful or he may just be interested in the girl,” said one educator. One student commented, “He is trying to be a flirt by the looks of it.” Yet, another student remarked, “He seems more interested in talking to the girl instead of getting the job done.”

Employers noted similar things; one commented, “He seems more intent on socializing with the women than on following the directions he was given and doing his part to accomplish the assigned task.” Still, another said, “Wants to be helpful… or wants a date.”

Despite the comments of those that thought the student was mixing social time with work time, even more confusing to respondents was whether or not helping another worker makes one a good worker or if the student should have been working himself. “I guess you could say he was helping, but in my opinion he needs to go get his own pry bar and start focusing on his own job,” said one employer. One student gave a similar response, “He did show the girl how to use the tool, but he did not actually take any out

himself." Finally, an educator voiced a similar viewpoint, "He should have had his own tools and been pulling nails as well."

Limitations and Implications

Due to the constraints that exist for any research project, every study suffers some form of limitation. This section will discuss the limitations of this study and discuss how those may have affected results or conclusions.

The sample for this study was limited in scope and size. While many received the invitation to take part in the survey, not all recipients began the survey. Of those that did start, even fewer completed the entire questionnaire. This left an uneven quantity of responses for the three main groups. As would be the case with any study that seeks to find a cultural norm or truth, a larger sample across a more diverse population would have more substantial application.

With the study originating in the Upper Peninsula of Michigan and utilizing the local education networks and Chamber of Commerce, the outreach for the respondents was geographically small. Even when considering that the email went out to any incoming freshman student for Northern Michigan University, the bulk of the responses for this study came from Northern Wisconsin, the Upper Peninsula of Michigan, and perhaps some of the northern Lower Peninsula of Michigan. This region, subject to long cold winters and a history centered in mining and timber cutting, is known for a hearty lifestyle, a fairly homogeneous culture, and strong work ethic. This region has strong Protestant history and, as such, the people adhered to the original characteristics of the Protestant Work Ethic - hard work, thrift and discipline (Lipset, 1990). A life of manual labor and sisu (the Finnish word for "grit") are commonplace for the area where this

survey took place. Consequently, the varied cultural beliefs and experiences that enter into larger studies and samples is likely not present here. Where this study examined the differences in perceived work ethic for an upper Midwest region, a larger study may yield different results.

Another consideration, more focused on the participant groups, is that those that responded to the survey may have entered into the process with a personal agenda or contentious viewpoint. For example, an employer may take the survey as a means to share their poor experiences with young employee's work ethic. As such, there may be bias in their responses to show their current viewpoint. In a similar manner, educators may feel a positive rapport with young people and consequently, may not want to cast a shadow over the work ethic of a young worker. Perhaps the only way to eliminate this type of participant bias would be used silhouetted figures or cloaked persons in the videos, so that the age of the worker is hidden.

Finally, it should be noted that the order of the videos was not random during the distribution of the survey; meaning that every participant saw the same video first. In order to eliminate any bias, future studies should display the videos in a random order for each participant.

Discussion and Conclusions

This section will discuss the larger themes that can be seen from the results when the qualitative data is considered with the quantitative data. While only three of the videos showed a statistical difference in the median work ethic scores between the groups, there were aspects of the other video responses that still offered valuable information about how perceptions of work ethic differ. There was little prior research

available that involved these three participant groups; however, a triangular design approach study by Rosenberg and Heimler and Morote (2012) came close when it studied basic employability skills using similar sets of respondents. They found that work ethic and employability skills vary between students, educators, and human resource managers because their culture and norms are different.

Teachers gave the highest median work ethic scores on five of the eight videos. In the videos where the Kruskal-Wallis test showed significance, teachers had median work ethic scores nearly 20 points higher than that of employers. This is not a reflection that teachers do not recognize work ethic; indeed, their comments indicate they hold similar beliefs to those of the employers. Instead, their comments indicated that they rewarded potential or effort and verbally offered encouragement instead of disapproval. This correlates to scores where educators ranked the work ethic higher for effort than employers.

In reflection, this correlates with the job of being an educator. Teachers cannot expect immediate proficiency. They use observation, with an eye trained for effort, to monitor progress toward a goal. Their jobs require that they should find the positive in each student and build on that. In order to more closely align the rankings of employers and educators, more communication between the two would be needed (Rosenberg, Heimler, & Morote, 2012).

By comparison, an employer expects proficiency from an employee once they are trained. Beyond effort, their comments indicated they were seeking aptitude and their comments repeatedly went to effectiveness. That can be seen in the scores and comments for Long Arm and Nailed It. Employers indicated they wanted the task completed, done

well, and in an efficient manner. Capelli (2008) said that employers want the skills they need, now. This level of proficiency is not the daily goal in a classroom; it's typically the expectation at the *end* of the lesson.

Educators again demonstrated a difference in their assessment of work ethic when looking at comments and scores for the third video, Warm Up Laps. While all three groups gave the runner/worker more than six negative comments for effort, the educators were the only group to counter that with eight comments that expressed empathy.

The tendency to focus on worker effort and to allow empathy to sway work ethic scores is one area that causes educators to rank workers higher than employers. However, not only is there a discrepancy in work ethic scores when it comes to poor worker performance, employers perpetuate that gap even when a worker is completing the task effectively.

Stump Removal and Snow Removal were expected to have an average or above average perceived work ethic across all groups. After data comparison these two videos did score the highest medians of all eight situations. But even in Stump Removal, employers scored the worker significantly lower than the other two respondent groups. This indicates that even when the worker is doing their job well and in an efficient manner, an employer offers less praise than the other two groups. For all three statistically significant comparisons, the employers were the lowest median of perceived work ethic. Performing to their expectation, in other words, does not merit a superlative score.

This correlates to the study by Azam and Brauchle (2003) where they found that employers ranked the work ethic of non-information employees more harshly than the

employee's self-perception. Further, the study concluded that it was easier for employers to spot poor work ethic on repetitive non-information (blue collar) tasks and that these narrowly defined jobs provide little opportunity for workers to impress employers.

This perception difference may be a root cause for some of the disillusionment that exists between employer expectations and the parent or teacher beliefs that they are a sending a student who is a good worker out for employment. In Stump Removal, educators and students gave median scores of 94 and 99 respectively, whereas employers gave a mean of 74. No wonder educators and students are confused when we hear employers say that no one has a good work ethic anymore.

Employers who ranked work ethic as lower than the other two groups were not the only cause for statistical significance, however. For the video Long Arm, the educator group had a median work ethic score of 49, while employer and student medians for that video were 22 and 26.5, respectively.

The concept that educators recognize effort and apply it to a work ethic score is clear when looking at the comments and scores for Long Arms. Under the category of effort, there were six positive comments from educators, whereas the other two groups only had one positive comment between them. In contrast, the students had eleven negative comments on effort.

Students perception of work ethic stayed relatively close to that of educators when it was obvious the worker was performing well, as was the case for Snow Removal and Stump Removal. However, when the worker's performance was clearly substandard and students assumed that knowledge or aptitude should have been a given quality, then they were the harshest judges of work ethic. For example, student median work ethic scores

were the lowest for Sweeping Up, Warm Up, Helping Out, and Cleaning Up. These videos represent the most obvious cases of poor worker performance in non-skill demanding jobs. Student perception was that everyone ought to know how to sweep, run a lap, and help clean up a room. When those expectations were a given and the worker did not perform well, it was the student respondents that were most critical.

However, for the video Nailed It, where specific tools were used and a worker might have to have some level of mastery, the students relented and offered six positive comments in the categories of effectiveness and ability/aptitude. Students can feel uncomfortable and lack the confidence to assess others when they feel they are not proficient in the task themselves (Cassidy, 2006).

Students demonstrated they can be punitive assessors of work ethic when the objectives are clear and they think the knowledge is readily available. In those instances, they lacked the empathy that educators and employers offered.

All the respondent groups were able to point out the subtle physical components to the various work ethic situations such as body stance, a slow pace, or a disinterested attitude. The researcher's premise that students lacked the ability to see those indirect attributes was not seen in this study.

Although this research lacks the scope of larger national study, the answer to the research question, *"How do employers', students', and teachers' perceptions of work ethic differ?"* is that their perceptions differ by their frame of reference.

Educators assessed work ethic as an educator would function in their classroom; it is likely the only career they have ever known and thus their only position to function from. This means they approach work ethic assessment with empathy, compassion, and

while they have an eye for ways to improve, they still reward genuine effort over effectiveness.

Employers assessed work ethic as if there were little difference between a novice worker and a seasoned employee. They expected efficient, safe, and effective work being done all the time. There was little recompense for doing what is already expected. Employer assessment did not recognize exertion as accomplishment; consequently, an employee would need sound ability and aptitude coupled with diligence and efficient results before they would see work ethic scores that topped the charts. The reality is that students, especially those in transition to their first adult job, will not have acquired those qualities. Efficiency and zeal are products of an experienced and happy employee; not the new hire who is still figuring things out.

Students seemed to assess work ethic by using a self-check as their first measure. It appeared as if they asked themselves, "Could I do that?" If the skill or task in question was relatively elementary and they felt they could have done a better job than the person being evaluated, they were intensely critical. However, when they lacked the knowledge or skills to complete the task, they seemed to become unsure and were reluctant to pass too harsh a judgement. Riebe and Jackson (2014) acknowledged that students were better at assessment with clear guidelines of benchmark standards during their rubric study. Finally, if the worker they were assessing was clearly working at or above expectation, they immediately seemed to register a sense of appreciation and respect and evaluated the person's work ethic as being above their current station. Their assessment of work ethic was rather elementary.

Recommendations

The most important implication here is that it should be expected that educators and students and employers have different perspectives on work ethic, since they rate work ethic from their own sub-cultures. This means that in order for the discrepancy in perceived work ethic to be addressed, the groups must communicate more about what each of them see and value.

During a student's high school years, it would be beneficial to have employers visit student work environments and offer constructive criticism. This allows educators and students alike the opportunity to hear what the employer is looking for and expects. Further, it may allow employers to realize that education has a nurturing component to it and that students are still developing their person. Perhaps together they can develop a system so that work ethic can be monitored and assessed. Riebe & Jackson (2014) studied holistic rubrics for assessing employability skills and while it might not be easy work, the potential for consistent evaluations might be worth all the effort.

Especially important here is asking students to learn to assess one another and themselves. Employers could work with the teacher and the students to develop visual and non-visual work ethic components to be evaluated in the classroom or in the shop. By giving employers input, it gives them a voice and it carries validity with the students. By allowing students to give input, they will feel invested and more responsible for monitoring one another. In an ideal situation, a lab or shop class might review film of their own work, like an athletic team, and find ways to improve.

Perhaps the strongest difference offered in this study from those done before it, has been to remove the self-assessment component. Watching a video of someone else

working allows the assessor to be more frank about what they're seeing. While many companies already use videos to discuss topics like safety or sexual harassment, using video for work ethic may be an unexplored arena.

Work Based Learning (WBL) opportunities have helped close a portion of the perception gap in some studies. Wall (2011) stated that involvement in WBL opportunities was a significant factor in the development of various aspects of work ethic such as initiative, dependability, and interpersonal skills. Perhaps some of these needs can be met with CTE courses at the high school level; especially if the course can emulate a real-world work environment or utilize an employer for observation. States and schools need to double their efforts to promote and maintain courses where students are picking up skills beyond the academic workload.

Schools are not the only places where change is required. It has become all too easy for industry to point the finger at young people and at educational institutions when it comes indicating areas that need to change. Employers and industry have a role to play in this transition as well. While Capelli (2008) states that employers have increased their training efforts for employability skills, perhaps these training efforts need to take a cue from educational circles. Employers need to be sure training is paced well, scaffolds off of previous knowledge, and is assessed for comprehension, before putting the employee in service. With today's strict curriculum requirements and the decline in available hands-on classes, more on the job training may be required through the employer. Lerman (2013) noted that increasing student responsibility in apprenticeship programs accelerates maturation and further, that working with a mentor builds confidence. Perhaps employers should observe the pre-service teacher process and emulate the non-

tenured teacher program where mentors play a valuable role. Employers could invest in their new hires by providing that mentor-mentee relationship and helping each employee reach their potential before condemning their starting efforts.

Employers could also consider hosting students in job shadowing opportunities. Further, businesses could be hiring students in their high school years to help them develop work ethic in a work environment. In this way, employers become part of the student's educational process.

Providing more connection between employers and educators is an important aspect of equalizing their perception of work ethic; but each environment must be careful not to disavow the other. Educational settings must retain some of the elements that allow to students to make mistakes and learn without fear of dismissal, while the work place must maintain the high expectations that every valuable employee should strive to attain. Students must also work to find the correlations between these two environments and accept the idea that work ethic can be honed, even before a paycheck comes into play.

While work ethic is most certainly a product of social and cultural norms, it is critical to remember that learned behavior can be adjusted (Petty & Hill, 2005). With renewed effort and communication, committed involvement, and a genuine appreciation for the other's perspective, students, employers, and educators can work toward a common work ethic perspective.

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APPENDIX

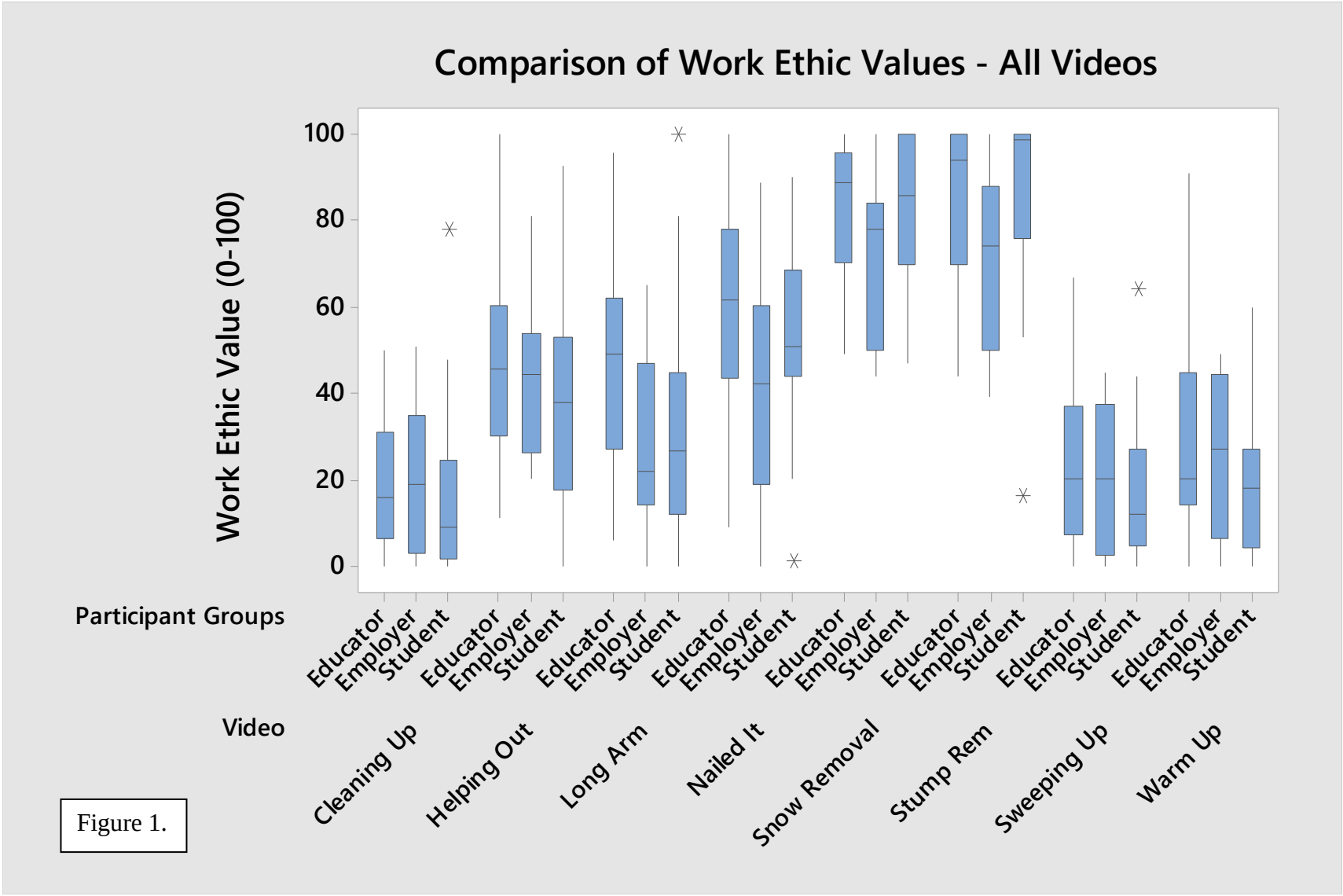
Comparison of Work Ethic Values - All Videos
Work Ethic Value (0-100)
100
80
60
40
20
0
Participant Groups
Educator
Employer
Student
Video
Cleaning Up
Helping Out
Long Arm
Nailed It
Snow Removal
Stump Rem
Sweeping Up
Warm Up

Figure 1.

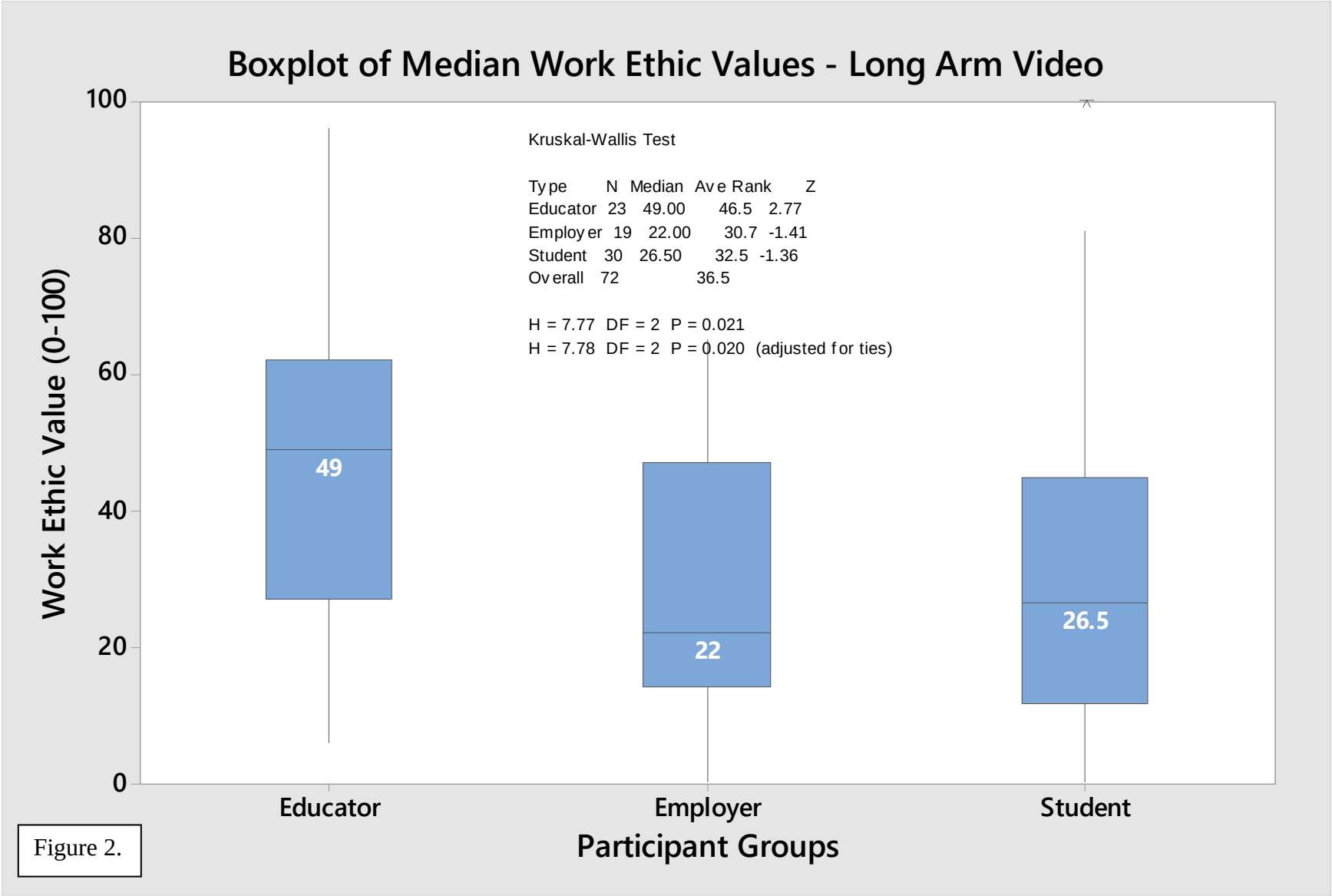
Boxplot of Median Work Ethic Values - Long Arm Video
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 23 49.00 46.5 2.77
Employer 19 22.00 30.7 -1.41
Student 30 26.50 32.5 -1.36
Overall 72 36.5
H = 7.77 DF = 2 P = 0.021
H = 7.78 DF = 2 P = 0.020 (adjusted for ties)
Work Ethic Value (0-100)
100
80
60
40
20
0
49
22
26.5
Educator
Employer
Student
Participant Groups

Figure 2.

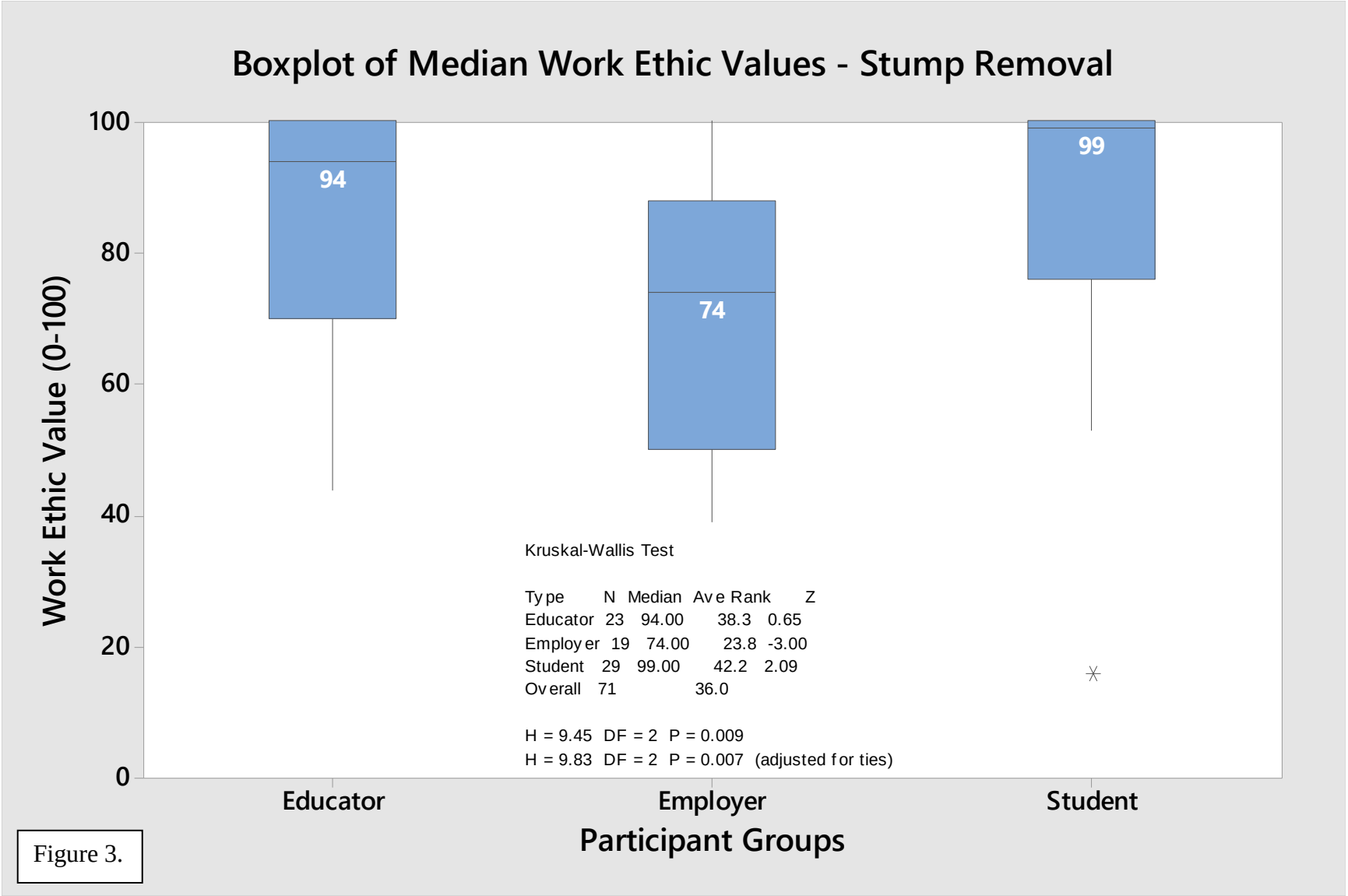
Boxplot of Median Work Ethic Values - Stump Removal
Work Ethic Value (0-100)
100
80
60
40
20
0
94
74
99
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 23 94.00 38.3 0.65
Employer 19 74.00 23.8 -3.00
Student 29 99.00 42.2 2.09
Overall 71 36.0
H = 9.45 DF = 2 P = 0.009
H = 9.83 DF = 2 P = 0.007 (adjusted for ties)
Educator
Employer
Student
Participant Groups

Figure 3.

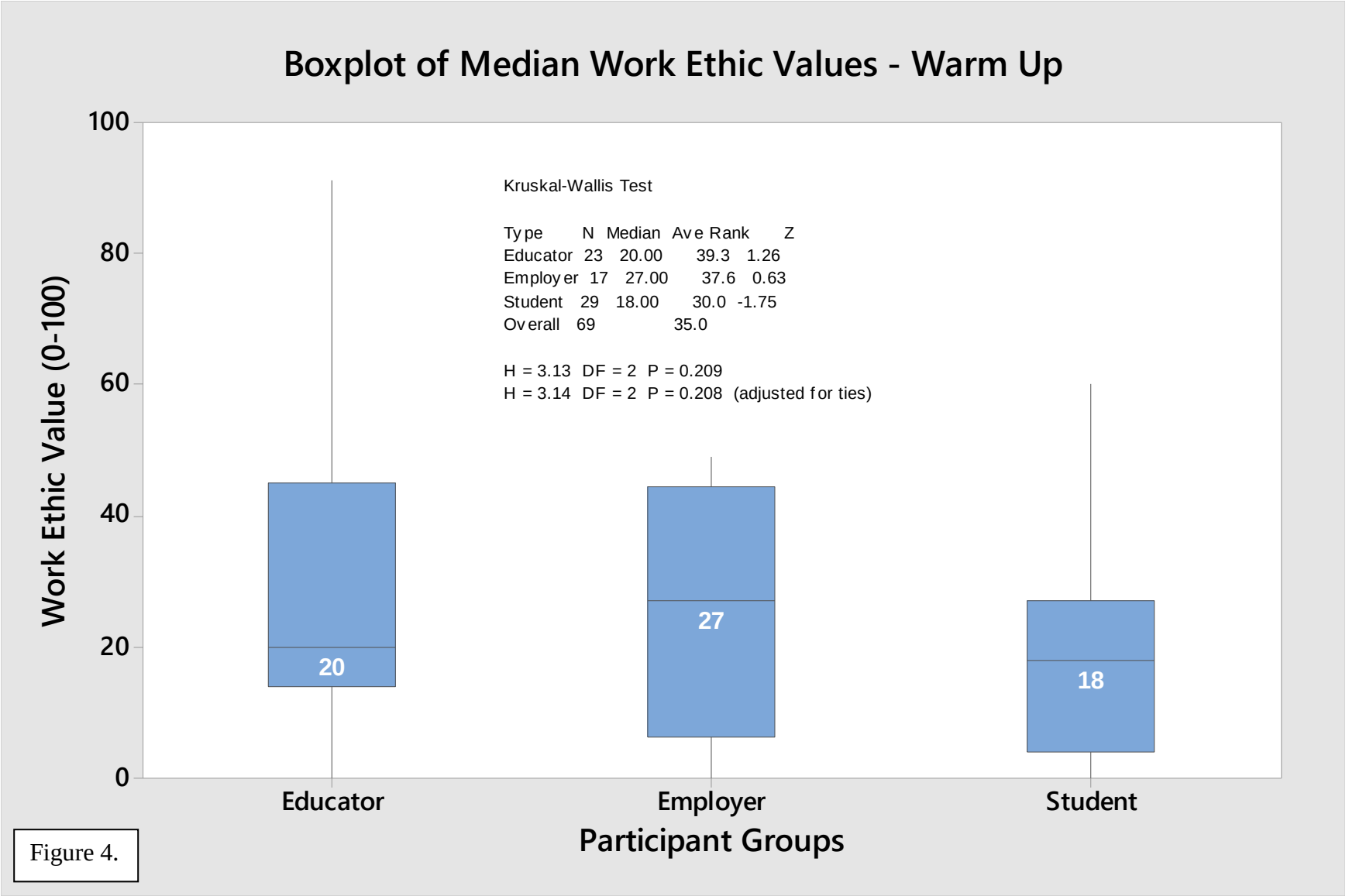
Boxplot of Median Work Ethic Values - Warm Up
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 23 20.00 39.3 1.26
Employer 17 27.00 37.6 0.63
Student 29 18.00 30.0 -1.75
Overall 69 35.0
H = 3.13 DF = 2 P = 0.209
H = 3.14 DF = 2 P = 0.208 (adjusted for ties)
Work Ethic Value (0-100)
100
80
60
40
20
0
20
27
18
Educator
Employer
Student
Participant Groups

Figure 4.

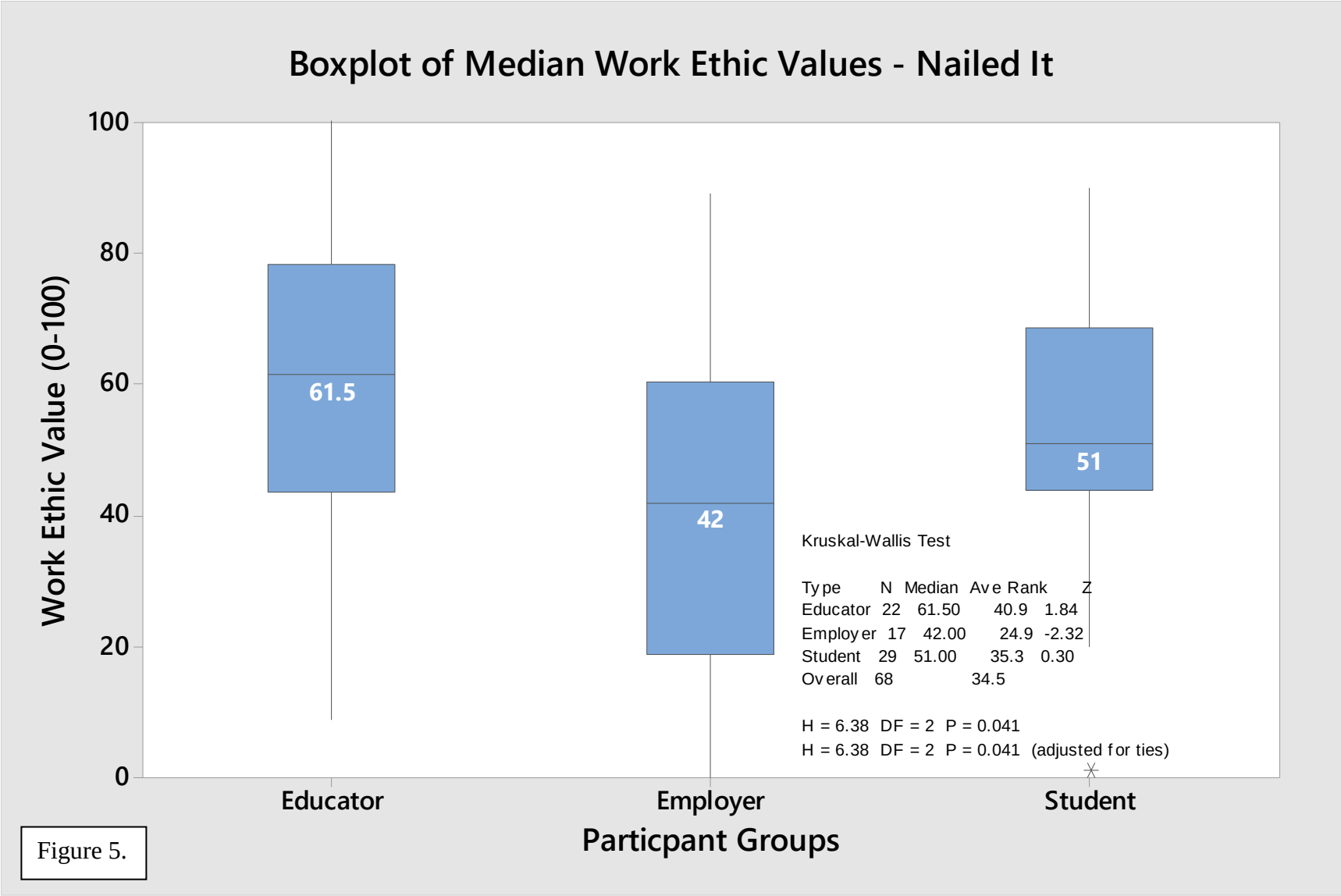
Boxplot of Median Work Ethic Values - Nailed It
Work Ethic Value (0-100)
100
80
60
40
20
0
61.5
42
51
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 22 61.50 40.9 1.84
Employer 17 42.00 24.9 -2.32
Student 29 51.00 35.3 0.30
Overall 68 34.5
H = 6.38 DF = 2 P = 0.041
H = 6.38 DF = 2 P = 0.041 (adjusted for ties)
Educator
Employer
Student
Particpant Groups

Figure 5.

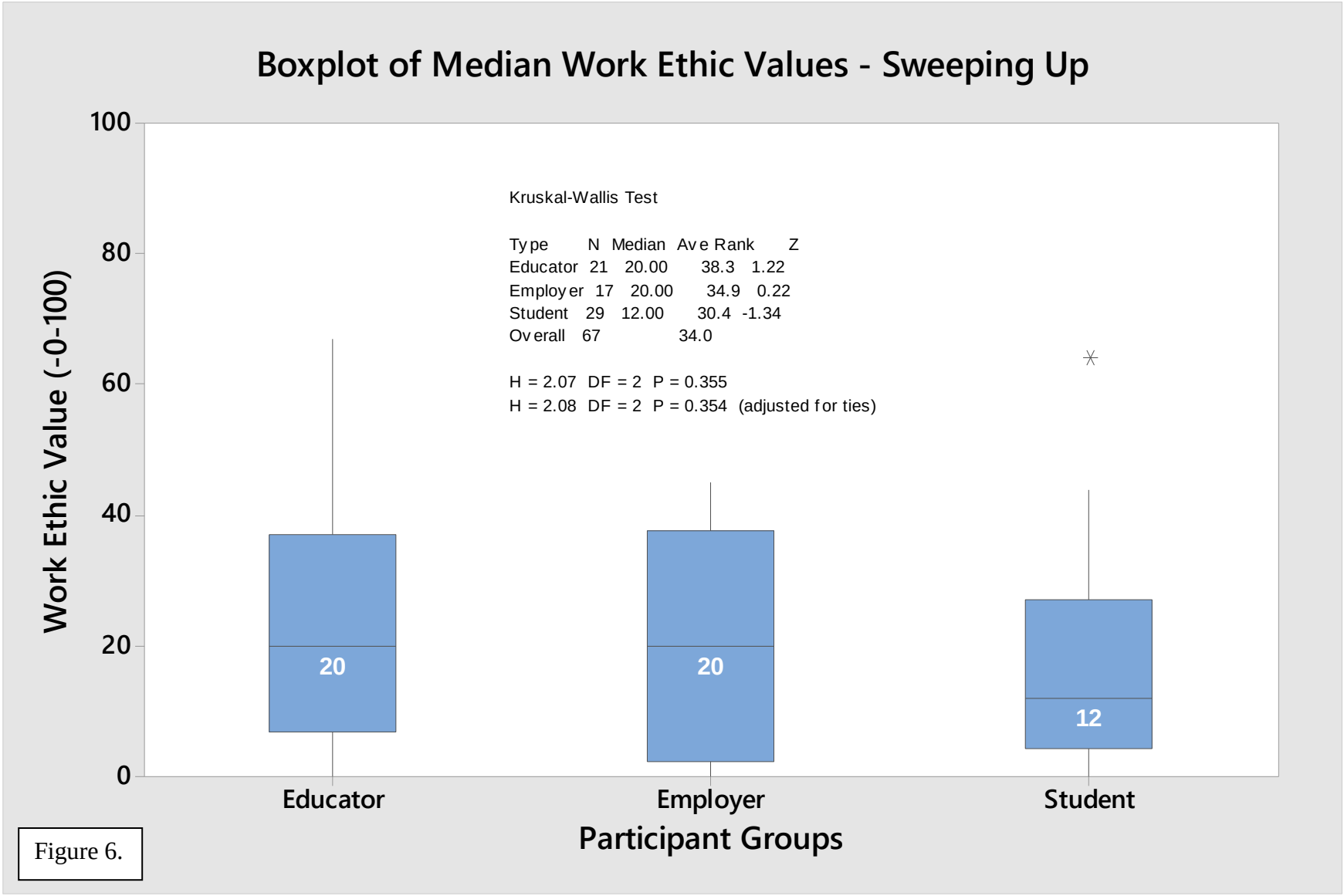
Boxplot of Median Work Ethic Values - Sweeping Up
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 21 20.00 38.3 1.22
Employer 17 20.00 34.9 0.22
Student 29 12.00 30.4 -1.34
Overall 67 34.0
H = 2.07 DF = 2 P = 0.355
H = 2.08 DF = 2 P = 0.354 (adjusted for ties)
Work Ethic Value (-0-100)
100
80
60
40
20
0
20
20
12
Educator
Employer
Student
Participant Groups

Figure 6.

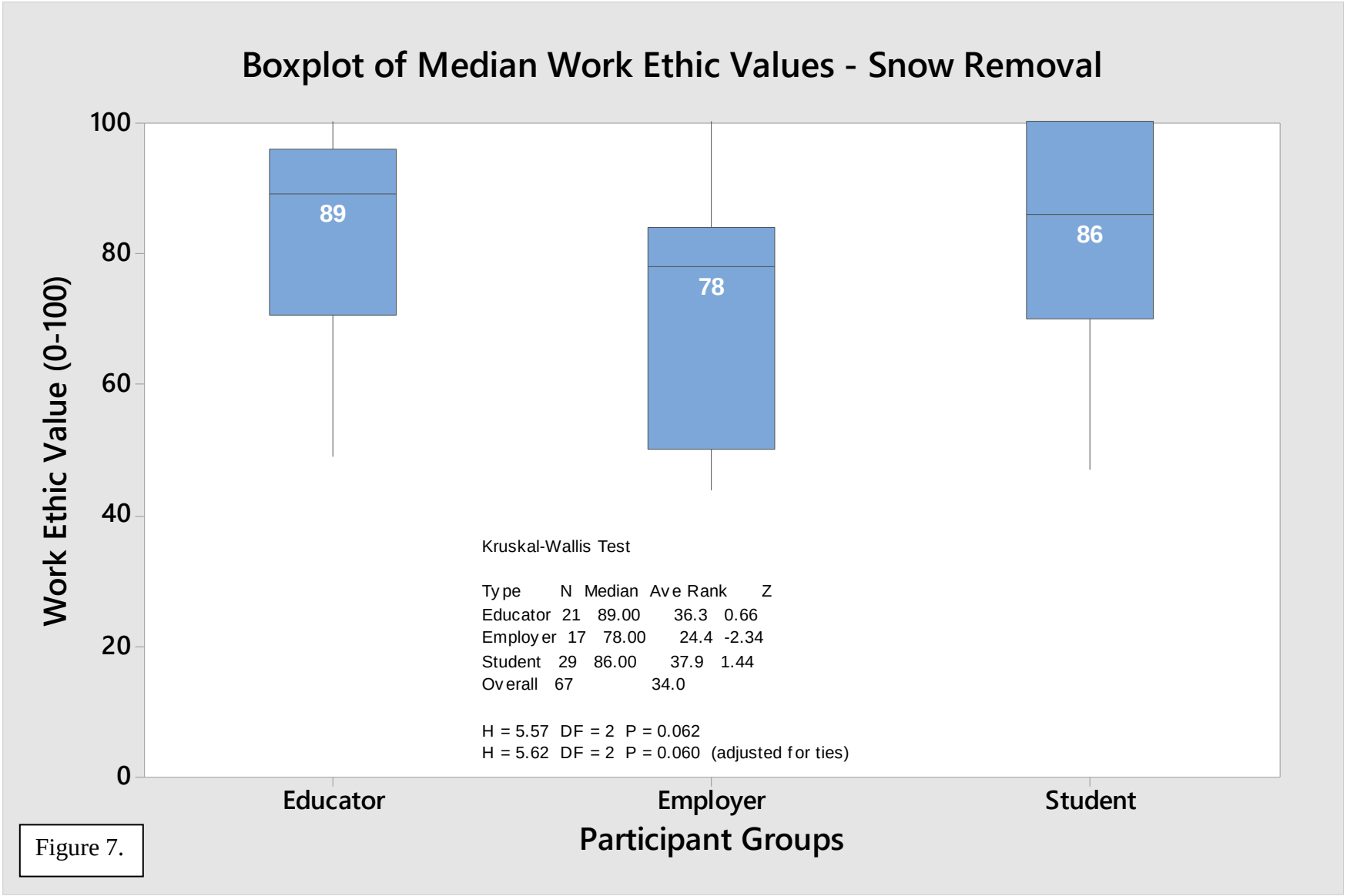
Boxplot of Median Work Ethic Values - Snow Removal
Work Ethic Value (0-100)
100
80
60
40
20
0
89
78
86
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 21 89.00 36.3 0.66
Employer 17 78.00 24.4 -2.34
Student 29 86.00 37.9 1.44
Overall 67 34.0
H = 5.57 DF = 2 P = 0.062
H = 5.62 DF = 2 P = 0.060 (adjusted for ties)
Educator
Employer
Student
Participant Groups

Figure 7.

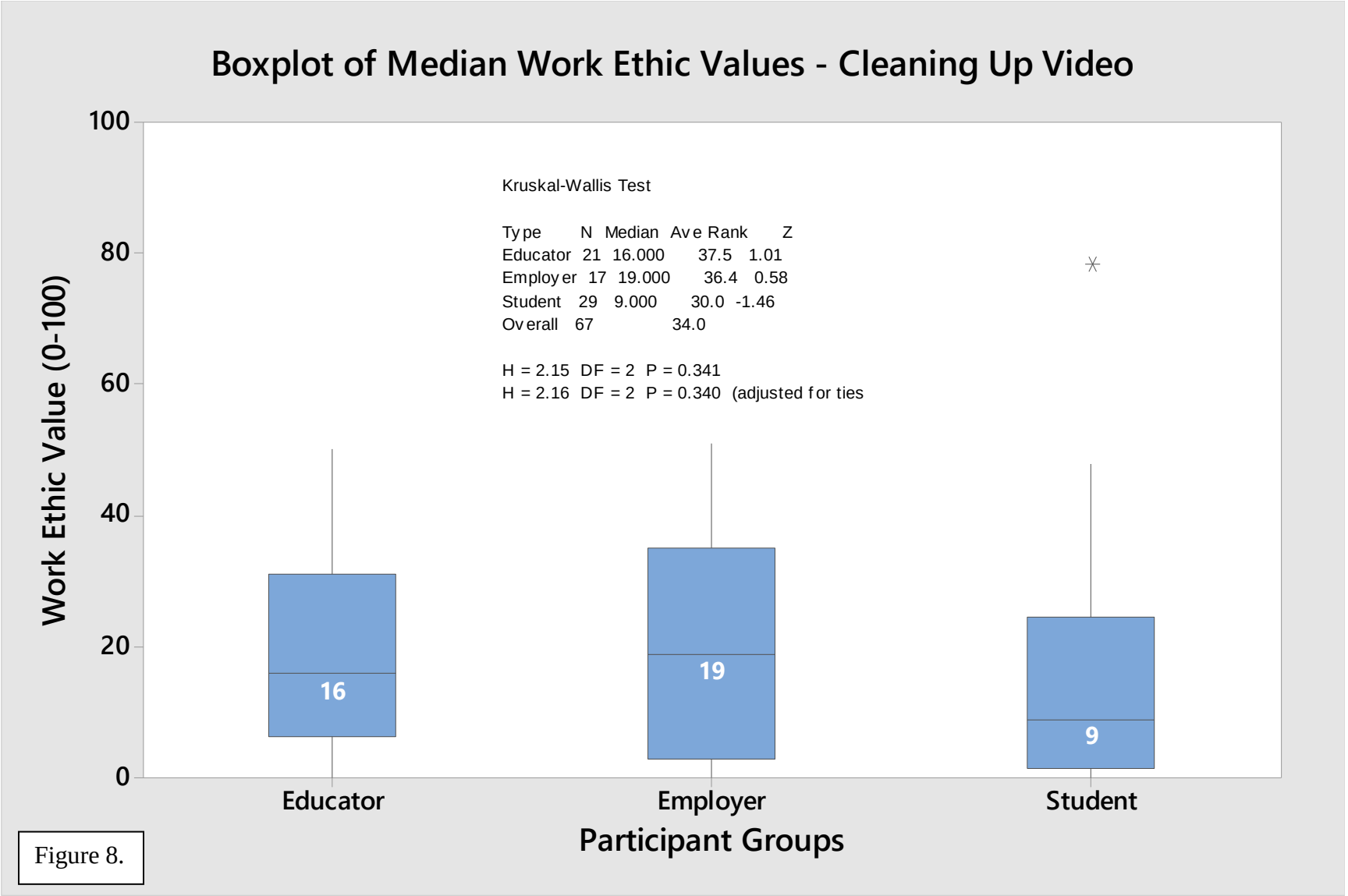
Boxplot of Median Work Ethic Values - Cleaning Up Video
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 21 16.000 37.5 1.01
Employer 17 19.000 36.4 0.58
Student 29 9.000 30.0 -1.46
Overall 67 34.0
H = 2.15 DF = 2 P = 0.341
H = 2.16 DF = 2 P = 0.340 (adjusted for ties
Work Ethic Value (0-100)
100
80
60
40
20
0
16
19
9
Educator
Employer
Student
Participant Groups

Figure 8.

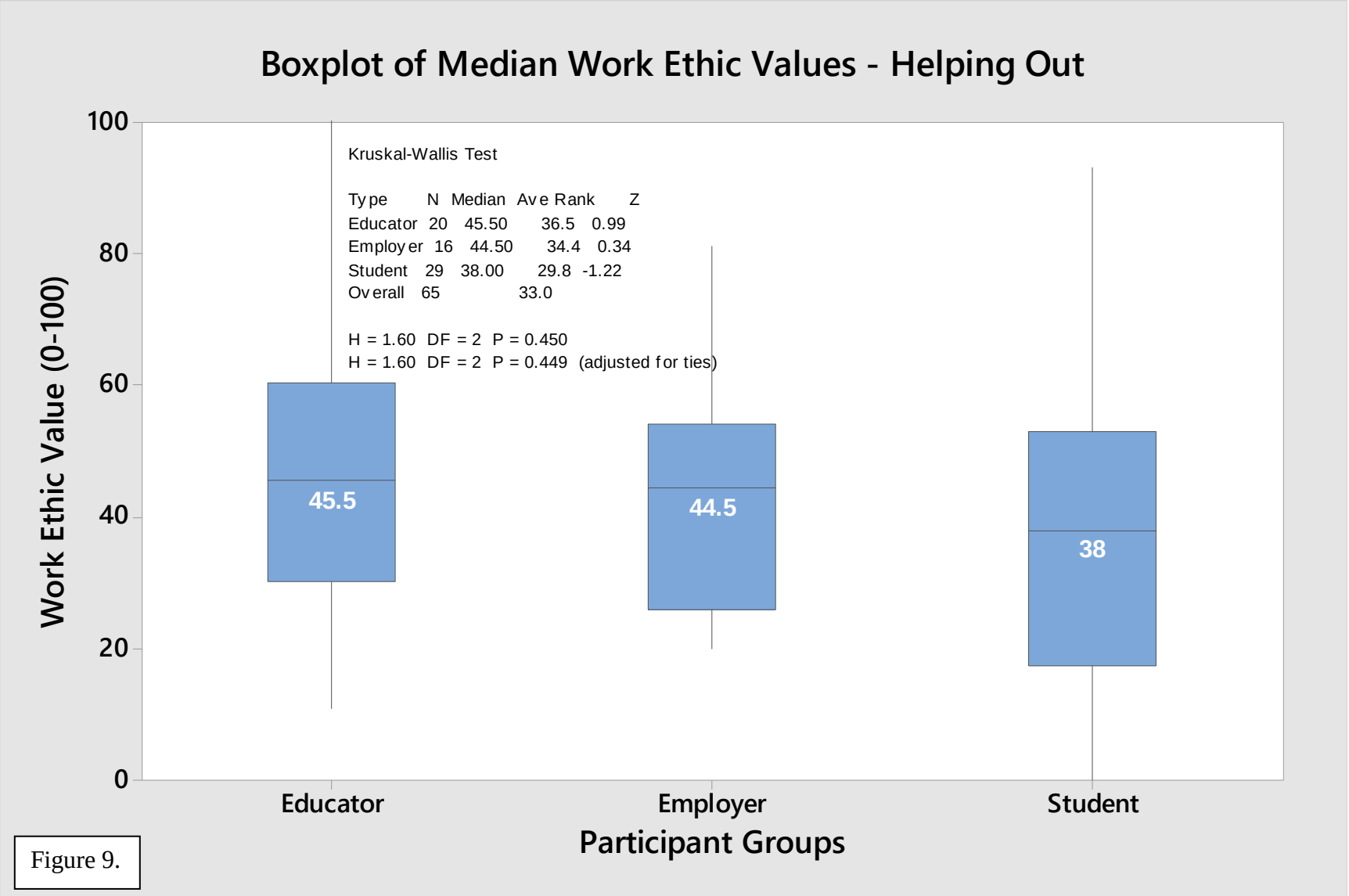
Boxplot of Median Work Ethic Values - Helping Out
Kruskal-Wallis Test
Type N Median Ave Rank Z
Educator 20 45.50 36.5 0.99
Employer 16 44.50 34.4 0.34
Student 29 38.00 29.8 -1.22
Overall 65 33.0
H = 1.60 DF = 2 P = 0.450
H = 1.60 DF = 2 P = 0.449 (adjusted for ties)
45.5
44.5
38
100
80
60
40
20
0
Work Ethic Value (0-100)
Educator
Employer
Student
Participant Groups

Figure 9.