

UNIVERSITY STAKEHOLDER COMPARISON ON ISSUES OF MICROCOMPUTER ETHICS

Prepared by

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ABSTRACT

Research has not been conducted comparing opinions of ethical behavior between the various stakeholders of higher education. To research this question, empirical research was designed to compare the opinions of students with other stakeholders of Utah State University (USU) on the ethical use of microcomputers. This research addresses a growing trend in higher education to involve stakeholders in assessing curriculum. This research includes systematic participation by faculty, student, parent, and employer stakeholders, and can assist in evaluating issues of accountability related to microcomputer ethics and in designing curriculum to address ethics.

The goal of the research was to compare and test the correlation between students' opinion of ethical use of microcomputers and the opinion of other stakeholders, such as employers, faculty, and parents. To meet the goal two research questions were formulated:

- 1. To what degree do responses from USU stakeholder groups correlate on questions of the ethical use of microcomputers?*
- 2. What relationships most influence the microcomputer ethics of university freshmen and seniors?*

Samples were taken from nine university stakeholder populations: university freshmen, freshmen parents, seniors, seniors= parents, high school students, middle school students, faculty, alumni, and employers. Responses were compared between groups and within groups on questions addressing the ethical use of computers owned by school or employer, software copying, responsibility for controlling viruses, and responsibility where property is suspected of being stolen.

Results show correlation in the range of .90 between parents and university seniors. This suggests that even after years at the university, the ethical opinions of parents exert the greatest influence on student ethics.

Keywords: Ethics, ethical computer use, university students, university stakeholders

INTRODUCTION

Problem

Research has not been conducted comparing opinions of ethical behavior between the various stakeholders of higher education. To research this question, empirical research was designed to compare the opinions of students with other stakeholders of Utah State University (USU) on the ethical use of microcomputers.

Importance

This research was based on a noteworthy study conducted at the University of Wisconsin-Stout by the TQM team of Furst-Bowe, Boger, Franklin, McIntyre, Polansky, & Schlough (1995-96). The UW-Stout research was significant because it was an early study that compared stakeholder opinion in an evaluation of microcomputer technology usage in the college setting (Ehrmann, 1991). The study documented herein includes systematic participation by stakeholders, and can serve universities in their efforts to assess ethical behavior.

Purpose

The goal of the research was to compare and test the correlation between students' opinion of ethical use of microcomputers and the opinion of other stakeholders, such as employers, faculty, and parents. To meet the goal two research questions were formulated:

1. To what degree do responses from USU stakeholder groups correlate on questions of the ethical use of microcomputers?
2. What relationships most influence the microcomputer ethics of university freshmen and seniors?

By comparing student ethics to other stakeholder ethics (Juran & Gryna, 1993), the researchers hoped to clarify university stakeholders' role in shaping students' ethical behavior. It was hypothesized that student opinion of ethical behavior would move from being closely correlated to parental ethics in 7th grade to being more closely correlated to the ethics of faculty and alumni as students progressed in their undergraduate career. However, if student opinion did not correlate with the opinions of other stakeholders, then differentiation of ethical behavior in higher education would point to peer influence (Ramakrishna, Kini & Vijayarman, 2001).

METHODS

Population and Samples

The target population for this study was stakeholders of USU. Selected samples were taken from nine university stakeholder subgroups: university freshmen, freshmen's parents, seniors, seniors' parents, high school students, middle school students, faculty, alumni, and employers. Table 2 describes the selection and data gathering methodologies for each of the nine subgroups:

Table 1: Selection and Data Gatherings Methods by Stakeholder Subgroup

Stakeholder Subgroup	Selection Method	Data Gathering
7 th Grade Middle School Students	Convenience, cluster sample	In-person
11 th Grade High School Students	Random sample from directory	Telephone
USU On-campus Freshmen	Random sample from registrar	Telephone
USU On-campus Seniors	Random sample from registrar	Telephone
Parents of USU Freshmen	Paired with freshman sample	Telephone
Parents of USU Seniors	Paired with senior sample	Telephone
USU Faculty	Census of undergrad advisors	Campus mail & Telephone
USU Alumni	Random sample 1995 graduates	Telephone
Employers of USU Graduates	Census of employers recruiting on-campus Fall 1997	Telephone

In Furst-Bowe et al. (1995-96) a 10-person Total Quality Management (TQM) team at UW-Stout developed an instrument and administered it to stakeholders. Use of stakeholders was expanded. Table 2 presents the results of the sampling:

Table 2: Response Rates by Stakeholder Subgroup

Subgroup	Sample Size	Response Rate	Final n
7 th Grade Middle School	100	100%	100
Parents of USU Seniors	138	72%	100
Employers	155	66%	102
Parents of USU Freshmen	159	63%	100
USU Freshmen	79	63%	50
USU Seniors	75	53%	40
USU Alumni	159	44%	70
11 th Grade High School	160	38%	61
USU Undergrad Advisors	155	35%	54

Response rates varied by data gathering method and by subgroup. Surveying in-person produced a higher return rate than telephone surveying. Inasmuch as 7th graders were surveyed in-person and in their regular classroom, all 100 students included in the sample completed the surveys. For all other groups, telephone interviews were conducted.. USU alumni, 11th graders, and faculty advisors were the most difficult to contact by telephone.

FINDINGS

Correlation on Questions of Ethical Use of Microcomputers

Analysis was first conducted to investigate the first research question: to what degree do responses from USU stakeholder groups correlate on questions of the ethical use of microcomputers? Table 3 contains the correlation analysis:

Table 3: Correlations of Perceptions of Ethics Between Stakeholder Groups

	7- grade	11- grade	Fresh	Fresh parents	Seniors	Senior Parents	Faculty	Alumni	Employ ers
7-grade									
11-grade	0.86								
Freshmen	0.90	0.94							
Freshman parents	0.72	0.84	0.86						
Seniors	0.73	0.93	0.87	0.93					
Senior parents	0.71	0.92	0.88	0.92	0.98				
Faculty	0.74	0.71	0.78	0.84	0.79	0.73			
Alumni	0.73	0.90	0.86	0.86	0.97	0.96	0.79		
Employers	0.72	0.69	0.82	0.91	0.80	0.78	0.93	0.89	
Average	0.83	0.85	0.84	0.89	0.88	0.82	0.86	0.89	0.84

Correlation coefficients were high with a range of .69 to .98 and an average of .84. Seniors and 11th graders had the largest number of correlations in the .90 range. The lowest correlation coefficient (.69) was between employers and 11th graders. The highest correlation (.98) was between senior parents and seniors attending USU. An analysis of correlations is key to this comparison of perceptions of ethical microcomputer use as a valid measure for other less accessible populations. As was mentioned, senior parents and seniors most closely correlate in their perceptions of what is ethical (.98). Senior perceptions also correlate closely with those of alumni (.97), 11th graders (.93) and freshman parents (.93). To a lesser degree senior perceptions also align with those of employers recruiting at USU (.80) and freshmen attending USU (.87).

DISCUSSION AND CONCLUSION

Influence of Relationships

Correlation coefficients for perceptions of ethical behavior between stakeholder subgroups were surprisingly high and more consistent than expected. The fact that seniors' opinions correlated with senior parents at .98 and with faculty at .79 seems to indicate that seniors' parents more directly influenced the ethical behavior of students than does faculty. The lowest correlation coefficient (.69) was between employers and 11th. This seems to add face validity to this analysis of relationships in determining opinion of ethical behavior. Further research into relationship is key to this investigation of ethical use of microcomputers as an indication of the influence that stakeholder groups have on ethical behavior. As was mentioned, senior parents and seniors most closely correlate in their microcomputer abilities (.98), this seems to disprove

the hypothesis that the influence of faculty on students' perceptions of ethics will increase.

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