



## Perceptions Held by Community College Computer Instructors in North Carolina

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### ABSTRACT

Community college computer instructors provide a valuable service by preparing students for challenging careers. At the same time, they face many challenges to stay current in their field and to maintain industry certifications. Therefore, community college administrators need to determine what perceptions are held by computer instructors, address any negative perceptions, and determine if instructors are satisfied with their job. To address this need, a study of North Carolina community college computer instructors' job satisfaction was conducted using the Minnesota Satisfaction Questionnaire (MSQ) Short Form. The MSQ Short Form is a 20 question survey developed by researchers at the University of Minnesota to study job satisfaction among workers. Although, the majority of the 182 respondents reported they were satisfied with their job and hold positive perceptions of their supervisors, only slightly over half of the respondents reported being either satisfied or very satisfied with the way policies are implemented within their organization, indicating for the first time that a significant percentage of computer instructors in North Carolina perceive a problem exists within this area. The results of this study should encourage academic institutions to find better ways to implement policies in ways that don't negatively affect job satisfaction and worker productivity.

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### 1. Introduction

There are many different definitions of job satisfaction in the literature. One of these definitions was provided by Hunter [1] who defined job satisfaction as "a cognitive condition that results upon gratification of a perceived need or value derived from a particular reward at work". The key word in this definition is "perceived". It is this perception held by workers that needs to be understood. Therefore, studies that date back generations attempted to understand perceptions workers held by focusing on human needs and emotions [2].

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The 1920s Hawthorne studies was pivotal point in the study of job satisfaction. It was during these studies that researchers became interested in understanding workers' emotional needs, since Hawthorne and his associates discovered for the first time that the mere perception that an employer cares enough about workers to observe them was enough to motivate them and lead them to become more productive. This was a remarkable discovery, since most researchers at the time felt other factors used to motivate workers were more effective. For example, some researchers at the time felt factors such as pay were effective at motivating workers not worker's perceptions and emotional needs.

The Hawthorne studies led to numerous other studies by well know researchers such as Maslow, McGregor, and Herzberg [3]. Over the years these studies

confirmed that motivated workers are more productive workers, since they are more satisfied with their jobs. As Moore, Cruickshank, and Haas [4] point out, there are significant benefits to organizations as well as workers when job satisfaction is improved among workers.

One of the most notable job satisfaction theories to evolve from these studies is that of Herzberg, Mausner, and Snyderman [5] Two-Factor Theory of motivation. Herzberg et al. referred to these two factors as intrinsic (motivators) and extrinsic (hygiene) factors. Intrinsic factors are variables that are known to improve job satisfaction, while extrinsic factors are variables that do not improve job satisfaction but are necessary to maintain the same level of job satisfaction. Factors such as opportunities for growth and recognition were considered motivators, while factors such as salary and supervisor-worker relationships were considered hygiene factors [6].

Herzberg et al. [5] believed that managers should concentrate on those factors that actually improve job satisfaction (motivators) and only try to maintain those factors that are necessary to maintain a level of job satisfaction (hygiene factors). For example, increasing workers' salary will only maintain a level of job satisfaction and will not improve motivation or job satisfaction.

Countless studies such as Bildge [7], Johnson and Johnson [8], and Usugami and Park [9] have used Herzberg et al.'s [5] theory as the foundation of their studies. The MSQ survey instrument often used in these studies relies on Herzberg et al.'s Two-Factor Theory as its theoretical foundation to the study of motivation and job satisfaction.

While a considerable number of job satisfaction studies have taken place in various parts of industry, very few have centered on a specific group of technology professional within a specific region.

Instead, most of the studies targeted other types of professionals. The few studies that centered on technology professionals included the studies conducted by King, Xia, Quick, and Sethi, [10], and Murphy [11]. Furthermore, an extensive review of the literature revealed that only a few studies on job satisfaction among community college instructors took place. Those studies that were found during the literature review included Issac and Boyer [12], Kim [13], Townsend and Rosser [14], Valadez and Antony [15], and Bright [16]. Neither of these studies looked at the job satisfaction of computer instructors at community colleges.

Instead, they addressed instructors' perceptions of job satisfaction on a whole or looked at a specific facet that may be affecting job satisfaction, such as ethnic differences.

One of the studies found in job satisfaction literature was the Lahoud [17] study of network administrators in North Carolina. Lahoud's study of the perceptions held by network administrators concluded that most

network professionals were not satisfied with the way their supervisors perform their jobs or the way policies are implemented within their organization. Furthermore, the Lahoud study concluded that more studies of job satisfaction among technology professionals within North Carolina were needed. Therefore, a study of community college computer instructors' perceptions of their job was needed to determine if the findings in the Lahoud study also apply to other technology professionals in North Carolina and perhaps other groups of technology professionals.

The results of this study should help administrators to understand how their instructors perceive their job, since the study of job satisfaction has essentially been the study of workers' perceptions of their job and the factors affecting them.

A better understanding of workers' perceptions can help identify areas that need administrative attention, since numerous studies such as Moore et al. [4] have concluded there are significant benefits to ensuring workers' are satisfied with their job. Furthermore, there is evidence to show that satisfied instructors provide better instruction [18].

## 2. Background

There are 58 community colleges in North Carolina with approximately 264 full-time computer instructors. These instructors teach a variety of computer courses in both traditional and distance education formats.

All of the community colleges in North Carolina are two-year degree granting institutions. With a few exceptions, most community colleges in North Carolina support rural communities. Also, each community college is independent of others, but must adhere to established community college system policies and procedures. Similar to other academic institutions, policies and procedures are routinely reviewed and changed when appropriate.

Computer instructors in degree granting programs of study in North Carolina community colleges are required to hold a graduate degree with 18 or more graduate hours in their teaching field. Furthermore, they are required to earn and maintain industry certifications and to remain current in their field.

Although, community college computer instructors are not required to conduct research as university faculty are, they are required to regularly demonstrate their mastery of computer science and technology. Most full-time computer instructors typically teach four courses per semester on a nine or ten month contract, are required to advise students, hold regular office hours, serve on committees, and perform service related duties.

Also, most computer instructors in North Carolina community colleges earn less than their counterparts at public and private universities in the state. This difference can be as high as \$40,000 a year.

### 3. Design Approach

This study used the Minnesota Satisfaction Questionnaire (MSQ), the same instrument used in the Lahoud (2006) and countless other studies. The MSQ was developed in the 1960s by researchers at the University of Minnesota in order to study job satisfaction among workers [19]. The short version of the MSQ contains 20 questions that measure intrinsic variables, extrinsic variables, and overall job satisfaction that evolved from the work of Herzberg et al. [5] and other researchers. There are 12 intrinsic questions that measure factors such as “achievement, recognition, responsibility, and advancement”, six extrinsic questions that measure factors such as “salary, job security, working conditions, status, organizational policies and procedures, and quality of technical supervision”, and two “supervisory-based questions” that address “human relations and technical supervision” [17].

The MSQ survey instrument uses a Likert-type scale with five possible choices. The choices and their associated numerical values are: Very Dissatisfied (1), Dissatisfied (2), Neutral (3), Satisfied (4), and Very Satisfied (5). To calculate the overall satisfaction score the values of each of the 20 questions are totaled and have a maximum value of 100 for the overall job satisfaction score.

Computer instructors targeted in this study were located using community college Web sites, through the North Carolina Computer Instructors Association, and through emails and phone calls to chief academic officers.

Approvals for this study were obtained from Institutional Review Board, the President of the North Carolina Computer Instructors Association, and 43 of the 58 community college chief academic officers. Study invitations were sent to only instructors in schools where permission was obtained. Permission to use the MSQ short form in an online format was obtained from the University of Minnesota and administered over a two and half week period.

Of the 264 potential participants, a total 182 participated in the study, resulting in a 68.9% response rate. Although this study attempted to survey the entire population of computer instructors in community colleges in North Carolina, some of the community colleges did not participate and some the instructors invited did not participate due to various reasons such as illnesses, recent job changes, vacations, etc. Also, some computer instructors could not participate, because they did not meet the one year of experience minimum requirement to participant in the study. A minimum number of 157 responses were needed in order to draw conclusions about the general population of computer instructors in North Carolina. Since other studies of this nature had response rates of this size, this minimum number was considered appropriate for this study.

The participants were directed to the survey through mass emails and were assured that they could not be identified by participating in the study. Potential participants received several reminders after the initial invitation to participate in the study.

Access to the survey was password protected and restricted to only those instructors with at least one academic year of experience in the current position. The web-based survey was hosted and data automatically aggregated by the online service [www.web-online-surveys.com](http://www.web-online-surveys.com). At the end of the data collection period, the data was downloaded and analyzed using SPSS (Version 17.0) Statistical Software for Windows.

Of the 20 job satisfaction and the 8 demographic questions on the MSQ, two were analyzed: (1) Question 6, the competence of my supervisor in making decisions, (2) Question 12, the way policies are put into practice. The results of these two questions were analyzed to determine the level of job satisfaction of these two variables used to measure job satisfaction on the MSQ and the overall job satisfaction of the participants was computed by totaling the overall job satisfaction score.

### 4. Limitations

There are several limitations to this study. One of these limitations is this study targeted only a specific group of instructors within the state and did not include instructors in other states or in other fields of study. Therefore, the results of this study may not apply to other community college instructors in North Carolina or in other states.

Another limitation is that only full-time computer instructors with at least one year of experience in the current position took part in the study. This limitation hampers the ability to draw conclusions about all computer instructors within community colleges in North Carolina. Furthermore, since only 43 of the 58 community colleges took part in this study, the results of this study may not apply to every community college in the state.

Since this study is a measure of perceived job satisfaction at a certain point in time and does not repeatedly measure job satisfaction at different points in time, such as from one year to the next, it could not determine if job satisfaction is improving or declining. Evaluating the variables used in this study to measure the current level of job satisfaction will only tell us the current level of job satisfaction and the measures of each of the variables. Also, this study cannot determine what the negative or positive influences are that are actually affecting these variables.

### 5. Results

The participants consisted of 96 males and 86 females. The majority (63.1%) of community college computer instructors surveyed reported they were 46

years-old or older. Furthermore, 83.1% reported they had 17 or more years of education. Also, 69.6% of the respondents reported they had 20 or less years of experience in their field.

An analysis of the data collected from 182 participants indicated that 110 (60.8%) participants were satisfied with their job. To compute the general satisfaction scale score, the separate scores (intrinsic scores, extrinsic scores, and the two supervisory questions) were added together. First, the 5-point Likert scale range from Very Dissatisfied to Very Satisfied was converted to the numerical equivalent: 1 (Very Dissatisfied) to 5 (Very Satisfied). When the numerical equivalents of all 20 questions on the MSQ are added together, the highest possible score is 100.

Of the 182 respondents, only 178 answered Question 6 (The competence of my supervisor in making decisions).

The majority (73%) reported being very satisfied or satisfied with the competence of their supervisors in making decisions. Only 19.1% responded they were very dissatisfied or dissatisfied, while 7.9% reported neutral responses. Table 1 displays a breakdown of the responses for question 6.

Less than half (45.9%) of the 181 respondents that answered Question 12 reported being very satisfied or satisfied with the way policies were put into place and 24.3% reported they were neutral. In contrast, 29.8% of the respondents reported they were very dissatisfied or dissatisfied with the way policies were put into practice in their colleges. Table 2 provides a breakdown of the responses for question 12.

**Tab. 1. The competence of my supervisor in making decisions (MSQ Question 6).**

|                   |     |
|-------------------|-----|
| Very Dissatisfied | 15  |
| Dissatisfied      | 19  |
| Neutral           | 14  |
| Satisfied         | 57  |
| Very Satisfied    | 73  |
| Total Responses   | 178 |

**Tab. 2. The way company polices are put into practice (MSQ Question 12).**

|                   |     |
|-------------------|-----|
| Very Dissatisfied | 14  |
| Dissatisfied      | 40  |
| Neutral           | 44  |
| Satisfied         | 65  |
| Very Satisfied    | 18  |
| Total Responses   | 181 |

## 6. Conclusions and Recommendations

The results of this study show that most (60.8%) of the computer instructors in North Carolina are satisfied with their job. Although this is a promising discovery, it also shows that nearly half (about 40%) are not satisfied with their job or at least did not report they were. Since research has shown that many

benefits are possible from an increase in job satisfaction among workers, community colleges in the North Carolina should take steps to improve job satisfaction among their workers.

Since 73% of the respondents reported they were very satisfied or satisfied with the competence of their supervisors in making decisions, the results indicate that most administrators are qualified for their role, as perceived by the respondents in this study. This discovery is further evidence that North Carolina community colleges, in most cases, are employing administrators that are able to demonstrate competence in decision making, while performing their duties as supervisors. Similar to the overall job satisfaction score, more can be done in this area to ensure that all administrators are able to demonstrate competence in making decisions that affect computer instructors, which should ultimately lead to improve job satisfaction.

Unlike overall job satisfaction and the perceived competency of supervisors in making decisions, the way policies are put in place was found to be an area that deserves immediate attention, since only 45.9% of the computer instructors who responded to the survey indicated they were very satisfied or satisfied with the way policies are put in place.

This hygiene (extrinsic) factor, like the other, is necessary to maintain a level of job satisfaction. Since this study could not determine if this variable decreased or increased over time, no conclusion could be made as to whether this variable is negatively affecting job satisfaction from previous levels. In order to make that conclusion, previous studies of this variable within the same population would be needed. Since this extrinsic factor is much lower than most administrators would want it to be, it is an area that deserves attention and further study.

Furthermore, since this factor is already rated low, making improvements in this area should lead to improved computer instructors' perceptions of their organizations and prevent further decline in this area, which could then lead to reduced job satisfaction among workers.

Community colleges in North Carolina need to look for ways that allow them to improve how their policy implementations are handled.

They need to ensure that computer instructors have a part in the process and that policies are clear and concise. Furthermore, they need to ensure they implement their policies consistently and fairly, if they are to make improvements in this area that can negatively affect job satisfaction if not maintained at an acceptable level.

Although this study was limited in scope as described above, it is a starting point for further research. Further research should seek to determine if improvements in the scores of these two extrinsic variables have improved or not. Also, further studies that measure the overall job satisfaction are needed to determine if

changes that are made are improving or maintaining job satisfaction among computer instructors. Most of all, studies are need to determine why these factors scored the way they did in this study.

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