ABSTRACT
        This study investigated predictors of teacher job
satisfaction as these predictors may provide valuable information
about teacher satisfaction and expectations. A sample of 2,054
practicing classroom teachers was selected from graduation lists at
10 universities, part of the National Database for Preservice Teacher
Education. The respondents were baccalaureate teacher education
graduates employed in teaching positions at private, and public
institutions, and in rural and urban settings. The validity of the
survey was based on content review which was consistent with related
literatures and supported by factor analysis. The data were analyzed
using multiple regression to identify statistically significant
predictors of job satisfaction. The analysis produced a model with
seven statistically significant variables: salary, opportunities for
advancement, professional challenge, professional autonomy, working
conditions, interaction with colleagues, and interaction with
students. These predictors of teacher job satisfaction are associated
with both intrinsic and extrinsic rewards. That is, the factors
salary and opportunities for advancement are generally perceived as
extrinsic sources of satisfaction. They are rewards often controlled
by or granted by others. Job satisfaction such as professional
challenge, professional autonomy, working conditions, interaction
with colleagues, and interaction with students are generally
classified as intrinsic satisfiers. Intrinsic satisfiers refer to
factors that make certain activities rewarding in themselves. This
study has the potential of maximizing the achievement of
organizational and individual goals through improvement of teacher
job satisfaction. (Contains 33 references.) (JB)

Predicting Teacher Job Satisfaction

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Despite a very large number of studies of teacher job satisfaction that have appeared since 1940, this important area of study remains incomplete. The teaching work force is composed of individuals from varied backgrounds and educational experiences who constantly make career decisions that affect the makeup of the teaching corps and the available supply of teachers. Teacher attrition due to resignation, retirement, or death is declining over time and has been quite low in recent years. However, estimates are that approximately one of every four students who completes a teacher training program never enters teaching or leaves a teaching position within the first 5 years. Teacher job satisfaction is an important determinant in career decisions about teaching. The purpose of this study was to investigate predictors of teacher job satisfaction. These predictors may provide valuable information about teacher satisfaction and expectations. A sample of 2054 practicing classroom teachers was selected from graduation lists at ten universities. The validity of the survey was based on content review which was consistent with related literatures and supported by factor analysis. The data were analyzed using multiple regression to identify statistically significant predictors of job satisfaction. This analysis produced a model (R-square= 0.74) with seven statistically significant variables: salary, opportunities for advancement, professional challenge, professional autonomy, working conditions, interaction with colleagues, and interaction with students. These predictors of teacher job satisfaction are associated with both intrinsic and extrinsic rewards. That is, the factors salary and opportunities for advancement are generally perceived as extrinsic sources of satisfaction. They are rewards often controlled by or granted by others. Job satisfaction such as, professional challenge, professional autonomy, working condition, interaction with colleagues, and interaction with students are generally classified as intrinsic satisfiers. Intrinsic satisfiers refer to factors that make certain activities rewarding in themselves. This study has the potential of maximizing the achievement of organizational and individual goals through improvement of teacher job satisfaction.

Introduction

Researchers have been studying the issue of job satisfaction in both industrial and educational settings for over 50 years (Dunnett, Campbell, & Hakel, 1967; Herzberg, Mausner, & Synderman, 1959; Hoppock, 1935). Despite these efforts, we are no closer today to determining what constitutes job satisfaction than we were half a century ago. Educational researchers have traditionally adapted concepts, theories, and measures from other disciplines (Carver & Sergiovanni, 1980; Miskel & Heller, 1973; Sergiovanni, 1969). But most models implicitly assume that the length of time spent in teaching is insensitive to salaries and other economic variables (Murnane & Olsen, 1987). According to the recent report of the National Research Council (1987), existing models of the teacher labor market do not provide reliable predictions of shortages or surpluses. It is, therefore, essential to explore the nature of the educational work setting and the characteristics of teachers themselves in order to understand teacher job satisfaction.

The broad area of teacher satisfaction is an important component in career decisions about teaching. As in any career, individuals enter and leave the teaching profession for many different reasons. The teaching work force is composed of individuals from varied backgrounds and educational experiences who constantly make career decisions that affect the makeup of the teaching corps and the available supply of teachers. Teacher attrition due to resignation, retirement, or death is declining over time and has been quite low in recent years. Contrary to the trend, it is estimated that approximately one of every four students who completes a teacher training program never enters teaching or leaves a teaching position within the first five years. Therefore it is

important to determine which factors are related to career decisions about teaching. Job satisfaction is one of these factors. The purpose of this study was to investigate predictors of teacher job satisfaction. Since job satisfaction is related to teachers decisions to remain in or leave teaching, if predictors could be found then school administrators could use this study to find out how teachers feel about what they do and potentially influence them. They can prepare new teachers to get adjustments at the beginning of their career and readjustments for experienced teachers during their careers. They can help newly prepared teachers to enter teaching and good teachers to stay in teaching.

Theoretical Framework

Many research studies have questioned whether certain job factors and rewards result in motivational effects or lead to dissatisfaction in the workplace. But the actual predictors of satisfaction, however, have received little research attention. With the limited literature on job satisfaction, following are some variables they focused. Darling-Hammond (1984) and Cagampang (1985) indicated that as many as half the teachers in the teaching force quit teaching within any seven year period. Lack of a higher salary is one of the primary reasons given for quitting. Harris, Kagay and Leichenko (1985) found that among former teachers who had left the profession, the reasons most often cited for leaving were poor salaries and poor general working conditions. Whiteford (1990) described some indicators of teacher job satisfaction as the sense of efficacy, positive relationship with colleagues, satisfactory working conditions, the leadership style of

principals, and the prestige and esteem associated with teaching. Morris (1981) presented evidence that teacher job satisfaction is affected by the work environment and strong principal leadership. Engelking (1986) also identified sources of job satisfaction. Satisfaction factors included recognition and achievement. Street and Licata (1988) showed results that indicated a significant positive correlation between teacher autonomy and satisfaction. Cruickshank (1992) studied some of the reasons why people decide to become teachers: interested in and enjoy children, salary, job security, influenced by a teacher, interest in academic subject, working conditions (hours, vacation, etc.), teaching is rewarding, and opportunity to continue to learn. He also studied some reasons why people decide not to become teachers: salary (low), working conditions, status, few opportunities for advancement, personal shortcomings, lack of patience, extra duties, and disciplines of students. However, with some of the research has focused on above variables, there was no identified strong, consistent predictors that predicted teacher's job satisfaction.

Meta Analysis

In the Education Resources Information Center (ERIC) database from 1982 to September 1994, 1,715 articles discussed teacher satisfaction A preliminary analysis was done by identifying variables in which the titles and descriptions were grouped. Using the literature review, twelve variables were examined in a content analysis of teacher job satisfaction. From the preliminary literature review, about 350 articles were subsequently analyzed. As descriptions and titles contained more than one keyword or

categories, these descriptions were recorded in all applicable categories and the total number was appropriately kept. The total percent in each category describes the entire literature review. Frequencies distribution of these studies by each year were: 1994, 5%, 1993, 5%, 1992, 3%, 1991, 8%, 1990, 8%, 1989, 6%, 1988, 9%, 1987, 9%, 1986, 10%, 1985, 6%, 1984, 13%, 1983, 9%, and 1982, 9%. There was no obvious trend found such as there was no particular year that stood out in terms of the numbers of publications in research. The number of articles was generally consistent over time. The methodologies used in these studies were both quantitative and qualitative. Early in 1980's, the methodology they used was quantitative, but as the time gets close to 1990's, multiple methods were used for their methodologies. Quantitative methods include correlation, multiple regression, analysis of variance, factor analysis, t-test, discriminant analysis, path analysis, factorial design, chi-square, item analysis, basic (descriptive) statistics, and cost benefit. Thirty percent of the studies were published in Elementary-Secondary-Education journals or used these groups as samples, or audience, 31% of the studies were done in higher education, 17% for Elementary school only and 10% of the studies were specifically for Junior High school. Very few(2%) studies were done in Special education or Preschool (Kindergarten). Among this literature (years between '982 to 1995), 20% literature studied variable salary, principal (19%), interaction with students (16%), professional autonomy (10%), class size (9%), school climate (8%), professional achievement (3%), age (2%), self motivation (2%), interaction with colleagues (2%), self-evaluation (1%), and working condition (1%).

Data Sources

The study used survey data from the base year (1988) and follow-ups from 1988 to 1992, of the National Database for Preservice Teacher Education (Loadman, Brookhart, & Freeman, 1990). The volunteer respondents were baccalaureate teacher education graduates from ten universities in five states employed in teaching positions. Among the ten samples were private and public institutions in rural and urban settings. The total number of respondents from all universities was 2054. Eight universities surveyed graduates within their first three years after graduation, and two university's sample included up to fifteenth-year graduates.

The survey instrument was constructed, validated and field tested by a panel of evaluators from ten teacher education institutions. The resulting instrument contained six areas: (a) employment history, (b) ratings of program quality, (c) ratings of professional knowledge, (d) ratings of competence in selected teaching skills, (e) views of teaching, and (f) demographic information. Selected items from the instrument were used to predict current job satisfaction. For these selected items, the instrument reads "On a scale of one to seven, how would you describe your response to each of the following features of your current job?" One is "very negative"; seven is "very positive". Job satisfaction was measured with a self report seven-point scale ranging from highly satisfied to highly dissatisfied. The satisfaction variable was then used as the dependent variable in a multiple regression. The variables used to predict satisfaction were self reported demographic characteristics, work conditions and salary satisfaction scores. (see Table 1).

Initial Analysis

Using the informations from content analysis above, items were examined to determine whether any of them violated the assumptions of bivariate normalcy. First, the distribution of each item was checked by obtaining frequencies, histograms and skewness scores. The response range for each was also checked to be sure that all response categories are represented. The items were also be checked for homoscedasticity. The items were categorized as good, questionable, or bad based on the results of these tests and the test for linear relationships between the items. Heteroscedasticity was tested using scatter plots of variables. Responses seemed to cluster in the middle and higher response categories, while spreading more equally around the lower response categories. For each of them, the full range of possible responses is presented and the distributions are quite close to normal.

A few of the items were initially questionable because they stood out in terms of skewness and range. Item number 7, the interaction with students, had a fairly strong negative skew with a skewness score of -1.10. Item number 3, level of challenge and item number 8, the teacher overall satisfaction also had distributions that were somewhat negatively skewed. Their skewness scores were -0.62 and -0.75, respectively. While these results were within the limits of acceptable skewness as specified here and may signify nothing except differences in the items, they did stand out among the other items being considered.

For the non-linearity of variance, a variance stabilizing transformation was used. A log transformation resulted in a normally distributed transformed variable. The

correlation matrix of the ten variables is presented in Table 2. The relationships between the items are uniformly moderate to low, with the exception of the stronger positive relationships between satisfaction level and professional challenge (0.56), salary (0.55), professional autonomy (0.55), and relationship between professional challenge with professional autonomy (0.60).

Multiple Regression Analysis

First, standardized multiple regression analysis was used to ascertain the unique and combined influence of variables that is to use in this study. The variables were entered in step wise fashion in the regression analysis, as all of the variables were hypothesized to influence teacher job satisfaction (see Table 3). The overall feelings of satisfaction with teaching among the respondents was a mean of 4.82 on the seven-point scale. The actual items, their means and standard deviations are presented in Table 1. Generally, only coefficients with a probability of 0.05 or smaller were considered to be statistically different from zero.

The multiple regression analysis is a means of assessing how much of the total variation in teacher satisfaction can be accounted for by seven independent variables with satisfaction level as a dependent variable. Results indicated that the model explained 74% of the variance in job satisfaction (R^2=0.74). All seven independent variables were statistically significant (see Table 3).

Findings and Discussion

The results of this study identified predictors of teacher job satisfaction. It is suggested that teacher job satisfaction may be associated with both intrinsic and extrinsic rewards. The predicting variables are: Current Salary, Opportunities for Professional Advancement, Professional Challenge, Professional Autonomy, Working Conditions, Interaction with Colleagues, and Interaction with Students. These predictors of teacher job satisfaction verify and support much of the research literatures. Some of these conditions are beyond direct control of administrators, but some are directly influenced by the administrators. e.g., professional autonomy, level of professional challenge, interaction with colleagues. These variables are ones that can contribute substantially to morale.

A. Intrincsic Variables

1. Professional Autonomy and Professional Challenge

A teacher with a high sense of autonomy and challenge uses his or her own personal judgement to guide instructional work with students. Satisfied teachers report having more professional autonomy and challenge. Work challenge is consistently correlated with job satisfaction. Apparently, teacher needs and other challenge variables contribute to teacher job satisfaction. Thus, professional autonomy and challenge can be powerful incentives in recruiting, hiring, and keeping people in teaching.

2. Interaction with Colleagues

Relationships with colleagues, a sense of collaboration and community among faculty, and recognition from other teachers all have been cited as factors in a teacher's willingness to stay in the profession (Bogenschild, Lauritzen, & Metze, 1988).

3. Interaction with Student

Among the positive aspects of teaching are helping students learn, seeing them achieve, and building relationships with students (Hounshell & Griffin, 1989). Many teachers enter the profession because of a desire to help and serve. People become teachers because they are interested in children and want to help develop a youngster's potential and to perform a special service to the community. Teaching is an opportunity to serve society, and the teacher is a moral agent dedicated to serving the public.

B. Extrinsic Variables

1. Working Condition

Teachers find that conditions in the schools inhibit their ability to do what they most want to do, help children learn, and some of these inhibitating factors are amenable to change. There are some areas that may be related to maintaining teacher satisfaction that may enhance satisfaction including increased school capacity and a small reduction in class size.

2. Salary

This study found that job satisfaction and pay satisfaction were significantly related. Given the current organizational structure of most school, some of the conditions are

beyond the direct control of building administrators, but this variable may be influenced by administrators.

Conclusion

These predictors can also be used to generate new research and find where our teachers are and where they are going. Since teacher job satisfaction satisfiers are important components in career decisions about teaching, we ought to improve teacher job satisfaction with systematic plans to effect and enhance our teacher's job satisfaction. By being able to predict job satisfaction for a given teacher based on working conditions, salary, and other related variables, administrators may be able to use the model to identify potential teacher dissatisfaction and related variables and change or modify working conditions that may influence teacher longevity.

Administrators can gain valuable information about how their teachers evaluate their present teaching positions in order to determine teachers' expectations about the job and the work environment. Educational policy decision makers need to consider the importance of each aspect of the job to the individual rather than merely the level of overall job satisfaction. These results can help maximize achievement of organizational and individual goals and ultimately improve education. If administrators can in fact identify the reported level of job satisfaction of a teacher, then there may be an opportunity to intervene in those cases where job satisfaction is marginal or low, or where it is high, this may be a way to maintain it at a high level.

Table 1

Means and Standard deviations on item related to Teachers Job Satisfaction

On a scale of one to seven, how would you describe your response to each of the following features of our current job? (Item 1-8)

ITEM CONTENT	MEAN	STD DEV
1. Salary/fringe benefits	3.70	1.86
2. Opportunities for professional advancement	3.98	1.67
3. Level of personal/professional challenge	4.83	1.68
4. Professional autonomy /decision making authority	4.53	1.83
5. General work conditions (hours, class size, work load, etc.)	4.44	1.72
6. Interaction with colleagues	5.10	1.85
7. Interaction with students	5.37	1.66
8. Using the same scale, how would you describe your overall level of satisfaction with your current Job?	4.86	1.61

* Scale values are 1 = very negative, 7 = very positive for items 1 - 8

Table 2

Pearson Correlations Coefficients

	Satis	Saly	Adv	Chall	Collg	Atnm	Wkcd	Studt
Satis	1.00							
Saly	0.53	1.00						
Adv	0.39	0.37	1.00					
Chall	0.56	0.47	0.42	1.00				
Collg	0.50	0.38	0.20	0.44	1.00			
Atnm	0.55	0.49	0.24	0.60	0.46	1.00		
Wkcd	0.51	0.45	0.13	0.35	0.48	0.53	1.00	
Studt	0.48	0.33	0.00	0.47	0.47	0.52	0.48	1.00

Note.
Satis: Satisfaction Level
Saly: Salary/ fringe benefits
Adv: Opportunities for Professional Advancement
Chall: Professional Challenge
Atnm: Professional Autonomy
Wkcd: Working Condition
Collg: Interaction with Colleagues
Studt: Interaction with Students

Table 3

Multiple Regression on Job Satisfaction Level with Related Variables

Dependent Variable: Satisfaction Rate level of Job Satisfaction

Analysis of Variance

Source	DF	Sum of Squares	Mean Squares	F Value	Prob > F
Model	7	1535.38	219.34	308.93	0.0001
Error	1741	1238.68	0.71		
Total	1748	2774.06			

Root MSE	0.96
R-Square	0.74

Parameter Estimates

Variables	DF	Parameter Estimates	Standard Error	T for H0 Parameter=0	Prob !T!
Intercept	1	0.48	0.20	2.51	0.0124
Salary	1	0.19	0.03	6.27	0.0001
Advance	1	0.10	0.03	3.01	0.0027
Challenge	1	0.15	0.04	3.65	0.0003
Authority	1	0.10	0.04	2.86	0.0045
Wkcond	1	0.16	0.03	4.84	0.0001
Colleague	1	0.12	0.03	3.47	0.0006
Students	1	0.13	0.03	3.70	0.0002

Note. ** Not statistically significant at alpha=0.05

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