This study investigated the extent of the interrelations of faculty satisfaction with the position functions of teaching, research, and service across Venezuelan teacher college campuses. In particular, the study concerned the extent to which the variations in the variable teaching satisfaction were associated with the variations in the variables research satisfaction and service satisfaction. Using the Faculty Satisfaction Questionnaire, 234 full-time faculty from 7 Venezuelan teachers colleges were surveyed. The evidence suggested that teaching and research are interrelated in the satisfaction provided to academicians and that research in the academic environment is seen as supportive and complimentary to teaching. In addition, the correlation between teaching satisfaction and service satisfaction was positive indicating that there are positive interrelations between faculty satisfaction with teaching and faculty satisfaction with service. The correlation between research satisfaction and service satisfaction was also positive. The most satisfying elements to faculty was research, with publications and writing providing the greatest sense of accomplishment. Included are two tables and 27 references. (JB)
INTERRELATIONS OF TEACHING, RESEARCH, AND SERVICE:
The Faculty Satisfaction Dilemma

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Interrelations of Teaching, Research, and Service: 
The Faculty Satisfaction Dilemma

by

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With a randomly selected sample (N=234) of full-time faculty members from seven Venezuelan teacher colleges, it was examined whether faculty satisfaction with the functions of teaching with research and service and research with service across Venezuelan teacher colleges were interrelated. Three conceptual hypotheses were supported at .05 level of significance. Results are discussed in view of 30 years of related literature that have explained the relationship between teaching, research, and service.
A great deal has been written about teaching and research in academia. Faculty question the relationship between teaching and research or the interrelation between these two academic functions. The direction seems to indicate that both are related and correlated. The matter of satisfaction with these functions appears as a new argument for faculty polemic. Several studies of teaching and satisfaction mention that teaching itself (Boyer, 1987; Bowen & Schuster, 1986; Clark, 1985; Cross, 1977; DeFrain, 1979; Eble, 1988; Ibrahim, 1985; Ladd, 1979; Mellinger, 1982; Miller, 1986; McKeachie, 1982; Riday, 1981; Trinca, 1980), as well as teaching as a profession (Boyer, 1987; Bowen & Schuster, 1986; Clark, 1985; Eckert & William, 1972; Gaff & Wilson, 1971; Nussel et al., 1988), are sources of satisfaction. Some other factors of teaching have also been related to faculty satisfaction. These are academic freedom (Ambrose, 1985; Brookhart & Loadman, 1989; Carleo, 1989; CFAT, 1986; Eckert & Steckleim, 1961; Ibrahim, 1985; McKeachie, 1982), class size (Nicholson & Miljus, 1972), and teaching load (Carleo, 1989; CFAT, 1986; Hudson). The function of research has also been
explored. Findings are consistent regarding satisfaction with research activities (Bowen & Schuster, 1986; Braskamp et al., 1982; Carleo, 1989; Eble, 1988). However, service as a function has been scarcely studied as a whole. This reasoning led to the investigation of the extent of the interrelations of faculty satisfaction with the position functions of teaching, research, and service across Venezuelan teacher college campuses.

Methods and Procedures

A correlational study was concerned with determining the extent of the relationship existing between variables based on correlation coefficients (Ary et al., 1987; Borg & Gall, 1985; Isaac & Michael, 1987). In this research, the correlation study concerned the extent to which the variations in the variable teaching satisfaction were associated with the variations in the variables research satisfaction and service satisfaction. In addition, the variations in the variable research satisfaction were associated with the variations in the variable service satisfaction.

Two-hundred-thirty-four full-time faculty working 40 hours per week, teaching a particular subject area,
and assigned to academic departments were selected randomly from current personnel lists within the seven colleges. It was critically important that those faculty who responded to questions regarding their satisfaction with position functions be fully functioning members of the professoriate. Consequently, part-time professors, administrators, and other individuals who had unique appointments were eliminated (See Table 1).

Table 1

Characteristics of the Sample

<table>
<thead>
<tr>
<th>Institution</th>
<th>N</th>
<th>% of Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Barquisimeto</td>
<td>30</td>
<td>12.82</td>
</tr>
<tr>
<td>IP Caracas</td>
<td>65</td>
<td>27.77</td>
</tr>
<tr>
<td>IP Macaro</td>
<td>41</td>
<td>13.12</td>
</tr>
<tr>
<td>IP Maracay</td>
<td>19</td>
<td>8.12</td>
</tr>
<tr>
<td>IP Maturin</td>
<td>29</td>
<td>12.39</td>
</tr>
<tr>
<td>IP Rubio</td>
<td>37</td>
<td>16.81</td>
</tr>
<tr>
<td>IP Siso Martinez</td>
<td>13</td>
<td>3.14</td>
</tr>
</tbody>
</table>

Faculty satisfaction with position functions relative to (1) teaching, (2) research, and (3) service were the dependent variables. Faculty satisfaction is
defined as the affective congruence toward one's work when the elements of the position (teaching, research, and service) fulfill desirable expectations. The position function is understood as a set of aspects inherent to the functions of a faculty member which are related to the teaching, research, and service activities that he performs.

Instrumentation

The level of satisfaction was measured by the Faculty Satisfaction Questionnaire (FSQ) using a Likert-type scale (1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied). The satisfaction score of each dimension is determined by summing the weights for all items related to the variable. The FSQ instrument was designed following a series of steps to ensure consistent and accurate results. The FSQ was reviewed and validated by a panel of experts in the field. The items retained (Teaching = 11, Research = 9, and Service = 9) were rearranged for the field testing. Respondents rated 29 items on a 5-point Likert scale. Faculty were personally given a cover letter, the Faculty Satisfaction Questionnaire, and preaddressed return
envelope. Eighty-eight percent of the full-time faculty responded to the survey, and 12% (n=27) did not return the FSQ.

Reliability for each variable was determined by use of the Cronbach alpha coefficient. The variable satisfaction with teaching showed an alpha coefficient of .85. For the variable satisfaction with research an alpha coefficient .80 was obtained. An alpha coefficient .85 was found for the variable satisfaction with service. The evidence of sufficient reliability of the measures was established. No negative item-total correlations among the items were found. No changes in the instrument or procedure were made on the basis of the field test. The individual respondent scores obtained on the questionnaire measuring the dependent variables were used as the unit of analysis. Three Pearson Product-moment correlations were computed to test relationships between teaching satisfaction with research satisfaction and with service satisfaction, and research satisfaction with service satisfaction (Hypotheses 1, 2, and 3).
FINDINGS

Hypothesis 1

The relationship between faculty satisfaction with teaching and faculty satisfaction with research will be positive.

Hypothesis 2

There will be a positive relationship between faculty satisfaction with teaching and faculty satisfaction with service.

Hypothesis 3

The relationship between faculty satisfaction with research and faculty satisfaction with service will be positive.

The Table 2 summarizes the results of the hypotheses 1, 2, and 3, with Coefficient Cronbach values in parenthesis, indicating that their null hypotheses should be rejected. The correlation between teaching satisfaction and research satisfaction was significant and in the predicted direction ($r = .47, p < .0001$). The correlation between teaching satisfaction and service satisfaction was also significant and in the predicted direction ($r = .51,$...
The correlation coefficient of $r = .61$ ($p<.0001$) indicated a positive linear relationship between research satisfaction and service satisfaction (See Table 2).

Table 2

<table>
<thead>
<tr>
<th>Measures</th>
<th>Teaching</th>
<th>Research</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>(r=.76)</td>
<td>r = .47</td>
<td>r = .51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$p&lt;.0001$</td>
<td>$p&lt;.0001$</td>
</tr>
<tr>
<td>Research</td>
<td>(r=.86)</td>
<td>r = .61</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$p&lt;.0001$</td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td></td>
<td></td>
<td>(r=.83)</td>
</tr>
</tbody>
</table>

The Chi-square calculated to determine significance levels between demographic data across campus location were significant at .05 alpha level. Differences were found in academic rank, earned degree, previous teaching experiences in primary education, teaching rewards, and service rewards across various sites.
DISCUSSION

The literature emphasized the relationship between teaching and research as low and positive. In fact, it was hypothesized that if teaching and research were correlated, then satisfaction with teaching and satisfaction with research would be correlated in the same direction. Findings demonstrated that university faculty appear to relate the role of teaching with their scholarly production. This relationship seems to produce satisfaction. The evidence of this study, as well as those similar studies, suggest that teaching and research are interrelated and may provide satisfaction to academicians. Research in the academic environment is seen as supportive and complimentary to teaching.

The correlation between teaching satisfaction scores and service satisfaction scores was positive (\( r = +.51 \)). Therefore, it is justified, based on these results, to claim positive interrelations between faculty satisfaction with teaching and faculty satisfaction with service. Service is examined as inservice training, staff development programs,
professional growth programs, and even public relations projects. Opportunities offered through service programs help teachers to be more creative, participative, innovative, and even more productive in terms of publications, presentations, etc. New information and data to course design and the development of new instructional techniques may be some of the valuable gains that faculty may take from the service activities.

The correlation between research satisfaction and service satisfaction was positive (r=.61). Very few research studies have been done involving these variables. However, the study of faculty satisfaction with research are commonly reported. Research, as disciplined inquiry which leads to the production and application of knowledge, seems to be a main contributor to faculty satisfaction. But, it is usually reflected in the literature that research is mostly confronted by skillful professors with high academic ranks.

Research, publications, and writing are the most satisfying elements that provide the greatest sense of accomplishment to higher education faculty. The
evidence show that the function of research causes satisfaction to faculty. The correlation between research satisfaction and service satisfaction may introduce new elements in the design of service programs. Indeed, the evidence showing the interrelation between faculty satisfaction with research and faculty satisfaction with service may feed the argument that faculty can start talking about being satisfied, since their professional needs would be matching their personal needs.
References


Carnegie Foundation for the Advancement of Teaching. (1986). The satisfied faculty. Change, March/April, 31-34.


