Perceptions were obtained from former and current doctoral candidates and faculty concerning the research climate, doctoral advisory committee, and admission and continuation requirements at Texas A&M University's Department of Educational Curriculum and Instruction. The 27-item rating scale was completed by 126 individuals, a 72% return rate. Analyses revealed a number of issues where respondent groups' opinions differed. Former students differed with faculty on the degree to which they were encouraged to participate in ongoing research and on the opportunities afforded them to co-author papers. In some cases, the faculty did not have an active research agenda. Currently enrolled students, especially those without an assistantship, tended to be neutral regarding research climate issues. Many of these students lived off-campus and commuted to campus only once or twice per week, or enrolled in summer school and independent study. The survey also indicated that current graduate students were unclear about the role of the doctoral candidate's advisory committee with regard to open proposal meetings and seeking counsel. Other issues yielding discrepant opinions were quotas on student admission, availability of financial support, and faculty teaching load. (The survey and a data table are appended). (Author/GDC)
Quality of Research Experience in Graduate Programs as Perceived by Faculty, Graduates and Current Students

Jon J. Denton
Chiou-Yueh Tsai
Patricia Chevrette

Instructional Research Laboratory
Educational Curriculum and Instruction
Texas A&M University


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Running Head: Quality of ...
Quality of Research Experience in Graduate Programs as Perceived by Faculty, Graduates and Current Students

Abstract

This inquiry was conducted to obtain perceptions of former and current doctoral candidates and faculty on the research climate, the selection and composition of the doctoral advisory committee, and the admission and continuation requirements of doctoral candidates in curriculum and instruction. Completed survey instruments were received from 126 individuals or 72% of the sample. Analyses of the returns yielded a number of issues associated with research climate, where perceptions differed across groups of faculty, former students and current students.
One conclusion from literature related to quality graduate research programs is that there must exist a climate characterized by creative inquiry, openness, trust, interaction, camaraderie and enthusiasm. That is, there must be an intellectual atmosphere which fosters exchange of ideas and collegial research activity by faculty and graduate students (Dockweiler et al., 1985). The development of such an environment is essential if the doctorate is to create a keen need for scholarship throughout the individual's life. Assuming the post-graduate professional role of the individual is in education, generating knowledge or critically reviewing and analyzing knowledge posited by others will be a frequent and common task. With encouragement an individual exhibiting this thirst for learning, will constantly question and challenge conventional wisdom and traditional practices.

Unfortunately, graduate curricula in colleges of education rarely complement or encourage the aforementioned climate. To illustrate these grim circumstances, a presentation on the nature of the doctorate in education across 13 major research institutions in the United States included the following observations. Over 50 percent of the alumni who responded to a survey indicated they did not engage in a research activity except their dissertation research during their doctoral study. Further, 70 percent of the respondents had not presented a research paper, nor co-authored or authored a single research publication during their doctoral study. According to responses to the survey, a majority of educational faculty in these
institutions devoted a minority of their time to research and would prefer to be judged more on their contributions to teaching and service (Brown, 1984). It appears that the value of research is not always highly valued by those who teach and lead doctoral programs in education. In fact, Wisniewski (1986) asserts that many education professors fail to realize that continuing scholarship in one's field is more important than merely meeting classes, no matter how polished their teaching skills. This assertion rests on the premise that teaching and service flow from the fountainhead of scholarship. Support for Wisnieski's assertion is provided by an inquiry which reported that over 64% of the teacher preparation programs in the United States were NOT represented either by a presentation at a national conference or articles in journals of major organizations associated with teacher education during the five year period between 1980 and 1984 (Denton, Tsai & Cloud, 1986).

The apparent discrepancy between the ideal climate for collegial research activity among graduate students and faculty and the actual climate that exists in education faculties led to this inquiry. The purpose of this inquiry was to obtain perceptions of faculty, doctoral alumni, and current doctoral students regarding issues and processes associated with graduate research experiences in the college of education. Rephrasing and extending this purpose as a research question yielded the following interrogative sentence.

Do perceptions of faculty, former students and current students differ regarding issues and processes associated with the graduate research experience?
Methods

For the past two years the College of Education at Texas A&M University has addressed issues and processes associated with the quality of the graduate research experience within the college. Two standing committees, the Steering Committee on Fostering Educational Inquiry and the Graduate Instruction Committee, have devoted countless hours conducting hearings, holding retreats and drafting a position paper on the quality of the graduate research experience entitled, Doctoral Research Experience (Dockweiler et al., 1985). Following the distribution of this position paper to faculty and graduate students throughout the college, departmental faculties were asked to use the document as a guideline for fostering quality research. This particular inquiry was conducted to determine how departmental faculty as well as past and current doctoral candidates perceived the research experiences in the department of Educational Curriculum and Instruction (EDCI). A mail survey was conducted during the 1986 spring semester to gather these perceptional data.

Subjects

Three distinct subgroups were combined to form the total sample for this inquiry. These groups were: all graduate faculty members of EDCI during the 1985-86 academic year (30 individuals), all doctoral recipients from EDCI during the past five years that is, doctoral recipients from May 1980 through December 1985 (62 individuals), and all current doctoral candidates during the 1985-86 academic year (83 individuals). Current candidates were subsequently subdivided into students...
with graduate assistantships (28 individuals) and students without graduate assistantships (55 individuals). The faculty sample represented 65% of the department's total instructional staff. Thirty percent of the faculty sample were female, and 15% of this sample were minority. Tenure within the sample ranged from one year to seventeen years with 16 full professors, 8 associate professors and 6 assistant professors comprising the graduate faculty.

Former students in this sample were 75% female and 5% minority. Sixty-five percent of these individuals received the doctor of philosophy degree (Ph. D.) and 35% received the doctor of education degree (Ed. D.). The current student sample was composed of 71% female and 4.9% minority candidates. Over eighty percent of these individuals were pursuing the Ph. D. degree.

Instrumentation

Three parallel instruments were prepared for this inquiry. Each instrument provided a description of the college's effort to enhance the quality of the graduate research experience. In addition, each instrument included 27 Likert items divided into three sections: Essential criteria for quality research (13 items), Students (7 items), Faculty (7 items), and a request for additional comments. These items were derived from guidelines for improving the quality of doctoral research provided in the document alluded to previously, namely, the Doctoral Research Experience (Dockweiler et al., 1985). The Likert items were identical across the three instruments save the lead-in phrase given the different audiences. To illustrate, the lead-in phrase
for the faculty instrument was "I urge graduate students to:"
while former students and current students read the following
lead-ins: "I was encouraged to:" and "I have been encouraged
to:"

Figure 1 presents a portion of the instrument for current
students. It should be noted that no biographic information was
requested (i.e., name or address) on the instruments except that
an identifying mark, GA, was penciled on the instruments
distributed to current students with graduate assistantships.

Place figure 1 about here

Alpha coefficients of internal consistency determined for
each of the instruments were: faculty instrument, \( \alpha = .89 \),
current student, \( \alpha = .70 \), former student, \( \alpha = .81 \). The student
instruments were printed with black ink on single sheets of
yellow (former students) or salmon (current student) 110 lb index
card stock and folded in such a manner so that return address and
postage label appeared on an external surface. Subjects
responding to the items simply stapled or taped the folded
instrument and remitted it by mail. Recommendations of Sudman
and Bradburn (1982) regarding mail survey instruments were
incorporated into the format of the instruments. The faculty
instrument was printed as one side of four sheets of 8 1/2 x 11
inch gold paper with black print. The print font was courier for
all three instruments.

Data Collection

Addresses of current and former doctoral students were
obtained from departmental files. The initial request, consisting of a coverletter which requested the subjects' participation and a questionnaire was placed either in the mail or faculty mailboxes Wednesday, February 12, 1986. A second mailout was initiated three weeks later on March 5, 1986. All subjects were provided a follow-up packet which contained a letter which noted the response rates from the first mailout and reminded the subjects that because biographic information was not requested on the instrument, records could not be developed on who had responded to the initial survey. Thus, they were receiving another request. Further, if they had not responded to the initial request they were encouraged to complete and remit the enclosed instrument. Data received through May 1, 1986 were included in the analysis.

Findings

Perceptions from current and former doctoral students and graduate faculty in EDCI on the nature of the graduate research experience were analyzed using the breakdown and regression procedures from the SPSSX statistical package (SPSSX, 1984) on the university's mainframe computer. Surveys were received from 126 subjects or 72% of the 175 who were provided with questionnaires. The initial mailout yielded 88 responses and the second request produced an additional 37 completed instruments. Response ratios by subgroups sampled were: faculty, .73 (22 of 30); former students, .79 (49 of 62) and current students, .65 (54 of 83). Because current students with graduate assistantships were thought to have more opportunities to
participate in research activities than doctoral students without assistantships, the current student subgroup was subdivided into those with and without graduate assistantships. The response ratio of those with assistantships was .82 (23 of 28), while the response ratio for students not on assistantships was .56 (31 of 55). Subsequent analyses were conducted with these four distinct groups: faculty, former doctoral students, current doctoral students with assistantships, and current doctoral students without assistantships.

The research question for this inquiry sought information on whether perceptions regarding the quality of the graduate research experience were different among faculty, former students and current students. Table 1 provides a summary of the descriptive statistics and inferential test (F ratio) of the regression model for each comparison.

Place Table 1 about here

Given the different number of responses across the four groups, that is, faculty-21, former students-49, current students on assistantship-23, and current students without assistantships-31, a forward selection regression model with group membership as the predictor was used to provide an inferential test of perceptions across the groups for each of the 27 Likert items. Twelve of the regression tests were statistically different at the .05 alpha level indicating group membership of the respondents accounted for sufficient variation in the responses
to those items to be significant. Nine of the items registering different response patterns across respondents occurred in the initial portion of the instrument entitled, Essential Criteria for Quality Research. In fact, all six items clustered under Research Climate registered different response patterns across respondents. The trend across these items was that faculty members were in stronger agreement with the statements than either former or current students, but former students agreed with these statements more than current students. Although not evident across all six items, current students with assistantships tended to agree with the research climate statements more than their counterparts without assistantships. The remaining three items in this section of the instrument with statistically different response patterns that is, two items associated with Advisory Committee and one item associated with Quality of Dissertation/Record of Study, exhibited similar patterns as those clustered under Research Climate. In every case where statistical differences occurred, the mean responses of faculty and former students ranged between agree (4) and strongly agree (5) whereas the means for current students ranged from disagree (2) to strongly agree (5). Issues that produced the greatest discrepancies in views (means) were: (a) whether opportunities occur for graduate students to co-author manuscripts with faculty, (b) whether graduate students are encouraged to participate in on-going research projects, and (c) whether graduate students should present their research proposal in an open seminar.... In contrast, issues in the initial
portion of the instrument that produced the greatest agreement across these groups included: (a) working with a temporary chair in selecting initial coursework and (b) structuring the doctoral research project of sufficient scope to engage a candidate for at least one calendar year.

Of the remaining three item with statistically different response patterns across respondents, two occurred in the Students section and one in the Faculty section of the instrument. One item under the Student section addressed establishing a quota of doctoral students for the department: the mean response of former students was highest (3.3) whereas current students with assistantships registered the lowest mean or least agreement (2.3) for this issue. The second Student item with different response patterns noted that substantial efforts are made to provide financial assistance to doctoral students. Faculty members tended to strongly agree (mean=4.7) with this statement and current students without assistantships registered the lowest mean (2.8). The only item grouped under the Faculty section of the instrument to register different response patterns across groups addressed the issue of whether faculty members should teach graduate courses on a regular basis. Although mean responses across all groups at least agreed with this issue, former students registered the highest mean (4.8) and current students without assistantships the lowest mean (4.2).

The general pattern of responses across the Student and Faculty sections of the instrument was that individuals tended to agree with the issues or processes noted. Exceptions were two
items in these sections of the instrument which yielded means in the undecided to disagree range.

Discussion

A response to the research question posed for this inquiry is Yes, at least for 12 of the 27 comparisons. Perceptions of faculty, former students, and current students in EDCI at Texas A&M University were found to differ statistically on a number of issues and processes thought to be associated with quality research experiences for doctoral students. All items associated with Research Climate yielded statistically different perceptions across the groups with faculty perceiving that doctoral students are encouraged to: actively participate in research seminars, discuss research as colleagues, participate in on-going research efforts, co-author manuscripts, establish a mentor relationship, and seek technical assistance without fear of upsetting one's major advisors. Although not as much in agreement with the statements as faculty, former students tended to agree that they were encouraged to: actively participate in research seminars, discuss research, develop a mentor relationship and seek technical assistance. However, they differed with faculty on the degree to which they were encouraged to participate in on-going research efforts, and the opportunities afforded them to co-author manuscripts with faculty. Apparently a number of former students felt they were not afforded these opportunities during their doctoral study. In some cases, time and personal circumstances prohibited former students from participating in collaborative research and writing efforts. Unfortunately in
other cases, former students worked with faculty members who simply did not have an active research agenda, and thus could not offer a collaborative research experience to their students. This latter case is consistent with Brown's (1984) finding that education faculty devote a minority of their time to research.

Current students, especially those without assistantships, tended to be neutral regarding research climate issues. Reasons for their neutral perceptions are varied, but a characteristic of these individuals which sets them apart from current students with assistantships, besides financial support, is that most live a considerable distance from campus and either commute once or twice a week to campus or enroll in independent study courses. These individuals often satisfy residency requirements through campus based summer school offerings. For these students, developing close, collegial relationships with faculty and engaging in extended research efforts may not be compatible with their personal and professional goals. And although graduate assistantships have generally been available to them, a substantial number of these students opt not to accept assistantships because of financial and family responsibilities. For these commuting doctoral students, issues and processes associated with research climate are not accepted as being essential criteria for quality research. Although it is only conjecture, it is a troubling possibility that some of these candidates are strongly committed to acquiring the academic title but are not as ardently committed to being a student of the mind for the rest of their lives.
The frequency of discrepant perceptions was much less pronounced across the remainder of the instrument. Apparently the function and responsibilities of the doctoral candidate's advisory committee was unclear to current students regarding open proposal meetings and seeking counsel from committee members. Interestingly, former students aligned themselves with faculty on all issues and processes except the open proposal meeting. A possible reason for this observed difference of perceptions is that the open proposal meeting represents a change from procedures experienced by former students. It is also possible that this change in procedure may create additional anxiety and uncertainty among current students, consequently these students like their predecessors are not in agreement with this item. For the item dealing with seeking counsel from committee members, it is likely the current students without assistantships marked this process lower because of their lack of extensive associations with their committee members. Individuals in this group have little contact with faculty on campus except during formal coursework. Thus, opportunities for becoming acquainted with and comfortable around faculty members are very limited for these individuals. Fortunately, perceptions of faculty, former students, and current students with assistantships were in agreement with the process of seeking counsel from advisory committee members. The discrepancy of responses to this item signals a need for the faculty and department to help the commuting student to feel as though they are valued students and colleagues in the department.
One issue associated with the quality of dissertation/record of study namely, carefully address internal and external threats to validity, produced discrepant responses. While all groups agreed with this issue, current students registered slightly lower perceptions than faculty and former students. Perhaps the lower level of agreement with the validity of research issue exhibited by current students reflects and naivete on their part regarding research terminology as well as their experience with research efforts.

The two issues associated with students which yielded different perceptions were whether the department should establish a quota of doctoral candidates and the effort extended by the department to provide financial support to doctoral students. The issue regarding quotas of doctoral students was not looked upon with favor by any of the groups. In fact, the quota issue received the lowest numerical values among all items on the questionnaire. While faculty and former student means were neutral, individual positions of faculty were ambivalent regarding quotas for a number of opposing reasons namely, concerns for equity versus availability of resources. Current student means clearly indicated their disagreement with this notion. Perhaps their views were influenced by uncertainties created by reduced budgets and the general state of the economy in Texas, but it is just as plausible they too were concerned about elitism and the possibility of the department establishing inequitable practices for doctoral student admission.

The second student item registering discrepant views across
faculty, former and current students was the issue of financial support for doctoral students. Although faculty tended to strongly agree with the issue that support was available, former students and current students with assistantships generally were in agreement with the statement, but some current students without assistantships disagreed with the statement. Financial assistance in the form of graduate assistantships is readily available in the department for doctoral students, but the level of support provided by assistantships represent between 5 to 20% of the doctoral students' salary as classroom teachers, supervisors or administrators. It is evident given the difference in income between an assistantship and a position in a school district, that many people cannot sacrifice their income and select the option of commuting to campus while working full time. This financial issue in turn affects the nature of their doctoral residency and opportunities to participate in on-going research experiences. In other words, the amount of financial support available through the department apparently deters many doctoral students from accepting assistantships, which in turn affects the value of the doctoral research experience.

The one issue associated with faculty which produced different perceptions was whether each graduate faculty member should teach graduate courses on a regular basis. While all groups agreed with this issue, the largest difference in views occurred between former students and current students without assistantships. Perhaps from their experience in the program, former students perceive that opportunities to become acquainted
with individual faculty members and their research interests are more prevalent through experiencing a course taught by the faculty member. Thus, in order for students to ascertain the scholarly pursuits of individual faculty, each faculty member should teach graduate coursework on a regular basis. If this explanation has merit, then efforts to communicate the work of each faculty member to all doctoral students need to be enhanced.

Results from this survey indicate a number of issues of the graduate research experience are perceived differently by faculty, former students and current students. Whether changes in substance or processes will alter perceptions depend on the deliberations and decisions of the graduate faculty, but clearly, continued dialogue on the quality of the graduate research experience should continue.
References

Brown, L. (1984, November). *Nature of graduate education in leading universities in the United States*. Paper presented at a retreat on the quality of the graduate research experience in the College of Education at Texas A&M University, College Station, TX.


Survey of Current Students Enrolled in the Doctoral Programs (1985-86) in Educational Curriculum and Instruction Texas A&M University

Background

The College of Education recently completed an extensive review of issues and processes associated with the quality of the graduate research experiences in the College. A document resulting from this review entitled, Doctoral Research Experience provides guidelines for improving the quality of doctoral research within the College. The guidelines are organized into three sections reflecting major issues in doctoral research: Essential Criteria for Quality Research; Students with capabilities and motivation to excel in their chosen fields of study; and faculty with training, experience and commitment to the highest levels of scholarship. The following instrument has been fashioned from these guidelines in hopes of gathering your perceptions of where we stand with respect to these guidelines. Your assessment of the doctoral program will serve as invaluable baseline data as efforts continue to enhance the quality of doctoral experiences in Educational Curriculum and Instruction. Please help us with this important effort to improve the quality of the doctoral experiences in Educational Curriculum and Instruction. Thank you.

Directions - Please respond to each item on the scale by circling the appropriate indicator. As a current student, you may find some of the items concerning your program of study, especially those pertaining to your research, inappropriate at this time. In that case, circle the not-appropriate (NA) indicator.

SA = Strongly Agree
A = Agree
U = Undecided
D = Disagree
SD = Strongly Disagree
NA = Not Appropriate

I. Essential Criteria for Quality Research

One conclusion from literature related to quality graduate research programs is that there must exist a climate characterized by creative inquiry, openness, trust, interaction, camaraderie and enthusiasm. That is, there must be an intellectual atmosphere which fosters exchange of ideas and collegial research activity by faculty and graduate students. The following items address the related issues of research climate, advisory committee and quality of final document (dissertation/record of study).

A. Research Climate

I have been encouraged to:

1. actively participate in research seminars offered in the department and college
2. discuss on-going research with faculty on a collegial basis
3. participate in on-going research projects
4. co-author manuscripts with faculty
5. establish a mentor relationship with my major advisor
6. seek technical assistance with research "problems" from faculty, departmental laboratories, college laboratories

B. Advisory Committee

I have been encouraged to:

1. work with a temporary chair in selecting initial coursework
2. select a permanent chair consistent with my interests and goals
3. adjust committee membership and/or chair to reflect the best available guidance for the completion of my research
4. present my research proposal in an open seminar to faculty and graduate students
5. seek advice and counsel from advisory committee members in conducting my research

C. Quality of Dissertation/Record of Study

I am being encouraged to:

1. carefully address threats to internal and external validity in conducting my doctoral research
2. structure a research project sufficient in scope that a minimum of 1 calendar year was necessary to complete the research

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Table 1

Group Means and Inferential Tests of Regression models Examining Perceptions of the Quality of Research Experience in EDCI Graduate Programs

<table>
<thead>
<tr>
<th>Items</th>
<th>EDCI Graduate</th>
<th>Future Graduate</th>
<th>Current Graduate Students</th>
<th>Current Graduate Non-Assist</th>
<th>Inferential Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Research Climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>actively participate in research seminars offered in the department and college</td>
<td>4.5</td>
<td>4.2</td>
<td>3.7</td>
<td>3.2</td>
<td>26.1</td>
</tr>
<tr>
<td>discuss on-going research with faculty on a collegial basis</td>
<td>4.6</td>
<td>4.0</td>
<td>3.7</td>
<td>3.3</td>
<td>21.4</td>
</tr>
<tr>
<td>participate in on-going research projects</td>
<td>4.6</td>
<td>3.6</td>
<td>3.1</td>
<td>3.0</td>
<td>22.2</td>
</tr>
<tr>
<td>co-author manuscripts with faculty</td>
<td>4.5</td>
<td>3.3</td>
<td>2.8</td>
<td>2.8</td>
<td>22.7</td>
</tr>
<tr>
<td>establish a mentor relationship with my major advisor</td>
<td>4.7</td>
<td>4.1</td>
<td>3.7</td>
<td>3.9</td>
<td>9.1</td>
</tr>
<tr>
<td>seek technical assistance with research &quot;problems&quot; from faculty, departmental laboratories, college laboratories</td>
<td>4.7</td>
<td>4.2</td>
<td>3.8</td>
<td>3.5</td>
<td>19.0</td>
</tr>
<tr>
<td>B. Advisory Committee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>work with a temporary chair in selecting initial coursework</td>
<td>4.2</td>
<td>3.9</td>
<td>4.0</td>
<td>4.5</td>
<td>--</td>
</tr>
<tr>
<td>select a permanent chair consistent with my interests and goals</td>
<td>4.9</td>
<td>4.6</td>
<td>4.1</td>
<td>4.6</td>
<td>--</td>
</tr>
<tr>
<td>adjust committee membership and/or chair to reflect the best available guidance for the completion of my research</td>
<td>4.6</td>
<td>4.3</td>
<td>3.7</td>
<td>4.4</td>
<td>--</td>
</tr>
<tr>
<td>Present my research proposal in an open seminar to faculty and graduate students</td>
<td>4.2</td>
<td>3.4</td>
<td>3.2</td>
<td>2.7</td>
<td>11.7</td>
</tr>
<tr>
<td>seek advice and counsel from advisory committee members in conducting my research</td>
<td>4.8</td>
<td>4.6</td>
<td>4.2</td>
<td>3.9</td>
<td>15.9</td>
</tr>
<tr>
<td>C. Quality of Dissertation/Record of Study</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>carefully address threats to internal and external validity in conducting my doctoral research</td>
<td>4.7</td>
<td>4.5</td>
<td>4.0</td>
<td>4.1</td>
<td>9.4</td>
</tr>
<tr>
<td>structure a research project sufficient in scope that a minimum of 1 calendar year is necessary to complete the research</td>
<td>3.9</td>
<td>4.4</td>
<td>4.0</td>
<td>3.8</td>
<td>--</td>
</tr>
</tbody>
</table>
II. Students

- EDCI should establish a quota of doctoral students to admit each year
  - \( \bar{x} = 3.0 \)
  - \( \bar{x} = 3.3 \)
  - \( \bar{x} = 2.3 \)
  - \( \bar{x} = 2.7 \)
  - \( r = 4.1 \)
  - \( p = .04 \)

- Selection criteria for admission to doctoral program in EDCI should stress research and/or leadership potential
  - \( \bar{x} = 4.0 \)
  - \( \bar{x} = 4.3 \)
  - \( \bar{x} = 4.0 \)
  - \( \bar{x} = 3.7 \)
  - \( r = 4.1 \)
  - \( p = \text{N.S.} \)

- Substantial efforts are made to provide financial support to doctoral students in EDCI
  - \( \bar{x} = 4.7 \)
  - \( \bar{x} = 4.0 \)
  - \( \bar{x} = 3.7 \)
  - \( \bar{x} = 2.8 \)
  - \( r = 4.1 \)
  - \( p = .000 \)

- Students progress toward completing the program is monitored satisfactorily
  - \( \bar{x} = 3.5 \)
  - \( \bar{x} = 4.0 \)
  - \( \bar{x} = 3.8 \)
  - \( \bar{x} = 3.4 \)
  - \( r = \text{N.S.} \)

- Prior professional experience influenced the course structure of my degree plan
  - \( \bar{x} = 4.0 \)
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 3.7 \)
  - \( \bar{x} = 4.3 \)
  - \( r = \text{N.S.} \)

- More research credit hours (691's - 693's) should count toward degree requirements (presently 12 hours are typically listed)
  - \( \bar{x} = 3.4 \)
  - \( \bar{x} = 3.2 \)
  - \( \bar{x} = 3.6 \)
  - \( \bar{x} = 3.3 \)
  - \( r = \text{N.S.} \)

- Doctoral student's progress toward the degree should be reviewed periodically to identify difficulties and to provide remediation suggestions if necessary
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 4.4 \)
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 4.3 \)
  - \( r = \text{N.S.} \)

III. Faculty

Each graduate faculty member should:

- Conduct on-going research
  - \( \bar{x} = 4.1 \)
  - \( \bar{x} = 4.1 \)
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 3.6 \)
  - \( r = \text{N.S.} \)

- Publish professional papers on a regular basis
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 4.0 \)
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 3.7 \)
  - \( r = \text{N.S.} \)

- Present research at professional meetings
  - \( \bar{x} = 4.4 \)
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 4.3 \)
  - \( \bar{x} = 4.0 \)
  - \( r = \text{N.S.} \)

- Conduct programs (seminars, training) in his/her professional specialty
  - \( \bar{x} = 4.0 \)
  - \( \bar{x} = 4.4 \)
  - \( \bar{x} = 4.4 \)
  - \( \bar{x} = 4.4 \)
  - \( r = \text{N.S.} \)

- Teach graduate courses on a regular basis
  - \( \bar{x} = 4.5 \)
  - \( \bar{x} = 4.8 \)
  - \( \bar{x} = 4.7 \)
  - \( \bar{x} = 4.2 \)
  - \( \bar{x} = 4.5 \)
  - \( p = .04 \)

- Serve on and chair graduate committee
  - \( \bar{x} = 4.5 \)
  - \( \bar{x} = 4.7 \)
  - \( \bar{x} = 4.7 \)
  - \( \bar{x} = 4.4 \)
  - \( r = \text{N.S.} \)

- Serve as chair for no more than 10 active doctoral students at any given time
  - \( \bar{x} = 4.6 \)
  - \( \bar{x} = 4.5 \)
  - \( \bar{x} = 4.7 \)
  - \( \bar{x} = 4.2 \)
  - \( r = \text{N.S.} \)

* The larger the mean value the greater the degree of agreement of the group for the issue or process.

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