The professional development needs of tenure track faculty at a regional university

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ABSTRACT

Faculty professional development is critical to support effective teaching, research, and service contributions. Sequential mixed methods were used to develop an understanding of tenure track faculty professional development needs at a rural, regional institution of higher education in the southern United States. Results from a faculty survey and follow-up focus groups indicated faculty prefer content-specific professional development delivered through conferences related to their field of study and by peers who are experts in areas of teaching and research interests. Barriers to accessing quality professional development included time, monetary support, and competing interests of teaching and learning center and individual faculty interests. Implications for practice and future research directions are reported.

Keywords: Professional Development, Faculty Evaluation, Program Evaluation, Teaching Improvement, Research Quality



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INTRODUCTION

One challenge facing modern universities is recruiting and retaining quality faculty (Phillips, Dennison, & Davenport, 2016). Faculty face more challenges than ever before and may burn out long before they adapt. With technological advances, readily available information has changed the ways faculty teach. These advances have also accelerated the learning curve. The role of faculty in higher education institutions has evolved from the faculty of the university being the sole authority and holder of knowledge to finding a way to convey that knowledge to a population that has grown up with technology (Pawlyshyn & Hitch, 2016). A major portion of that role is teaching students to decipher true versus false information. Making course material more accessible and using all of the tools available to faculty may be challenging, especially for those who did not grow up with technology. According to Pawlyshyn and Hitch (2016), faculty currently work in a climate of constraint. "... The roles and responsibilities of faculty are undergoing transformative change" (p. 40). Accelerating change results in faculty having less autonomy, more pressure to produce with higher teaching loads, and increased research expectations (Marion, 2007). "Faculty as teachers and faculty as purveyors of intellectual vibrancy remain integral to higher learning" (Pawlyshyn & Hitch, p. 41). In order to support faculty, universities are increasingly fostering faculty communities and professional development opportunities (Henard & Roseveare, 2012).

Shrinking budgets, lack of raises, and increasing expectations of faculty are prompting administrators to find alternative ways to reward and motivate faculty. Current beliefs about how to meet the professional development needs of faculty vary widely but many of the needs are consistent across disciplines. Many university masters' and doctoral programs do not "prepare prospective academic faculty for the responsibilities of college and university teaching" (Behar-Horenstein, Garvan, Catalanotto, Su, & Feng, 2016, p. 52). Faculty may be left to figure out how to be successful at teaching on their own.

Behar-Horenstein et al. (2016) investigated 115 dental school faculty residing in Florida. Findings suggest that professional development was needed in the areas of teaching, scholarship, and leadership skills at both the school level prior to graduation and at their places of employment. Five areas of professional development needs were identified by McMillan and Gordan (2017): "(a) communities of practice; (b) academic freedom; (c) position statements; (d) development opportunities; and (e) a supportive environment" (p. 777). Several studies (e.g. Hahn & Lester, 2010; Jiandani, Bogam, Sha, Prabhu, & Taksande, 2015) have found that time and money are major barriers to participating in continuing education and faculty development opportunities. Other barriers have included "lack of pedagogical training, lack of time, lack of incentives and tensions with professional identity" (Brownell & Tanner, 2012, p. 339).

The purpose of this investigation was to evaluate faculty research, teaching, and service strengths and professional development needs at a rural, regional institution of higher education in the southern United States. The following research questions were addressed: (1) What are faculty research, teaching, and service strengths?; (2) What resources and supports would be helpful to facilitate faculty research, teaching, and service?; and (3) How can a university best support faculty in the areas of research, teaching, and service?

METHODS

Mixed methods (Creswell, 2013; Creswell & Clark, 2011) were used to determine faculty responsibilities and professional development needs. Quantitative results from a cross-sectional survey provided an overview of faculty needs. Focus groups assisted with further explaining the professional development needs of faculty and specific areas of interest among faculty ranks. Data was collected in two phases (1) an electronic survey was sent to tenure track faculty and (2) focus groups including a representative sample of faculty at each rank to expand on findings from the survey and to contextualize participants' responses. Qualitative and quantitative data were triangulated to reinforce the validity of the constructs and to contextualize participant responses.

Survey

A survey including questions related to faculty responsibilities and professional development needs was drafted. Next, a team of seven faculty members, including representatives at each faculty rank (assistant, associate, professor), individually and then collectively reviewed the survey. The team included representatives from several departments and colleges. Next, the survey was independently reviewed by three experienced external faculty members whose responsibilities included part-time assignments at the university teaching and learning centers. An electronic version of the survey was created using Qualtrics (2016). Each committee member completed the online survey and final adjustments were made.

Following the consent document and tenure track status verification, the survey included 29 questions. The first section included demographic information related to (1) faculty rank, years at current institution, and years at current rank; (2) college and department affiliation; (3) gender; (4) ethnicity; (5) and age. The second section of the survey consisted of questions related to faculty goals and responsibilities such as (1) desire for promotion; (2) interest in leadership and/or administrative opportunities; (3) professional responsibilities; (4) departmental, college, and university expectations related to research, teaching, and service; and (5) percentage of time each week devoted to research, teaching, and service. The next section included Likert-type items related to professional development including (1) professional development access, support, opportunities available for professional development through external, university, and departmental means, and (2) professional development needs. An analysis of items using Cronbach's alpha was completed for Likert-type items; internal consistency was in the good to excellent range for items related to professional development access (.88) and professional development needs (.92).

The final section of the survey included five open-ended items to provide the opportunity for participants to provide perspectives in their own words (Groves et al., 2009). Professional development was defined as "any activity that helps you to improve your practice." Prompts asked participants to (1) describe how the university could help to faculty access professional development; (2) professional development opportunities that would support research; (3) professional development opportunities that would support teaching; (4) resources, materials, and supports that would be benefit research; and (5) resources, materials, and supports that would benefit teaching.

Focus Group Questionnaire

A research team member with expertise in qualitative methodology drafted initial questions related to (1) faculty successes and challenges, (2) professional development activities completed during the last year, (3) professional development needs, and (4) professional development activities that would be beneficial. The committee reviewed the focus group protocol and questions were further refined to target faculty at each rank. Next, the protocol was independently reviewed by three external faculty members whose responsibilities included part-time assignments at their university teaching and learning center. Questions were adjusted for clarity and alignment with needs assessment goals.

Procedures

After obtaining Institutional Review Board approval, the survey was electronically distributed to faculty through department chairs. A follow-up email was sent to faculty through department chairs approximately three weeks after the survey was initially launched. The survey link remained open from October 2015 until January 2016. To encourage faculty participation, a recruitment incentive was provided (entry into a drawing for a conference registration of up to \$250.00).

Faculty were invited to participate in focus groups by submitting their contact information in a separate e-link provide after the survey or a recruitment email distributed through department chairs. To encourage focus group participation, an additional recruitment incentive was offered (an entry into a drawing for a conference registration of up to \$250.00). Focus groups were conducted at the following ranks (a) beginning Assistant Professors; (b) middle-career Assistant Professors; (c) Associate Professors; (d) Professors; and (e) department chairs. To maximize participation two focus groups were conducted at the Assistant Professor and Department Chair ranks. The focus group facilitators were committee members at the same rank as the faculty. For example, first year Assistant Professors were interviewed by a first year Assistant Professor to maximize participant comfort, trust, and likelihood of providing accurate information on professional development needs. Focus groups were conducted in faculty conference rooms to provide a neutral meeting space for participants to confidentially share their thoughts and perceptions.

Transcriptions were prepared by 3Play Media, and facilitators reviewed transcripts for accuracy. Each facilitator prepared notes and determined themes for the focus group that they conducted. The committee reviewed data and themes, and final themes were determined collaboratively.

Participants

In all, 294 faculty members participated in the needs assessment. Data were excluded for 82 faculty members who identified their rank as professional track for a total of 212 participants. The survey response rate was estimated at 76.8%. Participants included Assistant Professors (n = 114), Associate Professors (n = 52), and Professors (n = 46) who served in positions across the university. The majority of participants identified as female (60.22%). Most of the participants identified as Caucasian (63.94%), followed by Hispanic (8.92%), Asian (8.17%), African American (6.69%), Other (4.46%), and Native American (< 1.00%). Approximately 24

respondents (9%) did not share their ethnicity. The majority of respondents were from the College of Education and Human Services (61.04%) followed by the College of Science and Engineering (14.29%), College of Business (9.09%), School of Agriculture (9%), and the College of Humanities, Social Sciences, and Arts (6.49%).

A review of a list of university personnel suggested that the survey sample was somewhat representative of the faculty in regards to rank and ethnicity. However, a larger portion of faculty from the College of Education and Human Services and female faculty participated in the survey. Despite these inconsistencies, the survey sample appeared to be representative of faculty and results indicative of faculty professional development needs.

A purposeful sample of representative faculty were selected to participate in focus groups. Representatives from each college and school participated. In all, 25 faculty members participated in seven focus groups. Faculty participants were representative of the gender, age, and ethnic makeup of faculty at this institution.

RESULTS

Survey and focus group results suggested that faculty have a commitment to serving diverse populations and are interested in receiving disciplinary-specific professional development and training. Supports for fostering mentor/mentee relationships, leadership training, and opportunities to attend external professional development are areas of faculty interest. Incentives such as certificates that would count towards tenure and promotion and compensation for completion of professional development activities were noted as strategies for increasing professional development participation.

Survey Results

The majority of faculty identified that teaching is their primary responsibility (74.11%), followed by research (23.33%), and then service (3.33%). There were no significant discrepancies among the faculty ranks or between departmental and college expectations for primary, secondary, and tertiary responsibilities. However, more Assistant Professors identified research as their primary role and departmental expectation than Associate Professors and Professors. Approximately, 33% of respondents indicated interest in serving in a leadership role at the departmental level and 12% at the college (e.g., Associate Dean, Dean) and university levels (e.g., Associate Provost, Provost, Vice President). Approximately, 46% of respondents indicated that they worked on research, scholarship, and service activities between 41 and 55 hours per week and 16.66% of respondents reported working an average of 56 or more hours per week on research, teaching, and service activities. Of the respondents who reported working more than 56 hours per week, approximately 80% were at the Assistant Professor and Professor ranks. Approximately 65% of the Associate Professors indicated that they were not interested in working towards promotion. Faculty in the College of Science and Engineering indicated slightly more time devoted to research, and faculty in the College of Education and Human Services indicated more time focused on teaching than research. Assistant Professors indicated slightly more time spent on research than teaching; however, no statistically significant differences were noted among faculty ranks. Female faculty members reported spending more time on service activities (26.44%) than their male colleagues (15.54%). However, there were no significant differences in percentage of time devoted to service among faculty ranks. Table 1

(Appendix) provides a summary of overall percentages of faculty time devoted to research, teaching, and service.

The majority of faculty (97%) reported participating in at least one professional development activity last year with most faculty across ranks (47.89%) participating in two to three professional development activities last year. Approximately 25.35% participated in four to five activities, 15.49% participated in six to ten activities, and 9.86% participated in ten more activities last year. Assistant Professors reported slightly higher rates of professional development than Associate Professors and Professors. However, there were no significant discrepancies between faculty professional development participation across ranks. Of the 3% of faculty who reported that they did not attend a professional development activity within the last year, all were Associate Professors. The majority of professional development activities were provided through professional organizations. Approximately, 26% of faculty reported attending university sponsored professional development activities, and 12% indicated that they attended workshops or met with teaching center staff that provided individualized supports. Respondents generally felt supported in attending professional development opportunities. A summary of faculty interest and support is provided in Table 2 (Appendix).

Most of the participants reported having access to some professional development funding (63.24%). Approximately, 77% percent of respondents reported receiving free professional development provided through the university, and 61% received some funding for external professional development activities.

In response to open ended items related to professional development to support research, several themes were evident. Themes included support to attend conferences related to specific disciplines, webinars and trainings related to research software and methodology, opportunities to have departmental trainings, and training provided by colleagues with similar research interests. References to needing additional funding to support conference attendance were reported in 187 (69.51%) faculty responses.

The next open-ended question asked for a description of professional development activities that would support teaching. Respondents reported they would benefit from strategies to support learners at varying levels within disciplines. Access to resources for teaching online classes, supporting students during the dissertation phase, and technology were identified as areas of need. Faculty indicated readings, webinars, and face-to-face professional development activities provided by CFEI would be beneficial. An emphasis on peer-to- peer mentoring/observations was also suggested by 54 (20.07%) respondents.

In response to items related to accessing professional development, respondents indicated that communication, time, and funds are barriers. Several Assistant Professors indicated that professional development activities are not considered for tenure and promotion. However, many of the respondents recognized the need for professional development and desire to complete professional development activities.

In response to the item related to professional development activities that would support teaching faculty indicated a variety of modalities would be helpful including reading materials, webinars, and relevant face-to-face trainings scheduled in advanced at a convenient location as needs. Most responses indicated the need for discipline specific trainings (e.g., "training to support teaching reading methods").

In response to questions related to professional development activities to enhance research faculty indicated that help with forming research teams, access to funding to support research training opportunities, and access to and training to use software programs to support

research. Assistant Professors and some Associate Professors noted the need for mentorship and the ability to collaborate with more experienced researchers to publish and present quality research. Additional training on research procedures was a common theme across ranks.

Focus Group Results

Focus group participants were asked to answer four questions related to their successes and challenges with their position and professional development needs in the areas of research, scholarship, and service. Common themes across groups included a commitment to meeting the needs of a diverse student population including international students and first generation college students as well as a strong focus on addressing needs within the faculties' disciplines. A strong commitment to quality teaching and professional service were also evident. These strengths were present across faculty ranks. Challenges were also consistent across ranks. Issues related to heavy teaching loads and difficulty accessing funds to support research and professional development were cited across faculty ranks. However, there were some unique needs noted across the ranks and among faculty who are serving in administrative roles. These difficulties included access to mentorship/ability to mentor, university resources and programs, training and support for faculty entering administrative roles, and transitions that have occurred with university expectations regarding teaching and research. The next sections provide a synthesis of focus group results by faculty rank.

Assistant Professors

Two focus groups included Assistant Professors. The first focus group included four, first year faculty members beginning their careers. The second group of Assistant Professors included five faculty members who had worked at the institution for one or more years. Groups were representative of the faculty and included members from each of the colleges and departments. Faculty reported several challenges that professional development activities may support them in addressing. Overarching themes included faculty expectations including high teaching and service loads while trying to manage a research agenda as well as difficulty saying "no" to activities that do not translate to progress towards tenure and promotion. Access to professional conferences and meaningful training that supports acclimation to the institutional culture was identified as specific professional development needs.

First year faculty unanimously shared that it is difficult to develop an understanding of expectations regarding tenure and promotion, particularly accomplishing research goals while balancing the need for developing quality teaching practices and managing service obligations. Participants reported being involved in significant service activities during their first semesters hindered teaching development and attention to research projects. They expressed difficulty with accessing university resources and described a need for targeted training, and mentorship, beyond what was provided during their new faculty orientation. Additionally, assistance with supporting students experiencing personal or academic challenges was cited as a need.

Assistant Professors reported a high teaching load with several faculty indicating an "exhaustive number of teaching preparations" (i.e., 15 plus preparations) that have impacted their ability to complete research needed in order to progress towards tenure and promotion. Difficulty working with the Learning Management System (eCollege) was another area of concern. The majority of participants reported working with other "more comprehensive and

functional" LMS systems. One participant has yet to receive access to eCollege. The participant is using DropBox and other means to teach online classes. Assistant Professors shared that they need research mentorship and access to professional meetings and conferences to obtain relevant professional development.

Associate Professors

Five Associate Professors from two colleges with varying years of experience participated in the focus group. All of the Associate Professors shared a deep commitment to working with first generation college students and meeting the needs of our international students. When four of the five participants began their careers at the institution, there were "minimal research requirements" and a focus on "service to students and the community. As the institution has moved towards a more research-focused university, faculty are struggling to meet these demands and have consequently decided not to pursue promotion. A significant need for funding to support conference attendance and discipline specific training opportunities was stressed by all participants. One participant reported presenting research at conferences. The other four participants expressed the need "to stay current in order to teach students effectively" and the desire to "just go and learn." Associate Professors reported enjoying working with junior faculty and mentoring activities. Areas of professional development related to meeting student needs and discipline specific training. Three faculty members also noted advanced notification and time to plan to attend trainings.

Professors

Four Professors from two colleges participated in the focus groups. The majority were from the College of Education and Human Services. Despite significant efforts, we were unable to recruit female Professors from the sciences who had achieved the rank of Professor. Professors expressed that they were proud of their experiences and accomplishments and a strong desire to continue mentoring junior faculty, be involved in peer-to-peer mentorship, and efforts to give back to the university. Technology trainings provided through CFEI were viewed as helpful professional development activities. Professors expressed a need to support face-to-face teaching activities and the need for additional conference travel funds to support professional development and research.

Department Heads

Seven Department Heads that represented each of the colleges participated in two focus groups. While Department Heads did not identify any areas of specific need, they noted that two critical activities are faculty evaluation and scheduling. Five of the seven participants mentioned timelines for completing faculty evaluation and scheduling as well as challenges with supporting faculty who are struggling to meet student needs as issues of concern. Time to devote to research is also an area of need. One Department Head shared faculty needs related to faculty being overburdened.

CONCLUSION and RECOMMENDATIONS

Results of this investigation suggest that universities must be willing to offer resources and guidance to support faculty in their research, teaching, and service endeavors. Due to shrinking budgets, lack of raises and/or merit pay, and expectations to do more with less, administrators should find alternative ways to reward and motivate faculty. Strategies include lessening barriers for gaining professional development such as those found in this study including lack of communication, lack of time, and insufficient funds. Faculty generally wanted assistance with effectively using technology, peer-to-peer teaching and research feedback, and opportunities for mentor/mentees. Assistant Professors indicated the need for professional development in the area of tenure and promotion expectations, support for effectively working with challenging students, and research mentorship. Associate Professors specifically indicated the need for assistance with balancing work and family life.

An ongoing focus of many universities is diversity of faculty. A diverse faculty enriches the institution as well as promotes retention of students. In a study of the results of a mentoring program on new faculty (n=59), Phillips et al. (2016) found retention for African-American faculty who participated in the mentoring program was significantly higher (86% vs. 56%) than those who did not participate. This retention level was also shown in international faculty. Mentoring was a major want and need among all university faculty, across disciplines, especially nontraditional faculty at predominantly White institutions. In response, Grant and Ghee (2015) "operationalized the concept of mentoring as a nuanced approach and attempt to promote the upward trajectories of African-American women in predominantly White institutions (PWIs)" (p. 759). As in the current study, they found that both traditional and non-traditional mentoring were important. This mirrors the results of the current study. Also in the current study, Professors indicated a preference for peer-to-peer mentoring.

Recommendations from the current study included the following (a) addressing barriers to implementation; (b) developing peer-to-peer teaching partnerships; (c) monetarily supporting discipline specific professional development, separate from presentations at conferences; (d) developing a university resource manual for junior faculty; (e) supporting cross-disciplinary research partnerships; providing leadership training for female and minority faculty; (f) facilitating networking and mentorship opportunities within and an across ranks and disciplines; and (g) providing the opportunities for faculty led professional development. Additional recommendations and possible barriers to implementation are outlined in Table 3 (Appendix).

Universities must be willing to provide and support training for faculty in order to retain them as well as help them to "stand up to new challenges and be up to date both in terms of the scientific knowledge within their scopes and in terms of pedagogical advances" (Diaz, Santaolalla, & Gonzalez, 2010, p. 105). Faculty must be a part of that process. Bouwma-Gearhart (2012) found that faculty know what types of professional development they need; therefore "institutions, administration, and policy makers have power and responsibility to provide the encouragement and resources for faculty to create their own realities" (p. 185).

REFERENCES

- Behar-Horenstein, L.S., Garvan, C.W., Catalanotto, F.A., Su, Y., & Feng, X. (2016). Assessing faculty development needs among Florida's allied dental faculty. *The Journal of Dental Hygiene*, 90(1), 52 59.
- Bouwma-Gearhart (2012). Science faculty improving teaching practice: Identifying needs and finding meaningful professional development. *International Journal of Teaching and Learning in Higher Education*, 24(2), 180-188.
- Brownell, S.E., & Tanner, K.D. (2012). Barriers to faculty pedagogical change: Lack of training, time, incentives, and ...tensions with professional identity? *CBE-Life Sciences Education*, 11, 339-346.
- Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. Los Angeles: Sage publications, Inc.
- Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research*. Los Angeles: Sage publications, Inc.
- Diaz, M.J.F., Santaolalla, R.C., & Gonzalez, A.G. (2010). Faculty attitudes and training needs to respond the new European Higher Education challenges. *Higher Education*, 60, 101-118.
- Grant, C.M., & Ghee, S. (2015). Mentoring 101: Advancing African-American women faculty and doctoral student success in predominantly White institutions. *International Journal of Qualitative Studies in Education*, 28(7), 759-885.
- Groves, R. M., Fowler Jr, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey methodology* (Vol. 561). John Wiley & Sons.
- Hahn, T.B., & Lester, J. (2010). Faculty needs and preferences for professional development. Journal of the Education for Library and Information Science, 53(2), 82 – 97.
- Henard, F., & Roseveare, D. (2012). Fostering quality teaching in higher education policies and practices. An IMHE Guide for Higher Education Institutions. Institutional Management in Higher Education. Retrieved from https://www.oecd.org/edu/imhe/QT%20policies%20and%20practices.pdf.
- Jiandani, M.P., Bogam, R., Shah, C., Prabhu, S., & Taksande, B. (2015). Continuous professional development: Fculty views on need, impact and barriers. *National Journal of Integrated Research in Medicine*, 7(2), 106 109.
- Marion (2007). Overcoming teaching challenges. CDIP Community Commons. Retrieved from http://teachingcommons.cdl.edu/cdip/facultyteaching/Overcomingteachingchallenges.htm
- McMillan, W, & Gordon, N. (2017). Being and becoming a university teacher. *Higher Education Research & Development*, 36(4), 777-790, DOI:10.1080/07294360.2016.1236781
- Pawlyshyn, N., & Hitch, L. (2016). New models for faculty work: A critical need for community. *The International Journal of Adult, Community, and Professional Learning*, 23(1), 39-53.
- Phillips, S.L., Dennison, S.T., & Davenport, M.A. (2016). High retention of minority and international faculty through a formal mentoring program. *To Improve the Academy: A Journal of Educational Development*, *35*, 153–179. doi:10.1002/tia2.20034
- Qualtrics [Computer software]. (2016). Retrieved from https://www.qualtrics.com/

Table 1

Faculty Percentage of Time Devoted to Teaching, Research, and Service

Activity	Minimum	Maximum	Mean	Standard Deviation
Teaching	10.00%	90.00%	52.63%	20.41%
Research	0.00%	75.00%	17.28%	14.38%
Service	5.00%	50.00%	18.62%	20.41%

Table 2

Professional Development Interest and Support

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
My supervisor supports my professional development.	63.38%	26.76%	5.63%	1.41%	2.82%
I have the opportunity to pursue relevant professional development opportunities.	39.44%	43.66%	5.63%	8.45%	2.82%
I routinely seek professional development opportunities to enhance my research.	31.43%	45.71%	18.57%	2.86%	1.43%
I routinely seek professional development opportunities to enhance my teaching.	49.30%	42.25%	5.63%	0.00%	4.23%
I routinely seek professional development opportunities to enhance my engagement in university or professional service.	25.35%	39.44%	22.54%	8.45%	4.23%

Table 3

Recommendations for and Barriers to Implementation of Professional Development Needs

Short Term Recommendations

- Address identified barriers to implementation (e.g., professional development as a component of Tenure and Promotion, teaching loads/service obligations, available opportunities for female and minority faculty, high stakes assessment, faculty buy-in)
- Provide support for peer-to-peer teaching partnerships
- Provide support for discipline specific professional development
- Develop university resource manual for junior faculty

Longer Term Recommendations

- Support cross-disciplinary research partnerships
- Provide leadership training for female and minority faculty
- Facilitate networking and mentorship opportunities within and an across ranks and disciplines
- Support faculty led professional development

Barriers to Implementation

- Faculty needs are not currently aligned with institutional support
- Professional development needs overlap across ranks with discipline specific trainings
- Minority faculty (particularly women and faculty of color) indicated having significantly higher service obligations that prohibit time to devote to professional development activities
- High teaching loads and numbers of new course preparations for junior faculty members are prohibitive to participation in professional development
- Faculty may be unaware of college and university resources to support research and teaching