

**Impact of faculty teaching on student learning outcomes:  
Analysis of full time tenure track and part time non-tenure track faculty**

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**Project Checklist**

Statement of support from the department chair or school dean by e-mail to Linda Houser ([lhouser@iupui.edu](mailto:lhouser@iupui.edu)) - as a separate file not included in the proposal.

Simple budget : A detailed budget is not necessary. Nevertheless, please include a brief paragraph/details indicating how you intend to spend the grant money.

IRB (Institutional Review Board) approval is **not** required for the **proposal**, but must be obtained prior to transfer of funds **if the proposal is selected.**

**Abstract**

Three quarters of new hires at colleges and universities are part time non-tenure track faculty. This reliance on part time faculty changes teaching dynamics in terms of faculty connections with students and focus on learning objectives. The purpose of this proposal is to review practices within the Health Sciences department to analyze whether differences exist between full and part time faculty student learning outcomes. Since the program offers courses face-to-face and online, both modalities will be examined within the context of outcomes, along with examining faculty teaching and assessment practices.

**Purpose of project**

The purpose of the proposed research is to explore the impact of full time faculty and part time non-tenure track faculty (NTTF) teaching on student learning outcomes. The goal is to determine whether differences exist in student learning outcomes by comparing and contrasting full time faculty with NTTF in both online and face-to-face courses. It is hypothesized that a “disconnect” currently exists between NTTF and the department that, if improved, could eventually lead to enriched student learning outcomes.

Research indicates that part time non-tenure track faculty (NTTF) are subjected to working conditions or environments that potentially hinder the ability to teach effectively (Champlin & Knoedler, 2017), thereby impacting the educational outcomes for students (Ehrenberg & Zhang, 2005; Johnson & Mejia, 2014). Compared to full time faculty, NTTF are paid less, do not receive health benefits, often lack access to professional development, and face employment insecurities based on department needs and student enrollment. The Department of Health Sciences employs 23 NTTF who teach approximately 73% of health sciences courses. Many of the courses taught by NTTF are introductory courses where faculty support and mentorship is crucial.

Currently, 82% of the NTTF within the health sciences department are part time (i.e., one to two courses per semester) while 17% are employed full time (one clinical faculty member who teaches four to five courses per semester and three staff members). The trend for using NTTF to teach department

courses is not specific to the Health Sciences department. In 2012, Kezar and Maxey reported on new faculty hires, indicating three quarters of new hires are part time or non-tenured track faculty. Of those in non-tenure track positions, 74% are employed part time (Yakoboski, 2016) with 26% employed full time. Similar to others (Kezar, 2013; Yakoboski & Foster, 2014), health sciences uses part time faculty in response to budget restraints, cost savings, course release time, new course offerings, online education courses, or minors and certificates that demand a skillset often met by part time faculty expertise.

Kezar and Maxey (2012) point to this increasing use of NTTF as creating an environment that may not be conducive to optimal student learning. Although NTTF may be motivated to teach, NTTF often have less access to resources, difficulty with logistical issues such as the time a course is taught, parking on campus, navigating learning management systems (i.e., Canvas), and a designated location to keep teaching material and equipment.

In addition, part time faculty are hired to teach and often receive little to no interaction with department faculty or staff (hence the “disconnect”). Preliminary discussions indicate NTTF work in a silo, developing course material based on previous syllabi and modifying the course to fit individual expertise, without taking into consideration student learning objectives developed for the program. This has resulted in “curriculum creep” in which the original intent of the course is no longer recognized in the learning objectives, as well as full time faculty teaching entirely different material for the same course.

To fully comprehend the impact of faculty teaching on student learning outcomes, the goal is to explore NTTF and full time faculty experiences within the health sciences department to understand the current environment along with variables such as job satisfaction, resource availability, and department interaction that may affect student learning outcomes.

Specific objectives to explore during the 2018-2019 academic year include:

- Differences or similarities between full time/part time NTTF student learning outcomes
- Differences or similarities in student learning outcomes between different part time NTTF teaching different sections of the same course

- Differences or similarities in learning outcomes between face-to-face traditional classroom teaching versus online courses; and for part time NTTF versus full time faculty
- Teaching methods utilized by full time faculty and part time NTTF, including utilization of high impact practices or experiential learning
- Assessment and data collection practices of part time NTTF versus full time faculty

### **Assessment methods**

An initial survey will be administered, asking all faculty (full time and NTTF) to provide pertinent demographic information, expertise area, years of experience, reason for teaching, and other questions. This information will be used to assess factors such as (but not limited to): time for teaching (e.g., is the individual working full time and teaching part time?), teaching experience, subject matter expertise, and geographic proximity to students. Further, focus groups and individual interviews will be scheduled, at which time a semi-structured interview will ask questions regarding job satisfaction, suggestions for improvement, assessment methods, and current teaching practices.

To assess student learning outcomes, it will be necessary to review course assignment outcomes for specific objectives. The Department of Health Sciences has five full time faculty in which to use for comparison with the 23 current NTTF. Two of the full time faculty are research faculty teaching two courses per semester; two members are tenured but hold administrative positions with release time; and one faculty member is a full time clinical lecturer with a full teaching load of five courses per semester.

An analysis of course outcomes will focus, when possible, on simultaneous sections of the same course offered during a specific semester. For example, the department offers three sections of “Survey of U.S. Healthcare Systems” every semester. For the current fall semester, the three sections are taught by one NTTF, one full time clinical lecturer, and one full time tenured faculty. This provides an opportunity to compare and contrast teaching methods, course learning objectives, Profiles of Undergraduate Learning for Undergraduate Success (IUPUI+) objectives, and teaching evaluations. The plan is to use health

science courses W200, W210, W220, W361, W363, W365, and W441 for analysis since each of these courses are taught by department faculty as well as NTTF.

To accomplish this, specific assignments will be targeted within each section. Student learning outcomes will be reported in aggregate form (i.e., 80% of students ( $n=x$ ) scored a “B” or higher on the assignment or scored a “4” of 5 on the rubric). Profiles of Learning for Undergraduate Success objectives will be scrutinized to determine 1) if faculty include PLUS+ objectives, and 2) whether assignments adequately address areas of Communicator, Problem Solver, Innovator, or Community Contributor. Data for these comparisons will be collected in December 2018 and May 2019.

This project will take place over the 2018-19 academic year. If the PRAC proposal is approved, an IRB will be submitted immediately, followed by survey initiation once approved. Focus groups with part time NTTF and full time faculty will occur late 2018 and early 2019, while course analyses will be completed in both 2018 and 2019 to allow for comparison of similar courses over two semesters.

### **Data analysis**

Focus groups and interviews will be analyzed using NVivo, a qualitative software management program developed by QSR International. NVivo allows for importation, management, coding, and analysis of unstructured data. Coding can occur following a grounded theory method in which various researchers separately code and extract key themes from transcribed data. Coding discrepancies are resolved through discussion amongst researchers and validated through NVivo’s inter-rater reliability function. For this project, program staff will participate in coding data along with the Undergraduate Program Director.

Quantitatively, learning outcomes will be measured using assignment rubrics or final grades for a particular objective. The focus is on comparing means or percentages for assignment outcomes across two to three sections of the same course. To achieve this, a two-way analysis of variance (ANOVA) will be used to test interactions between faculty member status and course delivery using the continuous dependent variable of mean, rubric score, or percentage on assignment. A Levene’s test for homogeneity and appropriate post-hoc tests will also be conducted.

**Evaluation and dissemination of results**

Results from the proposal will be shared with department faculty and NTTF at monthly faculty meetings. Although full time faculty and NTTF faculty meetings are scheduled asynchronously (mid-day and evenings), they provide a mechanism for all faculty to provide/receive pertinent department information. Since the Undergraduate Program Director is present at both meetings, the Director will communicate necessary information to all faculty.

The outcomes of this study will also be shared with other departments within the School of Health & Human Sciences that have a large undergraduate constituent taught by part time NTTF. Hopefully, results will inform and initiate best practices in terms of faculty teaching outcomes. Another route for dissemination is presenting at professional conferences and/or via journals focused on the Scholarship of Teaching.

**Intended outcomes**

The results of this analysis will serve to strengthen faculty focus on student learning outcomes. This could occur in two ways: One, by improving NTTF interaction with department faculty and program improvement, the “sense of community” is enhanced which could lead to enhanced connections with students. Two, the focus on assessment and program improvements allow NTTF to more thoroughly investigate and understand the need for learning objectives that meet program requirements as well as addressing the new Profiles of Learning for Undergraduate Success.

Department faculty are in the process of reviewing and updating program learning goals and objectives, which will be shared and discussed with NTTF. Developing and implementing a research project on faculty impact on student learning outcomes will support these efforts. To increase student retention and graduation rates, and effectively prepare students for graduate professional program acceptance, faculty must be unified in improvement efforts. This requires ALL faculty to work collaboratively, provide pertinent input, understand the goals of the department, and acknowledge the needs of students to ensure optimal student outcomes.

## Proposed Budget

Financial support for this grant will provide incentives for faculty to engage in research, as well as supporting the administrative and dissemination aspects of the proposal.

<b>Item</b>	<b>Cost</b>	<b>Total</b>	<b>Rationale</b>
Gift cards	\$25 each. 28 cards needed.	\$700.00	Gift cards are being offered as an incentive for participation. Adjunct faculty may not see the importance of participating. It is hoped the gift card will spur participation.
Transcription	\$1 per minute; unlimited participants 60 minutes  \$1 per minute for individual interviews; \$45 for a 45 minute interview	Three focus groups: (max 60 minutes each) \$180  15 interviews @45 minutes each: \$675  Total transcription: ~ \$855	Accurate transcription is essential for subsequent coding and analysis of data. Transcribing is time consuming; paying for transcription greatly enhances time for analysis and writing versus faculty transcribing
Microphone & recorder	\$400	\$400	High quality microphone and recorder for focus group and individual recording
PI release time	\$3,000	\$3,000	Adjunct fee to cover course
		<b>\$4955.00</b>	

## References

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