2022-2023 QTAG REPORT

Annual Review: Evaluating the Utilization and Impact of QTAG Funding

GORDON FORD COLLEGE OF BUSINESS

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I. Narrative

The fundamental objective of the QTAG (Quick Turn-around Grant) is to rapidly allocate funding for pressing research needs in manageable amounts. While the broader research support programs like RCAPs cater to extensive projects, they occasionally overlook certain immediate research necessities. QTAGs adeptly bridge this funding gap, ensuring that research projects don't stall due to temporary financial constraints.

The GFCB holds the QTAG initiative in high esteem, expressing sincere gratitude for the invaluable support it provides. With the aid of QTAGs, the college's research trajectory has witnessed marked progression. For the 2022-2023 academic year, an allocation of \$13,309 was designated for the GFCB.

Starting in the Fall semester of 2022, under the insightful leadership of Dr. Thrasher, the oversight of the QTAG process was seamlessly transitioned to the exclusive jurisdiction of the GFCB Research Excellence Committee. This shift saw the committee excelling in their prowess, showcasing remarkable expertise in not only refining the existing support framework but also formulating forward-thinking strategies to elevate the quality and scope of research initiatives through the QTAG pathway. In keeping with the rigorous standards set by the QTAG criteria, the GFCB Research Excellence Committee, meticulously reviewed and endorsed grant proposals. Furthermore, Throughout this academic cycle, the committee undertook transformative adjustments to the QTAG submission process such as:

- a) Introducing the Collaborative Quick Turn-Around Grants (C-QTAG) Fund: We are excited to unveil a cutting-edge financial initiative designed specifically to bolster collaborative research endeavors. This newly established resource, outlined in the attached document, offers potential C-QTAG funding ranging from \$3,000 to \$5,000 for eligible collaborative projects. We've meticulously crafted a policy to govern the deployment of this fund, ensuring transparency and clarity. This policy has been shared with committee members and is readily accessible on GFCB's official website. For an in-depth overview of this pioneering initiative, please turn to Section II.
- b) **Revised QTAG Deadlines:** Funds allocated from QTAG must be conscientiously utilized by the set deadline of May 15th. It's important to highlight that the previous three-month restriction has now been lifted.
- c) **Introduction of the QTAG Outcomes Survey:** We have rolled out a new survey for grant beneficiaries to fill out before the May 15 deadline. Our aim is to capture valuable insights which will be instrumental in shaping the QTAG annual report.
- d) **QTAG Application Assessment and Voting:** The GFCB Research Excellence Committee has been designated with the vital task of reviewing QTAG applications and determining the subsequent allocation of funds.

II. C-QTAG Policy

The basic requirements for a C-QTAG are the following:

- There must be a team of at least three collaborators on the application (two of which must be tenure track faculty).
- A minimum of two units within GFCB must be represented on the C-QTAG application. For example, this might be two departments, two GFCB Applied Research Centers, a combination of departments/Centers, or a Center and a Department.
- The collaborating units on a C-QTAG application may not be limited to a Center and the primary department associated with a Center. In this case, there would also need to be an additional collaborating unit, such as another Center or Department or another unit.
- An individual may be a PI on only one Collaborative QTAG.
- An individual may participate on a maximum of two Collaborative QTAGs in an academic vear.
- The minimum funding is \$3,000 and the maximum is \$5,000.
- Priority will be given to pilot research projects that build on previous QTAGs or enhances the research agendas of the collaborators.
- C-QTAGS follow the application process of standard QTAGs.
- C-QTAGs have a project period that ends May 15th of each academic year.
- A final report is due by June 1st. Therefore, the project period is from the time of approval after July 1st of an academic year until June 1st.

Funding Opportunity:

Collaborative Quick Turn-Around Grants (C-QTAGs) are an enhanced internal funding mechanism in the Research Pathway within GFCB. These are small grants in the amount of \$3,000-\$5,000 to support the mission and vision of WKU as a student-centered applied research university. These grants are designed to support faculty, staff, and students to conduct collaborative pilot research that builds upon previous QTAGS or enhances the research agendas of the collaborators. This funding opportunity requires that collaborators identify potential publication(s) following completion of the project. C-QTAGs are a secondary step in the internal funding process of GFCB to assist faculty in building their research portfolio.

Application Process:

A basic requirement of any C-QTAG is that a minimum of two tenure track faculty members must be on the grant application. Tenure track faculty may serve in the role of Principal Investigator (PI), Co-Principal Investigator, or (Co-PI) on a C-QTAG. It is highly recommended that the PI for a C-QTAG be a tenure track faculty member. Other faculty, instructors, staff, and students may be included on C-QTAG applications in roles such as Co-PI.

- A C-QTAG application must be submitted online at (https://www.wku.edu/business/qtags.php).
- C-QTAG project funds are intended to be managed by the PI of the grant and spent by the May 15th. The academic year runs from July 1st to June 1st.

Source of Funding and Purpose:

The QTAG program is funded by Facilities & Administrative (F&A) costs accrued through the external grant process, which are research indirect returned to GFCB. The purpose of C-QTAGS is to support collaboration in pilot research across units within GFCB that has a high potential for RCAP or external fundings. It is also encouraged that projects engage students in applied research, collaborate across WKU, and participate with the community. A broader purpose of this research support is to expand the collaborative research portfolio of GFCB and increase publications and internal or external fundings of research.

Supported Research Activities and Costs:

The primary C-QTAG funded activity is collaborative pilot research projects. Funding may be used for research equipment or materials, purchase of center supplies to further existing research, costs associated with research surveys, and/or incentives for quantitative/qualitative human subjects-based research. Funds may also be used to support research assistant(s); materials and supplies; travel/shipping/other expenses to conduct research/creative activity, or the dissemination of research as an intervention or to develop an intervention training program that will be the basis of an internal or external grant. Requests for conference travel may not be included in C-QTAG applications.

Funding Limit and Cycles:

C-QTAG applications will be accepted each month beginning July 1st of each academic year until March 31st of the following Spring semester. Applications must be submitted by the last day of the month. Awards will be made by the 15th of the following month. This is a rolling application period beginning July 1st and ending March 31st each academic year, until funds are expended. No C-QTAG applications will be accepted in April, May, or June within the academic year. All funds must be expended by the May 15th. The academic year runs from July 1st to June 1st.

III. 2022-2023 QTAG Budget Distribution

Table 1. represents the awarded QTAG/C-QTAG during the 2022-23 academic year. Unfortunately, the QTAG funds was not enough to fulfil the needs of all of the requests. Unfortunately, we had one application on January 24, 2023, was not funded due to the funds have been depleted.

Table 1. Distribution of the 2022-23 QTAGs

Name of Faculty Member(s)	Department of Faculty Member(s)	Project Title	Project Type	Are Students Involved?	Amount Awarded
Louis Rouanet	QTAG (Economics)	Exploring the causes and effects of shifts in political institutions within American Indian reservations	Applied Research	YES	\$3,244.50
Aquesha Daniels	QTAG (Management)	Unveiling Barriers: The Road to Genuine Equity and Inclusion in Institutions	Equipment	No	\$2,439.90
Lily Popova Zhuhadar	QTAG (Analytics & Information Systems)	Pioneering Climate Intelligence: The Role of GIS in Modern Ecosystem Assessments	Service	No	\$2,835.00
Jim Lindsey, John Erickson, Jacob Byl, and Stephen Locke	C-QTAG (Economics and Analytics & Information Systems)	Leveraging Virtual Reality to Elevate Classroom Experiences	Applied Research	YES	\$4,551.92
				Total	\$13,071.32

IV. Outcomes & Projected Impacts of Awarded QTAGs

Application 1: First C-QTAG Award in Focus

Collaborative Team:

- Mr. Jim Lindsey, Senior Instructor of Analytics & Information Systems
- John Erickson, Assistant Professor of Analytics & Information Systems
- **Dr. Jacob Byl**, Assistant Professor of Economics
- **Dr. Stephen Locke**, Associate Professor of Economics

Funding Overview: The team awarded a grant of \$4,551.92, earmarked primarily for the procurement of VR Headsets and the necessary software subscription.

Project Synopsis: At the intersection of emerging technology and pedagogical innovation lies Virtual Reality (VR). This powerful tool promises not just the integration of state-of-the-art tech into educational settings, but also a renewed, immersive, and inclusive learning experience for students of varied backgrounds.

Central to this project's ambition is the belief that educators' perspectives on technological adoption significantly influence its application in classrooms. (Teclehaimanot et al., 2011) study underscores that the perceived benefits of technology among educators often mirror its actual use in teaching scenarios. Thus, by gauging teachers' attitudes and beliefs about VR, this initiative hopes to chart out a roadmap for its holistic integration. To pivot from theory to practice, two specific courses have been identified: CIS 205 (Technology in Society and Business) and BDAN 430 (Data Visualization). In these classes, VR will serve as a supplementary tool, providing hands-on opportunities for educators and students alike to familiarize themselves with its vast potential. In essence, this project is not just about introducing a novel technology but about redefining the educational paradigm. It seeks to broaden both pedagogical insights and practical methodologies, ensuring that VR is not just a tool but a transformative force in the realm of education.

Research Questions:

- 1. How do teachers perceive the integration of Virtual Reality (VR) within classroom settings?
- 2. To what degree does formal training in VR technology enhance teachers' proficiency and confidence in employing VR as an instructional tool?

Methodological Framework: Adopting a phenomenological research paradigm, this project seeks to delve deep into the lived experiences and perceptions of teachers regarding the use of VR technology in educational settings. Phenomenology is centered on unveiling the essence of experiences about a phenomenon, aiming to provide a comprehensive understanding of its nature.

Data Collection and Analysis:

- 1. **Pre-and Post-Training Surveys:** These will gauge shifts in teachers' confidence, readiness, and attitudes towards VR integration pre and post their formal training sessions.
- 2. **Classroom Observations:** Observational data will be gathered to ascertain the actual use, challenges, and benefits observed when VR tools are employed in live teaching scenarios.
- 3. **Semi-Structured Interviews:** These will offer deeper insights into teachers' experiences, allowing for open-ended discussions that might uncover unanticipated aspects related to VR use.
- 4. VR Technology-Based Lesson Plan Analysis: Reviewing lesson plans will shed light on how teachers are integrating VR into their curriculum, ensuring its alignment with pedagogical objectives.

The underpinning philosophy of this mixed-methods approach is that the amalgamation of both quantitative and qualitative data collection techniques will present a more holistic and nuanced perspective on the subject at hand, ensuring thoroughness and depth in the understanding of the research problem (Maxwell, 2013). As a foundational resource for the study, teachers will be equipped with requisite VR hardware and software subscriptions to facilitate genuine engagement with the technology.

Outcomes and Impact:

Harnessing the transformative capabilities of VR technology, educators will be equipped to design interactive lesson modules that foster a dynamic learning environment. It is envisioned that the integration of VR will amplify both the enthusiasm and the depth of discussions in classrooms, simultaneously bolstering technological adeptness among both educators and students. By facilitating a multimodal instructional approach, VR caters to diverse learners, ensuring each student's engagement and understanding. This evolution of teaching methods, powered by VR, not only revolutionizes educators' approaches but also dramatically elevates the student learning journey.

The C-QTAG grant is a steppingstone that paves the way for GFCB faculty to explore and immerse themselves in the vast potential of VR. The outcomes from this endeavor will culminate in an in-depth study examining the integration and impacts of VR within business analytics and economics curricula, with aspirations of contributing to academic discourse through a published scholarly article. Moreover, the team is committed to sharing these innovative findings at professional symposiums and conferences. Additionally, the insights gleaned from this VR initiative will serve as a foundation to pursue further funding opportunities through the RCAP program.

Application 2: Dr. Louis Rouanet – Assistant Professor of Economics

Funding Overview: The allocated funding of \$3,244.50 was earmarked to compensate one or two individuals, preferably graduate students, for the meticulous task of data acquisition. These selected individuals were entrusted with the responsibility of identifying and sourcing both original and amended tribal constitutions. Subsequent to this, they were to meticulously analyze these documents, capturing and encoding a set of roughly 20 unique variables pertinent to the constitution's characteristics. Considering that the U.S. recognizes a total of 574 tribes, it was projected that data from an estimated 700 constitutional documents would be essential, exclusive of those previously secured. Based on prior experience in this field, it was calculated that each document would necessitate roughly 20 minutes for both gathering and encoding processes, translating to a third of an hour. With an envisaged compensation rate of \$13 per hour.

Project Synopsis: Dr. Louis Rouanet, in partnership with co-author Ennio Piano, secured a grant of \$3,244.50 to delve into the intricate dynamics surrounding the evolution of political institutions within American Indian reservations. Their investigative journey revolved around the meticulous collection and analysis of data from tribal constitutions, with two cardinal inquiries at its core.

First, they endeavored to unravel the catalysts behind the metamorphoses in tribal constitutions following the pivotal Indian Reorganization Act of 1935. They posited that the advent of Casinos could have ignited a renewed impetus to reshape tribal constitutions, primarily to fortify against potential exploitation by politicians. Recognizing that tribally owned casinos were burgeoning into lucrative revenue streams, the duo acknowledged the heightened vulnerabilities to financial malfeasance if political frameworks weren't robustly fortified. Their intensive study culminated in a compelling theory: the inception of a Casino in a tribal territory invariably triggers constitutional revisions, championing a stringent delineation of powers. Furthermore, their insights indicated an intriguing trend - the rise of casinos on reservations invariably tightened the membership criteria set forth in tribal constitutions.

Their second avenue of exploration hinged on leveraging the amassed data to discern the political structures most conducive to catalyzing economic growth within tribes. With tribal members statistically identified as the most economically disadvantaged demographic in the U.S., subsisting at an alarming 66% below the median national income, Dr. Rouanet and Mr. Piano were committed to spotlighting the determinants fostering tribal economic resurgence, positioning their exhaustive data compilation as an invaluable compass in this quest.

Outcomes and Impact:

Originally, Dr. Louis Rouanet, in conjunction with his esteemed co-author Ennio Piano, had intentions of presenting their research to a reputable journal for publication. Regrettably, Dr. Rouanet departed from WKU earlier this fall.

Application 3: Dr. Aquesha Daniels – Associate Professor of Management

Funding Overview: Dr. Daniels was awarded \$2,439.90.

Project Synopsis: Previously, Dr. Daniels, embarked on an intricate creative endeavor that delved deep into institutional and professional organizational barriers. This project specifically scrutinized initiative-driven changes concerning equity and inclusion.

In her first project, Dr. Daniels posited that authenticity stood as a crucial element in driving organizational change. It became evident that to truly advance strategic Diversity, Equity, and Inclusion (DEI) initiatives, these needed to be underpinned by genuine data-driven directives. To facilitate this, she allocated funds to refine her research capabilities through participation in a specialized data camp and a comprehensive data seminar. Furthermore, there was a requisition for financial support to facilitate online panels and gather first-hand observations from respondents.

Her subsequent project built upon the theme of equity, with a particular focus on gender and/or racial disparities. This investigation aimed to identify systemic factors that could strategically act as catalysts in alleviating such inequities. The emphasis was on evolving policies, procedures, and best practices within the academic sector to foster a more equitable environment. In aiding these comprehensive endeavors, Dr. Daniels also saw the merit in purchasing equipment.

Outcomes and Impact:

Engaging in the Data Science Seminars, complemented by the strategic procurement of indispensable equipment, promises to significantly amplify Dr. Daniels' ongoing research endeavors. The recent grant of \$2,439.90 awarded to Dr. Daniels serves as a testament to the potential and significance of her work.

Historically, Dr. Daniels has demonstrated a profound commitment to unraveling the complexities of institutional and professional organizational barriers, particularly those tethered to equity and inclusion. As she spearheads strategic Diversity, Equity, and Inclusion (DEI) initiatives, Dr. Daniels understands the paramount importance of grounding these pursuits in concrete, data-driven strategies.

Her dedication led her to earmark funds to sharpen her research acumen through an immersive experience at a data camp, further supplemented by an intensive data seminar. The ambition was clear: to ensure that her exploration into DEI wasn't merely theoretical but deeply rooted in empirical evidence and genuine feedback. This was further evident in her quest for funds to establish online panels, bridging her directly with respondents, thus enabling her to glean nuanced insights and observations.

Application 4: Dr. Lily P. Zhuhadar – Associate Professor of Analytics & Information Systems

Funding Overview: She was awarded a \$2,835 fund for an online trainings program.

Project Synopsis: Dr. Zhuhadar, in the capacity of a Co-PI, has been synergizing with PI McCreary to architect assessment blueprints tailored for invasive species and fuel management plots. This initiative is bearing the title "The Impact of AmeriCorps Members in Invasive Species and Wildfire Fuels Mitigation."

As underscored in (López-Angarita et al., 2016), the business landscape is undergoing a significant shift. For instance, the corporate echelons are gradually, yet decisively, recognizing the very real challenges climate change foists upon enduring business strategies.

A revealing survey by (Bloomberg, 2022) depicted that an overwhelming 85% of financial institutions have already embarked on their journeys to integrate climate risk assessment modalities. Many of these entities are leveraging the innate potential of existing technologies, with a pronounced lean towards the Geographic Information System (GIS) to navigate these challenges.

A case in point is Bouwinvest, a premier real estate investment juggernaut hailing from the Netherlands, which is astutely utilizing its GIS expertise to weave climate risk metrics seamlessly into its expansive investment methodologies.

Dr. Zhuhadar is channeling efforts to broaden the scope of these assessments, with a particular emphasis on integrating climate risk assessments.

Given this backdrop, it's evident that an infusion of resources into "climate risk assessments" training stands to be a strategic move. It promises not just to elevate the deliverables and impact of the existing grant but also to lay a robust foundation. This foundation will potentially inspire, nurture, and culminate in the ideation and realization of future grants.

Outcomes and Impact:

Benefitting from the allocation of QTAG funds, Dr. Zhuhadar immersed herself in intricate online trainings. These sessions, facilitated by experts in the domain, provided her with an in-depth understanding of the methodologies, nuances, and analytical tools central to this field. The primary aim was to equip her to navigate a prevailing hurdle that had been a recurring theme in her research: the pronounced variability in temporal intervals when juxtaposing pre- and post-data collection across the myriad programs and geographies under the AmeriCorps members' purview.

This variability, influenced by myriad factors ranging from geographical topography to localized climate patterns, posed significant challenges when seeking coherent and conclusive insights. Moreover, the training cultivated in her an acute ability to interpret treatment interventions data with a discerning lens, accounting for the vast spectrum of regional variances. She could now ascertain the localized climatic influences and integrate them into her analytical framework.

By acknowledging and understanding the climate intricacies of different geographic terrains, Dr. Zhuhadar ensures that the AmeriCorps members' interventions are not only impactful but also sustainable and adaptable to the diverse climatic conditions found across the United States.

V. Concluding Thoughts

Since its inception in 2015-2016, the QTAG initiative has emerged as a luminary within the GFCB, epitomizing strategic foresight and prudent financial management. Over the years, the QTAG's role has evolved beyond its foundational objectives. It has transcended from being merely a financial safety net to becoming a dynamic catalyst, consistently channeling investments towards domains that had historically been marginalized or overlooked. This evolution is evident in its pivotal support for intricate surveys, exhaustive mailings, championing collaborative student research, and ensuring the procurement of avant-garde equipment and niche software crucial for cutting-edge research.

One of the most salient testimonies to QTAG's game-changing influence is the pronounced increase in survey-centric research within the college. This upswing not only attests to the concrete results borne from QTAG's patronage but also magnifies its overarching role in fostering a culture rich in research. By spearheading such ventures, QTAG has unambiguously cemented its stature as a foundational pillar in uplifting and refining the research ambitions of the GFCB.

Additionally, during this academic year, a pioneering financial resource was rolled out, specifically designed to galvanize collaborative research. In a nutshell, collaborative initiatives could qualify for C-QTAG grants ranging from \$3,000 to \$5,000. A newly framed policy concerning this fund has been articulated, shared among committee members, and made publicly available on GFCB's official portal: https://www.wku.edu/business/qtags.php.

In a milestone event last year, the GFCB Research Excellence Committee unveiled the inaugural GFCB Research Panel Discussion, underpinned by QTAG's backing. Hosted on December 2, 2022, from 12:30 to 1:30 pm at the Auditorium, further details on the participants are provided in <u>Appendix A</u>.

Thank you for recognizing this need and extending your invaluable support.

Submitted by,

Lily Popova Zhuhadar

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References

- Bloomberg. (2022, July 07, 2022). Financial Firms See Climate Risks as a Top Priority but Lack Consensus on How to Effectively Analyze Climate Concerns, According to Bloomberg Survey. https://www.bloomberg.com/company/press/financial-firms-see-climate-risks-as-a-top-priority-but-lack-consensus-on-how-to-effectively-analyze-climate-concerns-according-to-bloomberg-survey/
- López-Angarita, J., Roberts, C. M., Tilley, A., Hawkins, J. P., & Cooke, R. G. (2016). Mangroves and people: Lessons from a history of use and abuse in four Latin American countries. *Forest Ecology and Management*, 368, 151-162.
- Maxwell, J. A. (2013). Qualitative research design: An interactive approach (applied social research methods). In: Thousand Oaks, CA: Sage.
- Teclehaimanot, B., Mentzer, G., & Hickman, T. (2011). A mixed methods comparison of teacher education faculty perceptions of the integration of technology into their courses and student feedback on technology proficiency. *Journal of Technology and Teacher Education*, 19(1), 5-21.

