Year Four of the QEP: So Close yet so Far

Kelly Whealan George, Embry-Riddle Aeronautical University - Worldwide
Aaron D. Clevenger, Embry-Riddle Aeronautical University - Daytona Beach
Year Four of the QEP:
So Close Yet So Far!

Dr. Kelly Whealan George
Dr. Aaron D. Clevenger
Embry-Riddle Aeronautical University
University Overview

3 campuses:
Daytona Beach (~ 4500 UG & 500 grad)
Prescott (~ 1500 students)
World Wide (>150 locations, ~ 40 states, S. America, Europe, Asia and Middle East; ~26,000 FTE students)

Emphasis is aviation & aerospace
BS, MS and PhD programs
~ $17M in research
How we work together

Ignite directors on ERAU campuses developing strong collaboration

• Bi-weekly teleconferences
• Joint selection of Foliotek, Bepress, Taskstream software specifications (and Ignite Website)
• First annual university-wide Discovery Day - Including speakers from all 3 campuses
• Developed a 5-Year Ignite assessment plan (2012-13 is the baseline)
• A university-wide rubric has been created
Topic: Research

The University will focus on the research agenda through three strategies:

• championing student participation in research and scholarly activities
• promoting the University’s research agenda
• incentivizing faculty research and scholarship, and development of instructional tools
Student Learning Outcomes

SLO-1. Define and/or articulate a research problem
SLO-2. Design a course of action to solve a research problem using, as appropriate, multidisciplinary principles
SLO-3. Apply ethical principles in research
SLO-4. Conduct research independently and/or collaboratively
SLO-5. Reach decisions or conclusions based on the analysis and synthesis of evidence
SLO-6. Communicate research results
Operational Outcomes

Enhance Curriculum
Provide Faculty Development Opportunities
Enhance Co-Curricular Research Opportunities
Establish a Collaborative (UG) Research Center
Enhanced Curriculum

Curriculum Map:

• Mapped for general education & every degree program
• Help to determine what research curriculum is already in place and what is missing in order for a student to be introduced, practice, and show mastery of the six student learning outcomes
• Essential step for assessment and progress of evolution of our curriculum over 5 years
  Research Methods 202 created to introduce students to skills required
• 300-400 level courses selected and enhanced with the practicing of research activities
• Capstone experiences will allow student to demonstrate mastery of research skills
Enhanced Curriculum

Assessment of the Student Learning Outcomes:

• Each campus is in the process of choosing assessment courses from their map
• Courses have been identified as Introductory, Practicing, or Mastery-Level courses
• A “hallmark” assignment will be chosen from each assessment course and evaluated according to the university wide rubric
• On Prescott and Daytona campuses the Foliotek ePortfolio system will be used to capture the evaluations, Worldwide will use the Blackboard system and Canvas System
• Despite the differences in tools consistent reports will be used across campuses so that we can aggregate our results for the 5th year report
Faculty Development

Prescott Campus
Has offered numerous workshops and short courses. To date 39 faculty members (42% of the faculty) have participated.

Daytona Campus
• DB’s CTLE Continues to offer Ignite related short courses and workshops, topics including:
  o Inquiry-guided learning
  o Active-learning
  o Collaborative-learning

• 44 faculty members have participated and 20 are expected to apply for course enhancement grants.

• The Office of Undergraduate Research has held ePortfolio training with 15 faculty serving as pilot professors or evaluators.
Faculty Development

Worldwide Campus

• **Two Online Faculty Development Courses**
  o FACD 801, Ignite Pedagogy Introduction (self-directed)
  o FACD 802, Igniting Research in Your Course (directed)
  o 73% participation by end of year 2 of Ignite.

• **The two courses include:**
  o Incorporate Research Based Learning into courses
  o Enhance instructional methods, techniques, and activities

• The two courses were designed to be used by any of the three campuses and the Prescott Campus already has plans to utilize the modules in the future.
Co-curricular Research

Numerous co-curricular projects are occurring throughout the three campuses:

• Daytona currently has granted $60,000 to 10 year-long organization research grants representing more than 200 students in progress
• Daytona also has instituted a program known as Spark Funds – worth $25,000 and benefiting 40 students thus far this year
• At Prescott 413 students have attended at least one Ignite-related workshop, event, or presentation
• Prescott has awarded nearly $100,000 in grant money in FY13 through e-Prize, Ignite, and Internal Research Grants
• The Researcher Scholar Award for Worldwide is slated for future implementation
• Annual University wide Research Symposium known as Discovery Days
Undergraduate Research Centers

Two on-ground research centers have been established on each of the residential campuses.

- The Undergraduate Research Center in Daytona offers a statistics lab, computer lab, multiple study rooms, tutoring equipment, and more.
- The Undergraduate Research Institute in Prescott provides a grants specialist, research resource center, reading room, collaborative study areas, and fast Mac/PC/LINUX computers.

The online Center for Research is a University asset that will enable faculty, students, and industry to connect with respect to research needs, subject matter experts, and projects.
Unique Projects

• Worldwide RSCH 202 course
  o Began in July 2013, an Introduction to Research Methods course will be required by all students to introduce students to the tools required for the research that will be required in their upper level course and capstone experiences
• Online Research Tutoring Modules
  o Faculty from WW are creating tutoring modules specifically related to the Ignite SLOs that will be available for all campuses, via the Research Center website.
• Prescott’s Eagle Prize
  o This year, the Prescott Campus expanded its e-Prize program, which awards student teams with funding to compete with other schools in various intercollegiate design competitions
• Daytona’s Research Co-Curricular Certificate Program
  o Partnering with study abroad, honors program, student activities, volunteer network, McNair’s scholars, Arts & Letters, and many other existing research and knowledge discovery opportunities
Unique Projects

• Daytona’s Research Abroad Program
  - Partnering with study abroad and utilizing various NSF REUs (Research Experiences for Undergraduates) the DB Office of Undergraduate Research is committed to sending students on cultural and empirical research trips abroad

• Five General Studies Modules
  - Utilizing the talents of several of our Humanities Professors (Searcy & Carney) and Library Staff (Citro), Five General Studies Modules have been created and will be in place to introduce the six student learning outcomes. Courses including – COM 122, COM 221, & Univ 101
Launch of Research Website

Center for Research
Research.erau.edu

Scholarly Commons from the Hunt Library
Commons.erau.edu
Results Thus Far

Biggest area of missed criterion for student achievement was at the Introductory and Practicing levels.

Faculty have been intent on strengthening curriculum with respect to prerequisite knowledge and research skills

Large gains in co-curricular research on both residential campuses
Biggest Challenges

- RSCH 202 in one location vs. No new classes in others
- Prerequisites and course sequencing
- Communication between all research-related activities across the University.
- Hiring a director who had not been involved in any aspect of the creation of the document
- Turn over on the University Team and the QEP Leadership Team
- Budget Cuts
- Motivation has waned in the faculty ranks
- Common Language?
Is it the Same QEP?

- Budget
- Personnel
- Re-organizations
- New collaborations
- Development opportunities for faculty external to the University
- Collaborations with various other Universities and Research Institutes have arisen as a result that takes time and effort to cultivate
Outlook & Conclusion

• Overall, the planned topic and intent of the proposal is mostly on track and on budget.
• Some subprojects have been moved up on the timeline.
• Many projects have been added
• Uneven engagement by faculty and staff.
Lessons Learned

• Fight for continuity
• Prepare yearly report ala 5th year QEP summary
• Incentivize key people
Campus Contacts

**Worldwide**
Kelly Whealan George
Director of Accreditation, Assessment, and Research Advancement of Ignite

Discipline Chair, Social Sciences and Economics

**Daytona Beach**
Aaron D. Clevenger
Executive Director for Experiential Learning & Undergraduate Research

**Prescott**
Anne Boettcher, Ph.D.
Undergraduate Research Institute Director & Associate Professor of Meteorology