



CULTIVATING A
CULTURE AND CURRICULUM
FOR UNDERGRADUATE RESEARCH
2017 QUALITY ENHANCEMENT PLAN



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TABLE OF CONTENTS

| | |
|--|----|
| Executive Summary | 4 |
| Chapter 1: Process of Developing the Quality Enhancement Plan (QEP) | 5 |
| Chapter 2: Researching and Developing the Topic | 16 |
| Chapter 3: Review of Best Practices | 36 |
| Chapter 4: Desired Learning Outcomes | 42 |
| Chapter 5: Actions to be Implemented | 48 |
| Chapter 6: Timeline | 51 |
| Chapter 7: Organizational Structure | 57 |
| Chapter 8: Budget | 58 |
| Chapter 9: Assessment | 62 |
| References | 69 |
| Appendices | 72 |

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to provide an outstanding education for a diverse group of talented and highly motivated students from various ethnic, socioeconomic, and geographical backgrounds

INDEX OF TABLES AND FIGURES

TABLES

| | |
|--|----|
| Table 1.1 Evidence of Compliance with SACSCOC Standard 2.12 | 8 |
| Table 1.2 Evidence of Compliance with SACSCOC Standard 3.3.2 | 9 |
| Table 1.3 Summary of JCSU QEP Work Groups and Accomplishments | 11 |
| Table 2.1 Characteristics of Excellence in Undergraduate Research (COEUR) Analysis of JCSU | 27 |
| Table 4.1 Researcher Skill Development Framework | 44 |
| Table 5.2 Curriculum Model for the JCSU QEP | 50 |
| Table 6.1 JCSU QEP Activity Timeline | 51 |
| Table 8.1 Proposed QEP Incremental Budget 2017-2022 | 58 |
| Table 8.2 Projected Sources of QEP Incremental Budget 2017-2018 | 59 |
| Table 8.3 Current JCSU Budget for Research Activities that Support the QEP Goals | 59 |
| Table 9.2 Annual Assessment Plan | 64 |
| Table 9.3 Proposed Common SLO Assessment Tool | 67 |
| Table 9.4 Summary of Existing Assessment Tools for Academic Programs | 68 |

FIGURES

| | |
|--|----|
| Figure 5.1 Logic Model for the JCSU QEP Activities | 49 |
| Figure 7.1 QEP Organizational Structure | 57 |
| Figure 9.1 Logic Model | 63 |

EXECUTIVE SUMMARY

The Johnson C. Smith University (JCSU) Quality Enhancement Plan (QEP) for 2017-2022, “Cultivating a Culture and Curriculum for Undergraduate Research”, has been developed from an inclusive process that allowed for considerable input from all JCSU constituencies. This QEP is grounded in JCSU’s heritage of innovative application of cutting-edge instructional approaches. In many ways, this QEP traces its heritage to the 1990 implementation of a Senior Investigative Paper (SIP) requirement for all students.

Two resources guide the design of this QEP - (1) the Characteristics of Excellence in Undergraduate Research (COEUR), published by the Council on Undergraduate Research, (2) and the Research Skill Development Framework (RSDF), developed at the University of Adelaide in Australia. The COEUR has been used as an assessment tool for the current state of the JCSU culture for undergraduate research and as a planning tool for the activities and budget of this QEP. The RSDF is the basis for curricular planning and assessment of the proposed student learning outcomes (SLOs) in the disciplines at JCSU.

The curriculum at JCSU will be modified to focus on the development of basic research skills in

foundation courses. Continued development of these skills will be effected by scaffolded research experiences in the major courses, leading to improved SIPs. Faculty development will include workshops on developing research skills, classroom-based research project development, and proposal development. The culture for research will be enhanced by a process audit of barriers to undergraduate research effectiveness, additional support for mentored undergraduate research, and increased staff training opportunities. In addition to improving SIPs through more intentional research skill development throughout the undergraduate experience, a positive benefit of these activities will be an increased number of externally-funded research activities on campus, which will lead to a perpetuation of the achievement of the goals of this QEP beyond its five year timeframe.

This QEP is grounded in JCSU’s heritage of innovative application of cutting-edge instructional approaches.

CHAPTER 1

PROCESS OF DEVELOPING THE QEP

INTRODUCTION TO THE INSTITUTION

Johnson C. Smith University (JCSU) and was founded in 1867 under the patronages of the Committee on Freedom of the Presbyterian Church, U.S.A. It is an independent, private, coeducational Historically Black College or University (HBCU) located in the historic Northwest Corridor of Charlotte, North Carolina.

Further, it provides an environment in which students can fulfill their physical, social, cultural, spiritual, and other personal needs and in which they can develop a compelling sense of social and civic responsibility for leadership and service in a dynamic, multicultural society. Likewise, the University embraces its responsibility to provide leadership, service, and lifelong learning to the larger community.

Johnson C. Smith University regards teaching effectiveness as paramount in its educational enterprise; accordingly, the University has a commitment to the recruitment and retention of outstanding faculty. To this end, the University promotes faculty development, encourages faculty involvement in research and other creative activities, and endorses the principles of academic freedom.

To insure the integrity and stability of its status and the perpetuation of its rich legacy, JCSU has a firm resolve to maintain the fiscal and human resources requisite to be a truly distinctive institution—a hallmark of excellence in its students, facilities, operations, and environment. Additionally, JCSU

continues the present policy of admitting students of any race, color, sex, sexuality, national and ethnic origin, to all rights, privileges, programs, and activities generally accorded to or made available to students at the University. Concerning faculty and staff, employment by and promotion within the University is on the basis of merit, and there is no discrimination on any basis.

INSTITUTIONAL CONTEXT

JCSU is an independent new urban university. The University continues to gain a national reputation for integrating the liberal arts with business, the sciences, and technology in innovative, socially conscious ways to empower tomorrow's diverse entrepreneurial citizens and leaders.

Today, JCSU offers a progressive curriculum with 22 fields of undergraduate study to more than 1,400 students who come from a variety of ethnic, socioeconomic, and geographic backgrounds. The enriching environment enables students to explore and grow – intellectually, socially, culturally and spiritually – and develop a sense of social responsibility.

The University has strong community relationships and strategic partnerships with businesses, corporations, and professional groups. As an active community partner, JCSU serves as a catalyst for building and sustaining assets in the surrounding neighborhoods and throughout the city. And, JCSU enjoys the strong support of the city of Charlotte as it continues to evolve into a 21st century university

that builds upon its long legacy of producing compassionate and forward-thinking leaders.

OUR FACULTY

JCSU is committed to hiring expert faculty members who prepare students for rewarding careers by helping them to develop the professional and social skills needed for workforce success and civic engagement.

JCSU offers a rich intellectual climate supported by 181 full-time and part-time faculty members. It leverages its numerous community partnerships to guide various faculty-student applied research initiatives, many of which focus on improving education, health, and economic mobility in the surrounding Northwest Corridor.

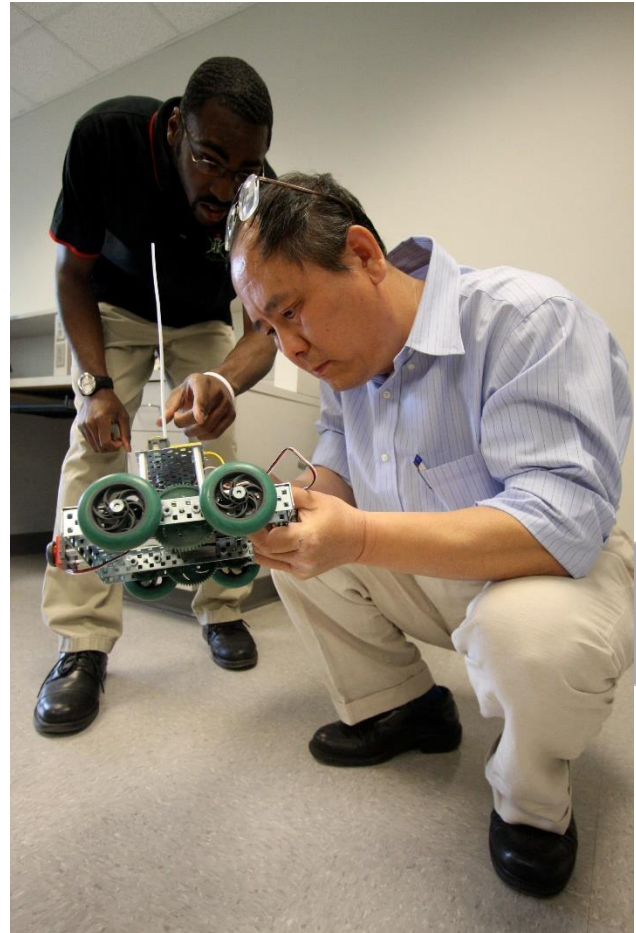
Eighty-nine percent of our faculty have terminal degrees in their fields. Additionally, we have 88 adjunct faculty members whose contributions to our university are immensely important. For this QEP, we have included strategies to ensure the opportunity for all faculty to engage in undergraduate research and professional development activities.

OUR STUDENTS

JCSU evaluates student achievement consistent with its mission, which is *to provide an outstanding education for a diverse group of talented and highly motivated students from various ethnic, socioeconomic, and geographical backgrounds*. The first goal in the University's Strategic Plan – Academic Excellence - expresses the institutional focus and commitment to student achievement. The diverse student body is the soul of JCSU, and the success of our students reflects our values.

As of Fall 2016, 1,428 undergraduates were enrolled at the institution. About 60% are from North Carolina, while 2.2% are international students.

Most of our students are full-time, traditional students between the ages of 18-24, and approximately half of the students live on campus.



Though 84% of our students are Black or African American, the student body is comprised of individuals from many races, ethnicities, and cultural backgrounds. Of the undergraduate academic programs, Business Administration, Biology, and Sport Management are among the most popular programs of study.

Our student body comprises several diverse cohorts, including student athletes, Biddle students, and Sit Lux students. The Six Lux students are admitted to JCSU exclusively on the basis of non-cognitive and meta-cognitive factors including motivation, leadership, commitment, and service. Students receive intrusive, structured support and

directed guidance in not only their academics, but their socialization and networking skills as they matriculate. The program delivers an integration of mandated academic support services that include intrusive advising, mentoring, tutoring, co-curricular excursions, and strengths awareness/coaching to foster their educational commitment and success. Similarly, the Biddle Freshman Program gives students an opportunity to participate in intrusive advising, co-curricular activities and academic support services to foster their educational commitment and success.

The majority of our students are first-generation college students, and the University recognizes that caring academic professionals who operate from both the intrusive and appreciative

philosophical stances are essential to our retention effort. First year and undecided students benefit from the support offered via University College, a unit designed to connect first-year students to the University by providing wrap-around, holistic

| Fall 2016 Student Statistics | |
|--|-----|
| First-Year Fall-to-Fall Retention | 65% |
| Six Year Graduation Rate | 51% |
| Graduating Seniors Accepted into Graduate School | 19% |
| Post-Graduate Employment Rate | 29% |

experiences that offer broad groupings of inclusive educational opportunities, services, and support for student engagement and success.

PURPOSE OF THE QEP: MAJOR COMPONENTS AND INSTITUTIONAL PROCESS

Bridging Past Goals and New Directions

The Principles of Accreditation, established by the Southern Association of Colleges and Schools Commission on Colleges, guided the process and development of a Quality Enhancement Plan (QEP) for our university. The plan bridges past goals and

assessments with new directions outlined in the University's "transformative vision-in-mission" objectives (see Appendix A) as well as directions dictated by current professional demands facing students after graduation. The aim of the QEP is to affirm our commitment to placing student learning at the center of our institutional mission and to reflect that commitment in a comprehensive, educational plan.

The plan serves to continually enhance and improve the quality of our education programs. In Tables 1.1 and 1.2, we document compliance with SACSCOC standards 2.12 and 3.3.2.

Table 1.1 Evidence of Compliance with SACSCOC Standard 2.12

| Core Requirement 2.12 | Criteria (Exceptional Level) | Evidence | QEP Chapter(s) |
|--|--|--|----------------------------------|
| 1.A: An institutional process | Plan is directly related to institutional planning efforts. Topic selection involved process that generated information and specific ideas from a wide range of constituents. Selection of topic determined by representative process that considered institutional needs and viability of plan. | Key Documents <ul style="list-style-type: none"> • Inventories and Surveys • Topic Voting results • Strategic Plan • Seven Expectations • Blue Ocean Strategy • Title III Comprehensive Development Plan • Smith Institute Survey • SIP Initiative (25-year history) | Chapter 1 & Chapter 2 |
| 1.B: Key issues identified that emerge from institutional assessment | A direct and strong relationship of QEP topic to institutional needs; clear how accomplishment of QEP would directly improve institutional/student performance. | Recurring theme analysis grounded in planning and assessment results | Chapter 1, Chapter 2 & Chapter 4 |
| 2.A: Focus on learning outcomes and accomplishing the mission of the institution | Detailed student learning outcomes tied directly to institutional needs. | Project is designed to impact student learning at the course level with respect to Research Skills Development Framework (RSDF) that culminates in a Senior Investigative Paper/Project (SIP) and Capstone experience | Chapter 1, Chapter 2 & Chapter 4 |
| 2.B: Focus on the environment supporting student learning and accomplishing the mission of the institution | A clear relationship between activities of QEP and the improvement of student learning, all tied to established institutional needs. | Project is designed to impact institutional culture as defined by the 12 COEUR Indicators of Excellence | Chapter 3 & Chapter 4 |

Table 1.2 Evidence of Compliance with SACSCOC Standard 3.3.2

| Comprehensive Standard 3.2.2 | Criteria (Exceptional Level) | Evidence | QEP Chapter(s) |
|---|--|---|-----------------------|
| 3.A: Capability to initiate the plan | Very detailed budget information, institutional commitment of funds clearly indicated. If individuals are not yet identified, detailed job descriptions provided that indicate the specific skills and abilities needed for key personnel. Organizational structure shows clear reporting responsibilities and oversight structures. | Demonstrated capability to initiate the plan: <ul style="list-style-type: none"> • Detailed Budget • Key Personnel Identified with functional description • Organizational structure linked to current institutional processes and reporting frameworks. • Oversight linked to existing organizational framework • Linked organizational support structures | Chapter 8 |
| 3.B: Capability to implement and complete the plan | Very detailed timetable is provided for year by year activities including specific actions, budgetary expenditures and assessment processes. Timetable indicates clearly that QEP can be realistically implemented and completed in five years. | Timetables of phased implementation of - Project Activity Domain: <ul style="list-style-type: none"> • Culture • Professional Development • Curriculum Revision • Mentored Research • Assessment and Evaluation Key Evaluation and Reporting Activities: <ul style="list-style-type: none"> • Institutional Level (benefits to the institution) • Program Level (benefits to programs) • Individual Level (benefits to students) | Chapter 6 |
| 4.A: Broad-based involvement of institutional constituencies in the development of the plan | Process used ensured input from all relevant constituencies in developing the plan. | QEP Design & Implementation Group represented various constituencies at different phases in the development of the QEP. Focus groups involving board members, faculty, students, and alumni contributed topic ideas | Chapter 1 & Chapter 2 |

| Comprehensive Standard 3.2.2 | Criteria (Exceptional Level) | Evidence | QEP Chapter(s) |
|--|---|--|----------------------------------|
| | | and assessments. Design and Implementation involved surveys and meetings and feedback sessions that involved a broad-based of institutional actors including support services. | |
| 4.B: Broad-based involvement institutional constituencies in the proposed implementation of the plan | All relevant constituencies have direct involvement in implementation. | All academic degree programs will be involved in the implementation. The initiative will be implemented in coordination with the Council of Deans, QEP Design & Implementation Group, & the implementation resource networks of the Smith Institute. Continuous improvement and evaluation will be provided by each degree program unit. | Chapter 2 |
| 5.A: Identified goals for the quality enhancement plan | Goals are clearly stated, lead to specific, measurable outcomes. | Each academic program will develop goals and objective aligned with the RSD Framework in relation to scaffolding research skill development that culminates in the SIP | Chapter 4, Chapter 5 & Chapter 9 |
| 5.B: A plan to assess the achievement of the goals of the quality enhancement plan | Assessment is based on clear outcomes, assessment methods related to outcomes, and are direct measures of those outcomes. | The assessment plan focuses on both formative as well as summative activities during the implementation of this initiative. | Chapter 9 |

Overview of Institutional Process and Action Steps in QEP Development

Beginning in August 2013, JCSU formed a working group committed to ensuring input from all stakeholders into the development of the QEP. The table below outlines the process by which we ensured this QEP responds to actual institutional needs and represents a broad-based perspective.

Table 1.3 Summary of JCSU QEP Work Groups and Accomplishments

| QEP Work Group: Purpose, Chair(s) & Dates | Activities and Outcomes |
|---|---|
| <p>Transition Group (from prior QEP to new)</p> <p>Purpose: Bridge Past QEP Goals with Formation of the Present Five-Year Plan</p> <p>Chairs: Dr. Nicola Bivens & Mr. Ron Stodghill</p> <p>August 2013 through Mid-Spring 2015</p> | <ul style="list-style-type: none"> • Reviewed assessment reports to identify themes • Identified 41 Commonalities using Affinity Diagram Process • Presented 15 themes to members across disciplines (Nov. 2013) • Administered a survey for feedback across University community • Identified 4 Themes for possible QEP Topic Development (Communication Skills, Critical Thinking & Problem-Solving, Career Development and Academic Rigor) • Solicited & Reviewed Research Proposals Per Topic • Established a Nine-Step Process for Development of QEP |
| <p>Topic Development Group</p> <p>Purpose: Expand on Emerging Topics from past QEP - Narrow, Research & Present Topic Areas for Consideration by the Greater University Constituencies</p> <p>Chair: Dr. Elfred Anthony Pinkard</p> <p>Mid-Spring 2015 to Summer 2015</p> | <ul style="list-style-type: none"> • Expanded on emerging topics from Transition Group to include six topic areas. These reflected changes across the university, particularly the “vision-in-mission” statement for growth, reorganization of General College and new Liberal Studies Foundation, and expansion of Biddle Cohort and Sit Lux Scholars programs. • Formed sub-groups to research and further develop six topic areas: reviewed institutional data, past QEP planning documents, grants and Title III reports/SAFRA documents, and assessment data that support improvement to student learning. • Created final acceptance criteria for topic evaluation to include Institutional Fit, Student Impact, and Logistical Viability. • Presented six topic outlines and findings to greater University constituency in Road to Reaffirmation meeting in Oct 2015. |
| <p>Design & Implementation Group</p> <p>Purpose: Completion and implementation of the new QEP Five-Year Plan</p> <p>Chair: Dr. Tim Champion</p> <p>October 2015 to Present</p> | <ul style="list-style-type: none"> • Presented the six topic areas to university faculty and academic programs in a multi-step, interactive process (large and small group forums). • Reviewed greater constituency feedback from Oct 2015, faculty and leadership team feedback, institutional needs, student-centered priorities, and implementation viability to narrow topics to three moving forward: Multi-modal Communication for Professional Development, and Undergraduate Scholarship and Research. • The topic of Undergraduate Research/Active Scholarship in Undergraduate Research was presented for a vote and was approved by the group in Jan 2016. |

| QEP Work Group: Purpose, Chair(s) & Dates | Activities and Outcomes |
|--|---|
| | <ul style="list-style-type: none"> Recognizing variable notions of research, the group researched and refined the idea of Active Scholarship in Undergraduate Research and developed a marketing committee to introduce the range of scholarship possibilities under the new definition, i.e. following the lead of Scholarship Reconsidered and to include curriculum scaffolding of research skill development and practice. |

**See Appendix B for full list of committee members*

The QEP Transition Committee (the “Transition Group”) organized soon after the submission of the SACSCOC Fifth Year Report and began meeting in August 2013. Co-Chairs Professor Ron Stodghill and Dr. Nicola Davis Bivens led ten members of the faculty, staff, and administration in developing the new QEP. The work of this committee began with a review of various assessment reports to identify potential themes and relevant topics. Using an Affinity Diagram Process, the group identified a total of forty-one commonalities across various data sets as they pertained to various areas of the University including: faculty and student engagement, research, residence life, campus housing and so forth. Identifying these commonalities allowed the committee to isolate fifteen overall themes for development of possible QEP topics. These themes were presented to program coordinators across disciplines at a reaffirmation preparation meeting held in November 2013. The group then added three additional members and the Student Government Association (SGA) Vice President of Academic Affairs.

To rate the fifteen themes and gain overall university feedback, a survey instrument was developed. The survey was administered to faculty, staff, students, the Board of Trustees, alumni and community representatives. The survey results identified the following themes as priorities for the university community:

1. Communication Skills – Oral and Written
2. Critical Thinking and Problem-Solving Skills
3. Career Development – Readiness, Preparation, Internships, Marketability
4. Academic Rigor – Quality of Courses and Student Accountability

The QEP Transition Group actively encouraged members of their committee and the greater university community to submit proposals that would assist in the development of specific topics identified from the survey themes and feedback. The thoroughly researched proposals provided the foundation for determining evidenced-based best practices and a framework for determining learning outcomes and their measurement around each potential theme.

Ending the 2014-2015 academic year, the QEP Transition Group joined with new members and followed the nine-step process, as suggested in the SACSCOC Handbook for Institutions Seeking Reaffirmation, to bridge the past QEP goals with formation of the present five-year plan. The steps functioned as a map for completion and certain elements existed across the steps, such as creating a timeline for completion of particular benchmark steps.

Institutional Assessment to Identify Key Issues: The Topic Development Group & The Design and Implementation Group

During the summer recess, a Topic Development Group was formed. The group included past year and present year team members to expand on emerging topics from the past QEP and to respond to changes across the university. The group met once a week throughout the summer session and divided relevant topics among smaller work groups to develop their viability for consideration as the primary topic moving forward. Changes reflected in the university's "vision-in-mission statement" included a move toward real world competencies in an emerging global, digital workforce and a shift in offerings to reach non-traditional students, adult learners, and new Master's degree students in the Social Work program. The non-traditional student emergence reflected offerings such as the Sit Lux Scholars program and expansion of the supports and admission criteria for students entering the Biddle Cohort program their freshman year.

Furthermore, the development process included recognition of the need for scaffolding research skill development and classroom-based research practice, particularly with an emphasis on inclusion during the student's freshman year. The shift reflected success in programs providing extra support, non-cognitive academic enhancements, and intrusive advising for students at-risk for derailment, particularly during their freshman year. The expansion of the Smith Seminar (SMS 100) program for freshman across majors also follows the same shift patterns in providing additional support for students to succeed academically, both cognitive and meta-cognitive in nature. The SMS 100 course, introduced in the student's freshman year, uses activities and learning experiences that connect the student to university and community supports as well as foundational college skills, such as digital literacy, that support one's success and retention overall. The reorganization of the General College to the Liberal Studies Foundation moved the focus toward an expanded base for freshman and sophomores and development of the University College to strengthen this vision across majors. The

new focus intends to reduce barriers in the first year of study for the student while also focusing the student toward their areas of strength, interest, aptitude and academic major earlier in their academic path. Finally, completion of a new STEM facility, expansion of the adult education's hybrid and online offerings, and the addition of a master's program presented new areas for faculty development and resource allocation to meet growth trends projected for these programs and ones like them in the future, such as more master's degree or multi-generational academic expansions.

Six Key Topics and Criteria for Acceptance

The Topic Development Group expanded upon six topic areas to reflect growth patterns, career demands, and shifts in focus and expansion on the institutional level to include:

1. Improving Communication for Professional Development by expanding "real world" learning activities and experiences;
2. Utilizing Metacognition to enhance assessment and improve student learning;
3. Infusing Problem-based Learning pedagogies to promote active learning or discovery-based learning habits for students within their fields of study;
4. Create a Campus Commitment to Multimodal Communication skill development and practices across programs and throughout a student's matriculation;
5. Enhance Information and Digital Literacy with learning modules, training for students and faculty, and assessment methodologies available in the modern age; and
6. Create a Culture of Undergraduate Scholarship and Research- promoting the creation of knowledge through inquiry, applied problem solving, and discovery-based learning.

The Topic Development Group used previous institutional instructional projects and initiatives,

previous QEP planning documents, plans and reports for topic development and expansion, as well as data and trends reflected in grants, Title III awards, reports and Student Aid and Fiscal Responsibility Act (SAFRA) documents, and other sources that support areas in need of development or improvement to enhance student learning. In relation to identified topics, sub-groups were formed per topic and along lines of expertise or involvement with the topic in one's own work with the university and/or student body.

Sub-committees researched the topics, evaluated their viability and expanded their narratives to include final acceptance criteria to present to the greater university constituencies including:

1. Institutional Fit (linked to mission, vision, plans and one likely to be supported by the community);
2. Student Impact (related to student learning outcomes with measurable impact and scope); and
3. Logistical Viability (data availability, appropriate scale for human and fiscal resources).

These three criteria guided the final decision-making in choosing an overarching topic for the QEP.

Broad-Based Involvement of Constituency in Topic Selection

The Topic Development Group involved a representative collection of university personnel across majors and departments that work daily with students, university programming and data collection, and administration of academic programming and management of faculty or programs (see list of group members in Appendix B). The reports generated from the Topic Development Group smaller teams included visual data and outlines for consideration and were presented to the larger QEP Design &

Implementation Group for consideration. This group meeting reassessed the goals for the 2015-16 academic year and developed an ongoing QEP Design & Implementation Group. The meeting and presentations during the October 2015 session also included the University President, Academic Deans, Board of Trustee representation as well as faculty and administrators who had been invited to join the Design & Implementation Group for the new academic year. The members were asked to commit to the group until completion of the QEP five-year plan (documented by minutes, detailed proposals presented, and list of attendees for Road to Reaffirmation meetings).

Following the development of the Design & Implementation Group, the six topics were presented to the university faculty and programs across majors in a multi-step, interactive process. Following the October 2015 presentations, the proposals were presented at a faculty meeting in November 2015. Attendees were given feedback forms for input and evaluation while also asked to present any questions, ideas, or input in a group question-answer session. All faculty and leadership teams were also given an email of proposals and a digital link to an online feedback/topic evaluation form for individual comments and input. The responses were coded and summarized in narrative form for the Design & Implementation Group and reviewed in weekly meetings to develop the plan. Following the group sessions, Design & Implementation Group members met with each department to discuss particular issues to consider, clarify roles, explain the value in developing the plan, and secure support and commitment for the final plan in all stages of selection and implementation.

Final Topic Selection: Cultivating a Culture and Curriculum for Undergraduate Research

Considering constituency feedback, institutional needs, student-centered priorities, and implementation realities and resources, three topics

emerged as central to student learning outcomes moving forward:

1. Metacognition
2. Multi-modal Communication for Professional Development
3. Undergraduate Scholarship and Research

The areas surfacing reflected the need to improve communication across multiple platforms within one's profession, the need to use metacognitive and experiential models for reflexive and engaged learning and assessment, and the need to identify a problem, research the problem, discover and explore solutions, and to

present those outcomes and discoveries in written, oral and digital formats. Finally, from focusing on the overlap between these three in conversation, the notion of an academic environment that approached learning as a way of inquiry, discovery, and active participation in a guided research process would have the most positive impact on student learning. The conversations highlighted the need to create a learning environment at JCSU that involved not only more traditional academic research pedagogies and practices but also applied, design-based, and creative forms of research.

The topic of Active Scholarship in Undergraduate Research (later renamed Creating a Culture and Curriculum for Undergraduate Research) was approved by the Design & Implementation Group in January 2016 as the final topic. It includes elements of multimodal communication, real-world problem solving, digital literacy, metacognitive activities, and assessments in the "discovery learning" process from a student's first year until the final culmination

of work and applied knowledge in the form of a Senior Investigative Paper (SIP) in the student's senior year. The SIP, in this case, opens to the possibility of various forms of presentation in the senior project to include written essays, portfolios, or applied and creative research and outcomes that reflect the standards of the current professional world across major fields of study. Thus, each major

will guide best practices and discovery-based learning to create a culture of inquiry across the campus. This highlighted the need to ensure flexibility while also maintaining clear standards of learning across the campus.

JCSU recognizes that academic research and internships, as high impact practices, draw students into

substantive relationships with faculty and community members, and such partnerships function to connect more deeply students to their discipline, the university, and the larger society. Ongoing feedback methods from constituents are described in Chapter Two.

The main rationale for the Design & Implementation Group to select the topic of undergraduate research was to:

- Facilitate curiosity, citizenship, and personal achievement;
- Improve preparation for graduate school, the workforce, and lifelong learning;
- Improve institutional research/scholarship culture and infrastructure (environment);
- Improve student critical thinking, problem-solving, research, and scholarship skills; and
- Enable the integration of student and faculty into professional communities of practice.

As the Council on Undergraduate Research states, "Students who participate in undergraduate research are better prepared in their fields of study as well as more informed as citizens as they learn skills of problem-solving, critical thinking, and communication."

CHAPTER 2

RESEARCHING AND DEVELOPING THE TOPIC

HISTORICAL PERSPECTIVE AND SURVEY RESEARCH

Dividing the Topic for Research and Development: The Culture for Research and The Curriculum for Research

After narrowing the topic to Active Scholarship in Research (later renamed Cultivating a Culture and Curriculum for Undergraduate Research), the committee recognized that the terms have variable meanings and expectations for implementation across disciplines. In addition, some faculty members expressed that research on the scholarly level is already taking place during the student's senior year when completing the Senior Investigative Paper (SIP) within their major field of study.

However, the topic was not born out of a need to complete one investigative paper or course. The topic arose out of a need to improve students' abilities to embark on the investigative process earlier in their academic careers and to use these research skills as a way of learning and discovery. Faculty expressed that students need to approach problems and learning in mentorship with their professors and to learn a process that allowed them to independently pursue problem-based solutions and discovery-based knowledge in a research process beginning with a strong question, hypothesis, or thesis and ending with new knowledge for dissemination to and in collaboration with others.

The concept of research as pedagogy and discovery prompted the idea that a new way of viewing the learning process needed to be defined and refined

in order to pursue implementation across the curriculum. The cultivation of a culture of research would frame the mindset that allows professors and students to explore the learning process independently and in teams, even across disciplines and in industry. After developing a working definition of "a culture of research" across campus, the topic could then be systematically embedded across the curriculum starting in the freshman year, proceeding through research skill development-enhanced classes and "scaffolded" classroom-based research projects, and ending with the revised SIP experience. Thereafter, the topic of research "as a culture" and "as a curriculum" became the twin foci of the QEP development.

Historical Perspective: Bridging the Past with Future Plan

The institution has a history of involving students in various scholarship activities. These activities are valued and have contributed to student development. We intend to deepen these existing involvements and create new opportunities for student involvement in research. The scholarship of engagement is a critical notion. As a university, we have been growing these ideas for a while, and this QEP provides the impetus to increase our efforts.

The following list overviews historical inquiry-based activities at JCSU:

1. **Freshman Studies Program** (1988) was designed to engage students in the culture of the academy through inquiry-based courses in the freshman year. The Freshman Studies Program replaced the

first-year remedial courses and increased the freshman retention rate from 40% to 75% over a three-year period.

2. The **Senior Investigative Paper/Project** (1990) is scaffolded with research methods and a capstone course. This piece was linked to the Writing Across the Curriculum Project (WAC). Required WAC courses were viewed as scaffolds for this activity.
3. **Grant-funded science initiatives** (e.g., MBRS-RISE (NIH; 1999-2007 and preceding funding stretching back to the 1960s) & HBCU-UP (NSF; 2005-2015)) have provided summer research internships for science students both in local and external settings.
4. **Research experiences, internships, and studies abroad** have been supported for a limited number of students.
5. The previous QEP was centered on **freshman learning communities** and was actually grounded in a notion derived from professional communities of practice. The idea was that we can impact learning and retention if we engage students in an inquiry-based community of practice or more accurately, student engagement through active learning and inquiry within communities of practice.
6. The new **STAR Grant Projects**, introduced in 2015, provides opportunities for faculty to mentor students as researchers to complete a project over a nine-month period. These grants are sponsored by the Smith Institute for Applied Research. The Smith Institute has particularly focused its research support to impact the local community. The Smith Institute is an organizational unit charged to develop a relationship between research and student learning.
7. **Service learning** and other institutional engagement activities in the NW Corridor and community existed since the 1990s in a

variety of formats, including an alternate general education program.

While many of these efforts have been successful and effective in providing students with research experiences, many have not been embedded in sustainable ways. Some have been offered on an ad-hoc basis, and we realized the need to provide consistent programs. Additionally, as a pressing

“Students of color and students from low-income families will soon form the majority of the nation’s college-eligible learners. Their fortunes will shape—for better or worse—America’s economic and global future. These students are democracy’s hope and America’s future. They need and deserve the advantages of a horizon-expanding higher education. They need and deserve a twenty-first-century liberal education.”

Carol Geary Schneider, President of AAC&U

issue in higher education, we are more aware of the need to provide all students with equitable opportunities to engage in high impact practices.

Survey Research: Understanding the Current Culture and Curriculum of Research at JCSU

Since 2009, the Smith Institute for Applied Research has been a central force at JCSU to promote a culture and curriculum for research. In March 2015, the Smith Institute conducted a needs assessment of faculty and students to determine what the needs were to enhance the research culture at JCSU.

Smith Institute for Applied Research Needs Assessment: Faculty

Sixty-two faculty members responded to the needs assessment - 51% are full-time faculty and 10% are adjuncts. Of those who responded, 52% said research is an expectation of their position. This indicates one of the challenges in shifting the culture at JCSU, which has historically been a "teaching" college.

This leads to the findings that the main barriers to faculty doing more research are:

- Lack of funding
- Lack of time
- Difficult process to hire students
- Lack of co-investigators

Since the completion of the Needs Assessment, the Smith Institute for Applied Research has been working to address these barriers by introducing internal pilot grants, trying to make the process to hire students smoother, and creating a database of



research expertise. Smith Institute is also working with Communications and Marketing to showcase faculty research more, to update the website with faculty's research profiles, and to instruct faculty on creating an online presence and disseminating their research in innovative ways.

Other key findings that informed the development of the QEP and our strategic plan to implement it and achieve our goals are:

- There is a lack of capacity/experience leading research projects – 66% have led 3 or less research projects and 71% have published 3 or less research articles
- People are incentivized to do research by personal satisfaction, promotion, recognition, and reward (financial)
- The library resources and University website need updates
- A lot of people aren't aware of resources available or of what Smith Institute does to support research
- Seventy-seven percent of faculty respondents say JCSU students in their discipline are somewhat or mostly prepared for graduate school by the time they graduate
- There is a need to support students to develop better writing skills and for them to be more independent, punctual, and proactive in their learning/assessment
- Sixty-seven percent of faculty respondents would attend faculty training workshops, and the best time/day is Friday mornings

The Faculty Needs Assessment also tried to determine the climate of readiness for change related to enhancing the research culture.

Smith Institute for Applied Research Needs Assessment: Students

Sixty students completed the survey. Some positive indicators of the research culture on campus are:

- Ninety-three percent of students said they would utilize research training workshops if they were offered
- There is a lot of student interest in doing research, and 84% of students report they plan to attend graduate school
- In terms of the curriculum, 70% of students indicate that research skills are/have been taught in their current/previous classes with those most reported being research methods, scientific method, online database access, and lab safety

These indicate a high-level of student interest in research. Some indicators for areas of improvement are:

- More than 50% of students are unaware of the Smith Institute for Applied Research
- 79% of students are not aware of on-campus resources that are available for continuing education/training in their major
- Two issues that emerged from the assessment are that students feel faculty are unable or unwilling to engage with them outside of the classroom and that opportunities to do research are only offered to a select group of students

Students would like to have the research process begin earlier and have more opportunities to do research in the freshman and sophomore years. Research opportunities and support need to be more broadly advertised and offered more equitably. As Olson-McBride et. al. (2016) argue, “While it is evident that high-impact practices such as undergraduate research are beneficial, Kuh (2008) reports that access to these practices is often limited.” In the JCSU context, this often applies to student athletes and first generation college students who may not excel academically in traditional-based classrooms or take advantage of research opportunities outside the classroom due to time constraints or an unwillingness to ask for

mentorship. Therefore, if we introduce students early to a culture of research and embed research skill development into the curriculum at all levels, all students will be able to reach at least some benchmark by graduation. Further, by making faculty research more visible and offering more support, we aim to increase the enthusiasm and willingness to engage across the disciplines.

The results of the needs assessments from faculty, staff, and students provided the QEP committee with a broad-based picture of the research culture from those we intend to engage in achieving the outcomes of the QEP.

Input from STAR Research Mentoring Group (2015 & 2016)

In 2015, Smith Institute introduced the STAR Research Mentor Group composed of faculty across all Colleges who have been active in research and undergraduate student mentoring for numerous years. This group provided advice and feedback throughout the process of introducing the internal STAR Grant funding program for faculty-mentored student research. They also provided advocacy for Smith Institute within College meetings to encourage engagement with undergraduate research opportunities. Additionally, the group served as the review committee for internal grant applications and provided Smith Institute staff with input on the concerns of faculty and students related to undergraduate research. The members of this group serve mostly as liaisons between the Smith Institute and the colleges at JCSU and champion research engagement to their colleagues.

Input from Faculty Discussion Breakfasts

Beginning in Spring 2016, the Smith Institute introduced Faculty Research Discussion Breakfasts. The aims of these breakfasts were to engage faculty in best practice sharing, to voice concerns and attempt to articulate solutions/strategies to address them, and to gradually introduce ideas for the QEP to faculty and get their feedback. Each breakfast

discussion was themed. The themes included: research culture, publishing and disseminating research, and mentoring students through research. From these discussions, Smith Institute staff provided input to the QEP committee.

Faculty believe that a strong research culture is one in which research permeates academic work at all levels and where everyone is committed to critical and creative thinking. This aligns well with the QEP committee's attempt to define a "culture of research." Some of the concerns of faculty were the lack of acknowledgement and recognition of research activities in tenure and promotion and via the university's formal communications, including the website. The Smith Institute plans to offer more workshops for faculty about non-traditional methods of research dissemination, including social media. The discussion around mentoring involved differentiating mentoring from hand-holding, and concerns were raised about how mentoring can be balanced with teaching and research responsibilities.

BASELINE OF CURRENT ACTIVITIES

It is imperative to understand where JCSU is in terms of undergraduate research to measure where we will be throughout the QEP. Given there is a history of inquiry-based educational practices at JCSU, there are existing resources and activities that will be instrumental in helping us achieve the goals of the QEP. They are described below.

Curriculum

The JCSU University Catalog describes the General Education program where students have a set of Core Requirement Courses (offered through the University College) and a selection of Pillar courses (which may be offered by any college). Major-specific course requirements and free electives make up the rest of the students' curriculum.

Every degree program includes a Senior Investigative Paper or Project (SIP) and a set of courses leading up to this. Although 61% of faculty who responded to the faculty needs assessment said there are no problems with current senior paper structure in their discipline, 39% of respondents see issues with the SIP. From the Smith Institute Faculty Research Discussions, it has become clearer that one of the major concerns about the SIP is the writing skills of students.

Smith Institute for Applied Research

Smith Institute for Applied Research (SI) will be the centralized hub of research activity. The office is located in Carnegie Hall in the middle of campus and provides a space for creative collaboration and activities that support research skill development. The objectives of the Smith Institute include:

- support faculty-led research with STAR Grants;
- support student-led, faculty-mentored research with STAR Grants for Students;
- recognize and encourage research with awards such as the Faculty Research Mentor Award; and
- offer research skill development workshops for faculty, staff, students, and community members.

Moreover, the Smith Institute opened the Multidisciplinary Applied Computational Modeling and Simulations (MACMAS) Lab to provide students, faculty, and community affiliates with opportunities and experiences utilizing cutting-edge computational methods for building models and simulations that represent or ask significant research questions. The Lab was planned and developed in consultation with two leading, world-recognized resources in the field: (1) Santa Fe Institute (SFI) for Complexity Studies, and (2) the National Center for Ecological Analysis and Synthesis (NCEAS). The MACMAS Lab has allowed our students to learn to create, explore, and delve

deeply into hypotheses for solving problems and issues in the sciences, social sciences, arts and humanities. In addition, faculty members have pursued their own research topics of interest, as well as questions pertinent to their course offerings. The Lab offers access to common data collection and analysis tools, including SAS, SPSS, STATA, MatLab, R, Weka, RapidMiner Studio, and Qualtrics; and maintains institutional membership to CUR, liaison between faculty and CUR, and support faculty to attend CUR events/trainings.

Department of Interdisciplinary Studies, Philosophy and Religion

Through its various programs, including Minors in Public Leadership and Entrepreneurship, faculty in this department conduct research related to leadership and community development and can propose applied initiatives based on their findings. Department faculty and staff regularly meet with community stakeholders and act as a liaison between the community, JCSU, city officials and potential investors, such as the City Center Partners. Additionally, a program manager organizes and tracks student community service opportunities. The department's interdisciplinary program offerings sponsor research on “real-world” problems and foster links between JCSU’s academic endeavors and community leaders in need of intellectual resources.

Office of Institutional Planning, Assessment, Effectiveness and Research (IPAER)

An essential component of the multi-level assessment structure is the Office of Institutional Planning, Assessment, Effectiveness and Research (IPAER). To assist in the university-wide, research-based decision making process each year, IPAER coordinates and administers assessments and surveys, conducts data analysis, and disseminates the information among various constituencies to

inform their decision making efforts. This office also provides institutional data and data mining for planning purposes and will assist in evaluating the implementation and achievement of the QEP.



Department of Information Technology

The Department of Information Technology (IT) recognizes that technology is rarely an end in itself, but a critical tool that enables it to achieve its goals and aspirations. IT enriches the student experience, fosters a research environment, inspires collaboration, and simplifies operations.

As a wireless campus, JCSU focuses on maintaining the University’s technology infrastructure at the level required to ensure reliable and secure delivery of services and technologies. The University depends on its technology infrastructure for the foundation upon which the institution provides the majority of services that support learning, research, and business processes. As requirements continue to expand, this infrastructure will increase in speed, breadth, and capacity to ensure reliable and secure delivery of services and technologies.

The institution demonstrates its commitment to supporting students via technology through the following initiatives: (1) providing a tablet for every

full-time student; (2) ensuring access to the campus network of information technology resources through modern fast Ethernet, and wireless connectivity; (3) offering on-campus maintenance by students and professional technicians; (4) implementing a standard institutional load of software and software support; (5) providing an on-going integrated program of training and assessment in the use of technology for learning; and (6) maintaining a state of the art net-centric infrastructure which provides centralized storage, backup, software upgrades, and application services to all campus users.

Office of Government Sponsored Programs and Research (GSPAR)

Grants from federal, state and local governments are vital resources bolstering the university's own funds. These grants help expand research and enhance scholarly activity, and some student jobs are funded through them.

JCSU's Office of Government Sponsored Programs and Research (GSPAR) helps faculty and staff seek external funding. It also is an advocate for research and research-related activities. The office facilitates workshops, host symposiums, and provides individualize assistance with applying for external funding.

The Writing Studio

The Writing Studio offers supplemental writing instruction and one-on-one tutoring to students. Additionally, the director and a student cohort produce the annual Undergraduate Research Journal, which was rejuvenated in 2015 to promote the dissemination of student research and highlight research excellence. However, there is a lack of resources to adequately support the needs of students, which is why the QEP plans to increase funding and support for the Writing Lab.

Selected Ongoing Research Projects

In addition to teaching in classroom, our faculty extends academic excellence by contributing to the discovery and advancement of knowledge and the improvement of communities. Some of the ongoing research at JCSU includes:

- In Biology, JCSU currently conducts a research project on the biodiversity of parasites in birds of prey, which is a collaborative effort between JCSU and Virginia Polytechnic Institute. The project allows JCSU students to visit the labs at Virginia Tech during the summer for a research immersion experience.
- In Chemistry, a HBCU-UP Targeted Infusion Project (TIP) is under implementation to develop a shared instrument resource laboratory for research and instruction at JCSU. It will radically enhance the research and teaching infrastructure of the Department of Natural Sciences & Mathematics (NSM) and the STEM College at JCSU by implementing better and more widespread instruction in the use of scientific instruments in undergraduate courses and more use of these instruments in undergraduate research projects. It is expected that the availability of a well-equipped instrumental analysis laboratory will result in research publications, and thus make faculty more competitive for other research funding.
- JCSU is currently implementing "Collegiate Health Improvement Project (CHIP)" which is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) to offer health improvement prevention to college students and community members aged between 18 and 24 years at JCSU and the surrounding communities in Mecklenburg County, North Carolina.

- JCSU students are contributing to the “Know Your Brain” research project that is developing a concussion education application (app) that consists of two games, educational material, and testimonials. The research project also studies the effect of this app on increasing concussion knowledge and awareness among middle school students, collegiate athletes, parents, coaches, teachers, and others.
- The Office of Minority Health and Health Disparities sponsored a mini applied research project on the effectiveness of breast cancer prevention and preconception education through peer-education at JCSU.
- The Social Work faculty collaborates on a three-year research project with the University of North Carolina at Charlotte that aims to reduce Teen Dating Violence (TDV) among African American youth by using community-based participatory research (CBPR) methods.
- The Social Work faculty is the principal investigator for a research project, "Creating and Optimizing Practices for Endurance (COPE)," funded by the Morehouse School of Medicine. The main research activities are to reduce mental health stressors in JCSU students by introducing alternative behavioral practices, and to create a public health approach for students and staff experiencing/recovering from behavioral health symptoms and disorders.
- In Mathematics, the faculty is currently conducting a project “IMPACT: Improving Mathematic Persistence and Achievement through Community partnerships and Transformative teaching,” which provides a platform for Charlotte-Mecklenburg School district and the University to develop a comprehensive approach to the college and

career-readiness standards with STEM industry professionals. The findings of this applied research project will be used to make informed decisions about future work of underrepresented student populations in STEM.



- In Computer Science and Engineering, the University is conducting a research project funded through a subcontract with UNC-Chapel Hill “Preparing Tomorrow’s Minority Task Force in Coastal Resilience through Interdisciplinary Education, Research, and Curriculum Development.” This project focuses on the integrative, interdisciplinary nature of real-world problems and strives to bridge traditional academic programs to develop solutions to coastal resilience and its related problems facing our nation. An undergraduate education framework will be also developed to meet the needs and standards for excellence in undergraduate education in Coastal Resilience including collaborating with other institutions to identify gaps in training undergraduate students in this area.
- In STEM, the faculty has an ongoing applied research project entitled “Ambassador scholarship program in research and

education” (ASPIRE). It integrates research and education by providing scholarship support and research opportunities and establishing mentor networks and research interest groups. The impacts of such an integrative model on enrollment, retention and graduation of STEM students will be assessed and shared with other researchers and professionals.

- The University received funding for an applied research project entitled “Fulbright-Hays Group Projects Abroad: An Advanced and Intensive Training Program in Modern Chinese Language and Culture.” By sending four different cohorts during the summer to participate in an intensive language and cultural training program at two different Chinese universities, faculty and students study the effectiveness and impact of the short-term, intensive Study Abroad program on the participants’ language and socio-cultural development, and the outcomes of the competencies associated with global leadership, global mindset, and strategic thinking.



Student Support Programs

The **Student Support Services Program** (SSS), funded by the U.S. Department of Education, serves students with disabilities, from low-income families,

and first generation college students. It also serves students who are homeless, in foster care or aging out of the foster care system, and any student who is disconnected from the post-secondary experience. It aims to increase college retention and graduation rates for eligible students by implementing a myriad of services designed to contest the inherit obstacles that first generation college, low-income, and students with disabilities face during their transition from post-secondary to higher education. Extensive evaluation and assessment measures are used to effectively monitor the delivery of services and implement appropriate strategies critical to positive student and program outcomes.

JCSU also has special programs for at-risk student populations. Housed within University College, the **Sit Lux Scholars Program** and **Biddle Freshman Institute** are for students who are undecided or who have been admitted to the university for meta-cognitive variables that indicate student success. There is also intrusive advising for undecided students, and Student Support Services offers tutoring and mentorship for first-generation students, students from low socio-economic backgrounds, and students on academic probation.

Johnson C. Smith University has made supporting former foster care youth, in their pursuit of higher education, a part of the institution’s strategic plan – ensuring that those transitioning out of the foster care system can earn a degree and find emotional and financial support. The **Foster Village Network Center** is a component of the Department of Social Work, strengthening its research and development efforts as well as creating awareness for and access to the Phasing Up to New Possibilities Program. Specific services that are signature to the institution (e.g., case management, career planning and professional development, academic advising, mental health) support the programming efforts. To provide a home for the initiative, the institution reopened the doors of a historic landmark known as

the George E. Davis House in 2014 as the administrative center of the Foster Village Network.

Research Spaces

Carnegie Hall houses the Smith Institute, which is the hub of research activity on campus. The building includes a large space for collaborative research activities, training workshops, and research presentations.

The **MACMAS Lab**, located in Yancy Hall, provides computers and software for students, staff, faculty, and community members to collect and analyze data and use Apple computers to create graphics and research presentations. It has multiple small group tables with individual computers, which easily arranges into teaching space for redeveloped research-based curriculum.

The New Science Center opened in 2015 and offers space to pursue research, particularly in STEM areas such as renewable energy, medical informatics, electronics and cybersecurity, analytics, and bioinformatics. It also offers a nice foyer, classrooms, and an auditorium used for research showcases and expert researchers' presentations.

Sustainability Village provides a space where JCSU students and faculty can grow food and conduct research related to sustainability issues. Mostly utilized by Biology students, the facility is under the supervision of a Biology professor. Given the impact of the Sustainability Village is addressing food desert solutions in the Northwest Corridor, there are plans to involve Chemistry and Political Science students.

The **JCSU HealthPlex** is an applied health research facility that provides preventative wellness programming to the campus and local community that will assist students and residents with the information and the skills necessary to develop a healthy lifestyle while emphasizing a developmental and holistic approach. Applied research in the areas

of health, human performance, and sport is conducted throughout the academic year. The HealthPlex is part of the Health and Wellness unit of the Division of Academic and Student Support Services.

Under development, the **Innovation Lab** will be housed in the New Science Center. When completed, it will be a 3100 sq ft. think-tank where social and economic challenges and ideas can be solved or amplified with innovative tools and science and engineering principles. Through exploration, incubation, evaluation, escalation, and dissemination of validated solutions this center will enhance JCSU's impact in the community. The open-seating space, work rooms, café, and presentation space are part of the design for collaboration and knowledge-sharing.

Renovated in September 1999, the **James B. Duke Memorial Library** is a 56,553- square foot facility with all of the amenities to support an independent and collaborative learning environment for undergraduate and graduate students. The library is designed to support technology, and provide informal spaces for students to work individually as well as in a team environment. The library facility has the following features:

- 430 seats (27% of FTE)
- 322 data ports
- Archives and Research Center (2,047 sq. ft.)
The archive has a total shelving capacity over 1,260 square feet.
- Faculty Instructional Technology Sandbox
- Modern Communications Room for video/data projection (1,012 sq. ft.)
- President's Conference Room (600 sq. ft.)
- 12 study rooms (8 individual and 4 group)
- Two student lounges (600 sq. ft. each)
- Entry Gallery (1,682 sq. ft.)

The James B. Duke Memorial Library is in the process of establishing and operating a Makerspace



as a new part of the library's offerings available to patrons. The use of the New Science Center focuses on the STEM College program, and adding a Makerspace to the library would be a facility upgrade and complement the Science Center by providing a vibrant library experience to our more than 1,400 students, 7,000 alumni and broader community. The value an academic Makerspace will bring students' ideas to life, building excitement and momentum behind any design project.

The following software and hardware will be included in the Makerspace with expected opening in spring 2017:

- 25 PC's and MACs for the Programming Lab
- 2 Computers for the iDesign Studio which will be where students, sew, create costumes and design marketable products

- 5 3D printers
- 1 CNC Mill
- 1 Epilog laser cutter
- A virtual Reality Lab that will include all equipment that will allow students to create video games and use tools for Psychology
- A research center where students can learn more about entrepreneurship and patents

The James B. Duke Memorial Library is the core repository for information resources that support the academic curricula, applied research, and graduate program at JCSU. The Librarians are highly trained professionals who assist faculty and students in locating resources specific to their discipline. The Librarians work in teams to develop "Libguides", internet resources, and book selections to support academic programs.

ASSET AND RESOURCE MAPPING

JCSU has long recognized the importance and value of research in effecting change in various communities, guiding and improving government policy and practice, and identifying solutions to existing problems. Part of this QEP process included mapping existing resources and assets that are needed to achieve our goals. The QEP Committee decided to use CUR's "Characteristics of Excellence in Undergraduate Research" as a framework for what will be needed and as a tool for evaluating the culture of research at JCSU. As such, the University has infrastructure to support the initiation, implementation, and completion of the QEP as described below. Table 2.1 provides a resource map structured according to the "Characteristics of Excellence in Undergraduate Research" (COEUR) from CUR.

Table 2.1 Characteristics of Excellence in Undergraduate Research (COEUR) Analysis of JCSU

| Characteristics | | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|---|--|---|---|---|
| 1. To improve campus culture of research | 1.1 Enhance the institutional commitment to undergraduate research | Senior administrators who value and understand the importance of research and the potential of a culture of research to improve student learning outcomes, foster community engagement, and recruit and retain excellent faculty. | Smith Institute for Applied Research programming | Revision of tenure and promotion criteria to demonstrate value and more formal recognition of research |
| | 1.2 Scholarly faculty | JCSU has numerous experienced researchers who serve as faculty, staff, and administrators. These faculty members are also able to serve as mentors and trainers for less experienced faculty. | Showcase of faculty research activities on Smith Institute WordPress site and Adjuncts interested in doing research | Updated faculty research profiles on JCSU website Increased retention of scholarly faculty Improved orientation to campus research culture for adjuncts and new faculty Increased support for faculty to present their research Increase support for faculty development and "time off "to do research and publish (course release) |
| | 1.3 Faculty commitment | Faculty researchers who are involved with student research | STAR Research Mentor Group Faculty Discussion Breakfasts STAR Research Grants Course release funding | Faculty Workshop series Summer Research Training for Faculty Course release |
| | 1.4 Broad disciplinary participation | STAR Grants to faculty from all Colleges, the Library, and Student Support Services | STAR Research Mentor Group includes faculty from all Colleges | Collaborative Cross-disciplinary Research Teams |
| | 1.5 Accessible opportunities for undergraduates | STAR Grants Grant-funded summer opportunities | Student Research Workshops facilitated by Smith Institute STAR Grants for Students Undergraduate Research | Better communication plan and posting of available opportunities. Support for more and improved student |

| Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need | |
|---|--|---|---|---|
| | Methods and capstone courses | Journal Funding to attend conferences to present work (i.e. NCUR) and Student Research Ambassadors | applications to external research programs and internships. | |
| 1.6 Integration of other engaging and high-impact opportunities | | STAR Grant Projects (must include students as researchers) Fall Research Symposium and Showcase | Summer Research Program (faculty mentored) | |
| 2. Administrative Support | 2.1 Internal budgetary support | Duke Endowment in some cases | SAFRA, RIA, Title III, Fulbright-Hayes, Mellon Institute | More resources |
| | 2.2 Start Up Funding | | STAR Grants from Smith Institute for Pilot Projects | More resources |
| | 2.3 Faculty load credit for supervising undergraduate research | Some departments have research courses that can count to a few faculty member's teaching load | | Revised policy and course load guidelines |
| | 2.4 Reassigned time for research-related tasks | Only that which is funded externally | Stipends for summer research institute for faculty research skill development | Revised policy and course load guidelines |
| | 2.5 Undergraduate research administration support | GSPAR Office (grant initiation, budgets) | Student Research Workshops Administrative Assistant for Smith Institute Human Resources Career Center | More staff to provide planning, support, and administration of research; often specific to programs |
| | 2.5.1 Smith Institute (undergraduate research program office) | | | |
| | 2.5.1.1. Space (Carnegie Hall) | Carnegie Hall is the centralized hub of undergraduate research and houses the Smith Institute; includes a large space for workshops and | | |

| Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|--------------------------------------|---|---|--|
| | collaborative activities to support and promote research | | |
| 2.5.1.2 Infrastructure Support | Smith Institute for Applied Research Writing Center Library IT New Science Center Innovation Lab | Smith Institute's 3 team members: Research Associate and Student Research Manager; Special Projects and Research Communications Manager; Administrative Assistant | |
| 2.6 Travel and other student funding | | STAR Grants for Students from Smith Institute Rolling funds for student researchers to present Innovation Lab (Kenan Foundation) | Student travel and research funding |
| 2.7 Research grants office (GSPAR) | The Office of Government Sponsored Programs and Research (GSPAR) houses a staff of seven dedicated to supporting JCSU colleagues to submit proposals for funding and manage post-award funding. | | |
| 3. Research infrastructure | | | |
| 3.1 Space | New Science Center, Sustainability Village, HealthPlex, Innovation Lab, Smith Institute (Carnegie Hall) | | Build out of new science center research space |
| 3.2 Instrumentation and equipment | | | |
| 3.3 Library resources | Resources Quantity Books 114,444 E-Books via NCLIVE 184,548 Printed Serials 227 Databases 85 | | Better access to research journals |

| Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|--|--|----------------------------|--|
| | Physical Media 5,562 Digital/Electronic Media 22,828 Primary Resources-Archives 3,000+ Microform 4,068 | | |
| 3.4 Computational resources | MACMAS Lab (# of computers, printers) Common Data Analysis Tools: MS Excel, SAS, SPSS, STATA, MatLab, R, WEKA, RapidMiner Studio, and Qualtrics TurnItIn software licenses (1,000) SmartThink CANVAS (learning management system) ADOBE Pro IT FIT Lab in Library | | More student access to desktop/laptop computers |
| 3.5 Other research resources | Existing relationships with Indaba (community leaders) and partnerships with local agencies (Queen City Forward, women's shelters, faith-based organizations, Health Dept.) | | |
| 3.6 Research oversight structures | GSPAR and compliance and budget management, Compliance Assist, IRB, IPAER | | Improved and more efficient IRB process |
| 3.7 Support, administrative, and technical staff | Faculty Administrative Support Center | | Closer support of faculty and students by administrative assistants located in departments |
| 4.1 Research leaves | Sabbatical application process | | More robust sabbatical support |

| | Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|--|---|---|--|---|
| 4. Professional development opportunities | 4.2 Research training opportunities | FIT Lab - Training for teaching with technology | Research training workshops offered by SI; some funding from SI for faculty and students to attend research training workshops/conferences; Summer Research Institute; Mellon Institute; GSPAR grant workshops | More faculty mini-grant research and travel funding |
| | 4.3 Non-research-related Professional Development | | Mellon Institute | |
| | 4.4 Mentorship training | | SI developing summer mentor program which will include mentorship training for faculty and students; | |
| | 4.4.1 Faculty | | SI plans to introduce faculty-to-faculty mentorship program to support early career academics and adjuncts | |
| | 4.4.2 Graduate students and postdoctoral fellows | MSW students are only grad students; SPIRE Teaching Scholars are only postdocs. | | Additional graduate programs should provide an increase in research culture |
| 5. Recognition | 5.1. Promotion and tenure guidelines | Research valued; publications required for promotion; general statement of inclusion of all domains of research | | |
| | 5.2 Salary review | There have been very few years when merit salary increases have been awarded in the last decade | Duke Endowment supported bonuses (2016, 2017) | A consistent availability of small competitive merit raises would motivate faculty to excel |
| | 5.3 Campus awards | | Grantsmanship Ceremony Awards, Golden Jacket SI Faculty Research Mentor Award | More recognition of research efforts and rewards for research are desirable |

| | Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|-----------------------------------|--|---|--|--|
| | 5.4 Prominent publicity for research accomplishments | JCSU News | SI WordPress Site SI offers support to faculty to publish in local news sources, like Charlotte Observer, Charlotte Post, etc. SI Magazine | Updated database of research expertise; updated website; Updated web profiles that include faculty research outputs |
| 6. External Funding | 6.1 Faculty research funding | Multiple external grants | | Need more funding of faculty mini-grants |
| | 6.2 Institutional funding for research | | STAR Grants for Students and Faculty | Need more funding of faculty mini-grants that include student researchers |
| 7. Dissemination | 7.1 Peer-reviewed publications, exhibition, or performance | Valued in annual faculty evaluation, promotion, tenure, and post-tenure review. | STAR Grants SI support for submitting peer-reviewed publications Performances by students at university events/meetings | Rewards are the best strategy; however, workload of full-time faculty has been pulled in other directions by increased use of adjunct faculty. |
| | 7.2 Presentation at professional meetings | Valued in annual faculty evaluation, promotion, tenure, and post-tenure review. | STAR Grants; other external funding | Designated funds for each College to support professional meeting attendance |
| | 7.3 Student research conferences | | Support to present at and attend conference (NCUR, etc.); poster presentations at Fall Showcase, Posters at Grantsmanship ceremony | Summer research experience that culminates in student conference Conference-like presentations as assessment items in more courses |
| | 7.4 On-campus symposia | Occasional on-campus conferences, departmental seminars, etc. | Mellon Institute, Summer Research Institute (SI) Fall Research Symposia Parental Engagement Festival CUR Institute on campus (April 2016) | More on-campus symposia and research group meetings |
| 8. Student-centered issues | 8.1 Opportunities for early and sustained involvement | | | Inclusion in Foundation courses for all incoming students on |

| Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|--|--|--|---|
| 8.2 Establishing and communicating expectations | | SI is developing a Best Practice Guide for faculty and Mentors related to research | what research is and how it works in different disciplines Clear research skill development framework that aligns with program graduate attributes Updated syllabi that direct students to research resources on campus |
| 8.3 Developmentally appropriate expectations and intellectual ownership | SIP preceded by methods and capstone courses Intellectual Property policy | | Research Skill Development Framework adapted by disciplines as a part of course design Office of Intellectual Property/Technology Transfer |
| 8.4 Community of student scholars | | Innovo Scholar Society, Student Research Ambassadors, STAR Grant teams, Undergraduate Research Journal staff | SI plans to introduce Cross-disciplinary Research Groups |
| 8.5 Peer mentoring/teamwork opportunities | | STAR Grants | More peer mentoring, peer review, and peer-to-peer instruction in classes More collaborative learning activities in classes and Cross-disciplinary Research Groups |
| 8.6 Expanding and integrating student research opportunities with other engaging experiences | | Service Learning Opportunities (Denise Ball) | Integrated service-learning opportunities |
| 8.7 Faculty mentor availability | Faculty with funded research; SIP mentoring | | More faculty involved in substantive student research mentoring |

| | Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|------------------------------------|---|--|--|---|
| 9. Curriculum | 9.1 Research-supportive curricula | SIP Course sequences in academic programs | | Better scaffolding of research activities in courses in major programs and foundations |
| | 9.1.1 Content | SIP Course sequences in academic programs | | Better scaffolding of research activities in courses in major programs and foundations |
| | 9.1.2 Integration of teaching and research | Some courses that are research-driven | SI will offer workshops on integrating teaching and research beginning in May 2016 | Better scaffolding of research activities in courses in major programs and foundations |
| | 9.1.3 Course scheduling and managing faculty teaching loads | Registrar and Department Chairs | | Additional full-time faculty. Better pool of adjunct faculty. Offering some course online |
| | 9.2 Additional training opportunities and workshops | | SI Student Research Workshops | More opportunities |
| | 9.2.1 Training in Responsible Conduct of Research | SIP Course sequence | SI Student Research Workshops CITI program | |
| | 9.2.2 Professional Skills Training | | Student workshops Career Center workshops/resources Summer research experience | More opportunities |
| | 9.3 Student course credit for research | In some programs | | More opportunity of course credits for research experiences |
| | 9.4 Requiring UR | SIP | | Better scaffolding of research activities in courses. |
| 10. Summer research program | 10.1 Research-supportive teaching calendar | Single short summer school (May-June) limits resource availability (e.g., housing, food service) | | Commitment to year-round operation of needed resources |
| | 10.2 Faculty compensation | | Grant supported | Need more programs |

| Characteristics | What We Have (Institutionalized) | What We Have (Temporarily) | What We Need |
|--|--|---|--|
| 10.3 Student compensation | | Grant supported | Need more programs |
| 10.4 Student housing and access to facilities and student services | Single short summer school (May-June) limits resource availability (e.g., housing, food service) | | Commitment to year-round operation of needed resources |
| 10.5 Student programming | | Grant supported | Need more programming |
| 10.6 Summer research symposia | | Occasionally part of grant funded program | |
| 10.7 Coordination among multiple programs | | Occasionally occurs | Need more programs, critical mass of ongoing programs |
| 10.8 Hosting visiting students | | Increasing opportunities to collaborate with other institutions (current proposal to host students from Davidson College) | |
| 11. Assessment activities | 11.1 Assessment of student learning | Discipline-based assessment of SIP | Assessment tools being developed for QEP SLOs |
| | 11.2 Program assessment and evaluation | IPAER | Curriculum mapping in each program according to RSDF; Assessment of research culture using COEUR indicators. |
| 12. Strategic Planning | 12.1 Strategic Planning | Council of Deans, Board of Trustees, President, Strategic Planning Committee | QEP Committee, Smith Institute |

CHAPTER 3

REVIEW OF BEST PRACTICES

LITERATURE REVIEW: NARROWING SCOPE AND DEFINING TERMINOLOGY

As explained above, JCSU has a long history of engagement with undergraduate research. It is built into all levels of our curriculum – from the research paper required of all students in *ENG131: Composition* through their Senior Investigative Paper/Project (SIP) – which, for many programs, is a key artifact for our annual program assessments. We take pride in our students who present at national conferences and are published in peer-reviewed journals and the reports from our alumni who state that their SIP experience prepared them for graduate school better than many of their peers who attended more prestigious institutions. As such, we feel confident that we have a solid foundation on which to build.

However, as we began to explore the possibility of Undergraduate Research, we came to understand that, while our approaches were solidly grounded in best practices, there were a number of areas where our fundamental understanding of research was limited. The QEP committee discovered that JCSU no longer has a common understanding of the purpose for and form of the SIP, and that the academy no longer has a common understanding of research itself. To address this concern, we recognized a need to expand our literature review beyond understanding the role research plays within the curriculum and the culture of JCSU to include a review of the

definition of research as it is understood within the academy in general and at JCSU in particular.

DEFINITIONS

Surprisingly, the single most critical area of review for our QEP is to address concerns over the definitions of terms. The operational definition of “research” has become contentious in the academy – to the point that attendees from the STEM fields attending the session “Town Hall Meeting: Promoting Undergraduate Research in the Arts and Humanities” at the 2016 Council of Undergraduate Research Dialogues Conference openly professed that their areas conducted research. But they could not conceive – despite the obvious parallels between hypothesis-experiment-conclusion and thesis-analysis-conclusion – of how their colleagues in the Humanities could conduct research, as they conceived it. In fact, the definition of research, according to the National Institutes for Health’s Office of Extramural Research, explicitly excludes research conducted by the Humanities and most

“Research” is defined as a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. “Development” is the systematic use of knowledge and understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes.

(<http://grants.nih.gov/grants/glossary.htm#Research&Development>)

Social Sciences in its operational definition of Research and Development.



Given that such focus is necessary for limiting which grant applications will and will not be eligible for funding by the NIH, the exclusive focus on STEM has created a culture within a third of the academy that can no longer conceive of research as it is conducted outside of its area. Therefore, the QEP committee undertook a process to define research at JCSU in a more inclusive way that remains focused enough to differentiate research from other kinds of activities that occur regularly on college campuses.

WHAT IS UNDERGRADUATE RESEARCH?

“An inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline.”

CUR’s Definition of Undergraduate Research

The division between STEM research and research in other disciplines is evident on campus. On more than one occasion, STEM faculty have openly stated – with neither irony or a slight intended – that their research requires significant funding and laboratory space while all a professor in the Humanities needs is a corner with a book, some paper, and a pencil. Likewise, STEM faculty are routinely surprised to

learn that their colleagues in the Humanities resist poster sessions as the required showcase artifacts for an end-of-year event because poster sessions are not done in most Humanities fields. The definition and product of research becomes even more complex when we integrate a definition that works well for faculty members whose disciplines are in the arts or a similar creative field. Given this state of misunderstanding, it was apparent to the QEP committee that JCSU needed a clear, inclusive operational definition of research for our Quality Enhancement Plan. To that end, we have agreed on the following operational definition:

JCSU’s Definition of Research:

The systematic, disciplined investigation of a question with a clear, defined goal but without a preconceived end in order to create knowledge for the self or for the broader community.

We consider this definition critical not just because it is open to all disciplines at JCSU but because it calls on two critical strands. The first is the pedagogical grounding of research within the curriculum as a method as well as an activity. The second is an understanding that research is both for the collective (in this case, the academy) as well as for the individual (in this case, the student). These two aspects are central to our efforts, which we believe must be grounded in the curriculum and in our culture and must be focused on the needs of our students. In working to define research at JCSU, we independently reached the same conclusion at the University of Adelaide’s student-focused definition of research:

The meaning of 'research' in this context is: students actively finding information new to themselves. Underlying this notion is the 'degree of knowness' of knowledge: whether research involves developing knowledge that is commonly known to humanity, commonly unknown or totally unknown. We see that even inquiry into the commonly known is all part of the process of research skill development. Indeed, to overlook the development of skills in earlier years of education (such as First Year university) is to miss the potential development of skills required of 'blue-sky' researchers or by industry and employment.

The realization of this overlap led the QEP Committee to the Research Skill Development Framework developed by faculty at the University of Adelaide in 2006. This resource has continued to evolve, and as we learned from Dr. John Willison, the developer, can be usefully adapted to help assess research skill development within existing curriculum and to assess students' research skill development. The framework clearly articulates the six facets of research skills and offers suggestions of how students should progress through them. It is important to note that students are not expected to linearly progress through the stages; the stages are cyclical in nature.

THE CURRICULUM OF RESEARCH

JCSU's curriculum has had a strong research base for several decades. Since the 1980s, students have engaged in a capstone research experience – one that was part of a systematic focus on research that began in students' first year with their English Composition course(s) and continued through a methods course designed specifically for the major. Additional courses in both the general education sequence and major sequences reinforced these research skills. The specifics of this have varied somewhat, both from major to major and through

two revisions of the Liberal Studies general education program. Regardless, the overarching pattern has remained consistent.

This formulation grew out of Ernest Boyer's Model of Scholarship and Bloom's Taxonomy of Educational Objectives (both the original Taxonomy of 1956 and the revised Taxonomy of 2001), both in the design phase and through ongoing Faculty Development training. In doing so, the research skills we have fostered in our students and engaged as teachers and scholars

have remained diverse and respectful of disciplinary differences. In doing so, we remain consistent with Teresa Marchant's assertion that "the 'ideal' structure and culture for research is that it permeates academic work" (2009). It is also consistent with the ideals outlined explicitly in CUR's Characteristics of Excellence in Undergraduate Research, which requires "broad disciplinary participation" and tacitly in the publications list, making a distinction between the Arts and Humanities and STEM in both their "How To" series and their Creative Inquiry series (http://www.cur.org/publications/publication_listings/).

For the JCSU context, the QEP Committee has determined the following guidelines to structure the discourse of undergraduate research curriculum so we can be helpful and align curricular changes with the assessment of the QEP, while ensuring departments and programs maintain control over the design and development of their curricula. Curricula should expose students to skills necessary to undertake undergraduate research, and curricula should be designed in ways to facilitate faculty and student involvement in undergraduate research. Institutions that highly value undergraduate research have departments and programs that are

careful to design curricula to be supportive of research.

CUR has compiled many specific examples of research-supportive practices (Karukstis & Elgren, 2007). While our structure aligns well with best practices - in that it respects the discipline and acknowledges the necessity of developing skills across multiple courses - we have noted that our faculty's understanding and deployment of research as pedagogy is less developed.

We have also tried to remain current on the ongoing issues surrounding assessments and their validity to ensure that any proposed recommendations for the QEP are reliable and valid. Dr. Fredrik deBoer's recent Standardized Assessment of College Learning: Past and Future, while not speaking directly to the issue of undergraduate research, does clearly lay out the issues related to invalidated, inapplicable, no stakes external assessment instruments. These issues, raised in this work on a broad national level, have repeatedly come up in our own local assessments. To that end, we have settled on a combination of statistically valid instruments and rubrics to assess our QEP. The former includes broad-based assessments like the National Survey of Student Engagement (NSSE) and Faculty Survey of Student Engagement (FSSE). The use of these instruments will allow us to compare our QEP work with valid well-established base line data.

Most departments at JCSU use rubrics for the SIP and for curriculum mapping for institutional research and reporting. For the QEP, our use of rubrics to assess students' research skill development follows well-established practices by institutions that have focused considerable effort on undergraduate research. As might be surmised by the reference to Marchant's work above, we pay close attention to the work that was undertaken by several Australian universities in the 1990's and early 2000's. As previously stated, we have focused

our particular attention on the material provided by the University of Adelaide's Research Skills and Development (RSD) framework (<http://www.adelaide.edu.au/rsd/>). Of particular use in framing our approach has been the graphical representation of the framework that gathers research into categories based on the amount of independence possessed by the researcher relative to the research question.

We currently anticipate a program that will focus in on the Bounded Research, Scaffolded Research, and Self-Initiated Research columns. In doing so, we freely acknowledge that some classes may, for sound pedagogical reasons, ask students to engage in Prescribed Research and that particularly motivated students may move into Open Research. As a QEP Committee whose role it is to focus on the overarching goals of this QEP, we do not wish to discourage or interfere with either kind of variation.

To assess this framework, we are reviewing the work of the host of institutions who have already focused on research in their QEP. We have developed a strong interest in the Students as Scholars Initiative, which is managed by the Office of Student Scholarship, Creative Activities, and Research (OSCAR) at George Mason University. Although there are key differences between their QEP (their efforts are targeted at a cadre of students) and our proposed QEP (our efforts will target all undergraduates), as well as the size and type of our universities, the Students and Scholars web site (<http://oscar.gmu.edu>) provides one of the most comprehensive resources for anyone interested in strengthening their undergraduates' research experiences. The only reason that we have hesitated in adopting and/or adapting their rubrics for our use is that we have learned from conversations with Dr. Bethany M. Usher, Director of the Students as Scholars Initiative and Associate Director of the Center for Teaching and Faculty Excellence at CUR Dialogues, that they intend to revise their rubrics in the near future based on the

results of several years of assessments. As such, we are keenly interested in being able to employ what they have learned in our QEP.

THE CULTURE OF RESEARCH

Both the RSDF and the work undertaken by OSCAR underscore the need to address the issue of the culture of research at JCSU. Both the RSDF web page and the OSCAR web page provide extensive faculty development materials designed to show how to employ research in the classroom and what the theoretical and pedagogical underpinnings of undergraduate research initiatives are. Likewise, several articles in The CUR Quarterly attest to the merits of undergraduate research and emphasize the need for all institutions, regardless of size or disciplinary focus, to integrate research fully into undergraduate education.

The Committee on Partnerships for Emerging Research Institutions (2009) argues that "in successful practice, it [undergraduate research] must be faculty driven, student centered, and institutionally supported." Therefore, to best integrate research, there must be a cultural shift at JCSU to fully embrace the idea of undergraduate research as a pedagogy consistent with being a "teaching institution" where the teacher-scholar model (Kuh et al., 2007) of pedagogy is employed. This will mean in practice that every member of staff, faculty, and the student body are encouraged and encouraging one another to take part in a process of inquiry and discovery. Culture is "a system of widely shared and strongly held values" (Marchant, 2009). Our QEP process has involved determining and articulating those values, then using them to inform the development of our QEP.

This plan involves two distinct phases that will overlap at times. The first phase involves altering the culture of JCSU to one where "research must be valued by a majority of its members" (Marchant, 2009). This is not to say that JCSU does not value research. As mentioned above, all students participate in research experiences through the SIP. All faculty are evaluated on their participation in research during their annual evaluations, tenure evaluations, promotion applications, and during their post tenure reviews (Faculty Handbook, Section 4-16 to 4-34). There is also a general sense of a portion of Boyer's Model of Scholarship, as JCSU has gone out of its way to value the Scholarship of Teaching and Learning (SoTL) equally with what is seen as traditional scholarship. While this level of broad understanding grew out of particular needs and initiatives, we acknowledge that this is an incomplete understanding of Boyer's Model and that an understanding of the full model (the Scholarship of Discovery, Integration, Application, and Teaching) on the part of the faculty will be necessary for a transformation of the culture of research. Indeed, if we are to address successfully the issues we discovered while wrestling with the definition of research (described above), we will need to advance JCSU's collective understanding of the full range of Boyer's Model of



research. We anticipate that this will impact not only the role of research in the classroom but also the evaluation processes found in the Faculty Handbook and the naming framework of the Smith



Institute. With this broader but more rigorous definition of research in place, we can begin a series of dialogues and trainings on campus designed to explain to each other what the research process (idea through discovery to dissemination) looks like in each of our disciplines. Given JCSU's commitment to supporting all forms of scholarship, as considered by Boyer, and all disciplines, we wish to avoid the unintentional creation of such hierarchies of value.

These two steps are the critical first phase of the Faculty Development Program necessary for the success of our QEP. While this work will necessarily be ongoing, we hope to lead our faculty to understand these distinctions through trainings that take place in our pre-academic year conference, through short presentations in our regularly scheduled Faculty Meetings, and through workshops offered by the Smith Institute.

The second phase of our attempt to change the culture of research at JCSU will consist of more traditional Faculty Development activities. These trainings will incorporate material from the University of Adelaide's RSDF, George Mason University's OSCAR web site, and internally developed material that focuses on the ways that technology has impacted the academy. We have already created some of this material through our

Mellon New Faculty Development Grant's Summer Institutes – currently available as two courses on iTunesU. This general material will be expanded to include practical trainings on the use of iPads in Research (since currently all JCSU students receive an iPad) and explorations of what resources are available for research projects.

This two phase model combines the collaborative centralized model and the multi-core model and will require the Smith Institute for Applied Research to provide a centralized hub to promote, support, track, and showcase research activities beyond its current purview, which focuses on one of Boyer's four domains of scholarship. It will do so in conjunction with several collaborative groups of researchers across the university. In this regard, the Smith Institute for Applied Research takes the form of Marchant's "Specialised Research Leadership and Administration Unit" necessary for the development of a research culture. The Smith Institute staff will provide a centralized, proactive, and supportive research division that promotes research clusters and streamlines administrative procedures necessary for research activity to thrive. In support of this mission, the Smith Institute will, in collaboration with other groups, develop a cadre of faculty mentors, whose role will be to assist others in developing their research-as-pedagogy practices, as well as helping them develop their own research agendas. These efforts will help insure that our QEP remains the faculty-driven exercise advocated by the Committee on Partnerships for Emerging Research Institutions (cited above) and others.

We are confident we are prepared to undertake this project because we have considered our definitions, reviewed the literature on cultural issues as they apply to research, and reviewed the literature on curricular-based research.

CHAPTER 4

DESIRED LEARNING OUTCOMES

STUDENT LEARNING OUTCOMES

To remain as inclusive as possible what defines research at JCSU across the various disciplines, the QEP committee decided to adopt Willison and O'Regan's **Research Skill Development Framework (RSDF)** (www.rsd.edu.au). Based on this framework, the Student Learning Outcomes (SLOs) are as follows (following each are descriptors from the RSDF):

1. **Embark and Clarify:** Students will be able to respond to or initiate research and clarify or determine what knowledge is required, heeding, ethical, cultural, social and community consideration. (Curiosity)
2. **Find and Generate:** Students will be able to find & generate needed information/data using appropriate methodology. (Determined)
3. **Evaluate and Reflect:** Students will be able to determine and critique the degree of credibility of selected sources, information and or data generated and metacognitively reflect on processes used. (Discerning)
4. **Organize and Manage:** Students will be able to organize information and data to reveal patterns and themes, and manage community and research processes. (Harmonizing)
5. **Analyze and Synthesize:** Students will be able to analyze information/data critically and synthesize new knowledge to produce coherent individual/community understandings. (Creative)
6. **Communicate and Apply:** Students will be able to discuss, listen, write, present and perform the processes, understandings and applications of the research, and respond to feedback, accounting for ethical, cultural, social and community issues. (Constructive)

The chart of the RSDF below shows these objectives as “facets of research” corresponding to each row of the table. The columns are color-coded and represent increasing levels of independence of the researcher (red = Level 1; low independence; violet = level 7; high level of independence).

The assessment of these SLOs will vary from discipline to discipline. While we do not intend to dictate how faculty must assess these skills, we will train faculty and staff to understand that by the end of the General Education curriculum, all students should be able to accomplish and demonstrate the skills in bounded research (level 2). By the beginning of their capstone course in their senior year, students should be able to demonstrate their skills at scaffolded and researcher-initiated projects or assignments (level 4). Additionally, however, the QEP committee determined that each discipline will have to determine for itself where graduates should be on the RSDF by the time they graduate and by the time the SIP's are assessed because some disciplines will expect more developed research skills for careers and graduate school than others.

Currently, all discipline coordinators and department chairs have an assignment to identify correspondence between existing departmental assessments and the SLOs from the RSDF. Also, an

assessment is to be made for each program's curriculum as to the SLOs addressed and at what level in each course. Similarly, coordinators and chairs of Foundation courses in the Liberal Studies programs are being tasked for equivalent reports.

PROGRAM GOALS AND OBJECTIVES

The overarching intention of the QEP inquiry is to use the Characteristics of Excellence in Undergraduate Research (COEUR) as a guide to enhance the institution's support for both the culture and curriculum of undergraduate research. The specific elements listed under the COEUR Indicator categories were derived from a campus needs assessment with respect to undergraduate research and frame the current local concerns in these areas.

The 12 COEUR indicators have been used to outline the goals in the following way:

Goal 1: To improve the quality of learning by cultivating a culture of undergraduate research in the following areas:

1. Campus Mission and Culture
 - a. Creating a shared vision of research in practice and aligning the vision and mission with inclusive domains of scholarship
 - b. Showcasing the variety of scholarship opportunities that are made available through our various degree programs
 - c. Including Undergraduate Research in all university policy documents and strategic plans
 - d. Creating a culture that fosters curiosity, creative learning, and scholarly investigative practices that align with professional standards in different disciplines-both individually and collectively- then communicate and

share discoveries and knowledge in targeted dissemination efforts

2. Administrative Support
 - a. Hiring support staff charged with enhancing culture of research
 - b. Hiring QEP implementation and assessment coordinator, forming QEP assessment sub-committee, and hiring consultants
 - c. Increasing funding resources to support faculty and student research efforts
 - d. Improving administrative speed/flow through process audits and improved practices
3. Research Infrastructure
 - a. Increasing funding resources to support faculty and student research efforts
 - b. Maintaining existing infrastructure
4. Professional Development Opportunities
 - a. Designing a faculty development program to support the integration of undergraduate research in instruction and curriculum revision
 - b. Continuing to increase faculty engagement with Smith Institute workshops to support undergraduate research
5. Recognition
 - a. Showcasing the variety of scholarship opportunities that are made available through our various degree programs
 - b. Improving recognition via social media, publications, and website updates
6. External Funding
 - a. Increasing funding resources to support faculty and student research efforts
 - b. Maintaining positive relationships with existing funding bodies that support undergraduate research

Table 4.1 Researcher Skill Development Framework

A conceptual framework for the explicit, coherent, incremental and cyclic development of the skills associated with researching.

© Willison & O'Regan, August 2008/October 2015

← supervisor instigated → ← researcher instigated → ← discipline leading →

| Researchers... | | Prescribed Research Level 1 Highly structured directions and modelling from supervisor prompt the researcher(s) to... | Bounded Research Level 2 Boundaries set by and limited directions from supervisor channel the researcher(s) to ... | Scaffolded Research Level 3 Scaffolds placed by supervisor enable the researcher(s) to independently... | Self-initiated Research Level 4 Researcher(s) initiate and supervisor guides. | Open Research Level 5 Researcher(s) determine guidelines that are in accord with discipline or context. | Adopted Research Level 6 Researcher(s) inform others' agendas | Enlarging Research Level 7 Researcher(s) enlarge the field of inquiry. |
|---|--|---|---|--|---|--|---|--|
| <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Facets of Research</div> | Curious a. Embark & Clarify Respond to or initiate research and clarify or determine what knowledge is required, heeding ethical, cultural, social and team (ECST) considerations. | Respond to questions/ tasks provided explicitly. Use a provided approach to clarify questions, expectations and ECST issues. | Respond to questions/ tasks implicit in directions. Choose from several provided structures to clarify questions, expectations and ECST issues. | Respond to questions /tasks generated from instructions. Choose from a range of provided structures or approaches to clarify salient elements including ECST issues. | Generate questions/aims/ hypotheses framed within structured guidelines. Anticipate and prepare for ECST issues. | Generate questions/aims/ hypotheses based on experience, expertise and literature. Delve into and prepare for ECST issues. | Identify previously unstated gaps in literature and articulate research directions and ECST issues in response to gaps. | Articulate research directions that expand or direct the field and anticipate the corresponding ECST issues. |
| | Determined b. Find & Generate Find and generate needed information/data using appropriate methodology. | Collect and record required information or data using a prescribed methodology from a prescribed source in which the information/data is clearly evident. | Collect and record required information/data using a prescribed methodology from prescribed source/s in which the information/ data is not clearly evident. | Collect and record required information/data from self-selected sources using one of several prescribed methodologies. | Collect and record self-determined information/ data, choosing an appropriate methodology based on structured guidelines. | Collect and record self-determined information/ data, choosing or devising an appropriate methodology. | Synthesise others' methods to formulate novel methods/ methodologies or apply existing methods to novel applications. | Generate new methods/ methodologies that are used widely. |

Facets of Research

| | | | | | | | |
|--|---|--|--|---|--|--|---|
| <p>c. Evaluate & Reflect Determine and critique the degree of credibility of selected sources, information and of data generated. Metacognitively reflect on processes used.</p> | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Discerning</p> <p>Evaluate sources/information/data using simple prescribed criteria to specify credibility and to reflect on the research process.</p> | <p>Evaluate sources/information/data using a choice of provided criteria to specify credibility and to reflect on the research process.</p> | <p>Evaluate information/data and inquiry process using criteria related to the aims of the inquiry. Reflect insightfully to improve own processes used.</p> | <p>Evaluate information/data and the inquiry process using self-determined criteria developed within structured guidelines. Refines others' processes.</p> | <p>Evaluate information/data and inquiry process using self-generated criteria based on experience, expertise and the literature. Renews others' processes.</p> | <p>Generate substantial research outcomes, so that ideas, practices or interpretations are cited/implemented by others.</p> | <p>Generate substantial research outcomes, so that ideas, practices or interpretations become foundational in field or discipline.</p> |
| <p>d. Organise & Manage Organise information and data to reveal patterns and themes, and manage teams and research processes.</p> | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Harmonising</p> <p>Organise information/data using prescribed structure. Manage linear process provided (with pre-specified team roles).</p> | <p>Organise information/data using a choice of given structures. Manage a process which has alternative pathways (and specify team roles).</p> | <p>Organise information/data using recommended structures. Manage self-determined processes (including team function) with multiple pathways.</p> | <p>Organise information/data using self-or-team-determined structures, and manage the processes, within supervisor's parameters.</p> | <p>Organise information/data using self-or-team-determined structures and management of processes.</p> | <p>Form a research team or a team of community-based practitioners.</p> | <p>Form and develop research networks/communities.</p> |
| <p>e. Analyse & Synthesise Analyse information/data critically and synthesise new knowledge to produce coherent individual/team understandings.</p> | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Creative</p> <p>Interpret given information/data and synthesize knowledge into prescribed formats. <i>Ask emergent question.</i></p> | <p>Interpret several sources of information/ data and synthesise to integrate knowledge into standard formats. <i>Ask relevant, researchable questions.</i></p> | <p>Analyse trends in information/data and synthesises to fully integrate components specified. <i>Ask rigorous, researchable questions.</i></p> | <p>Analyses information/data and synthesizes to fully integrate components, consistent with parameters set. Fill knowledge gaps that are stated by others.</p> | <p>Analyse and create information/data to fill researcher-identified gaps or extend knowledge.</p> | <p>Synthesise others' concepts or interpretations to frame novel outcomes. May also address substantial concerns of a community.</p> | <p>Develop new concepts or interpretations that expand the field or discipline. May also address substantial concerns across communities.</p> |
| <p>f. Communicate & Apply Discuss, listen, write, present and perform the processes, understandings and applications of the research, and respond to feedback, accounting for ethical, cultural, social and team (ECST) issues.</p> | <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Constructive</p> <p>Use prescribed genre to develop and demonstrate understanding from a specified perspective. Apply to a similar context the knowledge developed. Follow prompts on ECST issues.</p> | <p>Use discipline-specific language and prescribed genre to develop understanding, and demonstrate it to a specified audience. Apply to different contexts the knowledge developed. Clarify ECST issues.</p> | <p>Use discipline-specific language and genres to demonstrate scholarly understanding for a specified audience. Apply the findings to diverse contexts. Specify ECST issues that emerge.</p> | <p>Use appropriate language and genre to address gaps of a self-selected audience. Apply innovatively the knowledge developed to a different context. Probe and specify ECST issues in each relevant context.</p> | <p>Use appropriate language and genre to extend the knowledge of a range of audiences. Apply innovatively the knowledge developed to multiple contexts. Probe and specify ECST issues that emerge broadly.</p> | <p>Change the conversation within the discipline/field through publicly-available communication of knowledge/understanding. Articulate and promote relevant ECST issues.</p> | <p>Change the direction of the conversation across disciplines/ fields. Articulate and promote ECST issues that were previously unstated.</p> |

7. Dissemination
 - a. Showcasing the variety of scholarship opportunities that are made available through our various degree programs
 - c. Embedding and incorporating research and inquiry within existing degree program courses
8. Student-Centered Issues
 - a. Adding research as one of the key student learning outcomes in all fields of study
 - b. Increasing the opportunity for all students to engage in undergraduate research through appropriate course-based scaffolding and integrating research and inquiry into degree program pedagogy
 - c. Showcasing the variety of scholarship opportunities that are made available through our various degree programs
 - d. Improving student retention, graduation rates, and overall academic achievement
 - e. Increasing the opportunity for all students to engage in undergraduate research through appropriate course-based scaffolding and integrating research and inquiry into degree program pedagogy
9. Strategic Planning
 - a. Adapting a research skills conceptual framework to support curriculum revision that supports the diverse approaches to scholarship represented by current disciplines and degree programs
 - b. Maintaining clear communication between QEP committee and Strategic Planning committee.
10. Curriculum
 - a. Mapping curricula inclusions of research skill development
 - b. Increasing the quality of the Senior Investigative Paper (SIP) through degree program course scaffolding that integrate research practices
11. Mentored Research Program
 - a. Increasing the number of students and faculty engaging in mentored undergraduate research
 - b. Expanding the mentored-research programs
12. Assessment Activities
 - a. Improving student retention, graduation rates, and overall academic achievement
 - b. Mapping undergraduate research and scholarship activities at JCSU and their funding sources
 - c. Assessing learning achieved through QEP undergraduate research activities
 - d. Assessing the effectiveness of the changes in the cultural indicators that support undergraduate research
 - e. Integrating program-level assessments that align with goals and SLOs of QEP

Goal 2: To improve the quality of learning by embedding research skill development across the curriculum in the following areas:

These QEP goals support the mission of the University and provide a framework for enhancing the quality of the educational experience for JCSU students. Promoting the values of research, scholarship and inquiry for all students will help motivate, attract and retain students by engaging



them in active scholarship and research that is the cornerstone of the work of the academy.

The COEUR checklist provides the 12 Characteristics of Undergraduate Research Excellence that we will attempt to enhance. The Research Skill Development Framework (RSDF) will be the guiding tool for achieving goal #2 and defining the research-related student learning outcomes (SLOs) for this initiative.

CHAPTER 5

ACTIONS TO BE IMPLEMENTED

There are five domains of actions to be implemented to achieve the QEP: cultivate the culture, staff/faculty development, research-embedded curricula, enhanced mentored research, and evaluation and assessment. The logic model of the QEP is presented below, as is a table of curriculum-related actions. The timeline for QEP Activities is in Chapter 6.

To improve the culture for research at JCSU, the QEP proposes several activities:

- A new marketing campaign to promote the awareness of research centered around the #ThisIsResearch hashtag developed by the Smith Institute for Applied Research (SI) at JCSU.
- Enhanced recognition and publicity for research, building on efforts already started by the JCSU Grants and Sponsored Programs (GSPAR) office.
- Providing additional funds for research in the form of “seed” mini-grants, incorporating and enhancing the ongoing efforts by SIAR and other programs on campus.
- Identify and address “pain points” that impede research, such as student hiring, internal review board (IRB) approvals, and purchasing. Promote enhanced administrative support for research activities. Current efforts are focusing on the IRB process.
- Promote student and faculty research skill development by expanding the workshop programs started by GSPAR and SI. Also, promote interdisciplinary conversations and team formation in these workshops.

Faculty and staff development will be accomplished through the workshops, mini grants, and ‘pain point’ remediation activities discussed above, as well as faculty development in the curricular workshops discussed below.

To develop more research skills and embedded classroom-based research, faculty will be trained in workshops and be able to apply for mini grants to revise courses and develop embedded research activities. In preparation for this, faculty are developing alignment of our QEP Student Learning Outcomes (based on the RSDF facets of research) and their current curricular offerings. See the Figure 5.1 for more detail.

Enhanced mentored research is expected as a product of the enhanced research climate and the development of more competitive external proposals based on the preliminary studies funded through the QEP as seed mini grants and course-embedded research.

Evaluation and assessment of the QEP are described in Chapter 9. Currently, surveys based on the Characteristics of Excellence for Undergraduate Research (COEUR) are being conducted with different campus constituencies. Student Learning Outcomes (SLOs) are being identified in a program-by-program review and alignment of existing assessment tools, such as those already in use for the Senior Investigative Paper/Project (SIP). This review may also identify needs for additional SLO assessment tools.

Figure 5.1 Logic Model for the JCSU QEP Activities

Improving the quality of student learning through cultivating a culture and curriculum of undergraduate research and scholarship

(designing a campus mission and culture, administrative support, research infrastructure, professional development activities, recognition, curriculum, and assessment that is supportive of new ways of knowing and producing knowledge. –COEUR Indicators)

| Current Situation What is current situation at start? Describe drivers for change. | | | | |
|--|--|---|--|--|
| <p>JCSU Situation: History of engaging high impact strategies for instructional improvement.(e.g. Freshman Studies, Learning to Learn, Core Curriculum Reform, Writing Intensives, Active Learning, Collaborative learning, Learning Communities, Distance Learning, Laptops for students, E-books - IPADs, Information Literacy, Service Learning, Study Abroad Learning, Mentored Undergraduate Research(UR), Internships, Senior Investigative Paper (SIP), Capstone Courses, Student Engagement Strategies, University College, Biddle Institute)</p> <p>Concern for improving: Metacognition (thinking), Information and digital literacy, Multi-modal communication, Problem-based learning, Communication for professional development, Undergraduate research (UR), Use of Non-Cognitive Variables in Admissions</p> | | | | |
| Enabling Factors / Resources | Processes / Activities | Activity Outputs | Desired Outcomes | QEP Impact |
| What is needed to do the activities leading to QEP desired outcomes? | What activities are required to achieve the desired outcomes of the QEP? | What sort or products or tangible results will be observed? | What will the outcomes of the QEP be for stakeholders? | What long-term changes will the QEP achieve? |
| <p>People</p> <ul style="list-style-type: none"> QEP Steering Committee (Project Team) Coordination (Smith Institute) Degree program leadership Council of Deans Academic Services Evaluation/Assessment Support GSPAR IPAER Center for Innovation <p>Logistic Resources</p> <ul style="list-style-type: none"> Funding QEP Marketing IRB Support and Training Institutional Resources Smith Institute Professional Development Funding Library Sandbox Writing Studio Library Instructional Technology Information Center Maintenance of software licenses Research Software Services Computer Labs Assessment System: Compliance Assist LMS (Canvas) E-Portfolio services (Canvas) <p>External Resources</p> <ul style="list-style-type: none"> External Consultants/Evaluators CUR Memberships/Resources CURE & SURE Assessment Surveys | <p>Cultivating the Culture of Research and Scholarship</p> <ol style="list-style-type: none"> Changing in institutional support for UR (COEUR 1,2,3,5,6,7,8,9) <ol style="list-style-type: none"> Campus and Mission Administrative Support Research Infrastructure Recognition External Funding Dissemination Student-centered Issues Strategic Planning Professional Development (COEUR 4) Course Embedded Research Scaffolding in General Studies and Degree Programs (COEUR 10) Mentored Research Projects (COEUR 11) Evaluation and Assessment (COEUR 12) <ul style="list-style-type: none"> Research Skills Development Framework (6 RSDF Facets) - SLOs Gathering baseline data on key institutional variables COEUR Indicators Continuous improvement of degree program UR SLOs Special UR Assessment Studies <p>Cultivating a Curriculum for Research and Scholarship</p> | <p>For Culture:</p> <ol style="list-style-type: none"> Number and % of students, faculty, and staff completing the COEUR Indicators of Excellence Inventory designed to document actions related to the 12 COEUR Indicators. Number and % of degree programs implementing undergraduate research (UR) activities as measured by the UR Program Rubric Number and type of activities implemented to impact COEUR standards. <p>For Curriculum:</p> <ol style="list-style-type: none"> Number of faculty and staff participating in UR training activities Number and types of UR scaffolding activities developed and embedded in general studies and degree program courses Number of faculty and students participating in mentored research activities during the academic year and summer. Number and % of programs completing Annual Feedback Rubric Collection of model UR artifacts tied to RSDF Rubric standards | <p>Changes in Institutional Culture:</p> <p>As measured by a decrease in COEUR Indicators of Excellence gaps between current and degree program desired levels of research support(culture), e.g.:</p> <ul style="list-style-type: none"> Increase in research opportunities for students and faculty Increase in funding for research Increase administrative support Expansion of research infrastructure Ongoing program of professional development Institutional recognition & rewards Ongoing assessment of research as pedagogy <p>Changes in Curriculum, e.g.:</p> <ul style="list-style-type: none"> Degree program definitions of research and scholarship Improve SIP scaffolding Research Assessment Plans by Major Embedded research curriculum scaffolding for general studies & all degree programs Increase in student satisfaction with their learning Coordinated support services for research | <p>Students</p> <p>Student Learning</p> <ul style="list-style-type: none"> Increase in research skills development as measured by student performance of the 6 Facets of the degree program RSDF Rubric Increase in Major Field Exam or equivalent measures of student learning in degree programs Increase in student performance on measure of degree program SLOs Improved SIP Performance SLOs <p>Student Achievements</p> <ul style="list-style-type: none"> Increase in retention rates Increase in graduation rates Increase in grad school enrollments Improvement in selected institutional variables <p>Faculty</p> <ul style="list-style-type: none"> Increase in Publications & Presentations Increase in participation in Professional communities of practice Increase in mentoring participation <p>Institutional</p> <ul style="list-style-type: none"> Increase in alternative models for embedded UR across the curriculum Effective model for UR Assessment Recognized as exemplar QEP JCSU UR branding distinction of Active Scholarship |

CURRICULUM FOR RESEARCH

The institution plans to improve the curriculum that is supportive for research in the following ways:

1. Implement Research Skill Development (RSD) in Foundations courses taken by all students.
2. Implement Research Scaffolding (RS) and Embedded Research (ER) projects in classes required by the various majors.
3. Study and consider revision of the Senior Investigative Paper (SIP) process and expectations on a program-by-program basis (by the program faculty).

Table 5.2 Curriculum Model for the JCSU QEP

| Courses Taken By All JCSU Entering Freshmen | Courses Taken By All JCSU Students in a Particular Major | Requirements of Variability Among JCSU Students |
|--|--|---|
| <u>Foundations Courses in the Liberal Studies Program (12 Credit Hours):</u> CSC 131 Computers in Society SMS 100 Smith Seminar COM 130 Fundamentals of Speech ENG 131 Composition | <u>Major Requirements (40-80 credit hours)</u> | <u>Foundations Courses with Options/Levels (12 Credit Hours):</u> Health and Physical Education; Math; Non-Native Language <u>Pillars in the Liberal Studies Program (24 Credit Hours):</u> Humanities; Integrated Studies, Global Studies & Emerging Fields; Natural Sciences; Social & Behavioral Sciences; Visual, Performing & Physical Arts <u>Electives (6 or more hours)</u> |
| Target for Development of Research Skills (RSD) | Targeted for Development of Research Skills (RSD), Scaffolding to support the Senior Paper (RS), and Embedded Research (ER) projects in courses. | Not targeted in development effort, but efforts in columns 1 and 2 will produce incidental RSD and ER. |

CHAPTER 6

TIMELINE

Table 6.1 provides a timeline of actions to be accomplished. Actions are classified in the following categories: QEP Administration; Cultivating a Culture for Research; Professional Development to Support a Culture and Curriculum for Research; Curriculum Revision to Develop Research Skills and Scaffold Research Activities; and Enhanced Mentored Research Opportunities.

Table 6.1 JCSU QEP Activity Timeline

| | QEP Administration | Culture | Professional Development | Curriculum Revision | Enhanced Mentored Research Opportunities |
|-------------|---|---|---|--|---|
| Fall 2016 | Market QEP Continual revision of draft QEP | Research Pain Point: IRB Administer Degree Program Survey of COEUR Standards | RSD Seminars | Chairs and Degree Coordinators develop RSD Alignments for Assessment; Assessment of RSD in Curriculum | Coordinate with STAR Grant Initiative Inventory current mentored research initiatives Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Spring 2017 | Appoint Director of QEP Refine QEP Assessment and assemble baseline data Refine and continue QEP Marketing Campaign (“#This is Research”) | Administrative unit strategic planning for UGR GSPAR Student and faculty research showcase | RSD Seminars UGR Curriculum Revision Strategies Refine mini-grant initiatives for mentored research and course revision | Degree program curriculum maps (scaffolding outcomes) Senior Investigative Paper assessment reviews | Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |

| | QEP Administration | Culture | Professional Development | Curriculum Revision | Enhanced Mentored Research Opportunities |
|-------------|--|--|--|---|--|
| Summer 2017 | Initiate search for Undergraduate Research Coordinator Refine QEP Assessment and assemble baseline data Initiate search for QEP Assessment Consultant | Initiate search for Process Audit Consultant | Research Skills Development Institute Proposal Development Workshop | Design Solicitation for Course Development Mini-grant applications | Mentored Research Mini-grants Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Fall 2017 | QEP UGR Kick-Off Activities Market UGR Activities Complete search for Undergraduate Research Coordinator Continue Refinement QEP Assessment and assemble baseline data Complete search for QEP Assessment Consultant | Complete search for Process Audit Consultant | Proposal Development Activities | Distribute Solicitation for Course Development Mini-grant applications | Mentored Research Mini-grants Prepare solicitation for QEP Mentored Research Mini-grants Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Spring 2018 | QEP Assessment Activities Market UGR Activities | GSPAR Student and faculty research showcase JCSU Undergraduate Research Journal Research Process Audit | Proposal Development Activities | Award Initial Course Development Mini-grants | Mentored Research Mini-grants Solicit proposals for QEP-funded Mentored Research Mini-grants Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |

| | QEP Administration | Culture | Professional Development | Curriculum Revision | Enhanced Mentored Research Opportunities |
|-------------|---|---|---|---|--|
| Summer 2018 | QEP Annual Assessment Report Market UGR Activities | Plan for implementation of process audit recommendations | Research Skills Development Institute Proposal Development Workshop | Course Development Mini-grants | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Fall 2018 | QEP Assessment Activities Market UGR Activities | QEP Research Showcase Implement Process Audit recommendations | Proposal Development Activities Training in support of process audit recommendations | Implement Improved RSD Course materials Course Development Mini-grants | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Spring 2019 | QEP Assessment Activities Market UGR Activities | Implement Process Audit recommendations JCSU Undergraduate Research Journal GSPAR Student and faculty research showcase | Proposal Development Activities Training in support of process audit recommendations | Implement Improved RSD Course materials Course Development Mini-grants | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Summer 2019 | QEP Annual Assessment Report Market UGR Activities | Plan for implementation of process audit recommendations | Research Skills Development Institute Proposal Development Workshop | Course Development Mini-grants | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |

| | QEP Administration | Culture | Professional Development | Curriculum Revision | Enhanced Mentored Research Opportunities |
|-------------|---|---|---|--|---|
| Fall 2019 | QEP Assessment Activities Market UGR Activities | QEP Research Showcase Implement Process Audit recommendations | Proposal Development Activities Training in support of process audit recommendations | Implement Improved RSD Course materials Course Development Mini-grants | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Spring 2020 | QEP Assessment Activities Market UGR Activities | GSPAR Student and faculty research showcase JCSU Undergraduate Research Journal Implement Process Audit recommendations | Proposal Development Activities Training in support of process audit recommendations | Implement Improved RSD Course materials Course Development Mini-grants | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Summer 2020 | QEP Annual Assessment Report Market UGR Activities | Plan for implementation of process audit recommendations | Research Skills Development Institute Proposal Development Workshop | Course Development Mini-grants | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities Unfunded research activities |
| Fall 2020 | QEP Assessment Activities Market UGR Activities | QEP Research Showcase Research Process Re-Audit | Proposal Development Activities Training in support of process audit recommendations | Implement Improved RSD Course materials Normal departmental and program curricular revision | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities (increased due to QEP Proposal Development Institutes) Unfunded research activities |

| | QEP Administration | Culture | Professional Development | Curriculum Revision | Enhanced Mentored Research Opportunities |
|-------------|---|---|---|--|---|
| Spring 2021 | QEP Assessment Activities Market UGR Activities | GSPAR Student and faculty research showcase JCSU Undergraduate Research Journal Research Process Re-Audit | Proposal Development Activities | Implement Improved RSD Course materials Normal departmental and program curricular revision | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities (increased due to QEP Proposal Development Institutes) Unfunded research activities |
| Summer 2021 | QEP Annual Assessment Report Market UGR Activities | Plan for implementation of process audit recommendations | Proposal Development Workshop | Normal departmental and program curricular revision | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities (increased due to QEP Proposal Development Institutes) Unfunded research activities |
| Fall 2021 | QEP Assessment Activities Market UGR Activities | QEP Research Showcase Implement Process Audit recommendations | Proposal Development Activities Training in support of process audit recommendations | Implement Improved RSD Course materials Normal departmental and program curricular revision | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities (increased due to QEP Proposal Development Institutes) Unfunded research activities |

| | QEP Administration | Culture | Professional Development | Curriculum Revision | Enhanced Mentored Research Opportunities |
|-------------|--|--|---------------------------------|---|---|
| Spring 2022 | QEP Assessment Activities Market UGR Activities | GSPAR Student and faculty research showcase JCSU Undergraduate Research Journal Research Process Audit | Proposal Development Activities | Implement Improved RSD Course materials Normal departmental and program curricular revision | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities (increased due to QEP Proposal Development Institutes) Unfunded research activities |
| Summer 2022 | QEP Five-year Assessment Report Market UGR Activities | Plan for implementation of process audit recommendations | Proposal Development Workshop | Normal departmental and program curricular revision | Mentored Research Mini-grants (enhanced by QEP) Senior Investigative Paper (SIP) Research Activities Externally funded research activities (increased due to QEP Proposal Development Institutes) Unfunded research activities |

CHAPTER 7

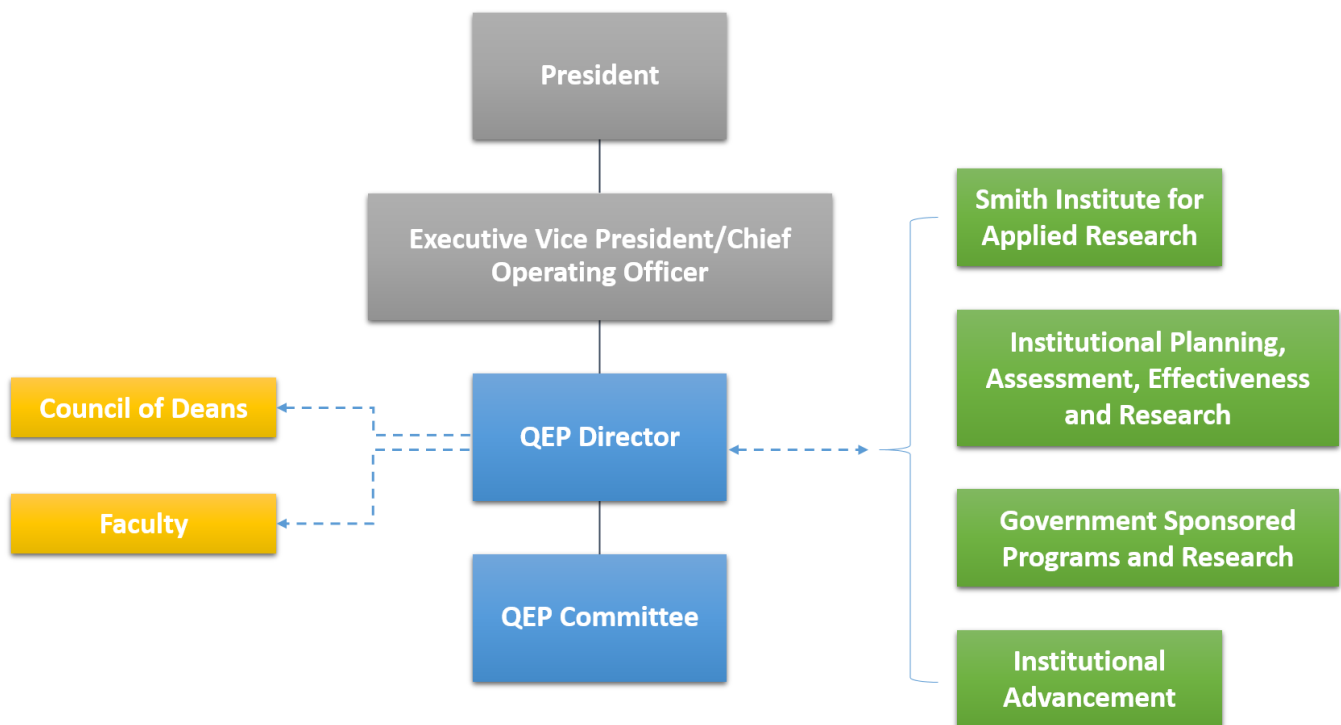
ORGANIZATIONAL STRUCTURE

The QEP will be implemented by a QEP Director (also known as the Director of Undergraduate Research). The QEP Director is a member of the faculty, appointed by the President upon recommendation of the Council of Deans. He or she is responsible for collecting data from all academic units as needed to implement and assess the QEP; reporting regularly to the Council of Deans and the Faculty regarding the status of QEP implementation and assessment; and working closely with the SACS Liaison for compliance. Once the fifth-year QEP report has been accepted by SACSCOC, the Director’s role is to supervise the creation of a new

QEP. The Director of the Quality Enhancement Plan is the Chair of the Faculty Committee on the Quality Enhancement Plan.

The QEP Director will supervise a new position entitled Coordinator of Undergraduate Research. Close coordination is anticipated between the QEP Committee, the Office of Grants and Sponsored Programs (GSPAR), the Smith Institute for Applied Research, the Division of Institutional Advancement, and the Office of Institutional Planning, Assessment, Effectiveness and Research (IPAER).

Figure 7.1 QEP Organizational Structure



CHAPTER 8

BUDGET

DEVELOPMENT OF THE QEP BUDGET

The QEP budget was developed using the COEUR Indicators as a framework to identify both new needs and current efforts that support the QEP. The Budget presented below is the refinement of that, converted into the normal JCSU Budget format

(Table 8.1). A breakout of sources for the first year budget is given in Table 8.2. Table 8.3 shows current budgeted funds that support the QEP goals; the QEP budget is regarded as an increment on top of that. All in all, the QEP will act as a lens to focus all of the University research efforts toward a more coherent goal.

Table 8.1 Proposed QEP Incremental Budget 2017-2022 (includes unrestricted and restricted)

| | 2017-18 Year 1 | 2018-19 Year 2 | 2019-20 Year 3 | 2020-21 Year 4 | 2021-22 Year 5 | Total |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| Salary and Wages | \$108,000 | \$109,500 | \$111,045 | \$112,636 | \$114,275 | \$555,457 |
| Benefits | \$22,140 | \$22,448 | \$22,764 | \$23,090 | \$23,426 | \$113,869 |
| Travel | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$5,000 | \$25,000 |
| Printing and Publications | \$1,000 | \$1,000 | \$1,000 | \$1,000 | \$1,000 | \$5,000 |
| Professional Fees | \$61,000 | \$61,000 | \$61,000 | \$21,000 | \$21,000 | \$225,000 |
| Contractual Services | \$70,000 | \$30,000 | \$30,000 | \$60,000 | \$30,000 | \$220,000 |
| Meetings and Staff Development | \$57,500 | \$47,500 | \$47,500 | \$47,500 | \$12,500 | \$212,500 |
| Supplies | \$10,000 | \$2,000 | \$2,000 | \$2,000 | \$2,000 | \$18,000 |
| Total QEP Expenses | \$334,640 | \$278,448 | \$280,309 | \$272,227 | \$209,202 | \$1,374,825 |

Notes: Budget represents incremental spend to support QEP strategy over current research period; Includes funding from restricted and unrestricted sources; Details for each line item are available

Below, the proposed new costs for the QEP for its first year are broken down into restricted and unrestricted funds. Additional detail is available on the projected sources of these funds.

Table 8.2 Projected Sources of QEP Incremental Budget 2017-2018 (includes unrestricted and restricted)

| | 2017-18 Unrestricted | 2017-18 Restricted | Total |
|--------------------------------|-------------------------|-----------------------|------------------|
| Salary and Wages | \$29,000 | \$79,000 | \$108,000 |
| Benefits | \$5,945 | \$16,195 | \$22,140 |
| Travel | \$5,000 | - | \$5,000 |
| Printing and Publications | \$1,000 | - | \$1,000 |
| Professional Fees | \$1,000 | \$60,000 | \$61,000 |
| Contractual Services | \$10,000 | \$60,000 | \$70,000 |
| Meetings and Staff Development | \$22,500 | \$35,000 | \$57,500 |
| Supplies | \$10,000 | - | \$10,000 |
| Total QEP Expenses | \$84,445 | \$250,195 | \$334,640 |
| <i>Percentage Split</i> | 25.2% | 74.8% | |

Notes: Subsequent four years to follow same split pattern; Unrestricted funding to be resourced from increase in future revenue streams; Sources for restricted funding have been identified; Details for each line item are available

JCSU spends a considerable sum of money each year in the support of research; much of it from restricted funds, mainly grants. The projection of this spending is summarized in Table 8.3; although this budget will not be controlled by the QEP Director, these funds and activities will support and align with the QEP. Additional details are available on the projected sources of these funds; an anticipated outcome of the QEP will be an increase in externally-funded research at JCSU.

Table 8.3 Current JCSU Budget for Research Activities that Support the QEP Goals

| | 2017-18 Year 1 | 2018-19 Year 2 | 2019-20 Year 3 | 2020-21 Year 4 | 2021-22 Year 5 | Total |
|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Salary and Wages | \$747,425 | \$747,426 | \$756,596 | \$766,225 | \$786,445 | \$3,804,117 |
| Benefits | \$135,222 | \$153,222 | \$155,102 | \$157,076 | \$161,221 | \$779,844 |
| Travel | \$175,000 | \$180,000 | \$185,000 | \$190,000 | \$195,000 | \$925,000 |
| Printing and Publications | \$13,705 | \$13,705 | \$13,705 | \$13,705 | \$13,705 | \$68,525 |
| Subscriptions and Memberships | \$4,079 | \$4,579 | \$5,079 | \$5,579 | \$6,079 | \$25,395 |
| Professional Fees | \$55,800 | \$55,800 | \$55,800 | \$55,800 | \$55,800 | \$279,000 |
| Meetings and Staff Development | \$20,000 | \$20,000 | \$20,000 | \$20,000 | \$20,000 | \$100,000 |
| Total Research Funding | \$1,169,231 | \$1,174,732 | \$1,191,282 | \$1,208,385 | \$1,238,250 | \$5,981,881 |

Notes: Research funds are based on 2016-17 budgeted resources; Sources for restricted funding have been identified; Funding resources have been confirmed and are expected to continue; Details for each line item are available

QEP BUDGET JUSTIFICATION

Unless noted otherwise, justifications refer to Table 8.1.

Salaries and Wages

Funding for the QEP Director (a faculty member) is requested at 50% release time in the academic year (\$37,500 annually of which \$29,500 is recouped through adjunct cost savings), \$8000 academic year administrative supplement, and 50% summer support (\$12,500).

A new position, a 12-month, full-time Coordinator for Undergraduate Research (UGR), is proposed at \$50,000 initially (3% annual pay conditionally increases budgeted). The Coordinator will have extensive day-to-day responsibility for implementing and promoting QEP activities and related programs and coordinating collection of evaluation data. The skills required for this position will include research, instructional and/or training (ability to design and lead workshops), grants management, and proposal & report writing.

Existing staff in GSPAR and the Smith Institute also support undergraduate research efforts. Other positions are funded partially through grants which support undergraduate research. Existing Distinguished Faculty Chairs and Awards (Duke, O'Herron, Mott, Cato) and current salary support from funded research are also considered a resource for the QEP.

Note that mini-grants in support of the QEP program are included in professional fees (in both Table 8.1 and 8.3). Some of these funds may be classified as salary or as stipends.

Benefits

Calculated at 20.5 % of salaries.

Travel

A variety of unrestricted and restricted sources provides current support of research travel.

Anticipated travel funded this way will include QEP Staff, Faculty, and Students to meetings such as the Council of Undergraduate Research sponsored meetings and workshops, the National Conference for Undergraduate Research, and other more discipline specific meetings. If possible, we hope to maximize the utility of these funds by hosting CUR Institutes on the JCSU Campus, as we have done several times before. An increment of \$5000 is budgeted for the travel of the QEP Director and Coordinator related to the project.

Printing and Publications

Printing and Publications will include marketing materials to promote involvement in the QEP activities by students, faculty and staff. An annual cost of \$1000 per year is estimated. An example of current expenditures which support the QEP in this area is the JCSU Undergraduate Research Journal, which is included at \$13705 annually in Table 8.3.

Subscriptions and Memberships

Restricted funds have been identified as currently supporting memberships and subscriptions. The institutional membership in CUR is included (\$880) which this is paid by GSPAR.

Professional Fees

Faculty will develop revised curricula to improve Research Skill Development and scaffolding of research experiences and classroom-based research with the support of QEP Curriculum Revision mini grants in years 1-3 (\$40000 annually). Together with the Summer Research Skills Development Institute (see Meetings, below), these will increase the research capability of JCSU students. Existing STAR Research mini grants (Smith Institute, Table 8.3) will be augmented by QEP Mentored Research mini grants (\$20,000 annually). These, along with an enhancement of Proposal Development Workshops (budgeted under Meetings in Table 8.3, will result in

the submission of more external research proposals by JCSU faculty and more of these proposals being funded. Tableau Software (\$1000 annually) will be used to create a Data Dashboard for the QEP, which will support assessment of the program.

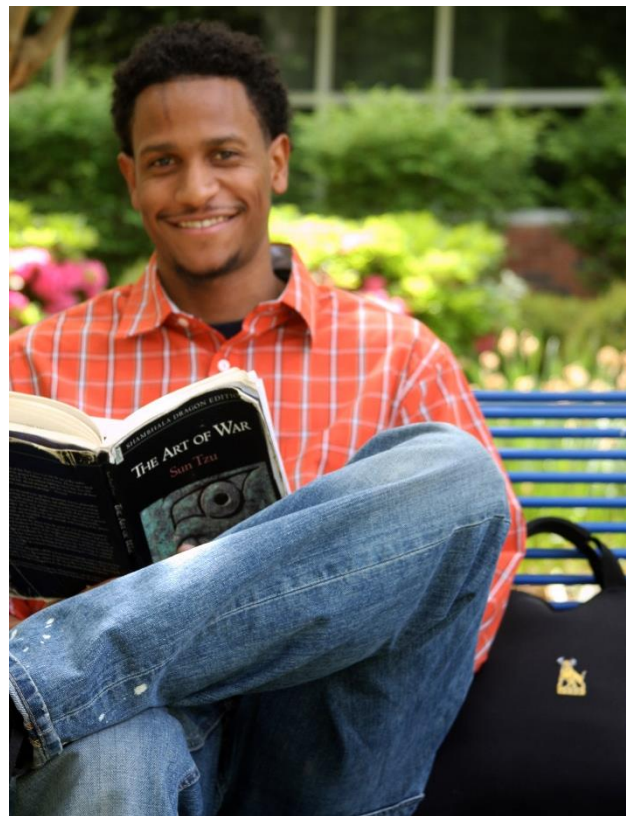
Contractual Services

The QEP program will bring in workshop leaders and seminar speakers to promote the inclusion of research and research skill development in the curriculum (\$10,000 budgeted annually). A consultant will be contracted to provide evaluation of the QEP program (\$30,000 in year 1; \$20,000 each year thereafter). Our preliminary research has indicated that research activities on campus are inhibited by a number of “pain points”; a consultant will be contracted to conduct a process audit these pain points and make recommendations for improvement (\$30,000 in year 1 and again in year 4).

Meeting and Staff Development

Degree program for strategic planning in support of the QEP is budgeted at \$5000 annually. A summer research skills development institute will train faculty in years 1-4 (\$35,000 annually). The current spring semester GSPAR Research Recognition and Incentives will be reinforced with an early fall semester QEP Research Showcase (budgeted at \$2,500 annually). Proposal development workshops are anticipated to be funded through ongoing GSPAR activity (Table 8.3); these, together with proof of concept data developed through Mentored Research Mini Grants and classroom-based scaffolded research, will result in more

proposals submitted by JCSU faculty and funded by granted agencies. Web support for faculty research is budgeted at \$15,000 in the first year and \$5000 per year afterward (Faculty research webpages; research administration support).



Supplies

The QEP/Undergraduate Research office will need minimal annual; supplies after its initial setup (\$10,000 year 1, \$2000 annually after that). Mini grant funds (under professional fees) may be used for supplies for each supported project.

CHAPTER 9

ASSESSMENT

The QEP assessment plan was developed from the logic model (Table 9.1), which conceptually frames the relationships between the resources, activity domains, the participants, expected outputs, outcomes, and impact for this project. Specific changes in institutional culture and changes in the curriculum to support undergraduate research will contribute to the overall project impact of increasing student academic performance, student development vectors (Chickering, 1969), and student career development outcomes.

This project is dependent upon the course-based implementation of educational activities across many disciplines and program levels. This mix makes it difficult to identify consistent treatment variables for use in a comprehensive summative evaluation. Our plan is to utilize the RSD Framework with its emphasis on research practices (behaviors) to conduct a quasi-experimental model to study outcomes resulting from this project. Project outcomes for impact measures framed in behavioral terms (Lapatto, 2010) and studied within the context of multiple measures can be useful in determining impact.

Department Chairs and Degree Program Coordinators have defined alignments between their current assessments and the QEP SLOs (Table 9.4). These will form a basis for assessment of SLOs and the identification of baseline data. Additional assessments of SLOs may be added.

The Annual Assessment Plan (Table 9.2) is guided by assessment questions flowing from the Logic Model. We have identified a combination of

statistically-valid instruments and rubrics to assess our QEP. The former includes broad-based assessments like the National Survey of Student Engagement (NSSE) and Faculty Survey of Student Engagement (FSSE). The institution's use of these instruments will allow us to compare our QEP work with valid well established baseline data. The COEUR Indicators of Excellence form another basis for assessment, as well as program level assessments of culture and curriculum change. Existing program-level assessment (Table 9.4) of student achievement of SLOs will be augmented by a global assessment tool for products of research to be developed (Table 9.3).

The QEP Steering Committee will appoint a Project Evaluation Team that will have the overall responsibility of designing and monitoring the evaluation activities of this project. Data gathering will be done by all the affected units of the University according to the JCSU Policy on Assessment Activities. Academic program units will include QEP assessments in the normal assessment process. Of course, the IPAER office will have a significant role in the assessment of the QEP. Additionally, the QEP budget includes funds for a consultant to support evaluation and assessment.

We will seek to join consortia engaged in implementing course-based research to strengthen our ability to conduct more effective evaluation of our efforts. The the utilization of CURE and SURE Surveys of (C)ourse and (S)ummer Research Experience will be a first step in participating in consortia assessment activities. Smith Institute has already obtained access to these instruments.

Figure 9.1 Logic Model

Improving the quality of student learning through cultivating a culture and curriculum of undergraduate research and scholarship

(designing a campus mission and culture, administrative support, research infrastructure, professional development activities, recognition, curriculum, and assessment that is supportive of new ways of knowing and producing knowledge. –COEUR Indicators)

| Current Situation What is current situation at start? Describe drivers for change. | | | | |
|--|---|---|--|--|
| <p>JCSU Situation: History of engaging high impact strategies for instructional improvement.(e.g. Freshman Studies, Learning to Learn, Core Curriculum Reform, Writing Intensives, Active Learning, Collaborative learning, Learning Communities, Distance Learning, Laptops for students, E-books - IPADs, Information Literacy, Service Learning, Study Abroad Learning, Mentored Undergraduate Research(UR), Internships, Senior Investigative Paper (SIP), Capstone Courses, Student Engagement Strategies, University College, Biddle Institute)</p> <p>Concern for improving: Metacognition (thinking), Information and digital literacy, Multi-modal communication, Problem-based learning, Communication for professional development, Undergraduate research (UR), Use of Non-Cognitive Variables in Admissions</p> | | | | |
| Enabling Factors / Resources | Processes / Activities | Activity Outputs | Desired Outcomes | QEP Impact |
| What is needed to do the activities leading to QEP desired outcomes? | What activities are required to achieve the desired outcomes of the QEP? | What sort or products or tangible results will be observed? | What will the outcomes of the QEP be for stakeholders? | What long-term changes will the QEP achieve? |
| <p>People</p> <ul style="list-style-type: none"> QEP Steering Committee (Project Team) Coordination (Smith Institute) Degree program leadership Council of Deans Academic Services Evaluation/Assessment Support GSPAR IPAER Center for Innovation <p>Logistic Resources</p> <ul style="list-style-type: none"> Funding QEP Marketing IRB Support and Training Institutional Resources Smith Institute Professional Development Funding Library Sandbox Writing Studio Library Instructional Technology Information Center Maintenance of software licenses Research Software Services Computer Labs Assessment System: Compliance Assist LMS (Canvas) E-Portfolio services (Canvas) <p>External Resources</p> <ul style="list-style-type: none"> External Consultants/Evaluators CUR Memberships/Resources CURE & SURE Assessment Surveys | <p>Cultivating the Culture of Research and Scholarship</p> <ol style="list-style-type: none"> Changing in institutional support for UR (COEUR 1,2,3,5,6,7,8,9) <ol style="list-style-type: none"> Campus and Mission Administrative Support Research Infrastructure Recognition External Funding Dissemination Student-centered Issues Strategic Planning Professional Development (COEUR 4) Course Embedded Research Scaffolding in General Studies and Degree Programs (COEUR 10) Mentored Research Projects (COEUR 11) Evaluation and Assessment (COEUR 12) <ul style="list-style-type: none"> Research Skills Development Framework (6 RSDF Facets) - SLOs Gathering baseline data on key institutional variables COEUR Indicators Continuous improvement of degree program UR SLOs Special UR Assessment Studies <p>Cultivating a Curriculum for Research and Scholarship</p> <ol style="list-style-type: none"> | <p>For Culture:</p> <ol style="list-style-type: none"> Number and % of students, faculty, and staff completing the COEUR Indicators of Excellence Inventory designed to document actions related to the 12 COEUR Indicators. Number and % of degree programs implementing undergraduate research (UR) activities as measured by the UR Program Rubric Number and type of activities implemented to impact COEUR standards. <p>For Curriculum:</p> <ol style="list-style-type: none"> Number of faculty and staff participating in UR training activities Number and types of UR scaffolding activities developed and embedded in general studies and degree program courses Number of faculty and students participating in mentored research activities during the academic year and summer. Number and % of programs completing Annual Feedback Rubric Collection of model UR artifacts tied to RSDF Rubric standards | <p>Changes in Institutional Culture:</p> <p>As measured by a decrease in COEUR Indicators of Excellence gaps between current and degree program desired levels of research support(culture), e.g.:</p> <ul style="list-style-type: none"> Increase in research opportunities for students and faculty Increase in funding for research Increase administrative support Expansion of research infrastructure Ongoing program of professional development Institutional recognition & rewards Ongoing assessment of research as pedagogy <p>Changes in Curriculum, e.g.:</p> <ul style="list-style-type: none"> Degree program definitions of research and scholarship Improve SIP scaffolding Research Assessment Plans by Major Embedded research curriculum scaffolding for general studies & all degree programs Increase in student satisfaction with their learning Coordinated support services for research | <p>Students</p> <p>Student Learning</p> <ul style="list-style-type: none"> Increase in research skills development as measured by student performance of the 6 Facets of the degree program RSDF Rubric Increase in Major Field Exam or equivalent measures of student learning in degree programs Increase in student performance on measure of degree program SLOs Improved SIP Performance SLOs <p>Student Achievements</p> <ul style="list-style-type: none"> Increase in retention rates Increase in graduation rates Increase in grad school enrollments Improvement in selected institutional variables <p>Faculty</p> <ul style="list-style-type: none"> Increase in Publications & Presentations Increase in participation in Professional communities of practice Increase in mentoring participation <p>Institutional</p> <ul style="list-style-type: none"> Increase in alternative models for embedded UR across the curriculum Effective model for UR Assessment Recognized as exemplar QEP JCSU UR branding distinction of Active Scholarship |

Table 9.2 Annual Assessment Plan

| Assessment Question | Summative(S) or Formative(F) | Assessment Method | Target | Responsible Party |
|--|------------------------------|--|---|--|
| Goal 1: To improve the quality of learning by cultivating a culture of undergraduate research in the following areas: Campus Mission and Culture, Administrative Support, Research Infrastructure, Recognition, External Funding, Dissemination, Student-Centered Issues, Strategic Planning. | | | | |
| 1.1 What changes have occurred that are supportive of developing and sustaining undergraduate research (UR)? (All COEUR Indicators) | F, S | COEUR Comprehensive Survey Inventory | 100% of administrative units will complete this report annually 100% of reports show improvement in satisfaction with majority of indicators 100% of reports show changes that have occurred in a majority of the characteristics of excellence | Administrative Units (both service and academic) (F) QEP Assessment Committee (S) |
| 1.2 What is the level of engagement of degree programs with UR development activities? | F, S | Undergraduate Research Development Rubric | 100% of degree programs report Level 2 (Developing) performance on rubric | Administrative Units (both service and academic) (F) QEP Assessment Committee (S) |
| Goal 2: To improve the quality of learning by embedding research skill development across the curriculum in the following areas: Professional Development, Course-Embedded Research, Mentored Research, Evaluation and Assessment | | | | |
| 2.1 What has happened in Professional Development related to UR? (COEUR 4) | F | Inventory of Professional Development activities | 100% of faculty have participated in at least 2 workshops related to UR | Academic administrative units |
| 2.2 What is the level of effectiveness of UR Professional Development program? | F, S | Annual Professional Development Participation Survey | 75% of faculty, both regular and adjunct, report satisfaction with Professional Development activities related to UR | Administrative Units (both service and academic) (F) QEP Assessment Committee (S) |
| 2.3 How effective are specific UR Professional Development workshop activities? | F | Individual Workshop Assessment | 75% of report satisfaction with specific workshops | Workshop Leaders (F) |

| Assessment Question | Summative(S) or Formative(F) | Assessment Method | Target | Responsible Party |
|---|------------------------------|--|--|---|
| 2.4 What type of UR scaffolding plans for each degree program have been developed? | F | Degree Program Curriculum Matrix Inventory | 100% of degree programs revise curriculum matrix to reflect integration of RSDF SLOs across their programs | Degree program chairs and coordinators |
| 2.5 What changes have occurred in faculty productivity (publications, presentations, participation in professional communities of practice) | F | Annual faculty reports | 100% of faculty will evidence an increase in one or more areas of productivity from the baseline (mean of last 3 years) | Faculty, department chairs, and IPAER |
| 2.6 What type of UR Embedded Research scaffolding models are being implemented? (COEUR 10) | F | CURE Assessment Rubric | 100% of programs report type of scaffolding activities being implemented that can be categorized into models. | Degree program chairs and coordinators QEP Committee |
| 2.7 What is the level of student performance on course-embedded UR products? | F | University-wide UR Product Assessment Rubric based on RSDF | 100 % of programs report at least a Level 2 (bounded research) mean performance by student on activity artifacts | Course Instructor |
| 2.8 What kind of model artifacts are being collected to support UR assessment? | F | Collection of model artifacts documenting and demonstrating RSDF Levels of performance | 100% of programs maintain database of model assessment products | Degree program chairs and coordinators |
| 2.9 What changes have occurred to Mentored Research activities to enhance support for UR? (COEUR 11) | F | SURE Inventory (Summer Undergraduate Research Experience) | 75% of students report satisfaction with summer or academic year mentored research experience | Smith Institute Research Mentors |
| 2.10 What changes have occurred in amount of faculty and student participation in mentored research activities? | F, S | Mentored Research Activity Inventory | 50% of full-time faculty report engagement in mentored research activities. 25% of students in all degree programs report engagement in mentored research activities. | Smith Institute |

| Assessment Question | Summative(S) or Formative(F) | Assessment Method | Target | Responsible Party |
|--|------------------------------|---|--|--|
| 2.11 What changes have occurred in the development of research SLOs in support of Assessment and Evaluation? (COUER 12) | F, S | Degree program SLO Inventory | 100% of programs integrate appropriate RSDF SLOs in programs | Degree programs |
| 2.12 What is the student performance level on the Senior Investigative Paper (SIP)? | F, S | Senior Investigative Paper Rubric <i>derived from RSDF</i> | Significant improvement from the baseline scores collected during year 1 of the QEP. | Degree program chairs and coordinators |
| 2.13 What changes in student performance can be observed on key institutional variables related to UR implementation? | S | Student Retention Student Satisfaction Student Graduation Rates Student Graduate School Enrollment | Significant improvement from the baseline UR-related variables from: CIRP, CSS, SSI, ALI (mean of findings reported for last 3 years) | Institutional Research (IPAER) |
| 2.14 What special studies supportive of UR development and/or UR assessment were initiated? | F, S | UR Special Studies Inventory | At least two special study reports will be prepared per year The special studies will result in an improved model of UR assessment over the five-year period. | Individual Faculty Researcher |
| 2.15 What are the changes in student performance on major field exams? | S | Degree program major field comprehensive exams | Significant improvement from the baseline (mean scores from last 3 years) | Institutional Research (IPAER) |
| 2.16 What changes can we make to the development and implementation of the QEP UR initiative? | F, S | Annual QEP Report | One annual report per year that reflects continuous improvement in UR 5 Year impact report that demonstrates continuous improvement in UR | QEP Committee |

At a high-altitude, low-detail level, a single common assessment based on the SLOs with a numerical quality scale and descriptors (Table 9.3) will be used to gather data on evidence of student achievement of the SLOs. At the academic program level, programs will utilize existing assessment tools as well as new tools developed for the assessment of students' achievement of SLOs in their program (development to be mandated in course revision mini-grants).

Table 9.3 Proposed Common SLO Assessment Tool

| | Benchmark | Milestones | | Capstone |
|--|----------------------------------|---|--|-----------------------------------|
| | 1 | 2 | 3 | 4 |
| Embark and Clarify: Students will be able to respond to or initiate research and clarify or determine what knowledge is required, heeding, ethical, cultural, social and community consideration. (<i>Curiosity</i>) | Low-level descriptor to be added | Low-medium-level descriptor to be added | High-medium level descriptor to be added | High Level descriptor to be added |
| Find and Generate: Students will be able to find & generate needed information/data using appropriate methodology. (<i>Determined</i>) | Low-level descriptor to be added | Low-medium-level descriptor to be added | High-medium level descriptor to be added | High Level descriptor to be added |
| Evaluate and Reflect: Students will be able to determine and critique the degree of credibility of selected sources, information and or data generated and metacognitively reflect on processes used. (<i>Discerning</i>) | Low-level descriptor to be added | Low-medium-level descriptor to be added | High-medium level descriptor to be added | High Level descriptor to be added |
| Organize and Manage: Students will be able to organize information and data to reveal patterns and themes, and manage community and research processes. (<i>Harmonizing</i>) | Low-level descriptor to be added | Low-medium-level descriptor to be added | High-medium level descriptor to be added | High Level descriptor to be added |
| Analyze and Synthesize: Students will be able to analyze information/data critically and synthesize new knowledge to produce coherent individual/community understandings. (<i>Creative</i>) | Low-level descriptor to be added | Low-medium-level descriptor to be added | High-medium level descriptor to be added | High Level descriptor to be added |
| Communicate and Apply: Students will be able to discuss, listen, write, present and perform the processes, understandings and applications of the research, and respond to feedback, accounting for ethical, cultural, social and community issues. (<i>Constructive</i>) | Low-level descriptor to be added | Low-medium-level descriptor to be added | High-medium level descriptor to be added | High Level descriptor to be added |

Many academic programs have existing rubrics and assessment baselines related to the QEP SLOs. At a more granular level, these individual program assessments will be used to assess impact of the QEP. See Table 9.4 for details.

Table 9.4 Summary of Existing Assessment Tools for Academic Programs that Correlate with the RSDF

| Program | Assessment Tools |
|---|--|
| Business Administration and Economics | SIP Paper and Presentation Rubrics |
| Community Health | SIP Paper and SIP Presentation Rubrics |
| Sport Management | SIP Paper and SIP Presentation Rubrics |
| Social Work | Policy Analysis assignment, SIP, and Agency Field Evaluations |
| English | Prospectus Defense Rubric, SIP Rubric |
| Spanish | AACU Value Rubrics (Culture, Writing, Oral) |
| Criminology | AACU Value Rubrics (Critical Thinking, Civic Engagement, Integrative Learning, Inquiry and Analysis) |
| History | Bibliography, Paper, and Oral Presentation Rubrics |
| Political Science | Scoring Rubric for Assessment of Student Written Materials |
| Psychology | SIP Rubric |
| Communication Arts | Criterion, APA Assessment, Grammar Assessment, Course Rubrics, ACAT |
| Visual and Performing Arts | Assessment Rubric |
| Computer Engineering | Course Embedded Assessments |
| Information Systems Engineering | Course Embedded Assessments |
| Computer Science and Information Systems | Course Embedded Assessments |
| Biology | SIP, SIP Proposal, and SIP Presentation Rubrics |
| Chemistry | SIP, SIP Proposal, and SIP Presentation Rubrics |
| Mathematics | SIP Rubrics |

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APPENDICES

APPENDIX A

UNIVERSITY MISSION, VISION AND STRATEGIC PRIORITIES

MISSION/PURPOSE STATEMENT

The mission of Johnson C. Smith University is to provide an outstanding education for a diverse group of talented and highly motivated students from various ethnic, socioeconomic, and geographic backgrounds. Johnson C. Smith University offers a liberal education in conjunction with concentrated study in a specialized field in preparation for advanced study and specific careers.

The University endeavors to produce graduates who are able to communicate effectively, think critically, learn independently as well as collaboratively, and demonstrate competence in their chosen fields. Further, it provides an environment in which students can fulfill their physical, social, cultural, spiritual, and other personal needs and in which they can develop a compelling sense of social and civic responsibility for leadership and service in a dynamic, multicultural society. Likewise, the University embraces its responsibility to provide leadership, service, and lifelong learning to the larger community.

Regarding teaching effectiveness as paramount in its educational enterprise, Johnson C. Smith University has a commitment to the recruitment and retention of an outstanding faculty. To this end, the University promotes faculty development, encourages faculty involvement in research and other creative activities, and endorses the principles of academic freedom.

To insure the integrity and stability of its status and the perpetuation of its rich legacy, Johnson C. Smith

University has a firm resolve to maintain the fiscal and human resources requisite to be a truly distinctive institution—a hallmark of excellence in its students, facilities, operations, and environment. Additionally, Johnson C. Smith University, Incorporated shall continue the present policy of admitting students of any race, color, sex, national and ethnic origin, to all rights, privileges, programs and activities generally accorded to or made available to students at the University. In regard to faculty and staff, employment by and promotion within the University shall be on the basis of merit, and there shall be no discrimination on any basis.

OUR VISION

Johnson C. Smith University will be recognized in North Carolina as Charlotte's Premier Independent New Urban University. Defining characteristics of what JCSU will become include:

- High quality market-driven curriculum centered in the liberal arts and sciences
- A multi-cultural, multi-generational, and multi-racial faculty, staff, and student body
- A risk-oriented, entrepreneurial, independent presence in an historic urban neighborhood
- A teaching mission with emphasis on faculty and student research
- A mix of undergraduate and graduate programs
- Viable and sustainable community, professional, and corporate partnerships
- Delivery of educational programs in new venues and formats

TRANSFORMATIVE VISION-IN-MISSION

By Academic Year 2019-2020, Johnson C. Smith University will be recognized in North Carolina as Charlotte's premier independent urban University, offering a comprehensive quality educational and applied research environment. The academy will be defined by a master faculty of teacher-advisors and teacher scholars, of which 89% will have terminal degrees in their fields. The total enrollment of the University will consist of 1925 students, both traditional and non-traditional, 16 % of whom will come from racial and ethnic groups other than African-American. The undergraduate first-time freshmen population will have a median high school grade point average of 3.35 on a 4.0 scale and a median SAT score of 980. Eighty-six graduate students will be enrolled in the University's first graduate program, a master of Social Work degree. Students will rate the campus life experience as 5.00 on a scale of 1 to 7 as measured by the Student Satisfaction Inventory. Employee ratings on a standardized survey of operational efficiency will have 72% positive responses. The University will enjoy strong community relations and strategic partnerships with businesses, corporations and professional groups. Furthermore, the University will have a strong financial platform, defined by annual balanced budgets that are augmented by sound fiscal and internal controls, an ever increasing endowment that models best practices and maintaining a healthy balance sheet by keeping unrestricted cash reserves that covers at least one quarter of operations.

STRATEGIC PRIORITIES

These strategic priorities will guide the University's work over the life of the 2008-2017 Strategic Plan:

Strategic Priority 1: Academic Excellence
Shifting The Balance Between Quantity and Quality in University's Policies and Procedures

It is the success of our students that fuels our passion to serve in the profession of higher education. Students succeed when we devote our energies to continuously improving their experiences in and out of the classroom. We must recruit and retain to graduation an excellent and diverse undergraduate and graduate student body. We will make data-informed decisions in our ongoing effort to fuel new opportunities for our students.

We will demonstrate our commitment to the success of our students through innovative engagement efforts that begin before arrival and continue after graduation. We will enrich the lives of our students by intensely focusing on: growing, diversifying, and shaping our student body; building skills for success after graduation; and promoting programs and policies that facilitate academic excellence.

Strategic Priority 2: Master Faculty
Attract, Hire and Maintain a Differential Faculty of Teacher-Advisers, Teacher Scholars, and Applied Researchers

High quality faculty not only enhance the university's teaching and programmatic reputation but also attract the highest quality students. We will recruit faculty who have attained, or have the potential to attain, the highest honors in their disciplines while also implementing a broad faculty recruitment, retention, and development plan.

We will enhance our dynamic, diverse academic environment and ensure outstanding student learning outcomes by focusing on: promoting innovative teaching and learning practices; engaging students with an increasing emphasis on active and service learning and research opportunities; supporting faculty growth and excellence; and strategically strengthening academic program expansion and development while emphasizing program excellence.

Strategic Priority 3: Operational Excellence

Develop a Focused University Strategy that is based on a Comprehensive Management Information System and Measurable Outcomes

Operational performance is central to the transformative efforts of the University. The institution will fulfill customer expectations and needs, and will execute internal processes necessary to do so. From a customer perspective, we will improve the user experience, including ease of use, availability, accessibility and usability of services. We will improve communication, transparency and outreach. Units will become strategic resources and trusted partners within the University community as well as a champions for emerging technologies.

From an internal perspective, we will improve coordination of services and projects, and leverage governance to improve internal efficiency and effectiveness. The institution will ensure that we operating in a safe and compliant manner.

Strategic Priority 4: Financial Strength

Maintain Fiscal Discipline in Managing Our Operations, and Expand and Diversify the Financial Resources of the University Through Successful Fundraising (Public and Private) in Support of Our Strategic Initiatives

Financial strength and stability is the bedrock upon which any successful strategic plan rests. It undergirds our commitment to academic excellence; without it, the University's ability to launch, sustain, grow, and evaluate quality academic programs is severely compromised. Financial strength and stability also buttresses our commitment to student success, whether we're attracting more of the best and brightest students, bridging the gap for those students with developmental needs, or developing programs that

grow our enrollment and improve our retention and graduation rates.

Financial resources are needed to help all our students reach their full potential. We will operate from a position of financial strength by becoming as efficient as possible in our spending and maximizing resource generation. We will continue to seek private support and diverse revenue streams to optimize campus resources.

Strategic Priority 5: Student Diversity

Attract a Critical Mass of Highly Motivated, High Achieving Students Across Racial, Ethnic and National Boundaries

We are a campus community that values the intrinsic worth of its members, recognizes our shared qualities, and embraces our differences. We make appreciation of all persons a key characteristic of this community, foster a spirit of openness and active engagement, and strive to be diverse and inclusive in every aspect of campus life.

Diversity includes attention to identity characteristics such as age, disability, sex, race, ethnicity, religion/spiritual tradition, gender identity and expression, sexual identity, veteran status, job status or socioeconomic class, nation of origin, language spoken, documentation status, personal appearance and political beliefs.

We continuously work to increase the structural diversity of the campus community. Moreover, we work towards intentionally fostering and sustaining a welcoming campus community that strives for structural diversity, cultivates a culture of inclusive learning, supports systemic transformation, and is based on the principles of equity and inclusion.

Strategic Priority 6: Campus Experience

Accelerate the University's Scheduled Maintenance Plan

Up-to-date infrastructure and learning tools are essential for a university seeking academic excellence. We will upgrade the quality of our classroom spaces, enhance the appearance of campus facilities and grounds, and provide faculty, staff, and students with the latest technology tools for leadership in teaching, learning, research, and career development.

We will revitalize the campus by being relentless in our efforts to secure investments in student-centric facilities – classrooms and residential living spaces. The attention to scheduled maintenance enhances the holistic student experience: intellectual, social, physical, emotional, spiritual, and mental maturation.

Strategic Priority 7: Community Engagement

Lead Sustained and Actionable Conversations with City of Charlotte and Coalitions of Developers Concerning Revitalization of the Urban District that is Johnson C. Smith's Front Door

Johnson C. Smith University is committed to servant leadership and civic engagement. We will provide students and faculty the opportunity to study models of leadership as service; to engage in debate and understanding of significant social and cultural problems that impact our times; to expand the University's service to its neighbors, and to form strategic alliances with community and faith based organizations, as well as with local and county social agencies.

We will create a culture of outreach and engagement through innovative teaching and scholarship. By applying our academic and professional expertise to collaborations with community stakeholders, we will improve the quality of life for the communities we serve.

APPENDIX B

QEP COMMITTEE MEMBERS

QEP Phase I: Transition Group (Spring 2013 through Spring 2014)

| Name | Position |
|--|---|
| Dr. Nicola Davis Bivens, Co-Chair | <i>Associate Professor, Political Science</i> |
| Mr. Ron Stodghill, Co-Chair | <i>Assistant Professor, Interdisciplinary Studies</i> |
| Dr. Elfred Anthony Pinkard | <i>Executive Vice President/Chief Operating Officer</i> |
| Dr. Brian Jones | <i>Dean, College of Arts & Letters</i> |
| Dr. Cheryl Butler-Brayboy | <i>Associate Professor, English</i> |
| Dr. Brian Hunt | <i>Assistant Professor, Mathematics</i> |
| Dr. Jeffrey Campbell | <i>Assistant Professor, Chemistry</i> |
| Dr. Phillip Otienoburu | <i>Director, Center for Renewable Energy and Sustainability/ Assistant Professor, Biology</i> |
| Dr. Pamela Richardson-Wilks | <i>Assistant Professor, English</i> |
| Dr. Cathy Jones | <i>Dean, Student Success</i> |
| Mrs. Harriet Hobbs | <i>Director, Institutional Planning, Assessment, Effectiveness and Research (IPAER)</i> |
| Mr. Frederick Murphy | <i>Director, Counseling Services</i> |
| Dr. Zenobia Edwards | <i>Dean, Metropolitan College</i> |
| Ms. Dawnita M. Gilmore | <i>Program Analyst, IPAER</i> |
| Ms. Sonia Youngblood | <i>Recruiter, Admissions</i> |
| Mr. Daniel Herrera | <i>Vice President of Academic Affairs, Student Government Association, Class of 2015</i> |

QEP Phase II: Topic Development Group (Summer 2014-Fall 2015)

| Name | Position |
|-----------------------------------|---|
| Dr. Elfred Anthony Pinkard | <i>Executive Vice President/Chief Operating Officer</i> |
| Dr. David Luciano | <i>Associate Professor, Master of Social Work</i> |
| Mrs. Yvette Hall | <i>Interim Chair, Business Administration and Economics Department</i> |
| Dr. Tracy Brown-Fox | <i>Assistant Professor, Chemistry</i> |
| Dr. Cheryl Butler-Brayboy | <i>Associate Professor, English</i> |
| Dr. Matthew DeForrest | <i>Chair, Language and Literature Department</i> |
| Dr. Lucinda Blue | <i>Assistant Professor, Business Administration (Metropolitan College)</i> |
| Dr. Christopher Weise | <i>Assistant Professor, Music</i> |
| Mrs. Harriet Hobbs | <i>Director, Institutional Planning, Assessment, Effectiveness and Research (IPAER)</i> |
| Ms. Kimberly Hunter | <i>Assistant Director, IPAER</i> |
| Ms. Tracey N. Foster | <i>Director, Biddle Institute</i> |

| | |
|---------------------------|--|
| Dr. Robert Lindsey | <i>Associate Professor, Health Education</i> |
| Mrs. Monika Rhue | <i>Director, Library Services</i> |
| Mr. Frank Parker | <i>QEP Consultant</i> |

QEP Phase III: Design and Implementation Group (Fall 2015-Present)

| Name | Position |
|----------------------------------|---|
| Dr. Tim Champion (Chair) | <i>Chair, Natural Sciences and Mathematics Department</i> |
| Dr. Laurie C. Porter | <i>Assistant Professor, Communication Arts (University College)</i> |
| Dr. Diane Bowles | <i>Vice President, Government Sponsored Programs and Research</i> |
| Ms. Tiffany P. Taylor | <i>Research Associate, Smith Institute</i> |
| Dr. Sarah Minslow | <i>Research & Grant Award Specialist, Smith Institute</i> |
| Mrs. Sheree Duncan | <i>Adjunct Professor, Business Administration</i> |
| Ms. Christy Bryant | <i>Member, Board of Trustees/President, National Alumni Association</i> |
| Dr. David Luciano | <i>Associate Professor, Master of Social Work</i> |
| Mrs. Yvette Hall | <i>Interim Chair, Business Administration and Economics Department</i> |
| Dr. Tracy Brown-Fox | <i>Assistant Professor, Chemistry</i> |
| Dr. Cheryl Butler-Brayboy | <i>Associate Professor, English</i> |
| Dr. Matthew DeForrest | <i>Chair, Language and Literature Department</i> |
| Dr. Lucinda Blue | <i>Assistant Professor, Business Administration (Metropolitan College)</i> |
| Dr. Christopher Weise | <i>Assistant Professor, Music</i> |
| Mrs. Sharell Cannady | <i>Director, Institutional Planning, Assessment, Effectiveness and Research (IPAER)</i> |
| Ms. Kimberly Hunter | <i>Assistant Director, IPAER</i> |
| Ms. Tracey N. Foster | <i>Director, Biddle Institute</i> |
| Mrs. Monika Rhue | <i>Director, Library Services</i> |
| Mr. Frank Parker | <i>QEP Consultant</i> |
| Ms. Shakoya Brown | <i>Freshman Class President, Class of 2020</i> |

APPENDIX C

NOTES FROM FACULTY RESEARCH DISCUSSION BREAKFASTS

RESEARCH CULTURE

Faculty Comments included: that research may be defined as “production of knowledge for self or the broader community” and that a strong research culture is one that is “committed to think critically and creatively,” to foster a “culture of curiosity,” and to engage students in “learning for living” and where “research permeates academic work.”

Some of the other key points made were:

- Students should be introduced to what different types of research look like from entry and what different kinds of data may be useful in the process of discovery (#ThisIsResearch social media campaign is an idea Smith Institute developed to support this which has become a key part of the QEP Marketing.)
- Students may be more engaged in research if they start with activities designed for self-exploration and move to broader discipline issues while they should be supported to improve the quality of research outputs
- Some aspects of improving the quality of research outputs are to integrate at every level information literacy (find, understand, interpret, apply), including note-taking skills and anti-plagiarism lessons, and writing skills
- Students should be given freedom to ask their own questions, but be guided to ask informed questions that are embedded in ongoing academic conversations
- Faculty should teach students to value their own informed opinion and trust their

developing voices without being paralyzed by the fear of failure

There is still the concern related to lack of infrastructure and resources (time, money, etc.) to change the culture of research at JCSU. However, we must continue to find models for integrating research activities.

In relation to publishing and disseminating research outcomes:

- There should be more flexibility for faculty to develop their own research group pages and control content. The strict need for centralized control of appearance and content seems almost archaic.
- It would be nice to recognize, or better yet, reward mentoring. (faculty to faculty)
- In addition to cross listing courses, it would be useful to know if there would be a mechanism to offer team taught courses across disciplines and colleges. This is an idea that we are thinking about for the renewable energy and sustainability minors.
- Thanks for attending today’s breakfast discussion about presenting and publishing. The major takeaway from an administrative point of view is we need better PR for faculty research, including website updates that include names, contact info, expertise, courses, and publications/presentations.
- Potential workshop offerings for Smith Institute: Networking, Selecting the “Best” Publication Outlets, and Using Your Rejection. (Another one could be How to

Prepare a Portfolio for Tenure, but that wouldn't be offered by Smith Institute).

- Potential programming ideas that Smith Institute could offer include a Writing Cultures group, a writing boot camp to carve out time to write, and a mentoring match-up.
- There could also be continued discussions about how one determines "impact on the field," "junk" journals that may actually damage someone's reputation as a researcher, the changing nature of publishing (i.e. Open Access, Academia.edu), the psychological barriers to publishing (i.e. Imposters' Syndrome and fear of rejection), creating a culture of trust for scholarly feedback, and developing cross-listed or research-related course offerings.

MENTORING

Comments at this session may help frame JCSU's definition of mentoring and future research mentoring programs:

- Mentoring is not handholding or coaching.
- Mentoring is guiding, directing, sharing one's experiences, and doing it (learning/research) together.
- Mentors should demonstrate care and concern for students.
- Mentors should encourage lifelong learning and a willingness to learn through failure.

- Mentees are NOT Research Assistants.

Good practices for mentor relationships are:

- Training faculty to be mentors and how that differs from curriculum-based teaching
- Reflecting on the process of research and mentoring
- Reporting progress
- Clarifying roles and expectations early
- Matching people based on personalities and common interests
- Determining rules of conduct
- Holding one another accountable

Questions raised were:

- How should faculty be trained to mentor?
- How do we support and fund mentoring programs?
- How do we balance the time commitments for teaching, research, and mentoring?

While faculty-mentored research occurs at JCSU and has for many years, there is not a formalized, institutionalized program of faculty-mentored research. Smith Institute has done research on existing formalized models of UGR mentored by faculty and plans to implement a Summer Research Program based on the model of Charlotte Research Scholars at UNC Charlotte. Dr. Dennis Livesay, Director of the Charlotte Research Scholars program, visited JCSU in March 2016 to provide an introduction of the model to JCSU. His presentation and resources were very well received.

APPENDIX D

CUR INSTITUTE PLANNING ACTIVITIES

Seven members of the QEP Committee attended a CUR Institute in April 2016 and composed this action plan with a CUR advisor. It is designed to guide us over the next year as we begin to implement the QEP.

Integrating Undergraduate Research in the Curriculum Facilitator Group Meeting #4 Action Plan

What two or three things will you accomplish in the next month:

| Action | Who Should Be Involved | Preparation | Desired Outcome |
|-------------------------------------|--|--|--|
| Spread the Word | QEP Committee, Smith Institute staff (SI), Deans, Chairs, University Marketing and Communications (Yvette Hall & Cheryl Brayboy-Butler), Keisha Talbot Johnson | Come up with slogan #ThisIsResearch brand Clarifying QEP goals and having QEP team meeting to ensure consistency/Cheat sheet Designing and Printing | Building trust |
| Plan for Faculty Development | Sarah Minslow, Dean Jones/Shawn Miklaucic, QEP Committee, Council of Deans | Design workshop Conversation with Shawn Miklaucic, Dr. Henley, Dean Jones Next Council of Deans meeting agenda Proposal to Kelli Rainey to do QEP-specific GSPAR funding? | Dates for orientation and workshops with Gen Education Faculty Workshop materials |
| Plan for Staff Development | HR/payroll, grant processing IRB faculty (Infrastructure) Student Affairs | Conversations with administration about needs and concerns, process audit, define domains of responsibility | Smoother process for hiring students as researchers (RESOURCE) Clearer process and flow charts online |
| Plan for Student Development | Yvette Hall and Cheryl Brayboy-Butler; Tiffany Taylor; Dean Cathy Hurd | Planning workshops (SI), design the focus groups (M&C) | Schedule for workshops and focus groups for Fall |

What will you try to accomplish by the end of the calendar year:

| Action | Who Should Be Involved | Preparation | Desired Outcome |
|--|---|--|---|
| Plan for Student Engagement | Tiffany Taylor, Admissions, First Year faculty, Yvette Hall and Cheryl Brayboy-Butler, Marketing and Communications | Train Student Research Ambassadors Launch #ThisIsResearch brand Refine the Pitch | Student group recruiters/advocates for QEP Demystification of what research is |
| Spread the Word (active) | QEP Committee, University Communications and Marketing, Information Technology, Smith Institute | Begin to disseminate communications/marketing materials/presentations to Colleges/update background screen on networked computers Fall Research Symposium Plan website Overhaul/redevelopment | Increased awareness Shared vision |
| Summer Training for Faculty that includes elements of research | Smith Institute, Matt DeForrest, GSPAR office | Smith Institute GSPAR Mellon | Increased capacity and faculty engagement |
| Faculty development workshops with first-year faculty (RSDF) | Sarah Minslow, Shawn Miklaucic | Develop workshop materials and content Schedule dates/multiple offerings Include policy documents | Increased early engagement with research Research-based learning activities in all first year courses |
| Faculty & Staff Development (ongoing) Workshops on Accreditation/SACS Requirements | Tim Champion, Frank Parker, Council of Deans (CoD) | Develop workshop materials Review policy documents | Increased understanding of Accreditation and everyone's R&R's Shared vision & consistency of message across JCSU |
| Begin to map ongoing research activities across the campus & funding sources | Frank Parker, Tim Champion, Sarah Minslow, Tiffany Taylor, GSPAR, Institutional Advancement, Keisha Talbot Johnson | | Database of research activity & funding sources New Research Publication |
| Department Chairs and Program Directors to define "research" and "scholarship" in their disciplines & introduce RSDF as a | Tim Champion | August 8 Title III Administrative Retreat Distribute survey for COEUR mapping | Database, booklet that defines disciplinary research (examples) Department's curriculum map according to RSDF (embedded) |

| Action | Who Should Be Involved | Preparation | Desired Outcome |
|--|------------------------|---|--|
| curriculum mapping tool & COEUR | | | |
| Opening Sessions of academic year introduce QEP to everyone and our plan for implementation | Tim/Frank, SI | State of the University (August/Sept) Get on agenda for CoD meeting Attend college meetings | Increased awareness, shared vision |
| Centralized Smith Institute in Carnegie Hall – Curiosity Commons | Facilities, SI | May 2016 move Renovations completed by Dec. | Centralized hub for UGR activity on campus |

What will you have accomplished by this time next year:

| Action | Who Should Be Involved | Preparation | Desired Outcome |
|---|--|--|---|
| Curriculum redevelopment to embed UGR (Institutes) | Sarah Minslow, Chairs, Frank Parker | Plan workshops | More research embedded in curriculum |
| Hired new staff in Smith Institute (Faculty Fellows/Visiting Fellows/Post-docs) | Smith Institute (SI), Human Resources | Needs assessment, recruitment activities | Increased capacity |
| Summer Mentored-Research Experience | SI, faculty, students, University Communications and Marketing, Housing/Facilities | | Achievement of SLOs, better relationships b/t students and faculty, increased retention |
| Expanded Mentored-Research Opportunities | GSPAR, Institutional Advancement, SI, current grant holders | Seeking funding sources Mentorship training | Achievement of SLOs |
| New Freshman Seminar Course – co-taught by Tiffany and Sarah #ThisIsResearch Module? | SI, CoD, students, University College | Syllabus creation and submission/approval | Early introduction and engagement to research culture for students |

