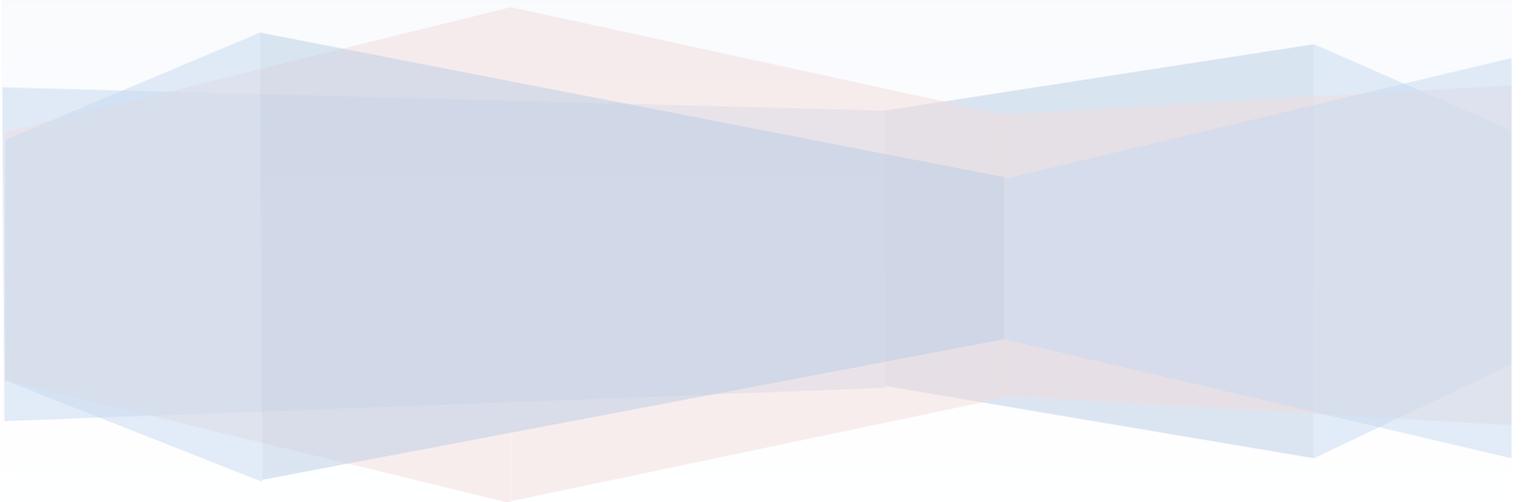


Faculty Inquiry in the Context of Developmental Redesign:

Experiences of Six Arkansas Community Colleges

Rose Asera, Ph.D.



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When teachers conduct faculty inquiry, everything is up for examination—their classrooms, their students, and their own instruction. Good teachers have always tried new things in the classroom and gauged student response. However, in the inquiry process experimentation, observation, and analysis are intentional and systematic. Questions are rooted in practice; observations are verified with data. And the inquiry process is iterative. The findings of inquiry can lead to action, which in turn becomes the subject for further examination. In addition, when inquiry is conducted in collaboration with colleagues, the results can lead to more consistency and continuity across courses.

As part of the Pathways to Accelerated Completion and Employment (PACE) grant all 22 Arkansas community colleges redesigned their developmental English and mathematics courses. The intent of the redesign was to shorten the time students spend in the developmental sequence and increase the number of students successfully completing developmental education requirements.

Although most colleges had previously had separate reading and developmental composition courses, the redesigned developmental English courses integrated reading and writing. In addition, colleges implemented the Accelerated Learning Project (ALP) model, which let students with close placement scores enroll in the college level English course and take a co-requisite developmental course that provides more time and support.

The developmental mathematics sequence was redesigned into a series of modules that would be taught in a computer-based environment. Students would be able to move through the modules at their own pace. The number of required modules was adjusted to fit the student's chosen path of study. For example, students who are not pursuing a STEM major would not be required to complete the modules that cover intermediate algebra.

A grant from the Kresge Foundation to the Arkansas Association of Two Year Colleges (AATYC) offered developmental redesign teams the opportunity to participate in the faculty inquiry project. Dr. Rose Asera, formerly director of Strengthening Pre-collegiate Education in Community College at the Carnegie Foundation for the Advancement of Teaching, was the resource on faculty inquiry. Inquiry teams from six colleges—Arkansas State University Newport (ASUN), Arkansas Northeastern College (ANC), National Park Community College (NPCC), North Arkansas College (NAC), Ozarka College, and Phillips Community College of the University of Arkansas (PCCUA)—applied and participated in the project. Every college organized an inquiry team with a lead faculty. The college teams included full-time and adjunct faculty, the institutional researcher, counselors and campus

administrators. Altogether, more than 50 community college educators participated. More than half the teams had student participants as well.

Colleges redesigned all aspects of developmental instruction—content, format, and delivery. Faculty reorganized familiar content into new formats and had to prepare to teach in new ways. In English classes, the connection of reading and writing was a challenge both for those teachers who had previously taught reading and those with a background in composition. In the redesigned math courses, teachers faced a different way of interacting with students. Teachers did not lecture from the front of the room; while students worked independently on the modules, math teachers were available to answer questions and work one-on-one with students.

The inquiry process let participating faculty examine the redesigned developmental courses not only from the faculty perspective, it also gave them the chance to look deeply at the student experience. In addition, the AATYC Student Success Center brought the six inquiry teams together each semester to have the opportunity to share experiences and learn from each other.

Inquiry served as embedded evaluation in the redesign. The big questions that drove the inquiry were “Is the redesign working?” and “How do we know?” Within the big questions, each campus had specific questions about their design and their students. For example, Arkansas Northeastern faculty wanted know which topics math students found most challenging. ASUN faculty wanted to know if students who completed the redesigned developmental English courses were ready for college level English. And North Arkansas faculty wanted to understand the effectiveness of their block design, which let students complete both developmental English and math requirements in one semester. The faculty teams shaped their local questions and then gathered data, using a range of methods including surveys, interviews, and focus groups. The findings of the inquiry teams became part of the ongoing redesign process at their colleges. However these findings are also relevant to other colleges involved in developmental redesign.

Increasing structure and support

Math faculty worked to design and implement the new math modules; they grappled with the content, the technology, and their role as a resource in the classroom. And the students grappled as well. The modular approach to developmental math assumed a level of student independence and organization. However, surveys by ANC and NPCC inquiry teams captured students’ struggles with the new self-paced math pedagogy. While students said that they liked the chance to work at their own pace, learning math on their own was unfamiliar and they did not necessarily have the organizational skills to pace themselves.

The inquiry team at NPCC described the dilemma—students liked the independence of the modules, but they missed the familiarity of teachers in a classroom, even if they had not been successful students in traditional math classes before.

Seventy percent of students who were surveyed about the math developmental redesign agreed or strongly agreed that they were comfortable with learning in the new technological environment. Ninety-eight percent agreed or strongly agreed that an instructor was readily available to answer questions. However, only forty-eight percent agreed or strongly agreed that they benefited from the computer-based, self-paced class. Qualitative data from student interviews suggested a significant percentage of students believe they learn better in a traditional classroom setting.

The ANC inquiry team surveyed students in their Math Applications and Fundamentals of Algebra courses, using the online class portal to administer the survey. Findings were not unexpected: students found it challenging to work alone, they found it difficult to find time to study outside of class, they missed using calculators, they had trouble understanding word problems, and they sometimes felt lost and were not sure what or how to ask a question. The ANC faculty inquiry team summed up the situation,

The modular, mastery-based math courses were, at first, a shock to our students at Arkansas Northeastern College (ANC). The traditional concept of learning just enough to get past an exam is almost ingrained in the student psyche, and this type of class requires a measure of persuasion for the students to find it acceptable.

Faculty realized that developmental students needed to learn how to learn math in this setting. In response to what the faculty heard from students, faculty at ANC and other colleges increased structure and support. They introduced student notebooks and created supplemental labs. Based on the ALP English model, ANC added a two-hour co-requisite lab, which was designed to be hands-on and skills-based to improve problem solving. The labs were required for students with ACT scores 15-17 and optional for students with scores above 17. Subsequent results indicated that students found this useful.

From the survey, some students believe they need a teacher in a traditional lecture-based setting. The labs have met this need. In fact, it seems as if the students form a stronger bond with their lab instructor, and see this instructor as a mentor. The individualized communication and instruction develops not only skill, but confidence. The added attention provided in the lab courses has done much to bolster confidence and assist in time management for many students.

The inquiry team at Ozarka also found that “our students need extra guidance and support from faculty and student services in order to be successful throughout the developmental sequence.” The Ozarka math faculty responded with more direction and contact as well.

We had students sign contracts showing they understood the parameters of the course (in the past they claimed ignorance a lot), and we conducted student conferences to insure students understood where they stood in the course and what goals needed to be met in order to finish successfully. Because of what we learned from our math students in the spring, we established faculty-led tutoring sessions on each of our campuses this semester.

The faculty team at North Arkansas College heard student concerns in interviews about a lack of attention from teachers, the fast paced schedule, and the cost of books. They responded with action.

From students' responses, we have made significant changes in our math courses. For example, we have modified our homework assignments and tests to create a smoother product for our Math for Careers and Technology III course. Furthermore, we are making videos over the Christmas break to improve Fundamentals of Algebra I, II, and III. In the spring, we are implementing an accountability sheet for students in all of our math courses to help them set goals, report what they have done, and plan for homework assignments. Perhaps most importantly, in an effort to change students' perceptions of the math courses as online courses, we are presenting the classes to students as flipped classrooms, so that they realize they are expected to watch videos at home and do homework in class.

By the end of the year of inquiry the NAC faculty reshaped both the student roles and teacher roles, intertwining responsibility.

One important thing we have learned is that students NEED to be held accountable both for planning and for accomplishing their work. They need help setting goals, and the instructors need to revisit those goals constantly with the students to assess their progress in accomplishing their goals.

Faculty at Phillips Community College completely reworked the developmental math content; they participated in cooperative learning training and created scientific notebooks for their students. The PCCUA faculty focused their inquiry process on making the courses on all three campuses "more consistent and uniform from instructor to instructor and campus to campus." As a team they worked to create a study guide; they created and tested common rubrics for grading and assessing notebooks and homework. They believed that consistency across classes would support student accountability and "have a positive impact on student study habits and organization."

Similarly developmental English faculty teams at Ozarka and ASUN used the inquiry process to move towards more consistency across English classes. Ozarka faculty instituted more 'standardized' methods across all sections

...including the use of one common text, a dialectical journal, vocabulary development, and portfolio assessment. Because of what we have learned during this semester, we will be changing the schedule of assignments. Students will focus on writing fundamentals the first third of the semester before getting into the full length, non-fiction text.

They created common lessons and strategies for the Foundations of Literacy course across all campuses as well as a common review process for student portfolios.

Full-time and adjunct English faculty from all three ASUN campuses worked together to develop common rubrics for learning assessments as well as descriptions for the school catalogue and the web portal that emphasize student and faculty expectations for college learning. One of the teachers framed a letter to her students, explicitly spelling out what to expect in class. Her letter begins in a personal and direct voice,

As your instructor, I am an experienced student. I have experienced most of the challenges, frustrations, stresses, and triumphs you will experience as a student. I know what students need to do to succeed in the courses that I teach, and I want you to succeed.

She continues stating her beliefs about the rights of students in the class to expect a safe, respectful environment focused on learning. Her responsibilities as a teacher are to be professional and preserve the academic integrity of the content and her expectation is that students will be present, will participate actively, will communicate, and will “*accept the challenge of collegiate studying, thinking, and learning.*” The same teacher created a writing activity that gave students the chance to acknowledge, express, and write about their fears of writing and of being in college.

Listening to students

Community colleges provide the open door to higher education; they serve a wide range of students, of varying ages, educational backgrounds, and motivations for coming to college. While everyone who works at a community college is aware of this, sometimes the constancy of daily demands get in the way of the central mission. Faculty inquiry gave teachers the chance to listen to their students with attention. This gave teachers the opportunity to reconnect with their own personal definition of teaching in a community college and to recognize the impact they can have on students’ lives.

Several of the inquiry teams asked students why they came to college and what they as students perceived as barriers and obstacles to success. The power of the personal voices and the patterns of common needs opened up different ways of thinking about addressing those needs.

In a series of personal interviews, ASUN faculty team asked students why they came to college. Students came because

- they wanted to better themselves
- they wanted to set an example for and provide better for their children
- they didn't want to be left behind as friends and partners got an education
- parents wanted their children to succeed because they themselves hadn't had that chance
- the factory was closed and it was time to move on
- they were tired of working in jobs without a future and seeing others with education advance
- they were tired of blaming the system, their families, their teachers, they recognized they had messed up and it was time to turn it around and "make something of myself."

But school schedules and life became the obstacles to achieving these positive aspirations. In further interviews, ASUN faculty asked about the obstacles and barriers. These included financial deficits for transport, work schedules, medical and physical concerns, family responsibilities, educational limitations, and family interference. ASUN faculty summed it up by saying, "Life gets in the way."

These are all familiar and widespread problems to community colleges in Arkansas and across the country. In focus groups, PCCUA asked students questions about how often they come to class unprepared, how often they skip class, and why they don't complete classes. Students were willing to answer; the responses were a similar complex mix of financial barriers, family illnesses, the need for childcare, and conflicting work schedules.

Hearing this in personal terms, and listening with attention, the inquiry teams looked for resources and responses. The NPCC team identified services on campus that are available to students that faculty, particularly adjunct faculty, might not know about.

The ASUN faculty knew that they could not fix the problems in students' lives. What they could do was rethink the things they do control – the class schedule. They experimented with shortened terms (eight weeks), summer intensives, hybrid courses, and distance education formats

...to provide our students with options that suit their lives....We are poised to create a community of learners' eight week block structure to reach out to remedial students in both math and English. The cohort approach has been shown through in-class group projects to be a very effective way of reaching our students.

In addition the faculty team at Ozarka looked at the affective dimension in the classroom. Faculty began looking for instruments to assess the affective domain. They started with the Hope scale, but found it did not provide useful insights into students' feelings. They are now looking at ways to measure and apply grit (the work of Angela Duckworth) and mindset (the work of Carol Dweck) because "Affective issues play a huge role in how successful students will be. Attendance is a firm indicator of how successful a student will be, and most of the time, affective issues and attendance go hand-in-hand." The Ozarka faculty have noted that

Students who understand their own abilities and learning styles can adapt more easily to the content. Also, organization is the key to success. Those students who were most organized in their time management and in keeping assignments in order were successful, even if the same students were the ones with the lowest placement scores, etc. The literacy course provides for ample student inquiry opportunities by design. Students explore real-world issues. In the process of discussion and investigation of a focus question, they generate new questions. To further the experience in this course, next semester, we will utilize Stephen Brookfield's Critical Incident Questionnaire which will especially cause students to realize their own learning and contribution to the process.

Communication across campus(es)

When North Arkansas College embarked on their redesign they developed a four-day a week block schedule that lets students complete their developmental English and math requirements in one semester. They believed that this intensive schedule would benefit students. However, the first thing they learned in their inquiry was that counselors and advisors did not understand the design. Because there was a counselor on the inquiry team, they quickly realized that they had to communicate with the campus colleagues who advise students.

One of the most important discoveries we made occurred at the beginning of our inquiry process when we found out that our advisors really did not understand the thinking behind the block schedule. Once we met with them and explained the thinking behind the block scheduling, they were onboard and better able to promote the benefits of the four-day-a-week schedule.

The second thing the NAC team realized as they began to interview students who successfully completed the semester and those who didn't was that students did not understand the intention of the intensive schedule. By the end of the year they had organized communication and created ads that were explicit about the intention of the block schedule—"One and done!"

We have learned that most students prefer the consistency of a four-day-a-week schedule, especially if they understand that the purpose of the schedule is to accelerate them through their developmental courses. It was no surprise

that the successful students are the ones who demonstrate a good work ethic; working outside of class is almost always associated with success as is a willingness to seek help with our tutors. We have also made an effort to make our English/reading students aware of the purpose of the block schedule, and we have changed our exit exam in our integrated reading and writing class in response to students' comments.

Ozarka faculty found in their first round of focus groups that "Students are not computer literate when they begin the course – they feel like they are lost from the beginning in trying to navigate the system and simply do not have computer skills (all of our courses require computer use)." They responded to this,

We are currently creating Advising Guidelines to help all advisors better understand each course and also stress the need for appropriate 'developmental' advising – encouraging a computer skills class during the first semester. We plan on sharing the information we have gleaned from this experience with our colleagues so that we can involve all stakeholders in determining ways to improve success of our students and programs.

Ozarka faculty communicated inquiry findings with their respective divisions and with Administration Council. And they recognize that "More communication is needed with the technical divisions and other stakeholders (some of whom still doubt the redesigned courses)."

Data and future questions

Using quantitative campus data is inherently part of the inquiry process. Quantitative data provided the big picture and the frame for the qualitative findings. The big questions about student success and progress require college data over time. Some of the colleges had easy access to data and a familiarity with analyzing it. At other colleges, the data was not as readily available.

Phillips Community College, as an Achieving the Dream Leader College, was comprehensive in their gathering and use of data. The inquiry team gathered data that analyzed courses by faculty member with pre- and post-test results, grades, completion rates, and retention. They use the data in a number of ways to identify areas for improvement and look at patterns of student progress and flow. With data they are able to create "a full picture of student movement."

In fact, PCCUA is not only strong on gathering quantitative data, they have actively engaged students in gathering qualitative data. Students on each of their campuses surveyed other students, so it was an opportunity for student leadership development as well. One participating student described the experience:

These past few weeks I got the opportunity to lead a student survey and interact with students. I went into this with an open mind and met with

students to go over the survey.... With a big group I handed out the survey and asked a few questions of the all nursing students and found out that almost all had a different plan after they graduate from school. It was cool to hear all the different options that they had and how they wanted to do it for their family. I sat down with one girl and she told me that her father had died and that she wanted to go to school and be successful for him. It was little things that allowed me explore with fellow students that I would not have had if I didn't have the opportunity to give this survey. All the students were very willing to take the time out of their day to take the survey. They all thanked me for picking them to take the survey and I also thanked them for taking it and told them good luck with their future.

At NPCC data led them to ask questions about placement. "Our students at NPCC, particularly those enrolled in some level of developmental education program, are extremely diverse. It is clear that non-traditional students and minorities are over-represented in the developmental student population." In fact their findings were mixed--quantitative and qualitative data seemed to lead them to different conclusions. The qualitative findings from interviews about ALP with students and faculty were positive; students liked the program and believe they were learning. However, "there was little or no measurable improvement on post-test scores for the majority of students." ALP faculty were also positive about the program, but were not sure if the high-performing ALP students needed the program and if students who struggled were correctly placed. "Perhaps our most significant finding is that our systems for identifying and placing developmental students are seriously flawed." NPCC is not alone in continuing to look critically at the placement process.

Inquiry as a part of campus culture

Redesign is an ongoing process. For the faculty who redesigned the developmental English and math courses, faculty inquiry was a tool and resource to the ongoing process. Conducting focused inquiry let faculty gain insight into the student perspective on the redesign. Much as redesign is ongoing, inquiry is ongoing. Conducting inquiry in the context of the developmental redesign is a way to pay attention and continually improve the redesigned courses.

Collaboration was a strong characteristic of the ways the Arkansas college teams engaged in inquiry. In most of the cases, this built on the faculty team that worked on the redesign. And it stretched further, drawing more faculty, administrators, and counselors into the professional conversation. Inquiry became the reason to have conversations with colleagues in similar roles on different campuses of the college, to connect across professional job descriptions, and to engage adjunct faculty, who might not have as many opportunities to connect and participate.

Although colleges that participated in Achieving the Dream have been familiar with the inquiry process, especially at the college level, conducting inquiry was new for

several of the colleges in the inquiry project. Faculty leads regularly touched base with deans, provosts and vice presidents, and presented in various faculty forums. This was a way to inform and engage a broader audience and made the process of and findings from inquiry more visible at the college.

Faculty inquiry is applied research as well as a form of professional development. Inquiry becomes both an individual habit of mind and a characteristic of the college culture. The ASUN team described this,

This term we have invited a new math faculty member to work with us to expand our faculty inquiry into collaboration between math and English. We are also using Faculty Inquiry as one of the key issues to discuss among all faculty, all three campuses in January when we meet for our pre-session workshops.... The inquiry process once started will continue. It has become part of who we are.

Similarly, at ANC,

We are continuing the discussion and analyses initiated by the Faculty Inquiry Initiative and are developing a presentation for the 2014 AATYC meeting. Although the formal Initiative may have ended, at ANC we have incorporated this model into our classes and discussions to the point that it is normal procedure. Mainly, we talk a lot! The ongoing inquiry is often discussed without being prefaced with 'this is a project we are doing'. We have borrowed from the English redesign model of ALP labs by incorporating the RACE and MAPS lab courses to our redesigned math courses. Discussions with the life science faculty concerning increasing success rates in their areas have been ongoing with the inquiry approach as an excellent template for their use. Our findings have been shared and the science faculty are investigating the use of the inquiry techniques in their discipline. After this experience, we at ANC have a different view and appreciation of inquiry-based research. Questions and analysis lead to more questions, but also to modifications in the redesign courses. Many of the modifications need to be immediate. In other words, we don't wait for a final conclusion before we act. This experience has been worthwhile and very informative, and we will continue to utilize what we have learned to better serve our students.

And Ozarka College

Many of our policies for the developmental mathematics have been carried over to the credit level mathematics courses. Furthermore, curriculum in the English Composition courses has been adapted based on the redesigned developmental course. ... We will continue with inquiry next semester and for semesters to come.

In describing the inquiry process, it can be laid out as a neat cycle, from question to data gathering, to analysis, to action. However, in practice it is not necessarily that neat and predictable. Every step of the process can be complex. The early stage of inquiry—asking the question—starts the process of considering the situation differently. And there can be moments in the middle of the process that feel like confusion, overwhelm, and frustration. Even the logistics of getting the team together can be daunting. However, inquiry teams found the process worthwhile.

They offer this advice on collaboration, communication, and coordination to other faculty considering engaging in inquiry.

Some of the advice is practical for organizing the team:

Everyone involved needs specific roles and jobs. There will be many things to do, and they have to be assigned or it won't get done.

Weekly meetings with food are essential. Communication is the key, within and between all levels in your institution. Any dissension should be discussed and decisions made during the meetings, and any information or procedure communicated to students should be backed with unanimous enthusiasm.

Some advice acknowledges the complexity of the process:

The data is not clean or perfect. Discussions must occur continuously and nothing is set in stone. Decisions can be made and/or amended to best serve your students. If a problem arises, bring it before the group.

Don't be afraid to ask the students for their views and opinions on your redesign. You may expect devastating results, but the students quite often have the best advice for instructors and other students.

Some of the advice, learned in the process of doing inquiry, borders on the philosophical:

I believe that we have learned more by having to work together, by having to make changes not all of us wanted to try, by making mistakes, and by admitting when something didn't work and then trying again than we would have learned had we been in perfect harmony in every way.

I think as a group our advice could be summed up as this: don't give up. Don't give up when what you originally plan doesn't pan out; don't give up when some of the members drag their feet and don't catch fire while everyone else is a burning bush; don't ever give up on your students. Try to question always: is what we are trying to do simply more convenient for us or will it

truly profit our students. After all, our students are why we are here. Teaching is not a job; it's a vocation. We are teachers because we are committed to helping others learn.

From the experience of conducting inquiry faculty concluded that they are also learners: they learn with, from, and about their students and their colleagues.

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Rose Asera is an independent researcher and evaluator in the San Francisco bay area. As a Senior Scholar at the Carnegie Foundation for the Advancement of Teaching, she was director of *Strengthening Pre-collegiate Education in the Community Colleges*. Prior to that she worked with Uri Treisman at the Charles A. Dana Center (at UC Berkeley and UT Austin) as director of research and evaluation.

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The College Inquiry Teams:

Arkansas State University Newport (ASUN),

Faculty Lead: Martie Shull

Inquiry team: Zandra Brockway, Melissa Chance, Amber Hendricks, Stacy Mooneyhan, Emily Pasmore-Doyle, Sandra Provence (participated Spring Term 2013 then retired). and Rachel Zaideman, (English faculty from the three ASUN campuses). In addition, in Fall 2013, adjunct English instructors participated as well as a representative from the math faculty: Lori Butler, Robert Clausen, Greg Slayton (math), and Irina Reynolds.

Arkansas Northeastern College (ANC),

Faulty Lead: Ginger Berry, Physical Sciences Instructor

Inquiry team: June Walters, Executive Vice President; Deborah Parker, Dean, Arts and Sciences; Ruby Meador, Associate Dean, Management Information Technology Services; Cindy Clark, Assessment Specialist, Business Instructor; Shannon Davis, Mathematics Instructor

National Park Community College (NPCC),

Faculty Lead: Harley Hudson (Spring 2013) / Terry Morrison (Fall 2013)

Inquiry team: Diane Bruce, Adjunct, Business Division; Robyn Hendrix, Counseling; Boyce Lovett, LAD, English; Katherine V. Ginsburg, Adjunct, LAD, Dannah Wright, LAD, administrative assistant. Terry Morrison, Adjunct, Business Division; three students (Spring 2013) and two students (Fall 2013).

North Arkansas College (NAC),

Faculty Lead: Pam Mathis and Shawnda Bradshaw (Spring 2013); Pam Mathis and Sherry Jennings (Fall 2013)

Inquiry team: Danielle James and Kim Brooks (reading/writing faculty); Shelle Patterson, Sherry Jennings and Valerie Martin (fall 2013) (math faculty); Katie Vaughn (Director of Institutional Effectiveness); Charla Jennings (Registrar); Cynthia Horkey (advisor and PACE grant administrator); Katie Vaughn (Institutional Researcher) with administrative support with conducting and transcribing interviews from Lisa Brightwell, Judith Mathis, Michelle Dewald, Morna Stone, and Polly Hodges.

Ozarka College,

Faculty Lead: Brandy Gore, Developmental Education

Inquiry team: Bettie Estes, Developmental Education; Maegon Mayes, Developmental Education/English; Joanna Fulbright, English; Jed O'Brien, Math; Justin Ward, Math.

Phillips Community College of the University of Arkansas (PCCUA)—
Faculty Lead: Edmondo Torelli
Inquiry team: Kim Kirby; Robin Bryant; Vivian Hoskins; Shaun Anderson; Harry
Czaplinski; Chris Maloney; Carol Birth; Thomas Moss; Natacia Davis; Thomas Moss
& two students in spring 2013, and three students in fall 2013.