Summary Report
Professional Development Recommendations

Florida Community College
Jacksonville, FL

Submitted by
Barbara S. Bonham, Ph.D.
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Part I – Background and Related Information on Professional Development

After extensive review of notes, conversations with faculty and administrators, email correspondence, phone calls, and meetings conducted during an afternoon and morning site visit on April 20 & 21, 2007; the following report has been developed. It includes a summary of information and observations related to the need for professional development in certain areas followed by specific recommendations. It should be noted that the information gathered so far clearly indicates that FCCJ has made impressive efforts towards improving their programs and services for pre-college and adult education students. The faculty are very learner-centered and truly do care about their students' success. There are a variety of professional development opportunities already available at FCCJ for full-time faculty and adjunct faculty particularly in the use of technology but also in other areas.

Yet participation by full-time and adjuncts is not uniform in all of these activities. There was concern expressed in several of the meetings regarding the lack of participation in professional development. Several individuals noted a lack of motivation among faculty, frustration, anxiety, and lack of trust and hope. Some faculty expressed concern that they felt that they could not help some of their students. While others noted the variety of techniques they were using to address the diverse needs of their students. Many faculty noted that students' problems were more "life related problems not educational." It is not uncommon for faculty to express such concerns in programs for students enrolled in pre-college courses. The students' lack of skills in the content areas of mathematics, English/writing, and reading are confounded by weak skills in time management, study skills, learning strategies, high anxiety levels, lack of self-confidence, etc. Yet more importantly it is personal situations such as family responsibilities, crises, work, etc. which are their greatest challenges and more often interfere with their ability to do their work. Faculty are challenged by the task of addressing many of these issues. The faculty have the credentials and necessary skills in the content area but appear to need some professional development in integrating some of these non-cognitive skills as well as understanding how to more effectively help students be successful while

juggling a multitude of other responsibilities. This includes use of a variety of instructional techniques, delivery strategies, and integrated use of tutoring, labs, and other essential support services with the college preparatory mathematics courses.

There are attempts at FCCJ to integrate the non-cognitive and personal needs by individual faculty and in some projects. However, these are not extensively nor systematically being utilized in assessment, advising, support services and in the courses for college preparatory students in mathematics at FCCJ. Some innovative approaches utilizing labs, tutorial services, LAC, and Master Students, etc, do exist and those involved are encouraged to continue this work and collect the necessary data to monitor students' persistence, retention, and success.

The faculty who have been participating in the implementation of some technology-based projects are experiencing problems and low success rates. This too is understandable. The reported that they had "high hopes that the technology-based programs would significantly improve students' success." Yet, this is not happening. The faculty noted that "this is observed by others who become less motivated to participate in utilizing the technology."

An extensive review of recent studies examining computer based instruction, online instruction, mediated learning, etc.; each implementing slightly different forms of the use of technology found mixed results (U.S. Department of Education, 2005). These included self-paced or lab-based instruction with products such as Academic Systems, ALEKS, PLATO, CAS, etc. The authors of this extensive review reported no consistent findings on persistence to higher level of math, pass rates and no difference in final grades compared to developmental math sections taught in traditional-led formats. The report does conclude that the use of a variety of instructional formats may allow students more options for choosing a modality that best suits their learning styles. The authors also reiterated previous findings by Boylan (2002) and AMATYC that, for technology to be effective with developmental students in mathematics, it should be used as a supplement to, rather than the sole delivery method or a replacement for regular classroom instruction.

It should be noted that in observing some of the implementation procedures at FCCJ using technology in college preparatory mathematics, that there appears to be a missing link in the existing process which is critical to success. This is the review and revise component. This is a critical step in the instructional design process. In conversations with faculty

implementing some approaches particularly using technology, they are experiencing problems in delivery. They have been getting a variety of feedback from students. Individually they are each aware of some clichés in the system. Yet, there is no opportunity for faculty to come together to discuss the issues, consider alternative solutions, make the necessary revisions, and proceed to the next stage of implementation. On-going professional development and/or follow up sessions appear to be sorely lacking. This also would be an area to include in future professional development.

On a more positive note there are some very successful professional development projects which are being implemented at FCCJ. Project Renaissance is providing some innovative professional development for faculty and staff. Although the number of faculty have participated in the workshops is small at this time, hopefully that will be expanded. These workshops have the potential to bring about some significant changes in students' success. They are based on benchmarks of excellence which can provide some models for others to observe and adapt. Over time as the number of faculty who attend these workshops increases, the impact on students' success should be apparent.

Research supports that successful professional development programs are faculty owned, faculty driven and have administrative support. They should be focused on improving student learning. With all of these critical variables in place, professional development can bring about significant change in an institution (Murray, 1999; Watts, 2003). Identifying key strategies or motivation to involve all faculty (full-time and adjuncts) is an essential ingredient for success. Possibly existing units at FCCJ can work collaboratively to make this possible i.e. Math Council, Math Innovation, Adult Basic Skills Councils, etc.

Clearly defining what "success" is becomes an integral part of this process. Faculty have commented that all of the outcomes developed for the college preparatory mathematics program are content-based and quantitative. They recommended the integration of learning strategies and study skills in the outcomes as well as qualitative information.

To gain faculty participation, the professional development sessions should be integrated and interrelated with the purpose, mission, and goals of college preparatory courses and services at FCCJ. The faculty have developed 3 major goals with a list of supporting activities in the institution's QEP. These goals, and others the faculty may wish to add,

should be the focus for all subsequent professional development opportunities.

Each campus and center have a different focus at FCCJ but the recommended professional development topics listed below are appropriate for all faculty (full-time and adjuncts) as well as staff working with college preparatory students on all campuses. There are some related issues which FCCJ will have to wrestle with to get the most impact for their professional development efforts. What will be done to engage as many faculty as possible in these sessions? How can more faculty be motivated to participate? All faculty should be very familiar with the critical issues which this country faces in developing an educated citizenry in the 21st century. Teaching college preparatory courses and adult education classes should be highly valued at FCCJ. There should be a clearly communicated message to all faculty on the importance of these courses and the valuing of those teaching them. For this reason, there is a recommendation below focusing on this topic.

How will this information be shared with those who couldn't attend the session but will be involved in the process? Possible considerations might include videotapes, listserv, manuals, discussion at faculty meetings, repeat sessions at different times of the year, etc. What can be done to ensure

that the outcomes of these sessions will be systematically applied to determine their impact on students' success i.e. meeting the developmental education outcomes (institutional, program, and student)? Consideration should be given to small scale projects later to be modified through formative evaluation and expanded to other programs in the college.

There is little evidence that "one-shot" workshops produce any change in pedagogical practice. When they do affect faculty performance, the improvements are short-lived unless they are reinforced and developed with **ongoing** staff development activities (Clark, Corcoran, and Lewis, 1986; Lenze, 1996; Grubb, 1999). For this reason all of the recommendations provided are interrelated. Initially the sequence is critical to create a foundation of knowledge for all faculty (full-time and adjuncts) working with students in adult education and college preparatory mathematics courses.

The 30 years of research in the field of developmental education, adult education, and related areas, as well as the practices in colleges with successful programs should be used as the source of information for these workshops. To ensure faculty participation, faculty need, not only to understand how critical the success of these students are to FCCJ as well as to this country, but also to have all the data on how successful these students

are at FCCJ. There was some discussion about the data they have on students' pass rates and success in subsequent courses. This baseline data on students' pass rates in adult education, college preparatory courses, persistence and retention is essential for faculty to understand the need for change. As Winston Churchill had said, "It's no use saying, we are doing our best. You have got to succeed in doing what is necessary."

The meetings held during the site visit provided a variety of information used in providing the background information above and in developing the following recommendations. Frequently, the meetings devolved into discussions about what faculty believe works best or what they want to do (or have been doing) or why approaches aren't working. Yet, in all meetings with faculty and administrators at FCCJ there was one message clearly communicated. That message was that a significant number of faculty and administrators are dedicated to meeting the needs of all of their students. They are committed to helping college preparatory students be successful. They truly do care. There was some disagreement on how to best accomplish this. The recommendations provided below represent a basic toolbox of knowledge, skills, and strategies which faculty should possess and utilize in designing effective learning environments for underprepared students. All of the recommended workshops should be

developed to include some key components. These are: 1) clearly specified and written goals of the workshop, 2) related theories undergirding the approaches (the why behind what we do), 3) related research supporting the approach related to students' success and retention, 4) opportunities for developing realistic and practical applications (an action plan with follow-up activities), and 5) related resources and references. In addition, participants should clearly identify what kind of evidence can be collected to determine the impact of the strategies on students' success and retention at FCCJ. This can include quantitative and qualitative data.

Part II – Recommendations for Professional Development

RECOMMENDATION 1

The *Why* Behind *What* We Do in Developmental Education

As noted earlier in this report, an understanding of the significance of developmental education in this country should be an area that all faculty, staff and administrators understand clearly. Faculty teaching pre-college courses should be highly valued. This should be an institutional value which everyone recognizes and shares. It should be understood that this is a challenging task requiring a high level of skill and professional development.

This can be used as a motivational workshop to help participants understand the importance of the work that they do and its impact on American society. This might also include a brief history of developmental education in this country. Is working with underprepared students really a new phenomenon in higher education? This might be a good starting point for discussion in this session.

On March 10, 2006 a special report appeared in the Chronicle of Higher Education titled School and College which presents some startling facts on underprepared students in this country as well as some innovative projects at community colleges addressing the needs of these students. Across the country there are statewide efforts to improve the quality and success of developmental education and basic skills programs. Sources of additional information related to this topic are McCabe and Day's (1998) book titled Developmental Education: A Twenty-First Century Social and Economic Imperative; McCabe's book titled No One to Waste (2000) and Roueche and Roueche's work (1999) High Stakes, High Performance. A 2007 report by ETS titled *The Perfect Storm* details conditions in America which can significantly affect life in this country as we now know it. Many of the variables discussed in this report relate to the challenges the US faces

because of a growing number of uneducated citizenry resulting from a variety of forces.

These are just a few examples of sources that can be used to develop a workshop, web site, listserv, faculty reading list, etc. which would raise faculty and administrators' awareness to the critical issues related to developmental education. Too often we assume that they already know this information. The reality is that most don't know it. This consultant travels extensively meeting with faculty and administrators in community colleges across the country. Many faculty and staff, as well as administrators, are not aware of why we need to offer **quality** and **highly effective** developmental education programs. Comments such as "These students don't belong in college" or "I learned it this way why can't they?" or "We are working with a deficiency model in which more than half of our students are defective. . . ." are not uncommon. It is imperative that everyone working at community colleges understand the importance of successful developmental education programs. This is particularly true since they are on the "front line" and this is part of their daily work. That includes those teaching the adult basic education courses, college preparatory courses as well as those teaching the subsequent curriculum courses. It takes an institutionalized approach in which everyone takes responsibility for the success of all of the students at

FCCJ. They make a difference in our country's future. According to McCabe (1998), "Upward mobility in the labor force depends quite simply on education and developmental education is that essential doorway for millions of Americans."

RECOMMENDATION 2

Developmental Students: Who are they? What are their needs?

Understanding who these students are is a critical first step toward creating environments in which they can be successful and facilitating their learning experiences. As noted above, all faculty are not aware of the characteristics and needs of neither their students nor how to develop learning environments in which they are most likely to be successful. Given the large number of underprepared students enrolling in community colleges, it is not surprising that their backgrounds and reasons for needing pre-college courses are extremely varied. Several authors have identified categories of characteristics of developmental students (Hardin, 1998) and a typology of developmental students (Boylan, 2006). A professional development for all faculty and staff on the characteristics of underprepared learners would generate discussion, opportunities to share examples and experiences, but most important provide participants with a more in-depth understanding of their students.

It would be appropriate to integrate adult learning principles into this workshop in addressing some of the needs of developmental students. There are some excellent web sites such as the following https://courses.worldcampus.psu.edu/public/faculty/adults.html on characteristics of adult learners that can be used in developing this workshop.

Related to the characteristics are their needs which impact their ability to be successful learners. There is an abundance of research on factors influencing students' success. Yes, they need to acquire basic skills in mathematics, reading, and English/Writing at various levels. However, these cognitive skills taught in isolation of the characteristics and needs of these students has repeatedly contributed to their failure. What other skills are essential for these students to be successful? For example, a student with poor study skills and learning strategies and high math anxiety will generally fail a developmental mathematics course which doesn't address these needs throughout the course. Students with poor time management skills and juggling the pressures of a full-time job, being a single mom, and taking a full load of courses are not likely to be successful. There are many other critical skills which need to be integrated into a developmental education program.

Having knowledge and understanding of who the learners are and what their needs are is a critical first step in designing successful learning environments. The next step is the identification, discussion, and development of strategies to meet those needs.

RECOMMENDATION 3

Tapping into the Non-Cognitive Dimensions of Student Learning

Understanding the characteristics of the developmental student can contribute to faculty attention to cognitive and non-cognitive factors in designing their learning environments. Emphasis in the field of developmental education has always been on the holistic development of the student. Attention is paid to the social and emotional development, as well as to their cognitive growth. Programs which are most successful consider both the cognitive and non-cognitive factors in the design, delivery and implementation of learning environments. An essential first step is creating a safe, non-threatening environment in which students feel a sense of belongingness and see the potential as well as experience success. When students feel they are in a now win situation they are going to drop. What interventions can be utilized as options for students in this situation. Not all faculty are aware of strategies and techniques to create such learning

environments. This topic may include a series of workshops. Some examples are included below.

RELATED RECOMMENDATIONS

- Identifying and Using Non-Cognitive Assessment Inventories to Improve the Quality of Developmental Education
- Strategies for Implementing Critical Thinking, Study Skills, Learning Strategies, Metacognition, and other Essential Skills.
- Recent Research on the Brain & Implications for Improving Student Learning

RECOMMENDATION 4

Designing Culturally Responsive Learning Environments

A number of core practices and recommended strategies on Culturally Responsive Teaching overlap with some of the strategies educators can use to address the needs of diverse learners. Geneva Gay (2000) emphasizes a positive approach that is proactive not reactive. "Trying to teach from … a deficit mindset sounds more like a basis for 'correcting or curing' rather than educating" warns Geneva Gay (2000, p. 24). It includes the communication of high expectations and positive perspectives which relies on the educator's knowledge of the cultures represented in the classroom and how to translate this knowledge into instructional practice. CRT values different ways of

knowing, understanding, and representing information within a given culture. There are a variety of techniques and strategies which can be used to design culturally responsive learning environments (Bonham, Nedwell, McLeod, 2007)

RECOMMENDATION 5

Students' Learning Preferences and Faculty Teaching Styles

This recommended workshop focuses on facilitating faculty recognition of their own learning patterns so that they can apply this knowledge in their teaching in order to increase students' success. "How students learn mathematics is influenced by their learning style, defined as the 'preferences, tendencies, and strategies that individuals exhibit while learning.' An effective mathematics curriculum is one that provides students of every learning style an opportunity to engage in a topic, connect with the material, and then stretch the learning capacity in other learning modes"(AMATYC, 2006, p. 20). The following are some examples of learning styles inventories discussed and included in Beyond Crossroads: Implementing Mathematics in the First Two Years of College (AMATYC, 2006): *The Myers Briggs Type Indicator* (Briggs, McCaulley, 1985), *Kiersey Temprement Sorter* (Kiersey & Bates, 1984), *The Kolb Learning Style Inventory* (Kolb, 1976), *Index of Learning Styles* (Felder, 1993), *VARK*

(http://www.vark-learn.com/english/index.asp) and the inventories provided by Anthony Grasha in his book Teaching With Style. These are all excellent examples of inventories which have been effectively used with underprepared students. In a FIPSE funded project in the state of Massachusetts (Massachusetts Community Colleges Executive Office, 2006), mathematics educators at community colleges also emphasized the importance of professional development for mathematics instructors on learning styles. Paul Nolting, researcher and consultant in developmental mathematics stated that most instructors teach the way they learn best or the way they were taught. As a result, about two-thirds of the faculty were teaching to approximately one-third of the students. The overall goal of this workshop would be to increase students' success by enhancing students and faculty awareness of different learning styles and to implement supportive strategies to maximize student learning.

RECOMMENDATION 6

Classroom Assessment Techniques

The work of Patricia Cross and Thomas Angelo provides faculty with specific techniques for conducting, evaluating, and responding to research in the classroom. The Classroom Assessment Techniques (CAT) developed by

Angelo and Cross (1993) are used widely by both two- and four-year institutions (Cross & Steadman, 1996).

Angelo (1994) recommends an approach that focuses on improving student learning rather than on teaching. Such approaches promote faculty and student self-awareness, self-assessment and self-improvement. Such activities can help faculty to better understand themselves and their students. The use of the Teaching Goals Inventory provided by Cross and Angelo is a good introduction to this workshop. Engaging faculty in on-going meetings to identify different techniques they are using provides a meaningful learning experience for faculty and has had significant impact on student learning.

Concluding Remarks

The recommendations listed above are building blocks for further professional development workshops. They represent areas of core knowledge and are based on benchmarks of excellence that all faculty should utilize in designing their learning environments. It is recommended that the workshop facilitators utilize active learning strategies i.e. model the practices which faculty are expected to use in their classrooms. In some cases, use of a problem-based learning approach to the workshop might be highly effective. A systematic approach to engaging large numbers of

faculty (full-time and adjuncts) who teach adult basic education and college preparatory mathematics in these workshops will be an essential ingredient for success.

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