FIRST-YEAR VOICES: FACULTY BUILDING COMMUNITIES OF LEARNING AND INTEGRATED PRACTICE

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Prepared for:
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230

Prepared by:
InSites
P.O. Box 4391
306 W. Lodgepole, #S9
Dillon, CO 80435-4391
970-668-0779

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The InSites team members for this project are Beverly Parsons (Executive Director of InSites), Carol Bosserman,(evaluation associate), Elizabeth O'Connell (organizational consultant), Rosemary Reinhart (writer/editor), and Kathy Wyckoff (project assistant). Theresa Rosner-Salazar and Deborah Watson of Research Evaluation Associates for Latinos (REAL) serve as external evaluators for the project. Sonya Christian, Peggy Valdez-Fergason, and Richard Voorhees serve as external review panelists.

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Executive Summary

During the 2004-05 school year, thirteen faculty at Bakersfield College pioneered a new process of building evaluation capacity by participating in a research study of Communities of Learning and Integrated Practice (CLIPs). The overall hypothesis being tested through this research study is that Communities of Learning and Integrated Practice are a vehicle by which faculty can develop evaluative inquiry skills, knowledge, attitudes, and relationships that can help to build a long-term culture of inquiry and evidence-based decision-making about teaching and learning within a community college.

The research study is being conducted by InSites (a non-profit organization that conducts research, evaluation, planning, and development in education and social service fields) under a grant from the National Science Foundation (NSF). The second year of research will be conducted with additional CLIPs at Bakersfield College during the upcoming school year (2005-06).

Bakersfield College is located in Bakersfield, California about two hours north of Los Angeles in an agricultural area. In 2003, Bakersfield College had a full-term enrollment of 15,953 with a 39% Hispanic student population.[1]

What CLIPs Are

CLIPs are informal groups whose members use a five-step "evaluative inquiry" process to study one or more questions about an instructional course or program. (The five-steps are position the inquiry; plan the inquiry; collect data; analyze and synthesize data; and communicate/use the findings from the inquiry.) Through participation in the CLIP, CLIP members build their skills and knowledge in conducting such inquiries. These CLIPs are focused first and foremost on student learning. CLIPs are neither student learning communities nor a series of workshops or training sessions. They are communities of faculty who learn together about their professional practice. Typically, faculty have had little encouragement and/or support to work together in this way.

1 Statistics are from the Bakersfield College website and represent the most currently available figures.

Three CLIPs at Bakersfield College in 2004-05

Three CLIPs operated at Bakersfield College during the 2004-05 school year: Computer Studies, Math, and Physics. Each CLIP met regularly and also met with other CLIPs and InSites.

The three members of the Computer Studies CLIP investigated various assessment methods for a course on Microsoft Office. After collecting the data and analyzing the results, the CLIP identified an alternative method of assessment that saved faculty time and didn't adversely affect student learning.

The seven members of the Math CLIP set out to identify student learning outcomes for Math A (Elementary Algebra) and Math D (Intermediate Algebra). As a result of their work, they derived clarity on topics currently taught in the Elementary Algebra classes and established appropriate student learning objectives for the course. They recommended that the math department as a whole use this list of learning objectives along with a dialog with faculty who teach courses with algebra prerequisites to derive the learning outcomes for the Elementary Algebra course. Next year a Math CLIP will continue the investigation into Intermediate Algebra (Math D).

The three-member Physics CLIP investigated the operation and effectiveness of discussion sessions for the Physics classes. They developed a deeper understanding of what operational features are important and the direct and indirect value of discussion sessions. For example, they discovered that some students were taking the information learned at the discussion sessions back to their classmates with whom they have created informal study groups.

Although the major work of the CLIPs was in their own groups, we held three cross-CLIP meetings. The CLIP Facilitators and CLIP Guide drew upon the interests and needs of the CLIP members to determine the agenda and content of the cross-CLIP meetings in August 2004, January 2005, and April 2005. The first cross-CLIP meeting provided an orientation to the work and emphasized planning the inquiry activities around the questions each CLIP had tentatively identified. The second meeting focused on data analysis and completion of the full inquiry process by the end of the second semester. The third meeting was a time for sharing results and celebrating the work together.

Resources

A major resource for the CLIP work was the learning and action that occurred among the CLIP members within their individual groups and in the cross-CLIP meetings. The emphasis was on surfacing the tacit knowledge that exists in the group. Concurrently, we encouraged CLIP members to reach out to new outside resources. We provided resources to CLIP members to build their general evaluative inquiry skills and knowledge and to build knowledge and connections specific to the topic they were investigating. The main resources were: a website of resource materials and links; skill-building sessions provided upon request by external consultants and the CLIP Guide from InSites (e.g., refining questionnaires, conducting focus groups); conference attendance; and visits to other college campuses. The extent of use of these resources varied.

Impact of CLIPs

The work of the three Communities of Learning and Integrated Practice that operated at Bakersfield College during the 2004-05 school year produced considerable learning about this structure for enhancing the capacity of faculty to engage in systematic inquiry about their teaching and student learning that can help build a campus-wide culture of making instructional decisions grounded in research-based evidence.

At the beginning of the study, we stated that the desired impact of participation in a CLIP was to improve teaching and learning. Through the study we discovered specific ways that CLIPs affect teaching and learning. The participants in the first round of CLIPs indicated that participation affected them or their students in the following ways: receptivity to new ideas, enhanced ability to make evidence-based decisions; gains in knowledge and skills related to evaluative practices; enhanced quality of relationships; opportunity to influence student learning; and motivation to stay involved.

Key Features of CLIPs

At least six features of how a CLIP is structured and operated appeared important during this first year of operation: cooperative, safe, trusting relationships among CLIP members; willingness of CLIP members to undertake responsible roles; diverse perspectives among CLIP

members; manageable size of CLIPs; provision of stipends; productive meetings; and provision of external resources on an as-needed basis.

Future CLIPs and Study

The study of how CLIPs operate, how they fit in the broader context of the college's emphasis on high quality teaching and learning, and what they can accomplish will continue through the 2005-06 school year with a second round of CLIPs. These CLIPs are in the areas of Communication, Developmental Writing, General Education outcomes, Math, MESA, and transitions (of students to four-year institutions). Two of the CLIPs for the coming year—one in math and one focused on MESA—have evolved from two of the past year's CLIPs. Other CLIPs have no overlap in membership from the past year. We expect that new issues will come up during this second round of CLIPs that did not arise during the first round and that there will be opportunities to investigate questions that we didn't investigate during the first round.

Introduction

During the 2004-05 school year, thirteen faculty at Bakersfield College pioneered a new process of building evaluation capacity by participating in a research study of Communities of Learning and Integrated Practice (CLIPs).These faculty included[2]: Rick Brantley, Rick Darke, Mary Diskin-Mattison, Jeri Haner, Christy Haycock, Liz Rozell, Bernie Scanlon, Wally Simmons, Carol Smith, Donna Starr, Janet Walker Tarjan, and Rachel Vickrey. During the upcoming school year (2005-06), the second year of research will be conducted with additional CLIPs. Another report will be prepared following the second year of the study of CLIPs.

Communities of Learning and Integrated Practice (CLIPs)

CLIPs are informal, dynamic groups whose members use a five-step "evaluative inquiry" process to study one or more questions about an instructional course or program that they are involved in. Through participation in the CLIP, CLIP members build their skills and knowledge in conducting such inquiries. CLIPs complement both the formal hierarchical and/or bureaucratic structures of an institution and the formal practices of establishing student learning outcomes, student assessment, program review, and related topics. They emphasize the sharing of practical knowledge and skills useful to those in the community. The core purpose of building evaluative capacity among faculty is to make a positive impact on student achievement.

Bakersfield College

Bakersfield College is located in the city of Bakersfield, California about two hours north of Los Angeles in an agricultural area of the San Joaquin Valley. Settled in 1858, the city of Bakersfield now has a population of over 221,000 people (the 13th largest city in California) and covers more than 110 square miles.

In 2003, Bakersfield College had a full-term enrollment of 15,953. Of these, about three-fifths were female (58%) and two-fifths were male (42%). Three main ethnic groups made up the vast majority of the student population (89%): African American (7%), Hispanic (39%), and White (43%). Regarding age, 29% of the students were 19 years old or younger, 30% were in the

2 In listing these names, we gladly acknowledge those who have contributed so much to this work and yet we also want to respect the privacy of those who participated who preferred not to be named.

20-24 range, 12% were between 25 and 29, and 32% were over 30 years of age. In terms of course-load, about one-third of the students were carrying a course load of less than 6 credits, one-third between 6 and 11 credits, and one third were taking12 or more credits. To give a general sense of areas of emphasis within the college here are figures on the number of self-declared majors in several fields relevant to the work of the CLIPs: agriculture (276 students), allied health (2,006 students), business (1,683 students), computer studies, (276 students), math and science (984 students), and social/behavioral sciences (1,474 students).[3]

Research Study

The overall hypothesis being tested through this research study is that Communities of Learning and Integrated Practice (CLIPs) are a vehicle by which faculty can develop evaluative inquiry skills, knowledge, attitudes, and relationships that can help to build a long-term culture of inquiry- and evidence-based decision making about teaching and learning within a community college. The research study is being conducted by InSites (a non-profit organization that conducts research, evaluation, planning, and development in education and social service fields) under a grant from the National Science Foundation. Beverly Parsons of InSites served as the CLIP Guide and principal investigator for the grant.

In January 2004, InSites received the grant to conduct this research under the National Science Foundation's solicitation for proposals related to "evaluation capacity building." NSF uses the term "evaluation capacity building" to refer primarily to the development of skills and knowledge related to assessing the quality and characteristics of instructional programs. It is not focused on student assessment although student assessment may well be a part of the evaluative process. NSF initiated this solicitation to increase the knowledge and skills among professionals about evaluating instructional programs in the fields of science, technology, engineering, and mathematics (STEM). The solicitation urged those who submitted proposals to develop innovative means of building evaluation capacity. This grant focused on the use of CLIPs as an innovative vehicle for building evaluation capacity among community college personnel.

3 Statistics in this section are taken from the Bakersfield College website and represent the most currently available figures.

In Phase I of the study (school year 2004-05), there were three Faculty CLIPs with 13 faculty members all together: Each CLIP was organized around a discipline: Computer Studies Math, and Physics. In Phase II of the study (school year 2005-06), there will be six CLIPs with 40 some members all together. The CLIPs for the second year include some groups that are not in the STEM disciplines but affect students in STEM programs. The CLIPs for the second year are not necessarily organized around a single discipline. These CLIPs are in the areas of Communication, Developmental Writing, General Education outcomes, Math, MESA, and transitions (of students to four-year institutions). Phase II CLIPs also expanded beyond faculty to include an administrator in one CLIP, students in two CLIPs, and staff in one CLIP. We continue to refer to them as Faculty CLIPs since they are initiated by faculty and the members are largely faculty.

A Coordinating Committee at Bakersfield College looks at how the various parts of the study work together to build a supportive environment for CLIPs. Members of the Coordinating Committee during the 2004-05 school years were Greg Chamberlain, Mary Diskin-Mattison, Ed Knudson, Beverly Parsons, Liz Rozell, Jerry Scheerer, and Rachel Vickrey. Ed Knudson is the lead contact person for Bakersfield College.

Throughout the research study, participants provide data via questionnaires, interviews, and focus groups to InSites and its external evaluation team (Theresa Rosner-Salazar and Deborah Watson) from Research Evaluation Associates for Latinos (REAL). The quotes presented in this document are largely from the individual interviews conducted with each of the CLIP members in May 2005 as they completed their year of involvement in the study.

The work of the three Communities of Learning and Integrated Practice that operated at Bakersfield College during the 2004-05 school year produced considerable learning about this structure for enhancing the capacity of faculty to engage in systematic inquiry about their teaching and their students' learning that can help build a campus-wide culture of making instructional decisions grounded in inquiry and research-based evidence.

This document is one of several reports that will result from this three-year research study. The study involves other aspects of the operation of CLIPs within a community college including how the use of CLIPs fits with the college's student assessment and program review practices and its overall orientation to collaborative work, inquiry, student learning communities, relations

with the community, and other policies, practices and conditions. Other documents will address what we are learning about these matters.

Organization of Report and Intended Audiences

This report represents our understanding of the CLIP process at this early stage of development. The experiences of the CLIPs that will be in operation during the 2005-06 school year will lend additional insights and depth of understanding to what is presented here.

The intended audiences for this report are the CLIPs that form for the 2005-06 school year at Bakersfield College, others on campus who are interested in CLIPs and their role, community college personnel on other campuses, and the National Science Foundation.

This document begins with a definition and explanation of the purposes of CLIPs. In the next section, we describe the evaluative inquiry process engaged in by the three CLIPs, the specific questions that guided the inquiry for each CLIP, the general mode of operation of each CLIP, and direct support provided to the CLIPs as they undertook their inquiry process. The third section summarizes what CLIP members had to say about the impact of CLIP involvement on them. The next section describes what we learned about the structure and operation of CLIPs that appears to be important in making them successful. The final section points out some of the aspects of CLIP work that we expect to learn more about through the second round of CLIPs that will be operating during the 2005-06 school year.

Communities of Learning and Integrated Practice (CLIPs)

Definition and Purpose

CLIPs are a specialized type of Community of Practice.[4] Communities of Practice are groups of people within and across organizations who find and share best practices, steward

4 See the following two books for information on Communities of Practice: Hasanali, F., Hubert, C., Lopez, K., Newhouse, B., O'Dell, C., & Vestal, W. (2002) *Communities of practice.* Houston: American Productivity and

knowledge, and help community members work effectively. There is frequent sharing of tacit knowledge on a informal basis. People have always formed communities but now organizations are giving more intentional and systematic attention to these connections and looking at how they complement other more formal organizational structures. These communities are consciously nurturing and harnessing knowledge to enhance their work.

CLIPs focus on learning how to engage in evaluative inquiry, and integrating that learning into practices that enhance teaching and learning. Participants are building their capacity to evaluate instructional programs and learning experiences and build a culture of inquiry and evidence-based decision making. In CLIPs, faculty come together in an informal community structure to investigate one or more questions about their own teaching and their students' learning that are of practical interest to them. Typically, faculty have little encouragement and/or support to work together in this way.

As they undertake such an investigation, CLIP participants are intentionally enhancing their skills and knowledge in how to conduct such inquiries so they can make inquiry a regular part of their teaching practice. Because they are continually learning more about their professional craft and integrating it immediately into their professional practice, we call this informal structure, "Communities of Learning and Integrated Practice."

The evaluative inquiry process consists of five steps: position the inquiry, plan the inquiry, collect data, analyze and synthesize data, and communicate/use the findings from the inquiry.

Distinctive Structure

CLIPs are communities of faculty who learn together about their professional practice. The structure is flexible enough to vary the composition of the communities when that seems to be in the best interest of the inquiry. A few of the second-round CLIPs will include some of these faculty-administrator-staff-student variations. We consider all of these variations a type of faculty CLIP because the focus of the inquiries is on how faculty use the CLIP work to develop evaluative inquiry skills, knowledge, attitudes, and relationships that can help to build a long-term culture of inquiry and evidence-based decision-making about teaching and learning.

Quality Center and Wenger, E., McDermott R., and Snyder, W. (2002). *Cultivating communities of practice*. Boston: Harvard Business School Press.

CLIPs should not be confused with other types of "communities" that are talked about in education today or with other types of "professional development." *CLIPs are neither student learning communities nor a series of workshops or training sessions for faculty.* Although CLIPs may use workshops or training sessions as part of their process, their dominant means of learning is deeply rooted in personal interactions with peers they select. Members deliberately create a safe, trusting, respectful environment in which to share insights, concerns, solutions, tools, and promising practices to improve teaching and learning practices. This process may not be easy. As one CLIP member said, "we had to work very hard to overcome differences to make an environment that was safe and trusting." The emphasis is on the sharing of practical knowledge and skills useful to those in the community.

These communities are not required; rather faculty and others come together around an issue they are motivated to investigate and voluntarily choose to be a part of, addressing it through an inquiry process. The level and nature of involvement of each community member can vary considerably. As they learn from one another and from the inquiry process, they adjust their work to meaningfully address the focus of their inquiry.

Five-Faceted Evaluative Inquiry Process

Once faculty members form a CLIP, their activities revolve around using a five-step process of inquiry. The five steps are: positioning the inquiry; planning the inquiry; collecting data; analyzing and synthesizing data; and communicating/using the findings from the inquiry.

This section provides a general description of the process of evaluative inquiry at Bakersfield College. The next section describes in more detail how each of the three Bakersfield College CLIPs applied the process during the 2004-05 school year.

Figure 1 illustrates the CLIP process.

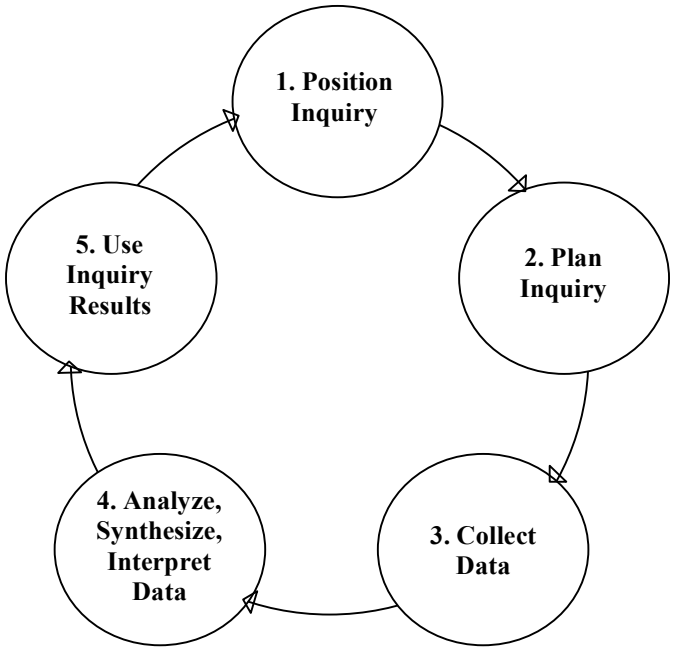

Figure 1 – Evaluative Inquiry Cycle

Getting Started

CLIP members begin by identifying a problem, issue, or vision of a new way of teaching or learning that they want to investigate. They are looking for a topic that touches the heart of some important aspect of teaching and learning that will make a difference for students. They discuss, frame, and reframe the topic until they have positioned the inquiry around this important topic. In helping the first group of CLIPs get started, the CLIP Guide emphasized that "We want this to be successful and we want it to be fun. You are here because you are interested in answers to questions you have. We want to build on your motivation. The number one thing is – you pick the question. Focus on what you want to work on and people agree that they want to do." In positioning the inquiry, CLIP members may want to consider analyzing existing student learning outcomes or assessment results; researching alternative practices; or investigating characteristics of their program and current practices. They also may take into account other situations in their department or the college as a whole that would make it worthwhile to focus on a particular topic of inquiry. If their area of inquiry involves testing new approaches to their work and they have

identified the general challenge they want to address, they may want to engage in external searches (via the web, network, personal contacts, etc.) to identify a range of options to investigate.

Using the Inquiry Steps Interactively

Once a CLIP selects a topic for investigation, they develop a plan for gathering and analyzing data about their question (moving clockwise around the diagram in Figure 1). The CLIP process encourages members to expand the range of their perspectives, including accessing perspectives that are external to their college. By delving deeply into using data and evidence, participants may be able to identify new twists on their instructional approaches that they might not have seen by working alone or without data. One CLIP member said, "It's a great process. It's a good way to get something accomplished in a very structured way. You choose something that needs to be done and this process seems to give you a structure so you don't get muddled in details you can't handle."

The learning and growing evolves from whatever place the CLIP starts. Although choosing a worthwhile topic is important, the process does not break down if the group decides to change their focus. The CLIP Guide emphasizes that it is a flexible cycle, "If something isn't working right, don't just keep going through the cycle. Go back and redo." Commenting on how the process of narrowing the focus of their inquiry had helped their work, one CLIP member said, "When we started, we had a very wide scope of what we were planning to look into. At the time it seemed like we weren't going to be doing enough. What surprised me was that it wasn't until we narrowed it down and it didn't seem like we had much to find out that we actually got some information that was really useful."

After gathering data, CLIP members analyze and synthesize their data to determine what they can learn from the data that they can apply to their instructional practices. According to one CLIP member, "It's a continuing process of starting with the question, looking for evidence and then being able to evaluate together and then going back and perhaps changing the question or moving on to another."

Typically the CLIP is investigating a question that is also of interest to colleagues not involved in the CLIP. They use their own discretion in how much to share and with whom. As

the CLIP Guide says, "Early on we realized how important it was to allow CLIP members to report about their findings or process at whatever level is comfortable to them. This became especially clear when one person was concerned enough to contemplate dropping out of the CLIP. In response, we came up with a set of agreements that everyone in the CLIPs and the Coordinating Committee agreed to that would protect the privacy of CLIP members concerning their data."

Many CLIP members found that the process itself had given them confidence in using an evidenced-based approach in their work. As one member said, "In general, when people bring up concerns or questions or complaints, I ask more confidently, 'What is the evidence? What are we working on?' I have felt more confident in reminding [our CLIP members] that our feelings are important, but we need to push forward and get actual evidence that everyone can appreciate in order to back up our arguments."

Work of CLIPs at Bakersfield College

During the first year of the pilot study of the CLIP process, faculty from each of three departments chose to form a CLIP—one in computer studies with three faculty; one in math with seven faculty; and one in physics/engineering with three faculty. In each case, a member of that department initiated the process and invited others to join. Together they worked out a general idea of the instructional question or issue they wanted to address. The initiator submitted a simple application to the CLIP Guide indicating the guiding question(s) for their inquiry, why it was important, what data they already had about student performance related to the issue, ideas of how they might approach the inquiry including what research skills they hoped to gain, and who the CLIP members would be. The initiator of the CLIP became the community's facilitator. Each CLIP held its own meetings on whatever schedule worked for them and participated in three cross-CLIP meetings.

The three cross-CLIP meetings organized by InSites with input from the CLIP Facilitators were integral to the work of the CLIPs. At the first of these cross-CLIP meetings, CLIP members refined the questions they would focus on during the year and made a plan of inquiry. By the

second session, they each had gathered some data and had a sense of how long each step takes and what was realistic to complete by the end of the second semester. They refined their plan with a focus on data analysis and the use and reporting of their findings although each CLIP also had some additional data they wanted to gather. In the last meeting, each CLIP orally presented their key findings as best they knew at that point and explained their plans for sharing their findings. The other CLIP members gave feedback on what was particularly interesting, who else might be interested in their work, and any suggestions they had about their reporting plans.

In addition to organizing the cross-CLIP meetings, InSites provided resources on a website and offered in-person assistance with the steps of the inquiry process upon request. The CLIP Guide worked with Facilitators on issues that arose. In response to requests, she attended CLIP meetings, helped with questionnaires, and conducted focus groups. Also, InSites handled logistics for attending conferences, paid stipends for participation, and arranged for outside consultants. As part of the research process, InSites and Research Evaluation Associates for Latinos (REAL) gathered information via interviews, questionnaires, and focus groups to learn about the value and merit of the CLIP process. REAL served as external evaluators for the research project and shared the data gathering and analysis function with InSites.

The CLIPs used the inquiry process to both answer an important question they had about instruction and to gain new skills, knowledge and attitudes regarding the use of evaluative inquiry. In the remainder of this section, first we describe aspects of how each of the CLIPs used the inquiry process and then take a more detailed look at the cross-CLIP meetings and the resources provided to the CLIPs. Together these activities produced important results for the CLIP members and their colleagues.

The purpose of describing the CLIP work is to show how the work evolves. Unlike some traditional models of research design, evaluative inquiry is not a rigid process that must occur in a specific sequence. In evaluative inquiry, the five steps are interactive and flexible. People continually reflect on the questions they are asking and the data they are receiving and make adjustments to ensure that they are getting the most useful and accurate results. The three CLIPs at Bakersfield College provide three illustrations of how this process works. In each of the three, there were adjustments as CLIP members responded to surprises and difficulties along the way.

Computer Studies CLIP

This CLIP was composed of three faculty who each taught Computer Studies B5, a course on Microsoft Office. In teaching this course in the past, these three faculty used the same textbook and assessed student achievement by grading every assignment. They decided to investigate other assessment methods by having each teacher use a different assessment method in his/her classes.

In their initial plan, the Computer Studies CLIP identified three questions related to their course. At the first cross-CLIP meeting they refined and narrowed their focus to this question: "Is there a more concise method of assessing our Coms B5 students that is as effective or more effective than our current method?" Their plan was to have each of the CLIP members try a different way of assigning and grading student assessments. During the fall term, each assessed the unit on Microsoft Word using one of the following methods:

- One member *created a project* that would be used as the assessment tool at the end of each chapter. The project incorporated all of the Word functions introduced in the chapter.
- One member assigned several assessments at the end of each chapter, but *graded only one assessment*. She did not tell students which assessment would be graded.
- One member acted as the control group and continued grading as she had in previous years. She *graded all* assessments given.

As one of the CLIP members said, "The three of us had been teaching 20-25 years so it gave us an opportunity to look at doing things differently." To determine the effectiveness of the various assessment methods, they decided to compare retention rate and grade distribution in their classes. They also used some historical information based on previous classes. The CLIP held regular meetings where they discussed their work and what they were discovering and made adjustments.

At the cross-CLIP meeting in January 2005, they developed plans to further test the assessment methods. Each chose an assessment method that was different from the one he/she had used in the fall semester. One member assigned one project at the end of each chapter. The other two assigned several assessments. This semester none of them graded every assessment.

At the end of the year, they concluded that (a) they did not need to create their own projects because they found that their own projects, which took a lot of time to create and grade, "were not necessarily any better" than the projects in the textbook; and (b) there was no significant difference in the average grades for the different assessment methods. Although the students were aware that only one assessment would be graded, the quality of student performance did not change.

After collecting the data and analyzing the results, the CLIP members determined to change their method of assessment. As one member said, "We decided to grade just one project….Doing the one project was a time-saving factor for us, but it didn't influence student learning because [the students] didn't know which one we were grading. So they still had to continue doing all their projects even though we may have graded only one of them."

Another said, "In the past I've graded every single piece of paper that the students turn in. Now, from the results we got, I'm going to pick and choose an assessment assignment and grade it in great detail. I will tell the students that I'm only going to grade one, but I will look at the others to be sure they are on the right track, still making a couple of comments but not poring over every single assessment. Our study reflects that there's not that much of a difference in the final result."

Having decided at the end of their inquiry that results would be of value to others in their department, they sent a memorandum that described their work and their findings to all members of the Computer Studies department.

Citing the results of their CLIP work, one Computer Studies member valued both "getting together with my colleagues and sharing ideas and saving time when I'm grading papers without sacrificing the effectiveness of the grading."

Math CLIP

The seven members of the Math CLIP wanted to reduce the number of student learning objectives for their elementary and intermediate algebra classes. This issue arose when the college moved from an 18- to a 16-week semester. In directing their attention to this overall issue, they started out to answer three questions through their inquiry:

1. What are the goals of Elementary Algebra and Intermediate Algebra and why?
2. What successful algebra programs already exist in the Western U.S.?
3. What topics are required in courses in nursing, chemistry, technology, and psychology as well as subsequent math courses that require our algebra courses as prerequisites?

Because of the magnitude of the issue and the large number of CLIP members, their inquiry was more complex than that of the other two CLIPs. For the first and third questions, they decided to collect information from the math faculty and/or from the faculty in nursing, chemistry, technology, psychology, and advanced math using interviews, focus groups, and/or questionnaires. This turned out to be a difficult task. For the second question, they decided to conduct interviews or use questionnaires with faculty at other universities, community colleges, and high schools while attending three conferences—the Mathematical Association of America (MAA), The American Mathematical Association of Two Year Colleges (AMATYC), and California Mathematics Council Community Colleges (CMC3). They also planned to gather information from the Pathways group (a particular instructional approach for algebra in use in some colleges in California).

In October 2004, the Math CLIP talked about the data from their first interviews. One CLIP member described the results of their surveying one group of conference attendees: "There was agreement between the major university and community college professors on how they answered the questions….What we saw was that people really thought that there was indeed a problem. They were experiencing the same thing of students not being prepared and there seemed to be an overwhelming number of topics that had to be done. They were interested in what kind of results we would get from the survey."

On the other hand, some found problems with their survey: "We were asking teachers in other colleges what they were teaching in equivalent courses and even asking some four-year universities and other community colleges. Some of them were on the quarter, not even on the semester. That was just too big a ball of wax to deal with."

While some said that the questions didn't work well and that the data collected would not be particularly valuable to analyze, others wanted to continue working with the data from that survey. In addition, they realized that it was difficult to get the specific information they were

hoping to receive from the other departments about the topics that should be covered in Introductory Algebra (Math A) and Intermediary Algebra (Math D). "The departments we were trying to coordinate with were the ones who have Algebra as a pre-requisite. We became frustrated in terms of their being able to communicate with us exactly what they needed….I think we'll recommend that it be dealt with at the department level." (CLIP member)

With encouragement from the CLIP Guide, they used their experience to revise their overall inquiry questions rather than doing the full analysis of the data that they had planned. Thus they short-circuited the inquiry cycle to get more targeted on information that would ultimately be most helpful in making a decision about the learning objectives and outcomes for the algebra classes. By the end of the cross-CLIP meeting in January 2005 they had adjusted their focus to address these questions:

1. What is being taught and how is it being assessed in 16-week Math A [Introductory Algebra]?
2. Within the Math department, is there agreement about topics taught and assessed in 16-week Math D [Intermediate Algebra]?
3. What are the current statewide issues with regard to AA graduation requirements and "quantitative literacy" course?
4. What do Bakersfield College faculty outside the math department identify as essential Math A and D topics?

While one group continued to work on refining their first survey approach, the other developed a structured questionnaire for all faculty who teach Introductory Algebra (Math A). "[The best experience was] when we sort of changed course," said one member. "When we were discouraged by our original surveys because we couldn't really figure out what we were going to do. The initial data didn't seem to give us what we were expecting."

For the survey of the math faculty, they decided to ask faculty to go through each chapter of the textbook to identify the assessment questions they use and don't use. Looking back at the process, one CLIP member said, "I think it was good that we started out trying to figure out what should be taught in Math A so that we could make our [student learning objectives]. We started

with what we're teaching now and the other survey was trying to find out what they thought we should be teaching." One described the process as becoming "less emotionally attached."

Recognizing that faculty would need to invest a lot of time and effort to complete the survey, they gathered faculty for a pizza party in one of the classrooms. One CLIP member said, "It was really funny because in the past no one wanted anyone to know what they were teaching for fear they were teaching the wrong thing and people would be mad at them or whatever. The surveys were anonymous and they weren't worried at all. People were openly discussing them." The CLIP Guide said, "Events such as this bring in people who are not part of the CLIP and fit with the notion of keeping the community 'permeable' so that people can come and go."

Looking back on the inquiry, a Math CLIP participant concluded, "[W]e've never been locked into something. The group changed its ideas as we went through the year. In the beginning we talked about student learning outcomes and there were several directions we could have taken but in the end we decided to focus mostly on our beginning Algebra course. I think that was not the plan at the very beginning. The group just kind of evolved and said this is specifically what we want to do. At the beginning of the year I could not have predicted that. For next year, we have ideas but they may change again."

One member said, "I thought it a very worthwhile process. I think it was one of the first times within the math department we got some definitive information on what it is we're actually teaching in Math A. It was an excellent process." For this CLIP member, the best experience was deciding on a new way of approaching the problem when the first one didn't work. "We were working on the wording for the surveys. I enjoyed it so much because my colleagues are great and there was so much creative thinking and problem solving."

Another Math member said, "[At our] last Math CLIP meeting, there was a moment when I was discouraged. I just had to ask the group if we were going to be able to do what we want to do. I've been fairly hopeful and optimistic and we're plodding along.... So in this meeting it seemed like we were spinning a little bit. I just asked the other members and they all felt that – yes, this was attainable and we were going to get this done. I felt better by the end of the meeting but there was a moment I felt like we weren't getting anywhere…. I think it was a good thing even that I felt that. That sounds strange."

One CLIP member said that she was surprised by "how little a faculty can get done in any given semester. The demands for faculty time in terms of their own teaching and their family responsibilities and other department responsibilities, it always seemed like we had to put the CLIP off a little bit more than I would have liked. Everything took a lot longer than I would have expected."

One Math participant said, "Success is pretty hard to measure. I think we've gained some information we didn't know before. I would say we were successful at achieving something we were not able to do in the past. If you walk away from a meeting and you feel pretty satisfied that you've made at least a little bit of progress, then it's been a success. Small steps are good and happiness each time I work on the CLIP is success."

Another said, "[H]ow I'm gauging our success this year is that we've made progress even though we've stumbled several times along the way—more in one year than in ten [previous] years."

Physics CLIP

Some engineering and physics classes have a discussion session. The purposes of the discussion sessions are to address questions regarding homework problems, lab experiment concerns, and difficult concepts from the lectures. At the discussion session, attendance is optional because students are not given unit credit for this session. Although students are not given unit credit, the instructor does receive FTE credit for that hour. Since the institution of the 16-week semester calendar, there have been scheduling problems because of the short semester and associated shorter week of instruction. Because of these scheduling problems, there has been concern about whether discussion sessions should be continued, if there were improvements that could be made and/or if alternatives to these sessions should be considered.

At the first cross-CLIP meeting, the Physics CLIP devised these questions as the focus of their study:

1. Does the *content* of the discussion session correlate with test scores and homework completion rates?

2. Does the *scheduling* of the discussion session correlate with test scores, homework completion rates, and/or attendance rates?

3. How do students perceive the *usefulness* of the discussion session?

When the Physics CLIP started looking at the discussion sessions held in conjunction with some of their classes, one participant remembered, "There was one tough time….Our investigation first started out as being one that was concentrating on how ineffective these discussion sessions were because of the scheduling times….. It kind of cast them in a bad light. I wasn't aware....To one of our members, it looked like we were setting ourselves up for showing whoever might look at it, including the administration, that our discussions were just not working. That created some hard feelings for a short time….The way we dealt with it is we kind of changed the focus and looked at how we could reschedule and concentrated on the positive aspects of it."

At the request of the CLIP, the CLIP Guide conducted a focus group with students in the latter part of the first semester. One CLIP member describes the process: "[The CLIP Guide] was the one who moderated the focus group so there wouldn't be an instructor doing it. We made up questions and the responses then were looked at so we could decide what kind of questions we wanted to write up on a questionnaire for all of the students. That whole process was so interesting and some of the feedback we got was so unexpected that it was very captivating to be involved in that."

As indicated above, the CLIP used the results of the focus group to develop a questionnaire given to all of their students in their classes. Students completed questionnaires at the end of the first semester and during the second semester.

At the second cross-CLIP meeting, the CLIP retained questions #2 and #3 and revised question #1 as follows:

1. Does *participation in* the discussion session correlate with test scores and homework completion rates?

The CLIP collected and analyzed the data. CLIP members learned that some students who were coming to the discussion sessions took the information from the session to their friends in

informal study groups. In this way, the discussion sessions were actually having more of an impact than the faculty had expected. One CLIP member said, "One of our concerns was the low attendance [at discussion sessions]. We found out that some students were in a study group of 5-6 people and only one of them would come to the discussion…. You may show on your records that you've got 60% attendance but by the time they get out to their study group you may have more like 90%." One CLIP member summed it up: "They were networking and we didn't expect that."

Describing what they learned, one CLIP member said, "After we analyzed all the data, it gave us a very positive result….[About] 80% responded that the discussions really helped them understand physics better and helped their homework completion rate….It helped them so we feel really comfortable with what we are doing." Another benefit was that "Within the CLIP we did solidify as a group to contribute to our department."

Taking a long view of success, one CLIP member said, "There are different generations of success. [W]e defined the task and it's pretty evident at the end of the period that we were successful in gathering enough information to evaluate what we'd done.... Continued success would involve future CLIPs that would experiment with what can be done to increase the usefulness. After that is done, a follow-up one could measure any noticeable differences in student outcomes because of that change."

Cross-CLIP Activities

Although the major work of the CLIPs was in their own groups, we held three cross-CLIP meetings. The CLIP Facilitators (Mary Diskin-Mattison, Liz Rozell, and Rachel Vickrey) and the CLIP Guide (Beverly Parsons) drew upon the interests and needs of the CLIP members to determine the agenda and content of the three cross-CLIP meetings (August 2004, January 2005, and April 2005). Initially, we planned to have four meetings (one at the beginning and end of each semester), but it worked out better to have the CLIPs meet individually near the end of the first semester and then have the second cross-CLIP meeting at the beginning of the second semester. This schedule gave participants time to reflect on what had happened during the first semester and think about what was most important to do the second semester.

The first cross-CLIP meeting provided an orientation to the work and emphasized planning the inquiry activities around the questions each CLIP had tentatively identified. The second meeting focused on data analysis and completion of the full inquiry process by the end of the second semester. The third meeting was a time for sharing results and celebrating the work together.

CLIP members enjoyed the meetings. One said, "The group meetings were very valuable….From my point of view, that's what created the energy." Another said, "All of us got a new respect for what each other does. Sometimes if you are removed and you don't think about what other departments are doing, you just get insensitive. It was interesting to see that we all deal with many of the same kinds of issues and problems and that we all care about students' success. It was interesting to see even the bonding that went on with the other CLIPs, even though we didn't meet with them on a regular basis." "I felt very valued and empowered." (CLIP member)

For one member, "[T]he best experience was when we shared what we had discovered up to this point in the group meetings for our CLIPs: what evaluations we were doing and how evaluations were turning out. I just felt that was motivating for me and it was interesting to see what other people were doing." This person was surprised by the amount of information that people had gathered and shared. "I didn't know how deep people were going to go or how much they were going to put into the process." Another said, "I'm always fascinated just to hear what people are going to say. I've learned a tremendous amount this year in terms of how people think about what we are doing in this group and the others. I liked the kinds of questions [another CLIP] asked – fascinating for me. They went in a very different direction than [we did] and it was very interesting to see how their minds worked and how they approached a problem."

August 2004 Meeting

The first cross-CLIP meeting was a six-hour meeting held during the week before classes started in the Fall in a large conference room on campus. Everyone sat around one big table: thirteen CLIP members; the CLIP Guide; a resource person (Sarah Phinney) from the faculty Professional Growth Center of the college and another one from InSites (Carol Bosserman); and the two project evaluators. After everyone introduced themselves and their interests in

participation, the CLIP Guide introduced the evaluative inquiry process and showed CLIP members the information available on the website.

Individual CLIPs had about two hours to work together on their planning and to work out a schedule of what they'd be doing. They were to think about their work for the whole year but concentrate on the Fall semester. The CLIP Guide said, "In the interim between their application and the first cross-CLIP meeting, I took their initial questions and moved them into a template that they could use for planning their inquiry. I put down some suggested ways they could proceed in case they didn't know where to start. When I gave these back to the Facilitators I kept saying, 'Don't take this too seriously, these are just ideas for you to start with.' It worked out well because they did feel free to modify it and yet it gave some ideas and some structure."

The CLIP members used separate worktables for their two-hour meetings with their individual CLIPs. A laptop computer was available for the use of each CLIP member; one person in each CLIP acted as the recorder, using a planning matrix for the evaluative inquiry that InSites had prepared. After they finished their plan (by the end of the meeting or shortly thereafter), they put the results on the web to share with each other. Each person in the CLIP and the CLIP Guide could then download it and have it available.

As they worked through the questions to investigate and analyzed the amount of work that would be involved in answering all of their questions, they reduced the number of questions. As the CLIP Guide said, "My orientation in the first meeting was – keep cutting back from what you think you are going to be able to do. Don't take on something too big. Be sure you can be successful. Success builds motivation to continue the use of the inquiry process."

Following lunch, the meeting closed with time for sharing what had been done in the individual CLIPs and a focus group led by the project evaluators about the value of the meeting and what adjustments would be helpful for future meetings.[5]

January 2005 Meeting

The five-hour on-campus January meeting was a time to regroup, reflect on what had been accomplished in the first semester, and plan activities for the second semester with an eye toward

5 Complete agendas and handouts used at the meetings are available from InSites.

completing the full evaluative inquiry cycle by the end of June. The emphasis for each CLIP was on data analysis and planning a final product. Among the handouts at the meeting was one about the final product. It began by saying: "Your CLIP's final product represents the results of working through the Evaluative Inquiry cycle. It is a written document that is *written for a specific, real audience.* We suggest a length of 1-8 pages (with 2-5 being most likely). Be creative. It can be a letter to your families, your students, and/or your colleagues; a memo to your colleagues; a newspaper article; a journal article; a message to colleagues in another college telling them what you learned and asking them for their experiences related to the topic. These are just a few ideas. Select an audience with whom you truly want to communicate. Be clear on your purpose for communicating with them."

Each CLIP again had a couple hours to work on their specific plans before the meeting concluded.

April 2005 Meeting

We held the final cross-CLIP meeting in the clubhouse at a condominium complex near campus. The large living room with three round tables provided a relaxed atmosphere. Each CLIP had its own work area and yet everyone could talk together at various times throughout the meeting. The two and a half hour meeting began with lunch.

The purpose of this meeting was for each CLIP to practice presenting their work to others. Each CLIP informally presented their inquiry process, whatever findings they had at that point, and their plans for communicating their work to others. After listening to each CLIP's presentation, the others took a few minutes to jot down responses to the following questions:

1. What was the most interesting part of the data/findings presented by the CLIP?
2. Who else (e.g., others within Bakersfield College, others in the profession) do you think would be interested in this CLIP's work/findings?
3. What did you most like about the CLIP's communication plan?
4. What would you suggest they modify?

Then they handed their notes to the presenting CLIP for their use as they refined their communication plan.

This meeting turned out to be especially energizing and enjoyable. One CLIP member said the following about the meeting: "I was surprised that I was interested in what everybody else was doing. I didn't know we would have the same problems that people in [other departments] did, but we did. It was interesting what they saw was a problem and how they thought about addressing it. My interest surprised me." Another member said: "For me being able to see what people had accomplished and what their goals were, especially at the end, was just so valuable. I was very impressed with the attitude people had in their CLIPs together, how supportive they were of each other. They had enthusiasm for their disciplines and also supportive of other people as well." Similarly, another person said: "[T]he final meeting we had recently was [the best experience in the CLIP]. I had to talk for a few moments so my adrenalin was flowing a little bit. I talked some about the work I did and for my individual project. So that was exciting and just hearing how the other people solved their problems and what they did. It was a whole lot of fun."

Resources for Building Inquiry Skills within CLIPs

A major focus of the CLIP work was the learning and action that occurred among the CLIP members within their individual groups and in the cross-CLIP meetings. The emphasis was on surfacing the tacit knowledge that exists in the group. At the same time, we wanted to encourage CLIP members to reach out to new resources outside of the college. We provided resources to CLIP members to build their general evaluative inquiry skills and knowledge and build knowledge and connections specific to the topic they were investigating. The main resources were: a website of resource materials and links; books and videotapes; skill-building sessions; conference attendance; and visits to other college campuses. The extent of use of these resources varied.

Books, Tapes, and Web-Based Resources

Bakersfield College's Professional Growth Center set up a website with resources and materials and established discussion forums for each of the CLIPs. The website and discussion forums were within ETUDES, the software for teaching online courses that is used on campus.

Although none of the CLIP members taught online classes, we chose to use this software since it would also familiarize them with how online courses operate. The website and discussion forums were introduced during the initial meeting of the CLIPs in August 2004.

As the CLIP Guide said, "We posted a lot of materials about the evaluative inquiry process on the web site. At that point I was uncertain how much information we should provide. We tried to cover all the topics we thought they might be interested in but make them short and readable. We found that the materials were not heavily used. In some cases, it was because faculty found the software cumbersome." By the end of the first semester about half of the CLIP members reported using the website.

The Professional Growth Center set up a forum discussion within the website for each CLIP individually and for the CLIPs as a whole. By the end of the first semester, it appeared that this was not a particularly effective way to communicate. Some CLIP members seldom used email and others were not accustomed to forum discussions. Since our primary focus was on having participants learn evaluative inquiry skills, we decided to back off of using the forum discussions and encouraged people to share information through email attachments or other familiar means.

As the CLIP Guide said: "One of my roles was to think about information the CLIPs would need and encourage them to access it, especially as it related to their specific tasks. During the first year, I did this less than I had expected to. But that's okay. Through this process, we are learning how much people can absorb and how much they'll use."

We also set up a library of resource books in the Professional Growth Center that were specific to topics of relevance to the CLIPs. "It's also been exciting to learn new ways of looking at realities and ways of understanding group processes and individual understanding of that [from] the books contributed by InSites." (CLIP member)

On-Call Support from CLIP Guide

The CLIP Guide was in regular contact with each of the CLIP Facilitators to determine the technical assistance, conversations, materials, and linkages that could assist the CLIPs. Although initially we thought it might be useful to provide workshops throughout the semester that any CLIP member could attend, we found that people were so focused on their specific inquiry that it worked better for the CLIP Guide to provide "just in time" skill-building around a particular

activity when the CLIP was ready to use it. "[The CLIP Guide] was involved just the right amount – involved but not heavy-handed or anything. She would provide direction if we asked. She had a suggestion here and there. I was really quite pleased." (CLIP member) "Being a pilot was hard and we had some bumpy parts in the road. I really appreciated [the CLIP Guide] being [ready] to retrench. When something wasn't working [e.g., use of journals] I appreciate that she backed off instantly….Often within academia, those complaints can be that stopping point. Because [InSites] just responded immediately, we were able to keep moving forward and not stay focused on the negative."

The Math Facilitator and CLIP Guide periodically talked about what the Math CLIP would be doing at various meetings. At their invitation, she assisted them with designing their initial questionnaire and reviewed some of ther data. After the Math CLIP had gathered their data from interviews, the resource person in the Professional Growth Center organized it on the computer into a table format for easy analysis. Then at one of the CLIP meetings, the CLIP Guide used the responses to one of the questions to show them how to analyze qualitative data. They practiced developing codes and looking for themes in the data. "[The CLIP Guide has] come to almost all of our meetings and given us suggestions. She's really good at seeing what help we might need. Even when she sees it she won't make a suggestion until she calls one of us aside. I've really appreciated her." (CLIP member)

The CLIP Guide met with the Physics CLIP to talk about how to design their questionnaires and their focus group questions. Then she conducted their focus groups for them using the questions they had designed. (They were concerned if they conducted the focus groups their own students would be reluctant to talk.) The CLIP Guide summarized the responses to the questions and returned it to the CLIP members for their analysis. "I've done a lot of [quantitative] data collection and analysis, so there really wasn't anything in that process that I learned. But one of the things we did use that we hadn't used before was focus groups. I thought the student focus groups were just fantastic. [The CLIP Guide] facilitated them and we got such good information from that prior to doing our questionnaires so we built our questionnaires off of them. That was a good way to go." (CLIP member)

Conferences

A key feature of the CLIP approach is to establish a culture of learning from outside sources and, with appropriate caution and skepticism, consider outside information as adjustments are made to instructional and other practices. Given the many excellent conferences and workshops available on topics relevant to the CLIPs, we allocated a portion of the budget for CLIP members to attend conferences of their own choosing so long as the conference included something that connected to the work of the CLIP and they were learning something they wanted to incorporate, allowed them to gather data related to their inquiry question, and/or made connections to other people who can be a source of information for their inquiry.

Several members of the Math CLIP attended professional conferences in the fall. Three Math CLIP members attended the conference of the Mathematical Association of America (MAA) in Las Vegas while one member attended three conferences in fall 2004: International Conference on Technology in Collegiate Mathematics (ICTCM), The American Mathematical Association of Two Year Colleges (AMATYC), and California Mathematics Council Community Colleges (CMC3). While there, they conducted interviews with faculty from other colleges about the student learning objectives they have for their introductory algebra courses.

Physics CLIP members went to a conference too. Rick Darke and Liz Rozell attended the Southern California Section of the American Association of Physics Teaching Conference in April 2005. This conference included high school and community college instructors and addressed instructional pedagogy. There were several presentations on Physics education. Rick Darke presented one of the topics to several Bakersfield College math and engineering faculty upon his return. This presentation will be polished and incorporated as a special MESA presentation during the upcoming fall semester. Although the content of the conference did not directly address discussion sessions, it did provide Rick and Liz the opportunity to brainstorm further and compare instructional methods with the other schools represented.

One CLIP member attended the highly-regarded Assessment Institute in October at the Indiana University-Purdue University at Indianapolis (IUPUI) campus which provided many new ideas on how to approach student assessment and development of student learning outcomes.

Outside Workshop Consultants

The initial plan for the CLIP work involved bringing in outside consultants throughout the year for presentations or workshops. However, the CLIP members did not see a need for many outside consultants. In the end, we brought in only one outside consultant to work with the CLIPs—Ruth Stiehl, the author of *The Outcomes Primer: Instructing the College Curriculum* and *The Mapping Primer: Tools for Reconstructing the College Prep Field.* She came in April 2005.

The selection of Ruth Stiehl was done in cooperation with the college's Assessment Coordinator so that the work would both serve the needs of the CLIP study and mesh well with her plans related to assessment campus-wide. The CLIP Guide gave out several copies of Stiehl's books to CLIP members during the cross-CLIP meeting in January 2005 and talked with others who were starting to form CLIPs for the next school year. So much interest in her ideas was aroused that the CLIP Guide ended up circulating about ten sets of Ruth's books to CLIP members and other faculty and administrators.

The workshops with Ruth were structured so that CLIPs or groups from various departments could engage in the process of developing program-level student learning outcomes or, if they already had such outcomes, they would focus on mapping their curriculum to those outcomes. "Ruth Stiehl asks people to set their program-level student learning outcomes 'out there' meaning what students can do when they are out of the college and into their job and in their life as a citizen in the community. Then they start realigning and mapping their courses toward those outcomes. She has some helpful processes for doing that." (CLIP Guide)

Ruth Stiehl facilitated three half-day workshops with one or two department groups in each. Math was one of the department groups. Of the five math faculty participants, three were members of the Math CLIP. Faculty and staff from other areas were invited to come and observe the process. Additionally, a meeting with department chairs and other interested parties was held to provide an overview of the approach to developing program level student learning outcomes and curriculum mapping. The Assessment Coordinator introduced the session to help position it appropriately with other activities on campus related to the topics.

The Impact of CLIPs on Participants

Over the course of Phase I, it became clear that the faculty found the work intensive. Most are not used to working with colleagues to systematically investigate a question that is important to the group as a whole. It imposes an extra task and a lot of people can't maintain that commitment year after year, even when they are getting a stipend. We wouldn't be surprised if most people remain a fully active member of a CLIP for no more than one to three years. People may be in for a year then out for a while or more loosely connected until some question arises that piques their interest again. Then they would come together in a CLIP around that question.

At the beginning of the process, we stated that the desired impact of participation in a CLIP was to improve teaching and learning, but we did not delineate specific results. We wanted to keep participants open to a range of possible ways that CLIPs might affect teaching and learning. The participants in the first round of CLIPs indicated that participation affected them or their students in the following ways:

- Receptivity to new ideas
- Enhanced ability to make evidence-based decisions
- Gains in knowledge and/or skills related to evaluative inquiry practices
- Adoption of new instructional practices
- Enhanced quality of faculty relationships
- Opportunity to influence student learning
- Motivation to stay involved

Here are specifics of what CLIP members said regarding these results of their involvement this year.

Receptivity to New Ideas

Some participants did not expect much value to come from their participation in the CLIPs and found that the process changed this perspective. For example, one participant said, "[A]t the beginning I was really determined almost not to change and thought I'm doing it the best way I

can. This is really the only way that will do the job. I realized that change is not always difficult and that improvements can result when you make a change. For me it worked perfectly."

A number reported that they have come to respect the evaluative inquiry process. One participant said she had learned "Maybe not to over think. Get going and try it. If it doesn't seem like it's going in the right direction, it's okay to abandon it and start over again. Talk with others and use what they've learned. Maybe come up with some better questions to ask."

A number of participants reported being more receptive to new ideas. Said one participant: "It's greatly changed my acceptance of new assessment ideas, not necessarily instructional ideas. Because of the fact that this has been such a positive experience, hopefully I will be more willing to be open to new ideas." Another participant said, "Even though there may have been one to two members who felt the way they did it was the only way, I think we all look at things differently now."

One participant suggested that "the CLIP process can help establish safety guidelines so people feel welcome to speak up and contribute."

Enhanced Ability to Make Evidence-Based Decisions

An important impact of the process was providing evidence for decision-making. One CLIP member said that the CLIP process "kind of forced us into discussing things with each other. As a department, we don't necessarily operate that way. Sometimes decisions are made without information being provided to the faculty. I think being able to have this kind of relaxed environment to be able to discuss issues and address things would be something that could transcend into a department situation and would help in decision making."

Pointing to the work of their CLIP, a CLIP member said, "[W]e've come upon some methods that can be used for those other courses in trying to determine what really isn't necessary for everyone to teach. I think we will use it in similar situations for our other courses."

One CLIP member was pleased that they had taken a different perspective in their decision making: "We tried to step outside and look at it from outside instead of the inside. That would help us in any decision making. We even wrote out what was being done and what we thought should be done to see it clearer and become less emotionally attached. Sometimes those who are

emotionally attached can't really see the big picture. Every meeting we had seemed to make it clearer."

The use of evidence was helping some participants move toward more objective rationales for decisions. Said one, "We all have our own little thing we're trying to protect based on emotion and not what's best for the student. [But people are] speaking less emotionally about things. They are getting a little more objective. We'll see positive effects from that." According to one CLIP member, their discussions became more fruitful: "[As] we were working on the topics, we improved the level of discourse and the level of specificity that people were having. [W]e got away from complaining about the problem and really began to focus on solutions to it within the department."

Another thought that emphasis on evidence for decision making had helped them look at issues from a broader perspective: "[O]ften we work within our departments and get focused on our own courses, but if we have larger questions I think it is a very good idea to have groups of faculty, especially from different departments, working on a particular topic. The one I like best for next year is the Gen Ed group. It's a group of people interested in the [General Education] situation and they are going to be doing reading and thinking and making contributions and suggestions to what a pilot project might look like."

One CLIP participant commented that success should not be measured by the number of changes made: "At the end of our CLIP we didn't come out with anything that said we should make a change. Change is good, but sometimes change isn't good. What makes it successful is there has been some kind of processes going on that has yielded a set of data that has led them to a decision. When you get to the end there's a product and you have justification for it."

Gains in Knowledge and/or Skills

Appreciation for Variety of Data Collection and Analysis Techniques

Focus Groups

Even though the Physics CLIP did not conduct the focus groups themselves, they gained an appreciation for the data that could be gathered from focus groups. As one member said, "[O]ne of the things we did use that we hadn't used before was focus groups. I thought the student focus

groups were just fantastic. [W]e got such good information from that prior to doing our questionnaires that we built our questionnaires off of them. That was a good way to go." Another member of the Physics CLIP said, "[W]e learned something very unexpected by doing something we hadn't done before, which was running a focus group. Those results kind of surprised me so I now know the effectiveness of using a focus group."

Statistics

Others appreciated what they'd learned about statistics. Said one participant: "I've learned a little statistics [from another CLIP member]. In any evaluative process that's quantitative you have to use some statistics. The more you know the more focused you can be as far as trying to find answers to specific questions."

Student Learning Outcomes and Assessment Methods

A member of the Math CLIP said, "We had two meetings on rubrics and how to grade and we practiced that with each other. It was very enlightening." "[P]eople like me who have taught the same course many years just routinely teach the same material and don't think about how we can improve our teaching methods. But this was a great opportunity. We can reflect and evaluate ourselves and it's really helped me establish student learning outcomes and assessment methods." (CLIP member)

Surveys and Questionnaires

"I've learned a lot about how to come up with question and how to ask questions. When we're trying to evaluate something, how do you even ask the question so that people understand what we're saying?" (CLIP member) "I'll bring [to the new CLIP] the experience of working with one for an entire year. I'll have some ideas about good questions to ask and how to approach other faculty with our results, how to get along with each other. I've had a whole year thinking and learning about learning outcomes. Outcomes, teaching, how to improve student learning – that's a lot I'm bringing to it." (CLIP member)

One Math participant learned how to formulate better questions: "I think by having that first failure on the survey we learned a lot about how to put together a survey. For a specific skill, just kind of overall how to set it up and how to be a little more specific. We learned that terminology

that we think is every day terminology we have to be more careful with that. Our everyday terminology is not the everyday terminology that the business department uses."

"After we did the last CLIP in the fall I did a survey with one of my classes and I don't typically do that because it's time consuming. Based on that survey I made modifications to that same class this semester and it improved the class immensely. Just getting some feedback from the students about things they felt most value to their learning. I just modified slightly and it's been very successful…. They felt a lot more comfortable and understood the information better." (CLIP member)

"From what we've done this past year, I think just the effectiveness of student questionnaires impresses me enough that I think I will employ lots of questionnaires in my classes – all the way from just gathering data on people to questions about how effective they think the structure of the class is, the teaching process, laboratory portion, etc. I want more feedback from the students." (CLIP member)

Analysis of Qualitative Data

One CLIP member said, "One thing that started to open up – and I hope I'll be able to follow-up on this next year – was analyzing qualitative data." Another remarked, "I have had several handouts and I've kept those on how to gather information, how to be clear about what it is you want to answer with your questions. Then how to look at the data and interpret that. I have learned quite a bit about that."

Looking back at some decisions they had made, the member said, "I think what surprised me was how we make decisions within our department not based on some evaluative exploration and not necessarily based on good data. Rather just feelings where they relate to stories. I think it surprises me that we don't use this [CLIP] process more."

Interpersonal Skills

One CLIP member found the process helped to work more effectively in the group. "I found the beginning of the process very, very difficult but the process of CLIPs has helped me do some re-evaluating and thinking about things I can do different in order to be more effective in the group."

Ability to Refine Inquiry

Several members commented that they had learned how to narrow their focus to something that was doable. "Something I've learned and still want to learn it again...—that is the concept of 'less is more'. If you bite off the smaller piece you can actually learn quite a bit.... It's designing a doable project and then allowing yourself time to reflect and to do that well," said one member. Another member concurred, "We took on more than we could chew in the beginning and when we came to [the CLIP Guide] and said I think we're going to have to redo what we've done. That's okay – it's better to just abort and start over. It was a good learning experience and I think that was beneficial."

They also learned that it was okay to change their focus as they came to a better understanding of what they wanted to accomplish: "The interesting thing of being part of watching it happening is our focus got smaller but we got more effective." (CLIP member) "[W]e've never been locked into something. The group changed its ideas as we went through the year. The group just kind of evolved and said this is specifically what we want to do. At the beginning of the year, I could not have predicted that." (CLIP member)

Some members learned to be patient with the process: "It surprised me that we didn't get quite as far as I thought we would," one member said. "That's okay. I'm not disappointed – just surprised."

Adoption of New Instructional Practices

Although many thought it was too early to see an influence on instructional practices, some expect that changes in instructional practices will eventually result from the CLIP work.

Computer Studies CLIP

Computer Studies CLIP members agreed that the CLIP work has influenced their grading practices. One said, "It has not influenced the way I teach. It really influenced overall the way I grade their papers, but my teaching process is not different. It's just saving a bunch of time and allows us to do other things in the teaching process." Another said, "It definitely influenced me and it definitely will continue to influence the way I grade in my classes."

Math CLIP

Most of the Math CLIP members were looking to the future for an influence on their instructional practices. As one member said, "What we have right now is a list of topics that we know the majority of our faculty are covering in the elementary Algebra course. As we get that information disseminated, they will have just another layer of data in terms of deciding what to do on any given day. We didn't really focus on how those topics are taught - just which topics to emphasize."

Another planned to implement changes next year: "[The CLIPs work] hasn't affected [my instructional practices] yet, but next year I will be going off of the suggested homework list and covering the topics everyone else is going to be covering. That is going to affect my teaching because I will tailor it to meet those outcomes."

Some members of the Math CLIPs mentioned the effect of the CLIP work on the student learning outcomes they would be using. One said, "Starting in the fall I'll be saying, 'These are the things we need to accomplish. These are our objectives. These are our outcomes. This is what you, the students, have to master in my course.' I began that a little bit this year, but as I get ready for fall that will be much more a part of my syllabus, my handouts, my overall teaching." Another said, "I think what it's going to help us do is get our SLOs [student learning outcomes] more concrete. I don't think they'll ever stop changing. That will help us get a better start on those, which will help the full-time instructors that teach Math A as a guide of what should be covered and what should be left out. Also our adjunct faculty. It could change what some people teach in Math A."

According to one Math CLIP member, the discussion would lead to changes in grading: "We've talked about grading and people have exchanged ideas of what they do with their grading—even the business faculty. Right now they are individual changes and we're just at the tip of the iceberg of what's going to happen."

One Math member expected that the math experience would spread beyond the math department: "The whole assessment conversation will be helped within the college based on the math experience."

Physics CLIP

In the Physics CLIP, the results influenced them to keep the discussion sessions as part of their course. A CLIP member said, "It did influence us because we were very concerned about our discussion session and we were almost on the verge of maybe not getting rid of it, but of making major modifications. What we got was a validation that the format and the way we had it constructed was working well, although the students came up with suggestions that will be incorporated into the discussion sessions themselves."

Another Physics CLIP member said, "We haven't done anything where we've actually changed the way we're teaching. We just learned that an integral portion of our course, which is a discussion, is something not a lot of other institutions have. We have found them very effective in student learning. Now that we know what the effectiveness is and what students are doing in order to use this I think we can change the way it's integrated into the course. I do feel we can do something that will greatly influence the effectiveness for the student in the future."

One Physics member was looking beyond the work of the immediate CLIP to its effect on the upcoming MESA CLIP and then back at the discussion sessions. This CLIP member said that the CLIP work had helped them discover that "the effect of the discussion session went beyond the actual meeting itself. That has affected what we're going to be doing with the MESA CLIP; we're going to be looking at peer study groups. Once we get done with the MESA CLIP and have an idea of how these peer study groups work, then we can come back to the discussion session and revisit and re-evaluate and help students without being too interfering with peer study groups. They are a critical part of student success."

Enhanced Quality of Faculty Relationships

Relationships within CLIPs

For some CLIP members who had worked together for a long time, the CLIP experience did not appreciably change their relationships. One CLIP member said, "Within our department, I don't think the quality [of relationships] changed at all. I did hear someone say something about the fact that they could really see a difference in the relationships of the larger groups at the beginning versus the relationship at the end. But personally for us I don't think there was that

much of a change." Another member of that CLIP agreed, "I'm not sure the relationship in our own CLIP changed because [we] have worked together well for years."

Others reported that they felt more comfortable with each other. "The quality [of relationships] has always been rather high. We're a department that gets along with each other quite well. We got even more comfortable working with each and sharing our opinions, and also learning how each of us think and view various topics. The comfort grew throughout the year." Some said it deepened the trust level.

Relationships with Other CLIP Members

The cross-CLIP work provided CLIP members an opportunity to meet with faculty from other disciplines. One member said, "As time went on, I felt closer to some of the other people who are in CLIP groups in the other disciplines. We had never even talked before and I think that was a positive thing." Another CLIP member agreed, "I feel more comfortable now around the people that I see in the CLIPs." Another participant said, "It was interesting to get to know some of the people in other CLIPs because some of those folks I hadn't even met even though we work at the same college. I thought everybody got along well and we had fun at the meetings."

Some expressed appreciation for their different perspectives. "Right now we feel closer to other science departments and I think that will grow. We and they have a much better idea now what our problems are, how we work, how we feel and how we deal with teaching," said one CLIP member.

Some discovered an interest in the others because of what they shared in common. One CLIP member said of a cross-CLIP meeting, "When everybody talked about the state of their investigation, I was surprised that each of these other groups were involved in looking at things that were problems in our department too. So we were real interested in what they were doing."

One benefit of getting to know faculty from other disciplines was the opportunity to learn from them outside of the CLIP process. "Relationships became stronger…. better," one participant said. "[Another CLIP member] is going to let me sit in on her class this summer. Even though I teach it myself, I think she's fantastic. I feel like that's one of the things I need to see – her methods and how she uses technology. So that's one of the exciting things to come out of this." Another CLIP faculty said, "I would feel much more comfortable going to either one of

the departments [that had CLIPs] and saying I've got a student with a problem, or I'm teaching something in a class and I want an application type problem, can you help me out? I can see being much more comfortable doing that in the future than I would have before the CLIPs."

Relationships with non-CLIP Faculty

Some noticed that those not involved in the CLIP could feel left out. The Math CLIPs use of the pizza party to get input from other faculty was cited as a good way to make the communities permeable. "The relationships deepened. There was more understanding of each person's perspective. The way we formed the CLIP in the first place people already knew each other somewhat. Within the department I think some of the people not in the CLIP felt left out so there was this sense of another group of people who were not part of it. We've addressed that by inviting some of them to be part of it." (CLIP member)

Opportunity to Influence Student Learning

Most members did not think that their work had immediately impacted student learning: "For my experience this past year I didn't see much of a connection," said one member. Another said, "I don't think student learning was influenced because it wasn't in the teaching process we were changing. It was in the evaluation process."

Some predicted an influence in the future. "I think in the near future [we will have] this list of fairly accurate SLOs [that] really do reflect what we're teaching and what we want our students to come out with. I plan to incorporate [them] on my syllabus which then will give my students a better feel and be more confident in knowing exactly what I expect of them before classes start and as we go through the semester. Starting in the fall, it will have a direct relationship." (CLIP member)

One member was enthusiastic about its prospect for students' studying practices. "[The CLIP work has not influenced student learning] so far but I can anticipate that it will in the future. Even if they have a friend in a different section then they may get together and do homework problems together because they have the same list. It may allow them a larger pool of people to choose from for study buddies."

Motivation to Stay Involved

One desired outcome of the CLIP work is that faculty members will be motivated to continue to be involved with colleagues in some type of continuing evaluative inquiry about teaching and learning. Most were motivated by a desire to see the finished product. "The goal was what sustained me," said one CLIP member. "Just to finish what we've set out to do."

One participant commented, "I've been a teacher at BC for [many] years and it is nice to have freedom to teach what you want, but the courses I'm teaching are pre-requisites for other courses. We have an outline of what should be taught but there's too much material so it's always been up to your own choice of what to eliminate. I think it's fabulous that we've finally come together and decided what the majority are teaching and this section should be skipped because most people are skipping it and the discussion on it." Another said, "My motivation is to get us all on the same page so if a student comes out of any one of our classes they would finish with the same material."

Some were motivated to continue their CLIP involvement in the long term. "I see that what we've done in this last term has been one of three phases that have natural progression ending with a quality educational product," said one participant. "I would like to be involved in the other two phases to follow that up. I like what it did and if we can just keep up that kind of meeting and investigation, there is always some kind of evaluation we can do in numerous areas within our department." Another said, "As long as something means we can improve our teaching and improve our department and also improve learning for the students. So all three of those things. When you've got that, I'm willing to stay with it. Everything we've been doing has been related to improving teaching and that's made it easy for me to stay interested."

Important Features of CLIPs

We have so far described the processes that the CLIPs used and the impact of the CLIP work on the participants. In this section, we look at what appear to be the key features of the CLIPs that led to these impacts. We begin with characteristics of the individual CLIPs and then look at their cross-CLIP work.

At least seven features of how a CLIP is structured and operated appeared important during this first year of operation:

- Cooperative, safe, trusting relationships among CLIP members
- Willingness of CLIP members to undertake responsible roles
- Diverse perspectives among CLIP members
- Manageable size of CLIP
- Provision of stipends
- Productive meetings
- Provision of external resources on as-needed basis

Cooperative, Safe, Trusting Relationships among CLIP Members

Certain general responsibilities and operating principles apply to all members. The CLIP must be safe, trusting, and flexible. People have to respect one another and one another's point of view and be willing to work on a peer-to-peer basis. One CLIP member said that "Trust was the core value. When we came together as a group and we talked about what we wanted to do, we did agree to trust that everyone was going to do their best, even though we might have had disagreements." Another said, "I value the intent and the effort and the willingness of everyone to come together as a group and work together in order to move forward. The whole process of setting goals, re-evaluating, changing if needed, and being willing to share with the group has been the most valuable," said a CLIP member. This member also said that "I think the CLIP process can help establish safety guidelines so people feel welcome to speak up and contribute."

One CLIP member said that success lay in participating in the process itself: "Not necessarily did we make every person completely change their ways, but it was successful if we got everyone involved at some level at thinking about what they do and trying to improve it. I think we did that with the vast majority."

A number of members commented on the value of being open and willing to listen. "I would say to be open. To feel free to share whatever thoughts you have, especially in the small group meetings even if they sound ridiculous. Do brainstorming. Be accepting of anything that's new and at least consider new ideas from colleagues, even if you don't care for their personalities."

Another CLIP member agreed: "I do think they need to be flexible and open. If you come in with your own agenda you will be in conflict with everyone else. It did help to have some data analysis skills, etc. but mainly it's more of a character quality that you have to have. You need to go into a CLIP realizing it has a team approach."

Several participants described the importance of cooperative attitudes: "I think it's important to have individuals who are open and honest. You cannot work in a CLIP if you have one person who tries to take over the group and has too much influence." Another said: "[R]emain open-minded. [Be willing] to listen, to participate. Listen to other people's viewpoints. Take into consideration what they are saying. Don't be close-minded about it and be willing to try something new and different." "[B]e open, be flexible, be ready to be surprised, be ready for new ideas and to change your views on things. And be ready to have a lot of fun – really!" (CLIP member)

One CLIP member adjusted her style to align better with her peers: "I think the fact that I'm willing to just be quiet, be there and be supportive and not try to take the lead and influence outcomes of things made people more comfortable. I feel more welcome in being there in some sense."

Willingness to Contribute to Maximize Team's Effectiveness

One member commented that "CLIP members were willing to contribute special knowledge, skills, or time to maximize the effectiveness of the team's investigation." By assuming responsibilities that they were best qualified within the team to do, they contributed to the team's strength. One CLIP member described the types of skills that should be represented among CLIP members: "[Y]ou'd want someone who was good in statistics. Someone who can write well. You'd want a person with really good organizational skills. Apart from that you'd want people that taught a full variety of courses – whatever discipline it was. What I liked about our CLIP, the seven of us had taught everything in the department. You'd certainly want that."

Members varied in their interests, knowledge, skills, schedules, and available time. One of the faculty used statistical skills: "[The other members] collected the data from their classes and they gave it to me and I analyzed it. We got back together and discussed it and saw some patterns and discussed the outcomes of the data. That was really fun and interesting."

It is important to have a wide range of skills and knowledge within the group. One of the faculty said of the CLIP: "[T]he three of us had fairly different talents. One was a statistical [expert] so we relied on her to do all of the statistical workup, which was great. I wrote up the questions and directives that were asked of the focus group and after that I did most of the questions on the questionnaires."

Each CLIP was facilitated by a person who initially solicited members for the CLIP, had a major role in identifying the questions that would guide the group's inquiry and who facilitated the activities of the CLIP throughout the year. One Facilitator said, "It gave me more confidence. Working with the CLIP gave me some confidence in terms of being able to facilitate groups and made me feel like there's a real need for people to keep the process going."

In addition to the CLIP Facilitator, some of the other roles that CLIP members assumed were those of recorder of decisions of the group, data organizer, data analyst, and writer of the final product(s) of the CLIP work. Others provided data or helped in gathering data. One participant said, "I did a lot of work putting data on the computer. Others were gathering it and making conclusions but I put it on the computer and posted it to the website." Another member of a CLIP had a related role: "I am really interested in the results. I provided data collection – attendance records and grade records and homework completion records."

Each CLIP worked out the assignment of tasks to fit their particular situation. One participant said, "My angle was not actually so much theory. Mine was more organizational….I was the liaison between our group and the entire department. The department was always aware of what we were doing and I feel I had a pretty big hand in that." One Math participant remembered that "on the second survey, it was my idea to have pizza. That was a good thing to do. I also wrote that survey and came up with the idea of using our textbook and having a lot of questions."

One CLIP member counseled, "[T]hink through what expertise you might have and make sure you let your group know because there might be a need for somebody who has had training in research or statistics or something that would really help the group a lot. If they don't know about it, they won't know you are there. Everybody has some type of expertise."

Some committed to following through on routine tasks: "I did my part. There were others who did much more than me, but I did follow through on Chapter 9 to correspond and I completed my homework task, as well as the student learning outcomes. I can't say I did anything spectacular, but I at least did what I was supposed to do." (CLIP member)

For many faculty, CLIP participation provided them a new opportunity to work with colleagues on a large project. Others had more experience prior to participating in the CLIPs. One participant said, "One of my strengths is the amount of time I've spent studying issues that are related to the projects we are working on. I bring a lot of experience to the CLIP, both in curriculum and the external community, not just within the department." One participant found satisfaction in taking on a less responsible role than she had in past projects while supporting others who took the lead.

Manageable Size of CLIP

At the outset, InSites expected to have five to sixteen people in each CLIP. Although three initially seemed too small a number, it turned out to be a nice working group to begin collaborative work of this type.

A CLIP member saw advantages in the small size of their CLIP and wondered how the group would deal with a larger group size next year: "We had a small group (three) so it was a lot easier to get together and it was easier to come to a consensus.... Next year we have a lot more—about nine—and we also have a student on our CLIP. We'll have to find times to meet that will fit into everyone's schedule, etc. I think an ideal CLIP might be a bit smaller than what we'll have next year but bigger than this year."

A participant said, "It would need to be small. Seven was probably as big a number as I would want in the beginning – even a little smaller might be slightly better. It's important that everyone gets along and you can't always guarantee that in any department, but you would need that. You need cooperation, willingness to talk."

Diverse Perspectives Represented in the CLIP

A basic premise of CLIPs is that the members want to work together and share a common interest in the focus of the evaluative inquiry. But this does not preclude differences of opinion.

Although no obstructionist or radical perspectives surfaced amongst the CLIP membership during the first year, members did not always agree. One participant said, "The advantage of the CLIP process is you can kind of make a microcosm of the department without having to get [everyone] involved; we could do it with five or six."

Reaching Consensus

As one CLIP member said, **"**We did have some diverse point of views because there were concerns maybe not all of us had and what we did was compromise. We addressed the issue. We didn't ignore it. One member had a very serious issue so we addressed it and addressed it with [the CLIP Guide] and we came to a solution that was alright and increased [that person's] comfort and trust level."

Another participant had a similar experience: "We certainly disagreed about which direction the group would go, but there was always a consensus that emerged. In the process of talking out our views we came to an agreement. There was a point where we all said 'let's agree and we're going to do this.' It grew organically out of our discussions."

Handling Conflict

Several mentioned that conflict was not something to avoid. "[H]aving CLIP meetings, or any kind of meetings, is valuable especially when you don't see eye-to-eye. Just accept the fact that we're different and that's not necessarily a bad thing." A CLIP member said, "We did have diverse points of view. When the CLIP was formed, there were faculty who instructionally disagree with each other….We anticipated that there might be disagreements, but we were still able to move forward. We gave everybody some time to think about their disagreements and their differences and then they would come back with the sense that they still wanted to go forward and come up with a way."

"Conflict is a natural part of having a group make decisions about best practices but it doesn't need to be negative conflict. It can be identification of problems we need to tackle then discussion of different ways to go about it. I don't see that as necessarily a negative experience." (CLIP member) "I guess when we had two different opinions we kind of went with both for a while and felt maybe we could gain something from both. When we had different points of view, we just kind of talked it out until we came up with a consensus that was more moderate. I never

went away upset." (CLIP member) Another member of a CLIP said, "No fights broke out. I think we were able to talk through and analyze the data and come to some consensus on it. There were times we had some discussion but we were able to converge even though we were not in complete agreement."

Provision of Stipends

Faculty CLIP members each received a stipend of $1000 for the time period from late spring 2004 through June 2005. CLIP Facilitators received an additional $250.

The stipend is designed to compensate for the extra time that was involved in the cross-CLIP meetings, meetings of the individual CLIPs to interact around their plans, and providing information to InSites about the experience. The estimated amount of time was 25 - 35 hours. The time for work in refining one's own course, class, or program was expected to be a regular part of a faculty member's responsibility.

Although the stipend was seldom the major reason for joining a CLIP, the stipend did help to keep faculty involved and committed to the work. It is a practice that would be important to continue. A challenge ahead is working out how a college can provide funding for such work.

"I think a big lure for some who served was a little bit of a financial incentive. That definitely helped and it also rewards people that are doing a little bit extra," said one CLIP member. Another commented, "If you are asking faculty to do something more than their actual job, then offering a stipend makes a difference." Agreeing with the others, one participant said, "I do appreciate it and I think that a lot of people that committed to do this maybe wouldn't have without the stipend. It does take time and we have other things we have to do. This is like one more committee thing we have to do. If there's some money attached to it, people are more willing to say they really do owe 20 –50 hours—they are paying me so I can't fly through."

On the other hand, one participant viewed the stipend as less important than other factors: "I don't think the stipend was the most important. Of course, it was an incentive but not the most important. I'm not so sure that will be the deciding factor whether someone is involved in a CLIP. I think it's more of a time factor."

For some, it spurred them to continue when the work became more difficult. “I think that people knew we were making progress even though it seemed slow occasionally. I think the stipend did serve as an incentive as we were all wondering if this was worth doing. The stipend did make a difference.” (CLIP member) Another participant concurred, “In the back of my mind it was nice to know there was a little bit of money. I would have continued with it anyway.”

Productive Meetings

CLIPs varied in the scheduling of their group meetings. One group often met for lunch: “It was a nice time to get off campus and talk about what we had done but also have an opportunity to socialize for a little bit. Some of us work days and some work nights so we don’t always get to see each other.” (CLIP member)

One CLIP sometimes combined their meeting with the Thursday afternoon seminars that the department regularly scheduled. These became meetings where other department members could join the conversations. All in all, the individual CLIPs each met about eight or nine times in addition to the three cross-CLIP meetings.

The groups agreed on the importance of regular, productive meetings. One member commented, “One of the things we found is you have to meet regularly. You don’t want to be doing things last minute in a crunch kind of thing. But also, every participant needs to feel that they are making a contribution. You need to make sure you are spreading out the workload and that you are holding each other accountable and that concerns that come up are valid. You don’t blow anybody off. Just building that level of trust and respect is really important.”

One participant recommended, “Make each meeting important enough so that some piece of the project feels like it’s being reported on so there’s a sense of buy-in on the importance of being there. Also some sense of the future will happen at each meeting.”

The productivity of the meetings mattered: “We did have a CLIP with everyone and that was nice too but I think the CLIP [meetings] that have been the best were when the Math folks got together, when we were going over the results we tabulated. Well, we took the survey and when we got the information back and all sat down and looked at it we did see a trend. That was exciting at that point. I felt like we really made a lot of progress.” (CLIP member)

One member noted the importance of having refreshments and a chance to mingle at the meetings: "Our commitment never lagged. But if it did, this may sound silly, but there's nothing better than getting together and having cookies, coffee and soda and hobnobbing for a while. We do that anyway and it helps a lot."

Provision of External Resources on As-Needed Basis

Members noted the importance of support from the CLIP Guide (Beverly Parsons) and Sarah Phinney, a resource person from the faculty Professional Growth Center of Bakersfield College. Sarah Phinney attended all the cross-CLIP meetings, handled the technical aspects of the website, assisted CLIP members in accessing and using the website and forum discussions, helped CLIPs organize their qualitative data for efficient analysis, maintained and provided access to various resource materials, and was available to CLIP members to assist in other ways. The CLIP Guide consulted with the CLIP Facilitators regularly. The technical assistance, materials, conversations, and linkages she provided came at the request of the CLIPs. For example, but the Math CLIP asked her to sit in on several meetings and she provided guidance in analyzing qualitative data. At the request of the Physics CLIP, she conducted the student focus groups. She assisted the Computer Studies CLIP with some data analysis. In the previous section on resources, we have described the other resources made available to the CLIPs by InSites and the Professional Growth Center of Bakersfield College.

CLIP Issues for Continued Investigation

The study of how CLIPs operate, how they fit in the broader context of the college's emphasis on high quality teaching and learning, and what they can accomplish will continue through the 2005-06 school year with a second round of CLIPs. These CLIPs are in the areas of Communication, Developmental Writing, General Education outcomes, Math, MESA, and transitions (of students to four-year institutions). Two of the CLIPs for the coming year—one in math and one focused on MESA—have evolved from two of the past year's CLIPs. Three Math CLIP members who were not facilitators in the first year will become CLIP facilitators next year. Other CLIPs have no overlap in membership from the past year. We expect that new issues will

come up during this second round of CLIPs that may not have arisen during the first round and that there will be opportunities to investigate questions that we didn't investigate during the first round.

Here are topics specific to how the CLIPs operate that we expect to add to our existing study design for the coming school year:

1. What is the impact of the larger number and greater diversity of CLIPs and CLIP participants?
2. How can journaling be used effectively among CLIP members to contribute to understanding the value of the CLIP process?
3. What methods of recruiting CLIP members should be developed for the future?
4. How can the CLIP process be used to attract/recruit women into the STEM disciplines?
5. What variations occur in the size and scope of issues addressed by CLIP members and how does this variation affect the usefulness of the CLIP results?
6. What features of CLIP activities are especially important in ensuring that CLIPs accomplish their overall purpose of enhancing student learning?