2009-2010: The Year of “Y I Use Data”

By Odette Richardson

We see the effects of data in almost everything we do, yet if someone came up to you this very moment and asked, “Can you name a couple of direct results of how data supported a decision made at Mt. SAC?” some of us would experience a brain freeze. Why?

Maybe it’s because we don’t recognize all the ways data are used at the college. Or, perhaps, the use of data for decision-making has become so routine that we don’t perceive it as part of the whole process. Of course, there may be times when data did not drive a decision. But then, just maybe, the reason we don’t recognize the data behind the decision-making is because it has not been openly or regularly communicated so as to make it easy for us to recall.

(continued on pages 2 and 3)

Research is Like Completing a Puzzle

By Odette Richardson

Conducting research is like putting together a puzzle. If you have all the right pieces, the puzzle comes together smoothly. Although this is an oversimplified analogy of the general elements of a research project, it is being used both to conceptualize and bring meaning to the reoccurring puzzle pieces in this newsletter, which are:

1: The Purpose Every project needs a starting point and for college research, that is the reason for the research whether it is institutional, state, or federally required or simply a general inquiry.

2: The Process How will you gather the information? Will it serve the “purpose” of doing the research? Are the data valid and reliable? Data collection, data analysis, and data integrity are all parts of the process of conducting research. Furthermore, data integrity is a key component of the process with accuracy and consistency being two of its fundamental principles.

3: The Outcome All research has an outcome. Whether you wish to call it a finding, use of results or an effect, it is an interpretation of the data and it assists with decision-making and/or possible changes.

The research department conducts college research or assists in assessment practices in a variety of areas such as, but not limited to, basic skills, planning, grants, accreditation, learning outcomes (SLOs, GEOs, AUOs), program review, and testing validation. This newsletter issue will highlight the 1-2-3 research puzzle theme (see box example) in the areas of general, assessment, grants, and basic skills research. It will also provide some department updates.
employees to have responded to the inquiry in the previous paragraph with: "Yes, I can. Here are two direct links back to how data supported a decision made at Mt. SAC and the benefits it added to our students and/or our institution." Ah, utopia! Too utopian?! Not so, but it is important for all of us to continue to create a culture of evidence and share the evidence regularly as a trail to data decision-making utopia and it started this year. Why this year?

This year Mt. SAC was celebrating "The Year of Improving Student Success Through the Use of Data"—or "Y I Use Data" for short—to encourage continued, thoughtful recognition of data and its uses in decision-making and planning. The theme especially made sense this year as the college continues its efforts in assessment of student learning outcomes (SLOs), general education outcomes (GEOs), and administrative unit objectives (AUOs); the institution continues its program review process called PIE (Planning for Institutional Effectiveness); and because of the college's accreditation self study process and upcoming site visit in October 2010.

**How Do We Use Data? Let Us Count the Ways**

How are data directly linked to data results? Here are a few data cases:

**Data supporting scholarships**

**The Data** -- Before students can apply for the annual Jack Kent Cooke Undergraduate Transfer Scholarship, the college must provide data to support the scholarship criteria. This scholarship program helps high-achieving, low-income community college students to make the transition to four-year colleges and universities by providing funds for tuition, housing, fees, and books. Each year Desiree Marquez, Scholarship Program Specialist in the Financial Aid Department, does the honors in complying with the data requirements (e.g., student demographics, graduation rates) that sustain the possibility of Mt. SAC students receiving these invaluable scholarships. Of course, the data doesn’t guarantee an award, but it does get our students’ feet in the door. The rest is left up to the students.

**The Result** — According to an April 2010 college website press release, "Mt. SAC honor students Isaac Powell and Carmina Del Mundo are two of 40 scholars selected among 500 community college nominees across the nation to receive the 2010 Jack Kent Cooke Undergraduate Transfer Scholarship. The selection marks the fourth consecutive year that a Mt. SAC student has been granted this prestigious scholarship, valued up to $30,000 annually."

**Data supporting a designation**

**The Data** -- Did you know that Mt. SAC has been a federally-designated Hispanic-Serving Institution (HSI) since 1997? In the fall of 2009, the college also became an Asian American and Native American Pacific Islander-Serving Institution (AANAPISI). How did Mt. SAC get these designations? The Grant’s Department asked the Research and Institutional Effectiveness Department to provide data extracts, and summaries allowed the college to provide evidence for these two designations through the U.S. Department of Education.

**The Results** -- How does it serve the college and/or its students? Recognition of these designations not only promotes the college’s name on the respective organizational websites for use by students and other entities, it also permits our students to apply for grants and scholarships, internships, and professional development opportunities from a variety of organizations. These designations also allow the college to apply for grant opportunities for which it would otherwise not be eligible, such as Mt. SAC's current $2.8 million U.S. Department of Education Title V grant and a recently funded $250,000 U.S. Department of Agriculture grant.
2009-2010: The Year of “Y I Use Data”  
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► As a result of a data report

**The Data** -- The Mt. SAC Student Equity Committee has oversight for the development and implementation of the Student Equity Plan, which is submitted to the State of California Chancellor's Office, and as such uses data to inform the campus community about the state of student success. According to the 2005 Student Equity Plan (page 3), one area of concern indicated, "Campus-based research strongly suggests that specific ethnic groups face inequities and need intervention. This is particularly true of the African American, Alaskan Native and American Indian students in all five target areas."

**The Results** — As a result of the data from this Student Equity Plan and in direct response to the achievement gap of African American students, especially males, compared to their white and Asian counterparts, the Student Equity Committee endorsed and worked with faculty and staff to initiate a program geared to respond to the needs of African American students, which evolved into the ASPIRE (African American Student Program Inspiring Responsibility for Education) program started in 2007. ASPIRE is a student support program aimed at addressing retention/persistence among African American and other students at Mt. SAC and serves to assist students in achieving academic success through mentoring, progress monitoring, counseling, and advisement. It is funded through the state's Basic Skills Initiative (BSI).

**The Researcher in You**

The examples provided are but a tiny sampling of those you and your colleagues create every day that show the value of why you use data to improve student success. Each of us are researchers in our own way, so remember to use the data you collect wisely, share it often with others, and include the data links in your reports, executive summaries, and communiqués.

Data decision-making utopia here we come!

*Acknowledgements:* Thank you to Adrienne Price, Director of Grants; J. Edward Stevenson, ASPIRE Program Coordinator; and Barbara McNeice-Stallard, Director of Research and Institutional Effectiveness for their data assistance. Special thanks to my fellow researchers for their comments.

**GENERAL RESEARCH — How an Inquiry Produced Exciting Results**

*By Odette Richardson and Scott Guth, Mathematics Professor*

**The Background** For years, faculty in the Math Department wondered how well their students, after passing their course, performed in their *next* math class. The basis of their own grades is no mystery, but learning how their work prepares students for their next course is much more difficult. In 2008, Math Professor Scott Guth decided he was up for the challenge of investigating this departmental inquiry. Although the question seemed simple, getting to the answer would be a difficult and time-consuming endeavor. No previous large scale tracking of individual instructors’ math students to the next level had ever been done.

**The Purpose** Faculty wanted to know how well they were equipping their successful students (earning grades A, B, or C) for the next sequential math course. They wanted information regarding their students’ success, provided privately, to use it for personal evaluation and goal setting. As an institution, we value high success rates, but teachers know that there are tradeoffs. Passing students who are not ready for their next class is a disservice to them. The goal of student success, not merely in a given class, but also in subsequent classes, is truly a faculty’s dream come true. Providing the most knowledge and most skills possible is the key.
ASSESSMENT RESEARCH — Expanding the Use of Multiple Measures:
Using Data to Set the Direction for Student Assessment

By James Ocampo, Director of Assessment and Matriculation; Evelyn Hill-Enriquez, Lead AWE Facilitator; and Chiou Yueh "Maria" Tsai (Members of the Mt. SAC Assessment and Matriculation Committee)

The Background Each year of the last three years, over 15,000 Mt. SAC prospective and entering students took placement tests in English, reading, and math to guide them to take appropriate courses at their skill levels that they would most likely succeed. Testing instruments being used for course placement are required by state regulations (AB3 and Title 5) to be fully validated. Assessment and matriculation at Mt. SAC has a history of utilizing data to validate assessment instruments and to address testing and placement issues. Examples of using data for test validation include conducting both consequential validity studies and disproportionate impact studies (see Footnote). Results from these studies have been used to inform and monitor current practices and to identify issues to be addressed. Continuous research efforts have become instrumental in the development of special programs aimed at increasing the retention and success of student groups most affected by disproportionate impact. An example of the usefulness of this research has been the creation of the ASPIRE program targeting African American students.

It is also mandated that multiple measures be used, rather than using a test alone, in placing students properly and fairly. Multiple measures are the usage of multiple sources of information about individual students when making their course placement decision. Methods of implementing multiple measures are determined locally by individual colleges. At Mt. SAC, departments have their own distinctive multiple measures method and there has been discussion about consolidating and expanding the use of multiple measures.

More recently, the availability of pertinent data encouraged further exploring the possibility of expanding the use of multiple measures for student course placement. On March 5, 2010, the Director of Assessment and Matriculation facilitated a “Multiple Measures Retreat.” Faculty from departments most affected by student assessment and placement were invited to participate. Specifically, those participating were from the English, math, reading, chemistry, and counseling departments. The Academic Senate president and vice president, research staff, and division administrators were also present.

At the retreat, participants discussed the data in a forum. Data shared at the retreat show some positive effect of utilizing multiple measures in placing a group of students in math and English courses one level higher than their test scores would have placed them. Studies indicate students placed higher by multiple measures were as successful, if not more successful, as other students in most of their placed math and English courses.

Out of these discussions came overwhelming agreement among academic departments, the Assessment and Matriculation Committee, and the counseling department about how Mt. SAC should apply multiple measures. The Multiple Measures Retreat allowed all participants an opportunity to share assessment concerns and, more importantly, illustrate how assessment can be refined to improve on placement of students at Mt. SAC. The available data was very helpful in providing all faculty that were present with a clear understanding of multiple measures, and the importance of using more than just a test score in placing students into courses. Since the retreat, sound progress has been made in each academic department about what multiple measures should look like at Mt. SAC.

For more information about multiple measures, please contact James Ocampo, Director of Assessment and Matriculation, at jocampo@mtsac.edu or Extension 4265.

Footnote: Consequential validity studies are used to determine course placement satisfaction of both students and faculty. Disproportionate impact studies have allowed us to determine whether any group of students is placed in lower level courses disproportionately as compared to other student populations.
The Background  The process of validating data is yet another vital function performed by the Research and Institutional Effectiveness (RIE) Department at Mt. San Antonio College. Data validation is checking that data are correct. Our department is in a continual process of verifying and validating the information we release to the campus to ensure we provide meaningful and accurate data. However, we can also be asked to verify data provided by other sources are correct. In fact, our department is currently involved with Darrow Soares, Acting Associate Dean of Career and Technical Education, in such a process with the federally-funded Carl D. Perkins Grant.

The Purpose  “This just doesn’t seem right” — Requests to validate information usually begin with someone studying a report, a database or some other source of data, scratching their heads and stating, “This just doesn’t seem right.” Indeed, this was just the case for some campus members as they examined their Career Technical Education (CTE) Core Indicator reports provided by the California Community Colleges Chancellor’s Office. These reports reflect CTE program performance on five accountability measures. The results of these reports influence program improvement plans by indicating where financial resources should be concentrated. Therefore, it is critical that these reports accurately reflect the activities underway at our college.

The Process  “Where does the data come from?” — One of the first things RIE will want to know is the data source. Where did this data come from and how was it generated will most likely be some of our first questions. This is simply because we will need to verify the integrity of these sources. In our Perkins’ example, the data begin its days on our campus as data in our database (be it the old ICCIS or the new Banner system). It is then expertly and meticulously processed by IT and undergoes a wonderful metamorphous to become the Chancellor’s Office’s MIS (Management Information System) data. Once this has occurred the data undergo a series of processes performed at the Chancellor’s Office, which are known as the Core Indicator reports. Although the data sources in our example are proven reputable and accurate sources of data, which is not always the case, sometimes the inaccuracies in a report are directly traceable to the method of collecting data. If information is not collected in a uniform, systematic way, it will likely lead to inaccurate results. Once we have determined the data were collected properly, our next question will be whether the correctly collected data were correctly coded.

In the best of all worlds, having “Are the data correctly coded?” as the first step in any process is strongly encouraged. It is easy to say “that can’t be right” with reports, but what would be less time-consuming and more data-accuracy driven would be looking at the coding piece first and then fanning out from there to looking at the reports. Garbage-in and garbage-out is the typical saying. Unfortunately, what happens is that people don’t fully understand the impact of the coded data until it involves a negative number in their program evaluation or, in this case, when it involves decreased money. It is always wiser for people to be more proactive and talk with their teams and bring in the researcher and/or IT experts for consultation. As is the case in our example, Darrow’s next step will be to make sure our in-house data are coded in a manner that the Chancellor’s Office can use our data correctly. For example, Darrow will be evaluating the coding scheme for CTE programs to make sure the TOP (Taxonomy of Programs) codes, SAM (Student, Accountability Model) priority codes, course codes and program codes all align with those set forth by the Chancellor’s Office.

DATA RECOMMENDATION
A researcher and/or IT or other expert across campus should be consulted about the data coding and sources prior to starting a project where data is collected and used. Ultimately, you should be the experts of your own data.

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GENERAL RESEARCH — How an Inquiry Produced Exciting Results
(continued from page 3)

The Process
Only sequential math courses (see table below) were studied over a four-year term, Fall 2004 to Spring 2007, using the methods of multivariable statistics. The Research and Institutional Effectiveness (RIE) Department provided the students’ success rates data. Students who were successful in the initial class must have taken the subsequent course within two semesters to be included in the dataset, and only the first attempt at the following course was the one selected for this data. Professor Guth programmed the mathematical software, performed statistical analyses, and produced personalized data reports for each professor in the department.

For any given pair of sequential courses in the Math Department, instructors’ success rates for the first course were paired with the success rates of students in the subsequent courses. The goal was to identify the average success rate for the given course and the subsequent course, and to identify those individuals whose success rates were above average in each. Above average achievement in a given course was not seen as a true success unless the respective students had above average achievement in the subsequent course.

Such data points were gathered for each professor in the department, and plotted together on a statistical scatter-plot to see how individual professors compared to their peers, and gain some sense of where they were relative to the rest of the group. All statistical results were provided to all professors, with individual identities hidden, so that comparisons could be made without anyone feeling threatened or singled-out.

This introspective study was done in a “safe” environment. Only Professor Guth and the respective faculty members were privy to their reports. In addition, it was suggested that faculty use the study results for their personal evaluations.

The Outcome
Professor Guth shared and reviewed the results with Math Department faculty during their Flex Day activity in 2009. He warned against misinterpreting the results, cautioning professors that many variables outside of their control effect student success in subsequent courses, and their work is only one factor among many. Such factors include the students themselves and their subsequent professors.

In every pair of sequential courses, a negative correlation between success rates was observed, as had been expected. This meant that students who received passing grades from professors with the higher success rates tended to have lower success rates in their next class, while the students who received passing grades from professors with lower success rates tended to have higher success rates in the next class. Although this was what was expected, and observed, there were many cases where professors went against this trend, with higher than average success in both courses.

Math faculty welcomed the knowledge they received and became very engaged in sharing and comparing their results with others. Faculty did not appear to be threatened by the comparisons and immediately began to set goals for themselves on their self-evaluations. Additionally, faculty came together to learn from each other about their best practices of teaching and learning. Ultimately, math faculty felt the arduous task undertaken by Professor Guth was a wonderful and widely successful tool for evaluative purposes.

An example of one of the reports produced by Professor Guth and given to math faculty members (in this case, prepared for a renamed John Doe) is displayed on page 7.

For more information about this project, please contact Scott Guth, Math Professor, at sguth@mtsac.edu or Extension 3918.

(continued on page 7)
Math A Success and Subsequent Math B Success

Each \((x, y)\) pair plotted on this graph represents two rates for a given instructor. The \(x\)-coordinate is an accumulated Math A success rate for the given instructor. The \(y\)-coordinate represents the success rate for each student who passed Math A under this instructor and took Math B within the next two semesters. This graph represents accumulated success rates of 53 professors, with varying sample sizes. These data were gathered from Fall 2004 through Spring 2007.

[NOTE: The various symbols represented in the scatter diagram on the right are explained in the table below. In addition, for some of the symbols in the table, layman terms have been added for the convenience of non-mathematicians.]

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Layman’s terms</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Symbol" /></td>
<td>In layman’s terms: This symbol represents Professor John Doe’s Math A/Math B success rate pair amongst those of his 53 colleagues. This symbol is centered on your success rate pair. The horizontal line is an 80% confidence interval for your Math A overall success rate. The vertical line is the 80% confidence interval for your subsequent Math B students’ success rate.</td>
</tr>
<tr>
<td><img src="image2.png" alt="Symbol" /></td>
<td>In layman’s terms: The ellipse represents a region, centered on the average success rate pair, where 75% of the professors’ success rate pairs reside, and are close enough to the average to be considered indistinguishable from it (due to margins of error). Points outside of the ellipse may be considered significantly different from average. The ellipse represents a level curve on the bivariate normal distribution for the ((x, y)) pairs plotted above. 75% of the population of ((x, y)) pairs are contained inside the ellipse whose interior is effectively a 75% confidence interval in two dimensions.</td>
</tr>
<tr>
<td><img src="image3.png" alt="Symbol" /></td>
<td>In layman’s terms: A true success story is a data point in the upper right quartile of the above scatter diagram, indicating an above average success rate pair relative to other math faculty. The blue vertical and horizontal lines represent the mean (x)- and (y)-coordinate values. The red line is the linear regression line. The linear correlation coefficient for this line is (r = -0.414), which is (t = -3.248) standard deviations below zero, with a (p)-value of 0.0021 indicating that the correlation coefficient is significantly different from zero. The grey line is the major axis of the ellipse and represents an axis of symmetry for the distribution of ((x, y)) pairs.</td>
</tr>
</tbody>
</table>

The points in the scatter-plot represent the \((x, y)\) coordinate pairs of you and your colleagues. The size of the points is proportional to the number of students who passed your course, and took Math B within two semesters of completing your course.
"What is Basic Skills?"

"Basic Skills are those foundation skills in reading, writing, mathematics and English as a Second Language, as well as learning skills and study skills, which are necessary for students to succeed in college-level work” (Center for Student Success, 2007, p.13). The term “student success” does not, necessarily, refer to a grade of C or better in a course. On the contrary, this concept possesses a much broader context. There are components that students learn through class, a program, student support services, or the library that are not measured by grades. This can encompass their attitudes, emotions, cognitive and social abilities, confidence level, content knowledge, and level of satisfaction. These concepts are not limited to the classroom but can also occur externally. Essentially, everyone at the campus has a direct or indirect part in student learning.

Basic skills courses are defined by the California Community Colleges Chancellor’s Office as being one level or more below transferable and non-degree applicable. Mt. San Antonio College receives funding from the state for students enrolled in these courses under the Basic Skills Initiative (BSI). As a result, 65 projects were funded for the 2009-2010 academic year through appropriated funds from the BSI and evaluated by the internal Basic Skills Coordinating Committee. These projects include a host of services from re-launching the Teaching and Learning Center to supporting Learning Communities. As with any funded project, the assessment of such is necessary for accountability, but more importantly, to facilitate growth and improvement.

“How does RIE assist?”

The Research and Institutional Effectiveness (RIE) Department seeks to provide a measure of most effective practices, which are, “organizational, administrative, instructional, or support activities engaged in by highly successful programs, as validated by research and literature sources relating to developmental education” (Center for Student Success, 2007, p. 13). An effective practice is a strategy that relates to teaching, learning, or student support services that has been successful for students with basic skills needs. Effective practices are examined through the use of an assessment, which is usually a collaborative effort between RIE and the department who is investigating their student learning outcomes (SLO).

The goal of RIE is to understand how teaching and learning operates. It is essential to measure the impact that these principles have on its students and pinpoint ways in which it can be improved upon. Assessment provides the opportunity to examine a program through multiple lenses. Although a program might be working effectively, it is important to not only understand why but to also look at the components that can be further enhanced. This is an ongoing process whose main objective is to facilitate student learning. It is through this process that modifications can be made to a program so that it is more in line with its intended goals. Unintended side-effects should be noted, and a program should be geared so that it can efficiently meet the needs of its audience. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time. Learning involves a complex process that also provides insight into what students can potentially do with the knowledge they have acquired. It reflects student values, attitudes, and mental habits, which affect academic success as well as student performance beyond the classroom. Assessment is a goal-oriented process. It consists of comparing educational performance with educational purposes and expectations. This may mean tracking the process of individual students or of cohorts of students; it may mean collecting the same examples of student performance or using the same instrument semester after semester. The point is to monitor progress toward intended goals, which is done in the form of continuous improvement. Student learning is a campus-wide responsibility, and assessment is a way of enacting that responsibility. Assessment efforts could start out small, but the main
BASIC SKILLS RESEARCH — The MARC Project

By Daniel Lamoree and Nancy Aguirre

The Background  The purpose of the MARC (Math Activities Resource Center) is to enhance academic achievement in mathematics, potentially reduce math anxiety, and increase positive effect towards math. It is designed to provide tutoring to students who are struggling and need further assistance in math.

The Purpose  RIE worked collaboratively with the MARC in order to design an assessment tool (a survey) in which the MARC’s student learning outcomes (SLOs) could be qualitatively and quantitatively measured.

The Process  This project began by determining the MARC’s objectives, which is to provide comprehensive academic support mechanisms, including the use of trained tutors. The purpose of the MARC is to provide students with personal tutoring and learning tools, so that they may be successful in mathematics. The effectiveness of the MARC is demonstrated through an analysis of success and retention rates. The goal is that students will feel more confident in their math skills and will acquire greater mathematical competency. They will also choose to seek assistance from the MARC as opposed to using other math tutoring services.

Students who visit the MARC lab were surveyed regarding their perceptions of the tutoring center and degree of confidence in mathematical skills. A total of 108 subjects were used in this analysis, all of whom are users of the MARC who sought its tutoring services. There were 40 males, 63 females, and 5 individuals who left this question blank. Their participation in the MARC varied from one visit during the semester to eight or more. All of these survey respondents used the MARC during the Winter 2010 intersession only. A paper survey was designed and developed by the joint efforts of the Math Department Chairperson Chris MacDonald and the Research and Institutional Effectiveness Department. The survey contained Likert scale questions on student attitudes towards math, anxiety levels, comfort level, confidence level, and math ability level. The survey also asked students who they sought help from whenever they had questions, and it examined their perceptions of the MARC insofar as how helpful, supportive, and knowledgeable its tutors and staff are. In addition, it asked students for any suggestions on how to improve the MARC. The MARC administered the survey to its students and then returned the completed surveys to RIE who scanned as well as analyzed the data and wrote the final report.

The Outcome  Following are some of the results from this Winter 2010 analysis. It is apparent that students have fairly positive attitudes towards the MARC and feel that it has benefitted their math studies. They feel comfortable with their math classes, tend to have increased confidence levels in their math classes, and feel slightly less stress when taking a math exam. The figures and table (pages 9 and 10) highlight these aforementioned results.

Figure 1: The MARC as a support area

Most students rated this item as “very high,” indicating a high level of satisfaction with the program.

(continued on page 10)
Figure 2: The effect of the MARC on math grades

Students felt that the MARC will positively impact their grades in math as a result of attendance and receiving aid from tutors.

Table 1: Impact of MARC

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean Strongly Disagree (1) to Strongly Agree (5)</th>
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<tbody>
<tr>
<td>If I have questions, I will ask my professor for help before visiting the MARC.</td>
<td>3.31</td>
</tr>
<tr>
<td>I feel confident attending tutoring in the MARC.</td>
<td>4.14</td>
</tr>
<tr>
<td>After coming to the MARC, I feel less stress when taking a math exam.</td>
<td>3.93</td>
</tr>
<tr>
<td>After coming to the MARC, I feel more comfortable completing my math homework.</td>
<td>4.21</td>
</tr>
<tr>
<td>Visiting the MARC has increased my confidence in my math classes.</td>
<td>4.01</td>
</tr>
</tbody>
</table>

This project allowed the team to learn about the diverse facets that can be incorporated into an analysis. The MARC was analyzed through various avenues; not only was student knowledge measured, but it also recognized the importance of assessing student confidence levels, attitudes towards math, experiences with the MARC’s staff, and utility of the resources offered. It enabled the team to understand the benefit of including all of these features in the analysis while still focusing on the primary goals of the MARC. All of these components produce the underlying mechanics of the MARC, which made it necessary to investigate how they function individually. In this way, the MARC can have a solid infrastructure once these individual components all merge together. The MARC student survey is also being administered during Spring 2010 because assessment is an ongoing process as was previously mentioned. A cohort of students might be tracked, and the same examples of student performance might be collected semester after semester. This is done to continue documenting the progress that is made toward meeting intended goals. The students who used the MARC during Winter 2010 might demonstrate further progress in spring. Once the findings are all compiled, the results will be used to make any modifications to the MARC that will better address student needs. Tutors will continue to better understand what areas students need the most assistance with, and MARC directors will continue to know whether the resources of the MARC are serving their intended purpose throughout the academic year. This collaborative process is highly goal-oriented and focuses on continuous improvement. Hence, assessment is a never-ending process.
By Odette Richardson

This year the Research and Institutional Effectiveness (RIE) Department has had two of its members leave, but has also welcomed two new individuals to the department.

Both full-time Educational Research Assessment Analysts (ERAA) Priyadarshini Chaplot and Dr. Jennifer Tucker (now Klein) moved on in October 2009 to higher level, challenging positions. Priya is the Project Coordinator for The RP Group’s Bridging Research, Information, and Cultures (BRIC) Initiative and Jennifer is Brandman University’s (a Chapman University system) Assistant Vice Chancellor for Institutional Research and Planning. We know they will be invaluable assets in their new positions.

Although the college was not able to hire a replacement from its general fund for Priya because of the current budget downturn, they were able to rehire positions using state allocated basic skills funding. In December 2009, Nancy Aguirre was hired as a part-time professional expert Project Coordinator and in February 2010, Daniel Lamoree became the full-time basic skills ERAA replacement for Dr. Jennifer Tucker. Both staff members provide research support for the college’s basic skills funded projects.

We welcome Nancy and Dan as the newest RIE family members and, in doing so, want you to get to know them more intimately as well. Below are biographies they have provided about themselves:

**Nancy Aguirre** received her Bachelor of Arts in Psychology, with a minor in Sociology, from the University of California, Riverside and has a Master of Arts in Social Psychology and Evaluation from Claremont Graduate University. She helped conduct a nationwide, Randomized Control Trial for Prentice Hall as part of an evaluation study that examined the efficacy of their *Connected Mathematics Project 2* (*CMP2*), Biology, and Literature curriculums. Plus, she co-authored a report for the What Works Clearinghouse (WWC) website on the *CMP2* findings. She previously worked for Pitzer College in Claremont where she worked, in conjunction with the Dean of Students, to assist with data collection and analyses for their Western Association of Schools and Colleges (WASC) re-accreditation. When not working at Mt. SAC, Nancy does research for Choice Point Applied Research where she has worked with the University of Kansas; California State University, Northridge; Sycamore Elementary; the Fulfillment Fund; and The Society of the Advancement of Chicanos and Native Americans in Science (SACNAS). Nancy is also a 3rd degree black belt in Tae Kwon Do, loves to snowboard, and avidly attends numerous rock concerts.

**Dan Lamoree** comes from Cuesta College where he was an Institutional Research Analyst for nearly three years before uprooting and taking the plunge into the Mt. SAC community. His previous work centered on program review, Argos Data Block creation, FTES calculations/reporting, survey design and methodology, numerous state mandated reports, assessment, and modeling. Additionally, he served on the SLO assessment committee. Currently, his work deals primarily with the assessment of projects funded through the Basic Skills Initiative (BSI). To aid in the data collection and reporting of the vast array of BSI funded projects, he designed, developed, and implemented a data base solution using VBA and SQL. When asked why he chose education as a career path, he answers, “Obviously, the money.” Dan has a liberal arts background including a Bachelor of Arts in Philosophy and Bachelor of Science in Psychology from Cal Poly, San Luis Obispo. Complimenting his academic training are his technical skills in various programming languages and applications. In his free time he enjoys cycling, hiking, ”nerding,” and loves all things 8-bit. Always with coffee nearby, he harbors an unnatural obsession with the beverage and all its related facets—not just consumption. Dan has a long-standing pact with his fellow soccer hooligan friend that they both will attend a World Cup match before they leave this earth.

Please join us in welcoming Nancy and Dan to the Mt. SAC family.
By Odette Richardson

The Research and Planning (RP) Group of California Community Colleges is the statewide group that the Research and Institutional Effectiveness (RIE) Department utilizes for a variety of resources such as newsletters, listservs, and professional development opportunities. This year its RP Conference was held at the Cal Poly, Pomona, Kellogg West facility. The entire Mt. SAC RIE Department attended.

Many great presentations, reports, and summaries were incorporated into the day-and-a-half format and the RIE staff met and networked with researchers and planners from across the state. The conference also provided The RP Group a forum to recognize and celebrate research (regional/statewide and college/district), planning, assessment, and dissertation excellence. Twenty-one overall award nominations were submitted to The RP Group.

Elatedly, Mt. SAC was honored to receive two of the five awards. The Award for Excellence in Planning for the Planning for Institutional Effectiveness (PIE) program review process, submitted by Barbara McNeice-Stallard, was presented to the Mt. SAC Institutional Effectiveness Committee (IEC) and the RIE Department. The Award for Excellence in Assessment for learning outcomes assessment efforts, submitted by Odette Richardson, was jointly bestowed upon the RIE Department; Joan Sholars, SLO Coordinator; Joseph Terreri, GEO Coordinator; Barbara McNeice-Stallard, Director of RIE; and Odette Richardson, Research Assistant.

For descriptions and award winners for each category, please visit: http://www.rpgroup.org/content/2010-rp-group-awards.

What Did RIE Staffers Take Away from the RP Conference?

For Nancy Aguirre and Dan Lamoree, this event marked their first time attending an RP Conference. Nonetheless, all RIE staffers took away data and personal connections during this professional development opportunity:

Nancy Aguirre — It was refreshing to engage and network with such a diverse group of professionals who possess tremendous knowledge as well as vast experience in academic research. I learned about various domains of research and how to effectively address issues that spring forth throughout its process. It was a great arena in which fellow researchers could share ideas and collectively brainstorm ways to problem-solve. It was beneficial to be around such an accessible group of individuals.

Lisa DiDonato — I found this year’s focus on "research" exclusively very rewarding. The opportunity to listen to the investigations and issues of other fellow researchers was invaluable. Perhaps because the conference was by researchers, for researchers, the session topics seemed to dive into questions we have as researchers such as, “How do I treat this type of data?” In addition, the discussions that arose during and after the sessions were immensely beneficial to me as a practitioner.

Dan Lamoree — The most valuable thing I took away from the RP Conference was the evolving role of the research office. Over the last 10 years, educational institutions have become more and more a culture of inquiry leading to action instead of simply reporting data. The most important role the research office plays is that of an agent of change by improving the institution through solid, reliable, data-driven action.
Barbara McNeice-Stallard — It has been an interesting two-year journey as the President of The RP Group. As my reign ends on June 30 and continues as the Past President for one more year, I reflect on the changes that have occurred during this time to increase the organization’s value to researchers, planners, and the partners it serves. Like the colleges we serve, the fields of research, planning, and assessment are also ever-changing and evolving based on its stakeholders and community needs. The opportunity of serving on this statewide organization has been a privilege.

Odette Richardson — So much great research is going on in the state. Hearing about some in a single forum was awesome. Data that caught my eye were in the presentation on the vast amount of data provided by the NCES (National Center for Educational Statistics). It provided not only possibilities to the college, but also interestingly to my grandchildren. NCES hosts the KIDS' ZONE (http://wwwnces.edu.gov/nceskids/), which assists children in learning about schools, colleges, libraries as well as skill building about math, graphing and more. I was also very proud to have been chosen as a presenter by the conference planners (see Item #7 below).

Maria Tsai — We are not alone with many challenges faced by IR professionals but can be quite unique with practices and methods in our search for solutions. At the RP Conference, we shared, debated, learned, and cheered for one another. I was most impressed by a research effort in tracking CTE program students (see Item 17 below), a study showing characteristics of community college students transferred to private for-profit four-year institutions (see Item 11 below), and some data shared on college transition and success of the Early Assessment Program, which is now driven by Senate Bill (SB) 946 (see Item 13 below).

The RP Conference 2010 presentations, reports, and summaries are hyperlinked below or you can be view and/or download them from the following website: http://www.rpgroup.org/events/2010RPConference.html.
“Can we replicate?” — Although not always the last step, RIE will most likely try to replicate the report in question in order to determine if the information is correct. In instances where we have determined that the data source is valid and the data are correctly coded, we would then expect to be able to replicate the information provided in the report with our “clean data.” Of course, this is only possible if we have access to all data sources and methodology employed. If we can replicate the results with very little margin of error, the information on the report is most likely valid. However, it can only be completely validated if we are provided with the lowest level data, often individual level data. That is to say, if a report declares 30 people belong to a particular group, and the researcher replicates and indeed gets 30 as well, we cannot know for certainty all was replicated correctly until we have the list of the 30 students that are being counted. Occasionally, replication can be used as an early step in the validation process if it is believed that the data are “clean.” In the end, data integrity is essential for data driven decisions, making data validation an important component of the work we do.

The Outcome

Although Darrow and RIE have not yet completed their investigation into this matter, this project provides an excellent opportunity to describe some of the steps we take in validating data.

BASIC SKILLS RESEARCH — What is it? How does RIE assist?

Objective is to, eventually, involve individuals from across the campus community. Faculty play an especially important role and assessment questions can be more fully addressed with participation by student services, educators, librarians, administrators, and students. Assessment may also involve individuals from beyond the campus such as alumni, trustees, employers, etc. whose experience and knowledge can enrich the sense of appropriate standards for learning. Thus, assessment is not a task for small groups of experts, but a collaborative activity for the entire campus.

The application of the data that is retrieved through basic skills project assessments can assist the campus with improving the services it bestows onto students. In order to be useful, the information must be connected to issues or questions that people really care about. It is necessary to anticipate how the information will be used and who will utilize it. This will guide the evaluation process and act as a road map. Assessment is a process that begins with the questions of decision-makers; it involves them in the gathering and interpreting of data. The purpose of this is to inform and assist in the guidance of continuous improvement.