

Planning Objective Report

Objective Report:

Objective ID: 1443

Objective Title: Provide a smooth transition between College Prep math and MAT1033

Unit Manager: Koupelis, Theo

Planning Unit: 162101 - AA - Mathematics and Science

Obj. Status: Implementing

Obj. Purpose: Student Learning Outcome

Unit Purpose:

Objective Description:

The math department will continue its efforts to provide a smooth transition between College Prep math and MAT 1033 in order to provide educational pathways for under-prepared students.

Institutional Goals

A. Develop a shared understanding, application and accountability of learning-centered culture

B. Identify and remove barriers

Objective Types

No Objective Types to Display

Planning Priorities

* Develop and maintain a learning-centered culture

Provide educational pathways for under-prepared st

Tasks

No Tasks data

Assessment Measures

Date	Assessment Measure
08/13/2011	1. End-of-semester reports on success rates in MAT 1033 for students who placed directly into the course and students who went through MAT 9024 or MAT 0028 before registering in the course. 2. Summaries of work done as part of the meetings of the Community of Best Practices. 3. Summaries of the exchanges of ideas between College Prep and Credit math faculty as the curriculum for MAT 0018 and 0028 is being developed.

Intended Results

Date	Intended Results
08/13/2011	1. The comparison of success rates between the two groups of students, and the analysis of the data itself, will serve as a tool to minimize the difference in the rates and make appropriate changes, if any, in the delivery of the MAT 1033 curriculum. 2. & 3. Faculty in the Math department will cooperate with their colleagues in College Prep math on a continuous basis to support their efforts in offering the best possible curriculum for MAT 0018 and MAT 0028 and a smoother transition to MAT 1033; action plans that result from the work of participants in the Community of Best Practices-Math will be documented and shared with the Math department in an effort to increase participation and input.

Status Reports

Report Date	Status Report
1/17/2012	We have success rates for MAT 1033 for the period of 2005--2011. The results show no significant difference in success rates between students who placed directly in MAT 1033 and those who went through College Prep. We need to compare results for success rates in Fall 2011 to verify that placement under the new PERT test leads to similar success rates.
1/17/2012	Data are being collected on the math community of best practices that include dates, number of attendees, topics, and evaluation of each meeting.
1/17/2012	A meeting is being planned (tentatively scheduled for late January) between credit and college prep math faculty to discuss math success data and curriculum alignment.

Actual Results

Date	Actual Results
03/02/2012	During the fall 2011 semester, 10 Community of Practice: Math sessions were held with attendance from College Prep Mathematics Faculty and Mathematics Department Faculty
03/02/2012	During the fall 2011 semester, 26 FT faculty, adjuncts and staff from Lee, Collier, and Hendry/Glades campuses participated in one or more Community of Practice: Math sessions.
03/02/2012	The overall feedback from the fall 2011 Community of Practice sessions was positive as measured on a series of Likert Scale items (see attached evaluation table). The data from the evaluations has been disseminated among the Community of Practice facilitators to use in planning spring sessions. Each of the areas has scheduled dates for the spring 2012 semester.
03/02/2012	During the summer 2011 semester, 70% of the students who were enrolled in MAT 1033 and had one or more developmental mathematics courses were successful. The IRPE office provided an update to the data regarding the success in MAT 1033 of students who had completed the developmental mathematics sequence. The attached MAT 1033 Success Rates table displays the rates from 2005-2011. The IRPE office ran a t-test showing that the overall success rates for students who complete the developmental mathematics sequence before enrolling into MAT 1033 is not significantly different from those who place directly into MAT 1033.

Use of Results

Date	Use of Results
03/02/2012	As preliminary course of action following the fall 2011 semester, our department used date preference surveys and session evaluation forms to modify session dates and incorporate new topics as we planned the spring 2012 semester (see attached survey results and evaluation tables).
03/02/2012	Both the Developmental Mathematics success rates data and the t-test of significance data provide by the IRPE were shared with developmental mathematics faculty and credit mathematics faculty at a cross-departmental meeting held on January 27, 2012 (see attached minutes) The review of the data served as a point of departure for discussions about offering continuing academic and social support to Developmental Mathematics (MAT 0018, MAT 0028) students.

Gap Analysis

SWOT

Units Impacted

No Units Impacted data




Associated Standards

Associated Outcomes






Documents

File Name	File Size	Date Modified
Community_Of_Practice_Preference_Dates_Survey_02292012.pdf	12.955 KB	3/2/2012
MAT_1033_Success_Rates.pdf	66.909 KB	3/2/2012
Math_Fall_2011_Community of Practice_Evaluation.pdf	216.708 KB	3/2/2012
Minutes_Prep_Math_Credit_Math_Data_Meeting_012712.pdf	217.883 KB	3/2/2012
ttest_output_Success_Rates_Through_Summer_2011.pdf	101.919 KB	3/2/2012

1. We have scheduled three Community of Practice dates for Spring 2012. The dates are Friday, January 13, February 10, April, 13 from 12:30-1:30 (just before the Math Department Meetings). We would like to add more Friday dates. Please indicate which of the following sets of dates you would be most likely to attend.

		Response Percent	Response Count
1st Friday of the month (2/3, 3/2, 4/6) 12:00-1:00 pm		40.9%	9
3rd Friday of the month (1/20, 2/17, 3/16, 4/20) 12:00-1:00 pm		36.4%	8
4th Friday of the month (1/27, 2/24, 3/23, 4/27) 12:00-1:00 pm		22.7%	5
answered question			22
skipped question			1

2. In order to accomodate various schedules, we would like to continue to offer at least one late afternoon session each month. Please indicate which day of the week you would be most likely to attend a session from 4:00-5:00 pm. If you do not plan to attend the late afternoon sessions, please choose "will not attend late afternoon sessions."

		Response Percent	Response Count
Monday		4.3%	1
Tuesday		8.7%	2
Wednesday		13.0%	3
Thursday		17.4%	4
Will not attend late afternoon sessions		56.5%	13
answered question			23
skipped question			0

MAT 1033 Success Rates

Term	Tested into MAT 1033*			Did not test into MAT 1033		
	Total Enrolled	# Successful	% Successful	Total Enrolled	# Successful	% Successful
Fall 2005	469	288	61%	291	194	67%
Spring 2006	269	151	56%	233	144	62%
Summer 2006	111	87	78%	157	126	80%
Fall 2006	577	365	63%	285	173	61%
Spring 2007	320	175	55%	370	240	65%
Summer 2007	98	71	72%	154	115	75%
Fall 2007	664	426	64%	360	212	59%
Spring 2008	360	234	65%	522	310	59%
Summer 2008	136	103	76%	184	144	78%
Fall 2008	828	519	63%	527	336	64%
Spring 2009	366	221	60%	574	354	62%
Summer 2009	167	116	69%	265	184	69%
Fall 2009	871	565	65%	616	381	62%
Spring 2010	449	219	49%	823	491	60%
Summer 2010	154	114	74%	357	240	67%
Fall 2010	837	546	65%	681	415	61%
Spring 2011	461	270	59%	859	489	57%
Summer 1011	145	100	69%	328	230	70%

* Tested into MAT 1033 - students who have indicator Z as
College Preparatory Completion Indicator in the same
semester data

Minutes
Cross-Departmental Meeting: College Prep and Mathematics Department
January 27, 2012
12:15-1:15 p.m.
H-215

In attendance: Dorothy Marshall, Sabine Eggleston, JoAnn Lewin, Laurice Garrett, Sandra Seifert (via telephone), Eileen DeLuca

1. The attendees reviewed updated data from IRPE.

2. Math Success Rates Study:

Actual Result: During the summer 2011 semester, 70% of the students who were enrolled in MAT 1033 and had one or more developmental math courses were successful. The IRPE office provided an update to the data regarding the success in MAT 1033 of students who had completed the developmental mathematics sequence. The MAT 1033 Success Rates table displays the rates from 2005-2011. The IRPE office ran a t-test showing that the overall success rates for students who complete the developmental mathematics sequence before enrolling into MAT 1033 is not significantly different from those who place directly into MAT 1033.

3. From reviewing the MAT 1033 Success Rates table, the faculty noticed that there appears to be a tendency for the summer sections of MAT 9024 and MAT 1033 to have higher success rates. They theorized on possible reasons (shorter, but more focused study of the content, meeting students daily vs. once a week, students may only be taking one other class so more attention is focused on the subject, students who choose to take summer courses may be those with greater success strategies/discipline, etc.). The faculty asked if the IRPE office could run a study to determine if the success rates from the summer sections are statistically significantly higher than those from fall/spring. In addition, the faculty asked if IRPE could run a study to compare the success rates in MAT 1033 of the students who take MAT 9024/MAT 0028 in summer semesters versus those who take the courses in the spring or fall semesters. Should the data suggest that students taking the courses in the summer tend to be more successful, and tend to carry the success into follow-up mathematics courses, further quantitative and qualitative studies may be pursued to attempt to isolate some of the causal factors (e.g. a study that compared demographics of summer enrollees, GPAs, entrance scores to fall/spring enrollees), and use that information to inform improvement across all sections.

4. Math Correlation Study:

Actual Results: The IRPE office ran a study in which it selected all students who took MAT 1033 in spring 2011. The study focused on students who had been in College Prep courses in the previous two years and selected students who took MAT9020/MAT9024. All grades were recoded in numeric values (a=4,b=3,c=2,d=1, other=0). The correlation coefficient for MAT developmental and college-level classes was 0.31039, significant.

5. The faculty asked if IRPE could run a grade correlation study that would break-out the correlation coefficient for MAT developmental and college-level classes into two or more categories that allowed for comparisons between students who took MAT 1033 in the semester immediately following the upper level developmental courses, and those who took it after one or more semesters without enrolling in a math course. They were interested in knowing why there is currently a seemingly low correlation between the grades in the developmental course and follow-up MAT 1033 course. They want to know if there is a higher correlation between grades when students take the course consecutively. They would use this data in an attempt to discern whether or not it is best to advise students to take the courses in consecutive semesters. Eileen will submit the study request to the IRPE office.

6. The group discussed the elimination of the by-pass exam and its replacement with the policy that MAT 0028 completers who received an "A" could retake the PERT Exam in an attempt to bypass MAT 1033. The group requested that the assessment office identify the students who are allowed the bypass attempt, and share the new placement information with College Prep and Math Department faculty. Eileen will share this request with Barb Brennan.

7. Laurice would like to be able to have a snapshot of the MAT 1033 students' academic history (e.g. PERT placement scores, grades in any developmental MAT courses taken). She would like to be able to review this information very early in the term. Eileen will talk to the Banner team to see if there is a mechanism for providing a spreadsheet of this student information based on CRNs.

8. The faculty discussed the new developmental course competencies, and the differences between MAT 9024 and the new MAT 0028. Some competencies are no longer taught in MAT 0028 (e.g. interval notation). The group discussed how some of the differences affect the preparation for MAT 1033. The group felt that a follow-up meeting with MAT 0028 and MAT 1033 faculty to discuss the new standards would be beneficial in terms of creating a seamless curricula transition.

Minutes submitted by Eileen DeLuca

The UNIVARIATE Procedure
Variable: rate

Moments

N	36	Sum Weights	36
Mean	0.65	Sum Observations	23.4
Std Deviation	0.07034608	Variance	0.00494857
Skewness	0.34257242	Kurtosis	-0.0207297
Uncorrected SS	15.3832	Corrected SS	0.1732
Coeff Variation	10.8224743	Std Error Mean	0.01172435

Basic Statistical Measures

Location		Variability	
Mean	0.650000	Std Deviation	0.07035
Median	0.640000	Variance	0.00495
Mode	0.650000	Range	0.31000
		Interquartile Range	0.08500

Tests for Location: $\mu_0=0$

Test	-Statistic-	-----p Value-----	
Student's t	t 55.44019	Pr > t	<.0001
Sign	M 18	Pr >= M	<.0001
Signed Rank	S 333	Pr >= S	<.0001

Tests for Normality

Test	--Statistic--	-----p Value-----	
Shapiro-Wilk	W 0.967572	Pr < W	0.3630
Kolmogorov-Smirnov	D 0.138889	Pr > D	0.0785
Cramer-von Mises	W-Sq 0.087333	Pr > W-Sq	0.1644
Anderson-Darling	A-Sq 0.516008	Pr > A-Sq	0.1866

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.800
99%	0.800
95%	0.780
90%	0.760
75% Q3	0.690
50% Median	0.640
25% Q1	0.605

The UNIVARIATE Procedure
Variable: rate

Quantiles (Definition 5)

Quantile	Estimate
10%	0.570
5%	0.550
1%	0.490
0% Min	0.490

Extreme Observations

----Lowest----		----Highest---	
Value	Obs	Value	Obs
0.49	14	0.75	24
0.55	5	0.76	9
0.56	2	0.78	3
0.57	35	0.78	27
0.59	26	0.80	21

The TTEST Procedure

Variable: rate

group	N	Mean	Std Dev	Std Err	Minimum	Maximum
mat	18	0.6544	0.0669	0.0158	0.5700	0.8000
tested	18	0.6456	0.0753	0.0178	0.4900	0.7800
Diff (1-2)		0.00889	0.0712	0.0237		

group	Method	Mean	95% CL Mean	Std Dev	95% CL Std Dev
mat		0.6544	0.6212 0.6877	0.0669	0.0502 0.1003
tested		0.6456	0.6081 0.6830	0.0753	0.0565 0.1129
Diff (1-2)	Pooled	0.00889	-0.0394 0.0571	0.0712	0.0576 0.0933
Diff (1-2)	Satterthwaite	0.00889	-0.0394 0.0572		

Method	Variances	DF	t Value	Pr > t
Pooled	Equal	34	0.37	0.7104
Satterthwaite	Unequal	33.531	0.37	0.7105

Equality of Variances

Method	Num DF	Den DF	F Value	Pr > F
Folded F	17	17	1.27	0.6296

The GLM Procedure

Class Level Information

Class	Levels	Values
group	2	mat tested

Number of Observations Read	36
Number of Observations Used	36

The GLM Procedure

Dependent Variable: rate

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.00071111	0.00071111	0.14	0.7104
Error	34	0.17248889	0.00507320		
Corrected Total	35	0.17320000			

R-Square	Coeff Var	Root MSE	rate Mean
0.004106	10.95791	0.071226	0.650000

Source	DF	Type I SS	Mean Square	F Value	Pr > F
group	1	0.00071111	0.00071111	0.14	0.7104

Source	DF	Type III SS	Mean Square	F Value	Pr > F
group	1	0.00071111	0.00071111	0.14	0.7104

The GLM Procedure

Level of group	N	-----rate-----	
		Mean	Std Dev
mat	18	0.65444444	0.06688201
tested	18	0.64555556	0.07532067

The UNIVARIATE Procedure
Variable: rate

Moments

N	36	Sum Weights	36
Mean	0.65	Sum Observations	23.4
Std Deviation	0.07034608	Variance	0.00494857
Skewness	0.34257242	Kurtosis	-0.0207297
Uncorrected SS	15.3832	Corrected SS	0.1732
Coeff Variation	10.8224743	Std Error Mean	0.01172435

Basic Statistical Measures

Location		Variability	
Mean	0.650000	Std Deviation	0.07035
Median	0.640000	Variance	0.00495
Mode	0.650000	Range	0.31000
		Interquartile Range	0.08500

Tests for Location: $\mu_0=0$

Test	-Statistic-	-----p Value-----	
Student's t	t 55.44019	Pr > t	<.0001
Sign	M 18	Pr >= M	<.0001
Signed Rank	S 333	Pr >= S	<.0001

Tests for Normality

Test	--Statistic--	-----p Value-----	
Shapiro-Wilk	W 0.967572	Pr < W	0.3630
Kolmogorov-Smirnov	D 0.138889	Pr > D	0.0785
Cramer-von Mises	W-Sq 0.087333	Pr > W-Sq	0.1644
Anderson-Darling	A-Sq 0.516008	Pr > A-Sq	0.1866

Quantiles (Definition 5)

Quantile	Estimate
100% Max	0.800
99%	0.800
95%	0.780
90%	0.760
75% Q3	0.690
50% Median	0.640
25% Q1	0.605

The UNIVARIATE Procedure
Variable: rate

Quantiles (Definition 5)

Quantile	Estimate
10%	0.570
5%	0.550
1%	0.490
0% Min	0.490

Extreme Observations

----Lowest----		----Highest---	
Value	Obs	Value	Obs
0.49	14	0.75	24
0.55	5	0.76	9
0.56	2	0.78	3
0.57	35	0.78	27
0.59	26	0.80	21

The TTEST Procedure

Variable: rate

group	N	Mean	Std Dev	Std Err	Minimum	Maximum
read	18	0.7061	0.0590	0.0139	0.6100	0.8400
tested	18	0.7006	0.0713	0.0168	0.5800	0.8000
Diff (1-2)		0.00556	0.0655	0.0218		

group	Method	Mean	95% CL Mean	Std Dev	95% CL Std Dev
read		0.7061	0.6768 0.7355	0.0590	0.0443 0.0885
tested		0.7006	0.6651 0.7360	0.0713	0.0535 0.1069
Diff (1-2)	Pooled	0.00556	-0.0388 0.0499	0.0655	0.0530 0.0858
Diff (1-2)	Satterthwaite	0.00556	-0.0389 0.0500		

Method	Variances	DF	t Value	Pr > t
Pooled	Equal	34	0.25	0.8006
Satterthwaite	Unequal	32.85	0.25	0.8006

Equality of Variances

Method	Num DF	Den DF	F Value	Pr > F
Folded F	17	17	1.46	0.4431

The GLM Procedure

Class Level Information

Class	Levels	Values
group	2	read tested

Number of Observations Read	36
Number of Observations Used	36

The GLM Procedure

Dependent Variable: rate

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.00027778	0.00027778	0.06	0.8006
Error	34	0.14572222	0.00428595		
Corrected Total	35	0.14600000			

R-Square	Coeff Var	Root MSE	rate Mean
0.001903	9.308126	0.065467	0.703333

Source	DF	Type I SS	Mean Square	F Value	Pr > F
group	1	0.00027778	0.00027778	0.06	0.8006

Source	DF	Type III SS	Mean Square	F Value	Pr > F
group	1	0.00027778	0.00027778	0.06	0.8006

The GLM Procedure

Level of group	N	-----rate-----	
		Mean	Std Dev
read	18	0.70611111	0.05902531
tested	18	0.70055556	0.07132958

Table 3***Math Community of Practice Workshop Evaluation Summary (2011)***

	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		All Participants
	Count	% of N	Count	% of N	Count	% of N	Count	% of N	Count	% of N	Count (N)
Content											
Covered Useful Material	78	86%	11	12.09%	2	2%		0%		0%	91
Practical to My Needs and Interests	76	84%	13	14.29%	2	2%		0%		0%	91
Effective Activities	69	76%	14	15.38%	5	5%		0%		0%	91
Increased Understanding of Topic	70	77%	15	16.48%	5	5%		0%		0%	91
Will Apply Knowledge Gained	72	79%	13	14.29%	5	5%		0%		0%	91
Increased Professional Knowledge	79	87%	8	8.79%	4	4%		0%		0%	91

	Excellent		Good		Fair		Poor		All Participants
	Count	% of N	Count	% of N	Count	% of N	Count	% of N	Count (N)
Total Workshop Experience	72	79%	12	13.19%		0%		0%	91

What other topics would you like to see?

Areas of focus throughout the curriculum.

Topics in math (Different Approaches)

Test Gen

Exam Writing Using Other Techniques

More Assessment Topics

Just Keep Doing This

MyLabsPlus Custom Question Creation

More Practice/Discussion about Creating & Assessing Assignments, Lectures, and Assessment Techniques

Practical responses to Sacs expectations vis a vis teaching loads, assignments (on line) and 4 tests per courses

Graphing Using SMART Board

Creating Meaningful Assessments

Extra Credit

Training on Rubrics

Specifics on Rubrics

Common Core Assessments

Rubrics for Grading

Rubrics