

Planning Objective Report

Objective Report:

Objective ID: 1419

Objective Title: Implementation of Support Center Assessment

Unit Manager: Ambrose, Marty

Planning Unit: 201239 - General Education

Obj. Status: Approved

Obj. Purpose: Operational Outcome

Unit Purpose:

Objective Description:

Once the student support center assessment is effort is implemented, the Assessment Chair (with input center managers and the Dean of Institutional Research, Planning & Effectiveness) will develop direct and indirect evidence that students are achieving the competencies included in ESCs general education curriculum. This evidence will foster the development of centers and (if necessary) modifications to existing centers

Institutional Goals

No Institutional Goals to Display

Objective Types

No Objective Types to Display

Planning Priorities

No Planning Priorities to Display

Tasks

No Tasks data

Assessment Measures

Date	Assessment Measure
07/15/2011	Number of Quasi Experimental Projects
07/15/2011	Student Support Center Unit Plans

Intended Results

Date	Intended Results
07/15/2011	By the end of the 2011-2012, all centers will be subjected to at least one quasi-experimental (treatment vs. control) study to demonstrate impact of center on achievement in general education competencies (i.e. performance in writing intensive courses, college level math courses, oral communications courses, and etc.)
07/15/2011	By the end of 2011-2012 planning cycle, all centers will have program outcomes that highlight analyses of results associated with quasi experimental designs

Status Reports

Report Date	Status Report
2/19/2012	The writing center coordinator collected participation records for 457 students who visited the center during the Fall 2011 semester. These data records for each visit that a student made to the center. The data records included length and purpose of visit. Of these 457 students, 315 students were matched with Fall 2011 grades for ENC 1101 or ENC 1102.
2/19/2012	The oral communication center coordinator collected participation records for 86 students who visited the center during the Fall 2011 semester. These data records for each visit that a student made to the center. The data records included length and purpose of visit. All of these students were matched with Fall 2011 grades for SPC 1017 or SPC 2023.

Actual Results

Date	Actual Results
02/19/2012	<p>Mid-year results Writing Center and ENC 1101 Grades Part 1 (See uploaded SAS output)</p> <ol style="list-style-type: none"> 1. Frequency distribution for all ENC 1101 grades indicates that 77.75% of students completed the course successfully 2. Mean ENC 1101 grade for all participants was 2.59 (with a standard deviation of 1.406) 3. Frequency distribution for the writing participant grades in ENC 1101 indicates that 80.93% of participants completed the course successfully 4. Mean ENC 1101 grade for writing center participants was 2.75 (with a standard deviation of 1.32)
02/19/2012	<p>Mid-year results Writing Center and ENC 1101 Grades Part 2 (See uploaded SAS output)</p> <ol style="list-style-type: none"> 5. A small (but not insignificant) positive correlation exists between the number of times that a student visited a writing center and his or her grade in ENC 1101 ($r = 0.149$; $pr = 0.03$) 6. An ANOVA was conducted to test for significant differences between the mean grade value for center participants ($n = 215$) and students who did not use the writing center ($n = 3044$). The results of this analysis indicate that students who participated in the writing center earned (on average) significantly better grades in ENC 1101 than those who do not ($f = 5.11$; $df = 3258$; $pr > f 0.024$)
02/19/2012	<p>Mid-year results Writing Center and ENC 1102 Grades Part 1 (See uploaded SAS output)</p> <ol style="list-style-type: none"> 1. Frequency distribution for all ENC 1102 grades indicates that 76.33% of students completed the course successfully 2. Mean ENC 1102 grade for all participants was 2.49 (with a standard deviation of 1.45) 3. Frequency distribution for the writing participant grades in ENC 1102 indicates that 91.14% of participants completed the course successfully 4. Mean ENC 1102 grade for writing center participants was 2.96 (with a standard deviation of 1.09)
02/19/2012	<p>Mid-year results Writing Center and ENC 1102 Grades Part 2 (See uploaded SAS output)</p> <ol style="list-style-type: none"> 5. The Pearson Product Moment Correlation between the number of times that a student visited the writing center and their grade value in ENC 1102 was not significant 6. An ANOVA was conducted to test for significant differences between the mean grade value for center participants ($n = 79$) and students who did not use the writing center ($n = 1332$). The results of this analysis indicate that students who participated in the writing center earned (on average) significantly better grades in ENC 1102 than those who do not ($f = 8.69$; $df = 1410$; $pr > f 0.003$)
02/19/2012	<p>Mid-year results Writing Center and SPC 1017 Grades Part 1 (See uploaded SAS output)</p> <ol style="list-style-type: none"> 1. Frequency distribution for all students SPC 1017 ($n = 1161$) grades indicates that 85.79% of students completed the course successfully 2. Mean SPC 1017 grade for all participants was 2.97 (with a standard deviation of 1.317) 3. Frequency distribution for the writing participant grades in SPC 1017 ($n = 63$) indicates that 95.24% of participants completed the course successfully 4. Mean SPC 1017 grade for writing center participants was 3.508 (with a standard deviation of 0.98)
02/19/2012	<p>Mid-year results Writing Center and SPC 1017 Grades Part 2 (See uploaded SAS output)</p> <ol style="list-style-type: none"> 5. No significant correlation exists between the number of times that a student visited a writing center and his or her grade in SPC 1017 6. An ANOVA was conducted to test for significant differences between the mean grade value for center participants ($n = 63$) and students who did not use the writing center ($n = 1098$). The results of this analysis indicate that students who participated in the writing center earned (on average) significantly better grades in SPC 1017 than those who do not ($f = 11.07$; $df = 1160$; $pr > f 0.0009$) 7. NOTE: Cell sizes are so different as to preclude the reliability of ANOVA results

02/19/2012	Mid-year results Writing Center and SPC 2023 Grades Part 1 (See uploaded SAS output)
	<ol style="list-style-type: none"> 1. Frequency distribution for all students SPC 2023 (n = 188) grades indicates that 75.53% of students completed the course successfully 2. Mean SPC 2023 grade for all participants was 2.64 (with a standard deviation of 1.597) 3. Frequency distribution for the writing participant grades in SPC 2023 (n = 23) indicates that 95.65% of participants completed the course successfully 4. Mean SPC 2023 grade for writing center participants was 3.609 (with a standard deviation of 0.89)

02/19/2012	Mid-year results Writing Center and SPC 2023 Grades Part 2 (See uploaded SAS output)
	<ol style="list-style-type: none"> 5. No significant correlation exists between the number of times that a student visited a writing center and his or her grade in SPC 2023 6. An ANOVA was conducted to test for significant differences between the mean grade value for center participants (n = 23) and students who did not use the writing center (n = 165). The results of this analysis indicate that students who participated in the writing center earned (on average) significantly better grades in SPC 2023 than those who do not (f = 9.92; df = 187; pr > f 0.0019)

Use of Results

Date	Use of Results
03/02/2012	<p>K. Coughlin and C. Lozano (attendees)</p> <p>Cynthia:</p> <p>Thank you so much for your time today. During our meeting, we discussed the results from the Mid-year analyses of Writing Center student participant study. A comprehensive set of these results is available as an attachment to the 2011 2012 Unit Outcome 1419. The following summarizes our discussion:</p> <ol style="list-style-type: none"> 1. We noted the positive and significant impact that center participation had on student grades in both ENC 1101 and ENC 1102 2. We also noted that, when considered as a group, Oral Comm. Center participants enjoyed a higher course success rate than the overall success rates in both ENC 1101 and ENC 1102 3. We discussed the number of students enrolled in ENC 1101 and ENC 1102 (for Fall 2011) and the number of these students served in the writing center
03/02/2012	<ol style="list-style-type: none"> 4. Because the number of times that a student came to the center was not correlated with grade improvement, the group concluded that pursuing assistance in the center was the primary factor associated with improved performance 5. Given these considerations, the group spent a sizeable portion of the meeting discussing methods through which more students could be served through the Writing Center; these methods included: <ol style="list-style-type: none"> a. Increasing the center's capacity to meet student demand for services (additional instructional assistants) b. Increasing the number of workshops offered per semester c. Increasing the percentage of composition students that are served by the writing center; we agreed that an increase from 6.7% to 10% (from 315 to 467 students) was attainable.
03/05/2012	<p>On February 28, Dr. DeLuca reviewed the Academic Success Center Data Analysis (provided by the IRPE) with the Academic Success Staff (see attached meeting minutes). The group discussed inferences to be made from data as well as future studies that could be run to provide additional insight into the connection between use of the Writing Center and Oral Communication Center and success in related courses (ENC 1101, 1102, SPC 1017, 2023). These results will also be shared with the faculty liaison for the center.</p>

Gap Analysis

SWOT

Units Impacted

No Units Impacted data

Associated Standards

Associated Outcomes

Documents

File Name	File Size	Date Modified
ENC 1101 1102 Study SAS Output 02192012.docx	17.441 KB	2/19/2012
Minutes_FYE_Academic_Success_Staff_Meeting_022812.pdf	349.751 KB	3/6/2012
SPC 1017 2023 sTUDY sas Output 02192012.docx	16.997 KB	2/19/2012

Minutes

FYE/Academic Success Meeting

Building Q

February 28, 2012, 9:00-10:30 am.

Eileen DeLuca	<i>Present</i>	Helen Algernon	<i>Present</i>
Amanda Romero	<i>Present</i>	David Downing	<i>Absent</i>
Joseph Kaye	<i>Present</i>	Jane Stavelly	<i>Present</i>
Mireille Lauture	<i>Present</i>	Anna Cool	<i>Present</i>
Whitney Rhyne	<i>Present</i>		

1. Dr. DeLuca explained the unit planning process and reviewed unit plans related to academic success: Objective 1557, *Academic Success staff will develop workshops, College-wide, that have measurable learning outcomes and student satisfaction measures.* 1314, *Once the FYE department is operational, we will provide students with an array of student support services. These services will enhance the institution's capacity to achieve the goals associated with the Quality Enhancement Plan.*
2. Dr. DeLuca reviewed Academic Success workshop data as related to unit plan objective 1557. The overall results of workshop evaluations have been positive as measured on a Likert Scale. The group talked about the success of the workshops. Dr. DeLuca discussed how workshops should have at least one stated learning outcome going forward. The directors are working on creating a workshop database. The group discussed the shortcomings of the current workshop evaluation form. Dr. DeLuca shared a suggested template for a new workshop evaluation form that was developed by Monica Moore. She asked staff to consider the new form and what they would change to make it work for Academic Success workshops.
3. The group discussed the FYE-focused workshops and extracurricular events as related to unit objective 1314. Dr. DeLuca asked if workshop evaluations are being used. She asked Whitney to take the lead on getting extracurricular event feedback from the SLS 1515 students. Whitney will create a survey document to be used at the end of the term and share with the group for feedback.
4. The group reviewed Academic Success Center data as related to unit plans 1419 and 1587. The data show that students who participated in the Writing Center and Oral Communication Centers did significantly better in related courses (ENC, SPC) than students who didn't. The group discussed the positive trend as well as the limitations of the inferences that could be made from data. The group discussed other ways to attempt to measure the positive effects of participation in the centers.
4. The group reviewed a spreadsheet of the ideas that the FYE/Academic Success staff submitted for the Mission and Goals of the FYE/Academic Success Department. Some trends that emerged:

- Supporting retention, persistence, and success
- Providing support and answers
- Providing the tools and skills for success

Some issues discussed:

- Do FYE and Academic Success need separate mission and goal statements?
- Which services overlap? Which must remain separate?
- What should the reporting structure look like to ensure students are getting appropriate support?

Dr. DeLuca will take the suggestions to begin crafting the mission statement and goals. She will share with the staff for additional input.

5. Dr. DeLuca advised the staff that further restructuring may occur as decided by the cabinet. She will keep staff informed.

6. Strained communication between program specialist and other staff in the department was discussed. For the best interest of the department and the services offered to our students, an improved effort in communication of projects, ideas, and workshops being offered is necessary. Whitney will include Jane Stavely, Helen Algernon, and Dr. Lauture in her “weekly wrap up” emails to SLS students. Program specialists are to communicate projects they are developing or improving to one another.

5. Student Assistants were discussed. The staff noted that there is still ambiguity about reporting structure. Dr. DeLuca reiterated the process of restructuring. She repeated that in the transition period all student assistant hires must ultimately be approved by Dr. DeLuca. Whitney was concerned about the day-to-day reporting structure. Dr. DeLuca said that she would work with Joseph Kaye to come up with a stated policy. Whitney agreed to share the student assistant schedule with all the staff to increase communication and to avoid misunderstandings.

Minutes submitted by Eileen DeLuca and Amanda Romero

ENC1101 Grade distributions and grade value means-All Observations 134
01:45 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_ GRDE_CODE_ FINAL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
A	986	30.25	986	30.25
B	1064	32.65	2050	62.90
C	484	14.85	2534	77.75
D	172	5.28	2706	83.03
F	377	11.57	3083	94.60
W	176	5.40	3259	100.00

ENC1101 Grade distributions and grade value means-All Observations 135
01:45 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum
3259	2.5394293	1.4063440	0	4.0000000

ENC1101 Grade distributions, grade value means, and correlation--Support Center Participants Onl 136
01:45 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_ GRDE_CODE_ FINAL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
A	82	38.14	82	38.14
B	60	27.91	142	66.05
C	32	14.88	174	80.93
D	19	8.84	193	89.77
F	14	6.51	207	96.28
W	8	3.72	215	100.00

ENC1101 Grade distributions, grade value means, and correlation--Support Center Participants Onl 137
01:45 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum
215	2.7488372	1.3227648	0	4.0000000

The CORR Procedure

2 Variables: Center_visits GRADE_NUMER

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Center_visits	215	2.20930	1.76622	475.00000	1.00000	12.00000	Center_visits
GRADE_NUMER	215	2.74884	1.32276	591.00000	0	4.00000	GRADE_NUMER

Pearson Correlation Coefficients, N = 215
Prob > |r| under H0: Rho=0

	Center_ visits	GRADE_ NUMER
Center_visits	1.00000	0.14861
Center_visits		0.0294
GRADE_NUMER	0.14861	1.00000
GRADE_NUMER		0.0294

The GLM Procedure

Class Level Information

Class	Levels	Values
Center_part	2	No Yes

Number of Observations Read	3259	
Number of Observations Used	3259	ENC 1101 ANOVA Center
Participation(IV) Grade Value(DV)	140	

The GLM Procedure

Dependent Variable: GRADE_NUMER GRADE_NUMER

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
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Model	1	10.094027	10.094027	5.11	0.0239
Error	3257	6433.589312	1.975311		
Corrected Total	3258	6443.683338			

R-Square	Coeff Var	Root MSE	GRADE_NUMER Mean
0.001566	55.34542	1.405458	2.539429

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Center_part	1	10.09402665	10.09402665	5.11	0.0239

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Center_part	1	10.09402665	10.09402665	5.11	0.0239

ENC 1101 ANOVA Center Participation(IV) Grade Value(DV) 141
01:45 Sunday, February 19, 2012

The GLM Procedure

Tukey's Studentized Range (HSD) Test for GRADE_NUMER

NOTE: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	3257
Error Mean Square	1.975311
Critical Value of Studentized Range	2.77284
Minimum Significant Difference	0.1945
Harmonic Mean of Cell Sizes	401.6324

NOTE: Cell sizes are not equal.

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	Center_part
A	2.74884	215	Yes
B	2.52464	3044	No

ENC1102 Grade distributions and grade value means-All Observations 142
01:45 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_		
GRDE_CODE_	Cumulative	Cumulative

FINAL	Frequency	Percent	Frequency	Percent

A	447	31.68	447	31.68
B	405	28.70	852	60.38
C	225	15.95	1077	76.33
D	67	4.75	1144	81.08
F	162	11.48	1306	92.56
W	105	7.44	1411	100.00

ENC1102 Grade distributions and grade value means-All Observations 143
01:45 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum

1411	2.4946846	1.4544405	0	4.0000000

ENC1102 Grade distributions, grade value means, and correlation--Support Center Participants Onl 144
01:45 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_ GRDE_CODE_ FINAL	Frequency	Percent	Cumulative Frequency	Cumulative Percent

A	32	40.51	32	40.51
B	22	27.85	54	68.35
C	18	22.78	72	91.14
D	4	5.06	76	96.20
F	3	3.80	79	100.00

ENC1102 Grade distributions, grade value means, and correlation--Support Center Participants Onl 145
01:45 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum

79	2.9620253	1.0912594	0	4.0000000

ENC1102 Grade distributions, grade value means, and correlation--Support Center Participants Onl 146
01:45 Sunday, February 19, 2012

The CORR Procedure

2 Variables: Center_visits GRADE_NUMER

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Center_visits	79	3.74684	5.33846	296.00000	1.00000	39.00000	Center_visits
GRADE_NUMER	79	2.96203	1.09126	234.00000	0	4.00000	GRADE_NUMER

Pearson Correlation Coefficients, N = 79
Prob > |r| under H0: Rho=0

	Center_ visits	GRADE_ NUMER
Center_visits	1.00000	0.21180
Center_visits		0.0610
GRADE_NUMER	0.21180	1.00000
GRADE_NUMER	0.0610	

ENC 1102 ANOVA Center Participation(IV) Grade Value(DV) 147
01:45 Sunday, February 19, 2012

The GLM Procedure

Class Level Information

Class	Levels	Values
Center_part	2	No Yes

Number of Observations Read	1411
Number of Observations Used	1411

ENC 1102 ANOVA Center Participation(IV) Grade Value(DV) 148
01:45 Sunday, February 19, 2012

The GLM Procedure

Dependent Variable: GRADE_NUMER GRADE_NUMER

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	18.277512	18.277512	8.69	0.0033
Error	1409	2964.432622	2.103927		
Corrected Total	1410	2982.710135			

R-Square	Coeff Var	Root MSE	GRADE_NUMER Mean
0.006128	58.14330	1.450492	2.494685

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Center_part	1	18.27751216	18.27751216	8.69	0.0033

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Center_part	1	18.27751216	18.27751216	8.69	0.0033

ENC 1102 ANOVA Center Participation(IV) Grade Value(DV) 149
01:45 Sunday, February 19, 2012

The GLM Procedure

Tukey's Studentized Range (HSD) Test for GRADE_NUMER

NOTE: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	1409
Error Mean Square	2.103927
Critical Value of Studentized Range	2.77419
Minimum Significant Difference	0.3295
Harmonic Mean of Cell Sizes	149.1538

NOTE: Cell sizes are not equal.

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	Center_ part
A	2.9620	79	Yes
B	2.4670	1332	No

SPC 1017 Grade distributions and grade value means-All Observations 17
14:37 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_ GRDE_CODE_ FINAL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ff				
A	546	47.03	546	47.03
B	343	29.54	889	76.57
C	107	9.22	996	85.79
D	25	2.15	1021	87.94
F	61	5.25	1082	93.20
W	79	6.80	1161	100.00

SPC 1017 Grade distributions and grade value means-All Observations 18
14:37 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum
ff				
1161	2.9732989	1.3170540	0	4.0000000
ff				

SPC 1017 Grade distributions, grade value means, and correlation--Support Center Participants Onl 19
14:37 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_ GRDE_CODE_ FINAL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
ff				
A	43	68.25	43	68.25
B	15	23.81	58	92.06
C	2	3.17	60	95.24
F	1	1.59	61	96.83
W	2	3.17	63	100.00

SPC 1017 Grade distributions, grade value means, and correlation--Support Center Participants Onl 20
14:37 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum
ff				
63	3.5079365	0.9482244	0	4.0000000
ff				

SPC 1017 Grade distributions, grade value means, and correlation--Support Center Participants Onl 21
14:37 Sunday, February 19, 2012

The CORR Procedure

2 Variables: Center_visits GRADE_NUMER

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Center_visits	63	1.88889	1.28403	119.00000	1.00000	8.00000	Center_visits
GRADE_NUMER	63	3.50794	0.94822	221.00000	0	4.00000	GRADE_NUMER

Pearson Correlation Coefficients, N = 63
 Prob > |r| under H0: Rho=0

	Center_ visits	GRADE_ NUMER
Center_visits	1.00000	0.08684
Center_visits		0.4986
GRADE_NUMER	0.08684	1.00000
GRADE_NUMER		0.4986

SPC 1017 ANOVA Center Participation(IV) Grade Value(DV) 22
 14:37 Sunday, February 19, 2012

The GLM Procedure

Class Level Information

Class	Levels	Values
Center_part	2	No Yes

Number of Observations Read 1161
 Number of Observations Used 1161

SPC 1017 ANOVA Center Participation(IV) Grade Value(DV) 23
 14:37 Sunday, February 19, 2012

The GLM Procedure

Dependent Variable: GRADE_NUMER GRADE_NUMER

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	19.040988	19.040988	11.07	0.0009
Error	1159	1993.131278	1.719699		
Corrected Total	1160	2012.172265			

R-Square Coeff Var Root MSE GRADE_NUMER Mean
 0.009463 44.10498 1.311373 2.973299

Source	DF	Type I SS	Mean Square	F Value	Pr > F
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Center_part	1	19.04098764	19.04098764	11.07	0.0009
Source	DF	Type III SS	Mean Square	F Value	Pr > F
Center_part	1	19.04098764	19.04098764	11.07	0.0009

SPC 1017 ANOVA Center Participation(IV) Grade Value(DV) 24
14:37 Sunday, February 19, 2012

The GLM Procedure

Tukey's Studentized Range (HSD) Test for GRADE_NUMER

NOTE: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	1159
Error Mean Square	1.719699
Critical Value of Studentized Range	2.77471
Minimum Significant Difference	0.3333
Harmonic Mean of Cell Sizes	119.1628

NOTE: Cell sizes are not equal.

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	Center_part
A	3.5079	63	Yes
B	2.9426	1098	No

SPC 2023 Grade distributions and grade value means-All Observations 25
14:37 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_ GRDE_CODE_ FINAL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
AA				
A	81	43.09	81	43.09
B	51	27.13	132	70.21
C	10	5.32	142	75.53
D	1	0.53	143	76.06
F	19	10.11	162	86.17
W	26	13.83	188	100.00

SPC 2023 Grade distributions and grade value means-All Observations 26
14:37 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum
188	2.6489362	1.5968381	0	4.0000000

SPC 2023 Grade distributions, grade value means, and correlation--Support Center Participants Onl 27
14:37 Sunday, February 19, 2012

The FREQ Procedure

SHRTCKG_GRDE_CODE_FINAL

SHRTCKG_ GRDE_CODE_ FINAL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
A	17	73.91	17	73.91
B	5	21.74	22	95.65
W	1	4.35	23	100.00

SPC 2023 Grade distributions, grade value means, and correlation--Support Center Participants Onl 28
14:37 Sunday, February 19, 2012

The MEANS Procedure

Analysis Variable : GRADE_NUMER GRADE_NUMER

N	Mean	Std Dev	Minimum	Maximum
23	3.6086957	0.8913284	0	4.0000000

SPC 2023 Grade distributions, grade value means, and correlation--Support Center Participants Onl 29
14:37 Sunday, February 19, 2012

The CORR Procedure

2 Variables: Center_visits GRADE_NUMER

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
Center_visits	23	3.17391	2.82283	73.00000	1.00000	13.00000	Center_visits
GRADE_NUMER	23	3.60870	0.89133	83.00000	0	4.00000	GRADE_NUMER

Pearson Correlation Coefficients, N = 23
Prob > |r| under H0: Rho=0

	Center_ visits	GRADE_ NUMER
Center_visits	1.00000	0.26313
Center_visits		0.2251
GRADE_NUMER	0.26313	1.00000
GRADE_NUMER	0.2251	

SPC 2023 ANOVA Center Participation(IV) Grade Value(DV) 30
14:37 Sunday, February 19, 2012

The GLM Procedure

Class Level Information

Class	Levels	Values
Center_part	2	No Yes

Number of Observations Read	188
Number of Observations Used	188

SPC 2023 ANOVA Center Participation(IV) Grade Value(DV) 31
14:37 Sunday, February 19, 2012

The GLM Procedure

Dependent Variable: GRADE_NUMER GRADE_NUMER

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	24.1394052	24.1394052	9.92	0.0019
Error	186	452.6903821	2.4338193		
Corrected Total	187	476.8297872			

R-Square	Coeff Var	Root MSE	GRADE_NUMER Mean
0.050625	58.89422	1.560070	2.648936

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Center_part	1	24.13940515	24.13940515	9.92	0.0019

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Center_part	1	24.13940515	24.13940515	9.92	0.0019

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The GLM Procedure

Tukey's Studentized Range (HSD) Test for GRADE_NUMER

NOTE: This test controls the Type I experimentwise error rate, but it generally has a higher Type II error rate than REGWQ.

Alpha	0.05
Error Degrees of Freedom	186
Error Mean Square	2.433819
Critical Value of Studentized Range	2.78996
Minimum Significant Difference	0.685
Harmonic Mean of Cell Sizes	40.37234

NOTE: Cell sizes are not equal.

Means with the same letter are not significantly different.

Tukey Grouping	Mean	N	Center_part
A	3.6087	23	Yes
B	2.5152	165	No