

St. Petersburg College
Educational Outcomes Assessment Record

2005-2006
(Report Year)

Technology/Information Literacy : Implement appropriate forms of existing and evolving technology for personal, educational, and professional purposes;
(Goal)

Connie Szuch
(Report Prepared By)

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Approvals

Educational Outcomes Coordinator(s): Carol Weideman, Jesse Coraggio, Magaly Tymms - December 18, 2006
Director of IRE: Carol Weideman - January 2, 2007
VP Educational and Student Services: Stan Vittetoe - January 2, 2007

Educational Outcomes Assessment Record 2005-2006

I. Major Learning Outcome #1

Students will "implement appropriate forms of existing and evolving technology for personal, educational, and professional purposes".

II. Introduction

In support of the mission of St. Petersburg College, faculty committees established several General Education Goals. These goals, as stated in the College's Mission Statement, are to provide an open admission general education curriculum that results in students' achievement of several educational outcomes. This Assessment Report addresses the following educational outcome: 'to implement appropriate forms of existing and evolving technology for personal, educational, and professional purposes'.

It is the intent of St. Petersburg College to incorporate continuous improvement practices in all areas. Assessment reports provide comparisons of present and past results which are used to identify topics where improvement is possible. The following section illustrates how SPC has traditionally used past results as a vital tool in achieving its commitment to continuous improvement.

Use of Past Results: Since 2000-2001, the Graduating Student Survey has reported students' satisfaction with the preparedness they received at St. Petersburg College in computer competency. The scale is 7 = excellent and 1 = poor. The results are as follows:

Graduating Student Survey per year	2001-2002	2002-2003	2003-2004	2004-2005
Student's satisfaction with preparedness received at SPC in computer competency	5.64	5.70	5.64	5.83

In addition, 9 items related to computer and technology competency were compared between the Entering Student Survey and the Graduating Student Survey. The results are listed below.

Outcomes measured on Entering Student Survey and Graduating Student Survey (Scale 1=lowest 5=highest)	2001-2002	2002-2003	2003-2004	2004-2005
Word processing	3.54 to 3.96*	3.65 to 4.31*	3.77 to 4.29*	3.85 to 4.43*
Spread sheets, financial	2.60 to 3.15*	2.60 to 3.48*	2.77 to 3.36*	2.82 to 3.33*
Data base management	2.38 to 2.86*	2.46 to 3.13*	2.50 to 3.04*	2.72 to 3.00*
email	4.11 to 4.29*	4.24 to 4.65*	4.40 to 4.61*	4.37 to 4.71*
Internet	4.14 to 4.31*	4.17 to 4.64*	4.41 to 4.58*	4.35 to 4.69*
Statistical tools	2.41 to 2.92*	2.47 to 3.19*	2.39 to 3.05*	2.77 to 3.09*
Graphics	2.31 to 2.83*	2.32 to 3.03*	2.44 to 2.97*	2.51 to 2.94*
Web management	1.99 to 2.57*	2.02 to 2.65*	2.07 to 2.48*	2.26 to 2.62*
Personal management tools	3.34 to 3.57*	3.57 to 4.00*	3.55 to 3.90*	3.83 to 4.05*

* Change at an Alpha of .05

Both the Entering and Graduating Student Assessment Surveys contain 9 items to rank (from 1-new to 5-highly proficient) about students' perception of their proficiency in the use of computer technology for educational and personal usage. In 2001-2002 six of the nine items showed significant (at the alpha 0.05 level) positive change in means from the entering survey to graduating survey. During 2002-2003, 2003-2004 and 2004-2005, all 9 items showed a significant (at the alpha 0.05 level) positive change in means. These indicators show that students recognize change in their own proficiency related to computer skills and since 2002-2003 the change has been positive and statistically significant for all items.

The Enrolled Student Survey asks students to rate how well they were prepared by St. Petersburg College in Use of Computer Skills. The scale is 7 = excellent and 1 = poor. The results are as follows:

Enrolled Student Survey per year	2003-2004	2004-2005	2005-2006
Prepared in Use of computer Skills	5.73	5.91	5.95

The Employers' Survey has been given to employers of former St. Petersburg College students. Employers ranked students on a scale of 1 - 7 (with 7 being the highest) on the item, "Possesses effective computer skills (e.g. computing, word processing.)". The results are as follows:

Employers' Survey (graduating year)	2001	2002	2003
Possesses effective computer Skills (e.g. computing, word, proc.)	5.8	6.2	6.3

As a result of these assessments, the following actions were taken to improve student success as well as enhance curriculum and faculty development college-wide:

- In 2002, curriculum for all courses used to meet the college's computer competency (CTS 1101, CGS 1100, and EME 2040) was revised to include information literacy competency as the result of input from national, state, and local conferences, current literature and thinking on the need for computer and information literacy, and professionals in the computer and library science field. Curriculum for CTS 1101 was revised further in 2003-04 to include computer and internet ethics and security. A vendor-developed computerized test was adopted in fall 2003 for college-wide use in competency assessment leading to improved consistency and availability for students to "test out" of the course through the ELP process and standardized functions on all campuses.
- Steps toward improved student learning were realized through a series of intensive instructor training sessions facilitated by teams of librarians and business technologies instructors, as well as individually conducted training sessions before instructors were assigned to teach the new curriculum. Team teaching was scheduled for business technologies/librarian team assignments for these courses. To improve consistency of instruction, more full-time instructors were used in these courses. A college-wide team approach was used in all areas of curriculum development and assessment. A re-organization of Business Technologies department was implemented to include assignment of a college-wide program director to oversee management of business management and general computer programs/courses, including the General Education computer courses for consistency of student learning experiences and assessment.
- To provide the best possible learning environment, computer hardware and instructional support equipment in Business Technology labs has been replaced on a 3-4 year rotation basis.
- Availability of courses has been improved to accommodate student needs by scheduling courses at different times of day/evening for varying lengths of time. Courses are also being offered at SPC Midtown and SPC Downtown centers for student convenience. Promotion to students has been improved through enhancement of the college-wide Weekend Computer Institute brochure printed each session. Promotion of competency test has been improved through use of flyers and announcements in various college communications and by college counselors/advisors.

To Improve Assessment Methodology the following steps have been taken:

- In 2000, it was suggested that CGS 1100 be included in the assessment process. A sub-committee of Business Technologies and Information Literacy faculty came together and decided to add another assessment to help assess this General Education Objective. They collaboratively created a 50 question multiple-choice exam that contained content from both areas. Those content areas are covered in CTS 1101, a 1 credit-hour course that can be used for the college's technology requirement. The exam is used as the final exam for that course. The results and analysis of this current assessment are based partially upon this exam.

Current Assessment:

We have tied the General Education goal to these Major Learning Outcomes of CTS 1101 Basic Computer & Information Literacy: Students will:

1. Demonstrate knowledge of basic computer operations and functions,
2. Demonstrate knowledge of a word processing program,
3. Demonstrate knowledge of a spreadsheet program,
4. Demonstrate the ability to use a variety of electronic databases to locate information for a selected topic,
5. Demonstrate the ability to critically assess the value of Internet resources for specific information through demonstrating the ability to locate, evaluate and cite relevant research materials on the Internet,
6. Demonstrate knowledge of the legal and ethical use of intellectual property,
7. Demonstrate the ability to maintain online privacy and to communicate effectively in an online environment.

This is a summative interpretation for General Education improvement and an assessment of the major learning outcomes listed above of students enrolled in CTS 1101. The overall objective of this report is to use the findings to create action plans.

The 2004-2005 Follow-up Report listed an action item which identified the need to enhance the assessment. As a result of this action item, the assessment specification plan was revised to include not only the multiple choice exam, but also three hands-on applications tests developed by instructors and used for assessment since fall 2005. The three hands on application tests consist of the following three components: Information Literacy, Windows/Word and Windows/Excel.

III. Methodology

Means of Assessment:

The Major Learning Outcome was evaluated using six methods. In Method 1, an assessment administered by course instructors, students were required to complete a closed book 50-question multiple-choice examination as well as 3 hands on applications tests, during the last couple hours of the course. In Method 2, Satisfaction data from Graduating Student Survey, students were asked to rate their satisfaction with how well SPC prepared them. In Method 3, Comparison of Entering and Graduating Student Surveys, students were asked to rate their competency in 9 skill areas. In Method 4, Enrolled Student Survey, students were asked to rate the preparation they received at SPC in three areas. In Method 5, Employer's Survey, employers were asked to rate SPC graduates in three areas. In Method 6, Kenexa Challenge Test, a computer-based test of Computer and Information Literacy, consists of questions with objective and application questions in each section.

Date(s) of Administration: Fall 2005 and Spring 2006

Method 1. Assessment administered by Course Instructors

Students enrolled in CTS 1101, Basic Computer & Information Literacy, in Session I, Fall, of 2005 and Session II, Spring, 2006 (analyzed separately and in aggregate) completed a closed book multiple-choice examination, as well as three hands on applications tests, during the last two hours of the course administered by the course instructor. This assessment was also the class final exam making this assessment transparent to both students and faculty. (See Attachment: Specifications Plan)

Assessment Instrument:

As a result of a 2004-2005 action item, the instrument was revised in 2005 to make it more application based and the new instrument was

used for the 2005-2006 assessments. The assessment specification plan was revised to include not only the multiple choice exam, but also three hands-on applications tests developed by instructors and used for assessment since fall 2005.

The in-class assessment instrument consists of a closed-book 50-question multiple-choice exam, as well as three hands on application tests, developed by a committee that consisted of both Business Technologies and Information Literacy faculty and librarians.

The 50-question, multiple-choice exam consists of the following two components:

- 25 questions in the area of computer literacy
- 25 questions in the area of information literacy

The three hands on application tests consist of the following three components:

- Information literacy
- Windows/Word
- Windows/Excel

Domain Specifications:

Students will:

1. Demonstrate knowledge of basic computer operations and functions,
2. Demonstrate knowledge of a word processing program,
3. Demonstrate knowledge of a spreadsheet program,
4. Demonstrate the ability to use a variety of electronic databases to locate information for a selected topic,
5. Demonstrate the ability to critically assess the value of Internet resources for specific information through demonstrating the ability to locate, evaluate and cite relevant research materials on the Internet,
6. Demonstrate knowledge of the legal and ethical use of intellectual property,
7. Demonstrate the ability to maintain online privacy and to communicate effectively in an online environment.

Items/Scoring:

The instructors of CTS 1101 graded the Scantrons of students in their own classes. All questions were equally weighted.

Instructions:

There were no specific instructions given to the faculty members. They were to give this assessment as their final exam in the class.

Population:

Students enrolled in CTS 1101, Basic Computer & Information Literacy, were assessed. Since it is to the students' benefit to be able to demonstrate these skills at the beginning of their college tenure, it is not appropriate to use only students who had finished 45 hours in this assessment.

The Fall 2005 assessment sample for the multiple choice test consisted of 176 students from 5 campuses.

Number of students evaluated per campus:

Clearwater	58
St Pete/Gibbs	50
Downtown	12
Seminole	39
Tarpon Springs	17

The Fall 2005 assessment sample for the first two components of the application test consisted of 148 students and for the third component the sample consisted of 89 students.

The Spring 2006 assessment sample for the multiple choice test consisted of 593 students from 5 campuses.

Number of students evaluated per campus:

Clearwater	181
St Pete/Gibbs	236
Downtown	11
Seminole	85
Tarpon Springs	80

The Spring 2006 assessment sample for the first two components of the application test consisted of 588 and 590 students respectively and for the third component the sample consisted of 474 students.

Method 2: Satisfaction data from Graduating Student Survey

In 2005-2006, data regarding the students' satisfaction with the preparedness they received at St. Petersburg College in computer competency was collected and reported.

Method 3: Comparison of Entering and Graduating Student Surveys

During 2005-2006, 9 items related to computer and technology competency were compared between the Entering Student Survey and the Graduating Student Survey.

Method 4: Enrolled Student Survey

During 2005-2006, the Enrolled Student Survey reported results to the request: Rate how well you perceive that you were prepared by St. Petersburg College in Use of Computer Skills. The scale is 7 = excellent and 1 = poor.

Method 5: Employers' Survey

The survey of students who completed their course work at St. Petersburg College in 2003-2004 was given to their employers. Employers ranked these former students on a scale of 1 – 7 (with 7 being the highest) on the item, “Possesses effective computer skills (e.g. computing, word processing).”

Method 6: KENEXA Challenge Test

The KENEXA Challenge Test is a computer-based test of Computer and Information Literacy developed by and purchased from the KENEXA Co. given in a Testing Center on each campus for students to “challenge” or “test out” of this course. It consists of Computer and Information Literacy questions with objective and application questions in each section.
Population: Students enrolled from Fall 2005 to Spring 2006.

References:

References:

Multiple Choice Exam 09-04

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/Assessment%5FInstrument%5FExamCTS%5F1101%5F%5F.doc>

Revised Specifications Plan for 2005-06

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/Specification%5FPlan%5F2005%2D06.doc>

Revised Multiple Choice Exam 01/06

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS%5F1101%5FMultiple%5FChoice%5FExam%2DRev%5F0106.doc>

Applications Test (Info Lit Lab Final)

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS1101%5FInfo%5FLit%5FLab%5FFinal.doc>

Applications Test (Info Lit Lab Final Scoring Sheet)

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS1101%5FInfo%5FLit%5FGrading%5FSheet.doc>

Applications Test (Windows/Word Lab Final)

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS1101%5FWord%5FLab%5FFinal.doc>

Applications Test (Windows/Excel Lab Final)

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS1101%5FExcel%5FLab%5FFinal.doc>

IV. Criteria for Success

Method 1: Assessment administered by Course Instructors

Scoring method:

For final exam purposes, each of the 50 questions was worth 2 points in order for this assessment to represent 100%. For the purposes of this assessment, each question was viewed as being of equal weight.

The table below denotes the number of correct answers which represent the pre-determined standard of 70%, for each Domain within the multiple choice test.

Scale	70% Standard
Domain 1	7.7 out of 11
Domain 2	4.2 out of 6
Domain 3	6.3 out of 9
Domain 4	9.8 out of 14
Domain 5	13.3 out of 19
Domain 6	2.8 out of 4
Domain 7	2.8 out of 4

The table below denotes the number of correct answers which represent the pre-determined standard of 70%, for each of the three components within the application test.

Scale	70% Standard
Windows/Word	4.20 out of 6.0
Windows/Excel	4.55 out of 6.5
Information Literacy	8.75 out of 12.5

Expected outcome:

Goal: For this study, analysis was done by item and by students. The goal of 70% competency, based on the college’s passing rate in good standing, will be applied to both variables.

Method 2: Satisfaction data from Graduating Student Survey

Goal: Above average (4 out of 7) means.

Method 3: Comparison of Entering and Graduating Student Surveys

Goal: A significant (at the alpha 0.05 level) positive change in means. Above Average (3 out of 5) means.

Method 4: Enrolled Student Survey

Goal: Above average (4 out of 7) mean on rating students' preparedness in mathematics.

Method 5: Employers’ Survey

Goal: Above average (4 out of 7) mean on the item, “Possesses effective computer skills (e.g. computing, word proc.)”.

Method 6: KENEXA Challenge Test

Goal: Students must make 70% on both sections to be successful. Students may take each section 2 times in order to pass.

References:

Multiple Choice Exam 09-04

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/Assessment%5FInstrument%5FExamCTS%5F1101%5F%5F.doc>
 Revised Specifications Plan for 2005-06

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/Specification%5FPlan%5F2005%2D06.doc>
 Revised Multiple Choice Exam 01/06

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS%5F1101%5FMultiple%5FChoice%5FExam%2DRev%5F0106.doc>
 Applications Test (Info Lit Lab Final)

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 Applications Test (Windows/Word Lab Final)

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS1101%5FWord%5FLab%5FFinal.doc>
 Applications Test (Windows/Excel Lab Final)

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/CTS1101%5FExcel%5FLab%5FFinal.doc>

V. Summary of Assessment Findings

Method 1: Assessment administered by Course Instructors

Session I, Fall 2005:

Student Assessment:

The results of the fifty-question multiple choice test illustrate that 94.3% (166/176) of the students assessed achieved the objectives at or above the pre-determined standard (70% of the items answered correctly). In addition, 43 of the 50 questions were answered correctly, well above the standard of 70%.

As a result of a current action item which requires the analysis of data results for various scheduling formats, the data results were partitioned into two sections. One section represents the students who attended Saturday classes and the other represents those who attended weekday afternoon classes. The results of the multiple choice test illustrate that 95.9% (142/148) of the students who attended Saturday sessions and 85.7% (24/28) of the students who attended weekday afternoon sessions, achieved the objectives at or above the pre-determined standard.

The results of the application test illustrate that 92.6% (137/148) of students assessed (in all sessions) achieved the objectives at or above the pre-determined standard for the "Windows/Word" component. Likewise, 93.9% (139/148) of the students assessed achieved the objectives at or above the pre-determined standard for the "Windows/Excel" component. However, 66.3% (59/89) of the students assessed achieved the objectives at or above the predetermined standard when taking the "Information Literacy" component. The results were further partitioned to illustrate differences for various scheduling formats as shown in the table below.

Scale	% at Standard or Greater All sessions	% at Standard or Greater Saturday sessions	% at Standard or Greater Afternoon sessions
Windows/Word	92.6	92.6	92.3
Windows/Excel	93.9	94.3	92.3
Information Literacy	66.3	66.7	65.4

Session II, Spring 2006:

Student Assessment:

The results of the fifty-question multiple choice exam showed that 93.1% (552/593) of the students assessed achieved the objectives at or above the pre-determined standard. Additionally, 46 of the 50 questions were answered correctly, well above the standard of 70%.

The data results for various scheduling formats were also partitioned in session II, with one section representing the students who attended Saturday classes and the other section representing those who attended afternoon classes. The results of the multiple choice test illustrate that 92.5% (459/496) of the students who attended Saturday sessions and 95.1% (24/28) of the students who attended weekday afternoon sessions, achieved the objectives at or above the pre-determined standard.

The results of the application test illustrate that 95.9% (564/588) of the students assessed achieved the objectives at or above the pre-determined standard for the "Windows/Word" component. Likewise, 94.4% (557/590) of the students assessed achieved the objectives at or above the pre-determined standard for the "Windows/Excel" component. However, 69.0% (327/474) of the students assessed achieved the objectives at or above the predetermined standard when taking the "Information Literacy" component. The results were further partitioned to illustrate differences for various scheduling formats as shown in the table below.

Scale	% at Standard or Greater All sessions	% at Standard or Greater Saturday sessions	% at Standard or Greater Afternoon sessions
Windows/Word	95.9	95.3	98.7
Windows/Excel	94.4	94.1	97.5
Information Literacy	69.0	69.0	68.9

Domain Specifications Results: Each of the domains assessed above the goals of 70%. Although the results suggest that students are achieving above average success in both the areas of literacy, the area of computer literacy showed a higher success rate than information literacy.

Domain	Items	Fall % correct (n=176)	Spring % correct (n=593)
1. Demonstrate knowledge of basic computer operations and functions	1-11	98.3	97.3
2. Demonstrate knowledge of a word processing program	12-15, 21, 22	90.9	87.9

3. Demonstrate knowledge of a spreadsheet program	16-24	84.1	79.8
4. Demonstrate the ability to use a variety of electronic databases to locate information for a selected topic	25, 27, 29, 30-34, 36, 38-42	88.1	78.9
5. Demonstrate the ability to critically assess the value of Internet resources for specific information through demonstrating the ability to locate, evaluate and cite relevant research materials on the Internet	25-36, 38-44	77.3	75.2
6. Demonstrate knowledge of the legal and ethical use of intellectual property	43, 46, 47, 50	74.3	78.5
7. Demonstrate the ability to maintain online privacy and to communicate effectively in an online environment.	37, 45, 48, 49	79.0	90.2

Reliability Statistics - Fall term:

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.72	0.72	49*
<i>*Note: Item 9 had a perfect score.</i>		

Reliability Statistics - Spring term:

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.817	0.833	50

Method 2. Satisfaction data from Graduating Student Survey

In 2005-2006, data regarding the students' satisfaction with the preparedness they received at St. Petersburg College in computer competency was collected. These results are as follows:
2005-2006: 6.01 (out of 7 with 7 being the highest)

Method 3: Comparison of Entering and Graduating Student Surveys

The 2005-2006 results are below:

Outcomes measured on Entering Student Survey and Graduating Student Survey (Scale 1=lowest 5=highest)	2005-2006
Word processing	4.14 to 4.52*
Spread sheets, financial	3.15 to 3.50*
Data base management	2.84 to 3.19*
email	4.59 to 4.79*
Internet	4.63 to 4.78*
Statistical tools	2.80 to 3.18*
Graphics	2.74 to 3.06*
Web management	2.47 to 2.77*
Personal management tools	3.80 to 4.08*

* Change at an Alpha of .05

During 2005-2006, all 9 items in the Entering and Graduating Student Assessment Surveys about proficiency in the use of computer technology for educational and personal usage showed a significant (at the alpha 0.05 level) positive change in means. On the Graduating Student Survey 8 out of 9 items were rated above 3 out of 5, which was the college goal. These indicators show student satisfaction with their computer competency preparation and accompanying change in behaviors related to computer skills.

Method 4: The Enrolled Student Survey

Report results to the request: 'Rate how well you perceive that you were prepared by St. Petersburg College in Use of Computer Skills' show in 2006 students rated this item at 5.98, up from 5.95 in 2005. The scale is 7 = excellent and 1 = poor.

Method 5: Employers' Survey

Employers ranked former students on a scale of 1 – 7 (with 7 being the highest) on the item, "Possesses effective computer skills (e.g. computing, word processing.)". Survey results for students who completed their course work in 2004-2005 rate St. Petersburg College graduates at 6.3 (out of 7) in the area, "Possesses effective computer skills".

Method 6: KENEXA Challenge Test

The 2005-2006 results of this assessment tool are not available.

References:

References:

Item Analysis Data - MC Exam & Applications Tests

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/Item%5FAnalysis%5F%2D%5FFall%5F%26%5FSpring%5F2005%2D06.xls>
Results Based on Session Types - Fall & Spring

VI. Discussion and Analysis of Assessment Findings

Method 1. Assessment administered by Course Instructors

Session I, Fall 2005:

Multiple Choice Test:

The Session I, Fall 2005-06 test results of the 50-question multiple choice test show that 94.3% of the 176 students assessed scored at or above the 70% standard. Data collection for this assessment did not begin until Session II of the 2004-05 academic year so comparison of fall data for multiple years is not yet available.

A comparison of Fall 2005-06 results of the multiple choice test administered in sections offered in flexible scheduling formats on weekday afternoons with the results of the traditional scheduling of two consecutive 8-hour Saturdays shows a significant difference in the percentages of students who scored at or above 70%. The student scores for Saturday classes indicate that 95.9% of the students assessed achieved at or above 70%, and the student scores for weekday afternoon classes indicate that only 85.7% of the students assessed achieved at or above 70%. This approximately 10% difference may be attributed to the difference in the number of students assessed in the two scheduling formats. The total number of students assessed in 9 sections of Saturday classes was 148, whereas the total number of student assessed in 2 sections of weekday afternoon classes was only 28.

Applications Test:

A comparison of the results of the three test components of the applications test shows that 92.6% of students achieved scores at or exceeding the 70% standard on the Windows/Word component and 93.9% on the Windows/Excel component. The results of the Information Literacy component identify that only 66.3% of the students assessed achieved scores at or above the 70% standard. Of note is the difference in the number of students assessed for the Information Literacy component of the test; only 89 student test scores were assessed instead of 148 for the Word and Excel components. This discrepancy appears to be the result of different test versions being administered in some class sections.

A comparison of results of the applications test administered in sections offered in flexible scheduling formats on multiple weekday afternoons with the results of the traditional scheduling on two consecutive Saturdays shows minimal difference in the percentages of students who scored at or above 70%. The student scores for the 9 sections of Saturday classes indicate that 92.6% of the students assessed achieved at or above 70% on the Windows/Word test component, and the student scores for the 2 sections of weekday afternoon classes indicate that 92.3% of the students achieved at or above 70%; results show 94.3% and 92.3% respectively on the Windows/Excel test component; and 66.7% and 65.4% respectively on the Information Literacy test component. Thus, there is minimal difference between test scores of students in Saturday classes when compared with those in weekday afternoon classes for this session. However, a significant difference is shown between the percentage of students achieving 70% or higher on the Word and Excel components than on the Information Literacy component.

After Session I, the sampling size was determined to be too small to make good comparisons so the decision was made to require all sections of CTS 1101 to be assessed in the spring session.

Session II, Spring 2006:

Multiple Choice Test:

The results of the Spring 2005 multiple choice test show that 94.6% of the 149 students assessed achieved scores of 70% or above compared with Spring 2006 results that showed a small decrease to 93.1% of 566 students assessed achieving scores of 70% or above. The large number of students assessed in the spring may have been an influencing factor in this decrease in scores.

A comparison of results of the multiple choice test administered in sections offered in flexible scheduling formats on weekday afternoons with the results of the traditional scheduling of two consecutive Saturdays shows some difference in the percentages of students who scored at or above 70%. The student scores for 31 sections of Saturday classes indicate that 92.5% of the students assessed achieved at or above 70% whereas the student scores for 7 sections of weekday afternoon classes indicate that 95.1% of the students assessed achieved at or above 70%. This difference may be attributed to the difference in the number of students assessed in the two scheduling formats. The total number of students assessed in the Saturday classes was 496, whereas the total number of students assessed in weekday afternoon classes was 81. Because there was only one evening section of CTS 1101 scheduled in Session II, the test results showing 100% of the 16 students assessed achieving scores of 70% or above on the multiple choice test are not considered relevant to this comparison of scheduling formats.

Applications Tests:

The applications tests were not administered in the Spring 2005 in the CTS 1101 course. The three hands-on applications test components for Windows/Word, Windows/Excel, and Information Literacy were first administered in the Fall 2005 to align the tests used in the classes with the test-out assessment tool.

A comparison of the results of the three test components of the applications test administered in all sections of CTS 1101 in the Spring 2005 shows that 95.9% of the students assessed achieved scores at or exceeding the 70% standard on the Windows/Word component of the test and 94.4% achieved 70% or higher on the Windows/Excel component. Test results showing that only 69.0% of students achieved the 70% level of success or higher on the Information Literacy component of the test reveal a significant difference in level of achievement on this component than the other two components. Also of note is the difference in the number of students assessed for the Information Literacy component of the test. The discrepancy in data collection and analysis appears to be the result of different test versions being administered in some class sections.

A comparison of results of the applications test administered in sections offered in flexible scheduling formats on weekday afternoons with the results of the traditional Saturday classes shows some difference in the percentages of students who scored at or above 70% on all three test components. The student scores for the 31 sections of Saturday classes show that 95.3% of the students assessed achieved at or above 70% on the Windows/Word test component, and the student scores for the 7 sections of weekday afternoon classes show that 98.7% of the students achieved at or above 70%; 94.1% and 97.5% respectively on the Windows/Excel test component; and 69.0% and 68.9% respectively on the Information Literacy test component. These test results indicate that a higher percentage of students in weekday afternoon classes achieve the 70% standard for success on the Word and Excel test components than students in Saturday classes. There is

almost no difference in the percentages for the Information Literacy test component in the various schedule formats. Again, however, test results show a significant difference between the percentage of students achieving 70% or higher on the Word and Excel test components and the percentages for the Information Literacy component in all scheduling formats.

Method 2. Satisfaction data from Graduating Student Survey

In 2005-2006, data regarding the students' satisfaction with the preparedness they received at St. Petersburg College in computer competency was collected. The 2005-2006 result was 6.01 (out of 7 with 7 being the highest) which is an improvement over the 2004-2005 result of 5.83.

Method 3: Comparison of Entering and Graduating Student Surveys

The 2005-2006 results in all 9 areas assessed in the Entering and Graduating Student Assessment Surveys about proficiency in the use of computer technology for educational and personal usage, improved from the results obtained in 2004-2005.

Method 4: The Enrolled Student Survey

Report results to the request: 'Rate how well you perceive that you were prepared by St. Petersburg College in Use of Computer Skills' show in 2006 students rated this item at 5.98, up from 5.95 in 2005. The scale is 7 = excellent and 1 = poor.

Method 5: Employers' Survey

Employers ranked former students on a scale of 1 – 7 (with 7 being the highest) on the item, "Possesses effective computer skills (e.g. computing, word processing.)". Survey results for students who completed their course work in 2004-2005 rate St. Petersburg graduates at 6.3 (out of 7) in the area, "Possesses effective computer skills". This result did not change from the 2003-2004.

Method 6: KENEXA Challenge Test

The 2005-2006 results of this assessment tool are not available.

References:

Item Analysis Data - MC Exam & Applications Tests

Online at: <https://it.spcollege.edu/edoutcomes/attachments/5-326/Item%5FAnalysis%5F%2D%5FFall%5F%26%5FSpring%5F2005%2D06.xls>

Results Based on Session Types - Fall & Spring

Online at:

<https://it.spcollege.edu/edoutcomes/attachments/5-326/Results%5FBased%5Fon%5FSession%5FType%5F%2D%5FFall%5F%26%5FSpring%5F2005%2D06.xls>

VII. Action Plan and Timetable for Implementation

Based on the analysis of the results the following Action Plan Items have been selected for implementation:

B. Enhance Curriculum & Faculty Development

B7. Make technology related improvements

D. Improve Assessment Methodology

D3. Review, revise Assessment Specifications Plan

D9. Other

Ref. #	Action Plan Detail	Date to Accomplish
B.	Enhance Curriculum & Faculty Development	
B7.	Explore the use of ANGEL Technology for test administration and data collection.	5/2007
D.	Improve Assessment Methodology	
D3.	The assessment specification plan will be revised to include not only the multiple choice exam, but also the 3 hands-on applications tests developed by instructors and used for assessment since fall 2005. Changes will be made in the assessment method, weights desired, scoring method, who will score the assessment, and assessment conditions to reflect the assessment process implemented to bring the course test in alignment with the test-out assessment tool.	12/2006
D9.	Test data will be reviewed to identify scoring patterns among the sections of the course offered in the various scheduling formats to determine if time of day, length of class meetings, and number of class meetings has an impact on student performance as measured by the test results.	12/2006

VIII. Budgetary and Planning Implications for Upcoming Unit Planning Cycle

The recommendations that follow will be suggested to the appropriate program directors to be included in the unit planning process:

- **Budget:** Appropriate funds are requested for the following:
 1. Get commitment from one Computer Literacy and one Information Literacy faculty member from each campus as Gen Ed. Campus Representative
 2. Create faculty professional development opportunities and distribute materials (perhaps online or via CD/DVD)
 3. Prepare, distribute and score the General Education Assessment
- **Planning:**
 1. Create a committee of 1 or 2 faculty member from each campus (Technology and Information Literacy) for Gen. Ed. Campus Representation.
 2. Plan and implement several professional development events, possibility online or via CD/DVDs
 3. Prepare, distribute and score the General Education Assessment

