

Developing Effective Online Systems: National University



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National University Background



NATIONAL UNIVERSITY (NU) IS THE SECOND LARGEST PRIVATE UNIVERSITY IN CALIFORNIA AND CONSIDERED A LEADER IN ONLINE EDUCATION WITH AN ACADEMIC PROGRAM BASED ON A COURSE PER MONTH FORMAT. A 2010 STUDY OF 14,175 NU CLASSES FROM FISCAL YEARS (FY) 2008, 2009, 2010 EXAMINED THE IMPACT OF A SHIFT FROM ONSITE TO ONLINE PROGRAM/COURSE ENROLLMENTS AND STUDENT SELF-ASSESSMENT OF LEARNING IN ONSITE, HYBRID, AND ONLINE COURSES.

WHILE STUDENT ENROLLMENT HAD DRAMATICALLY SHIFTED TO ONLINE, STUDENT ASSESSMENT OF LEARNING REMAINED HIGHEST IN ONSITE VS. HYBRID OR ONLINE SETTINGS.

National University Background



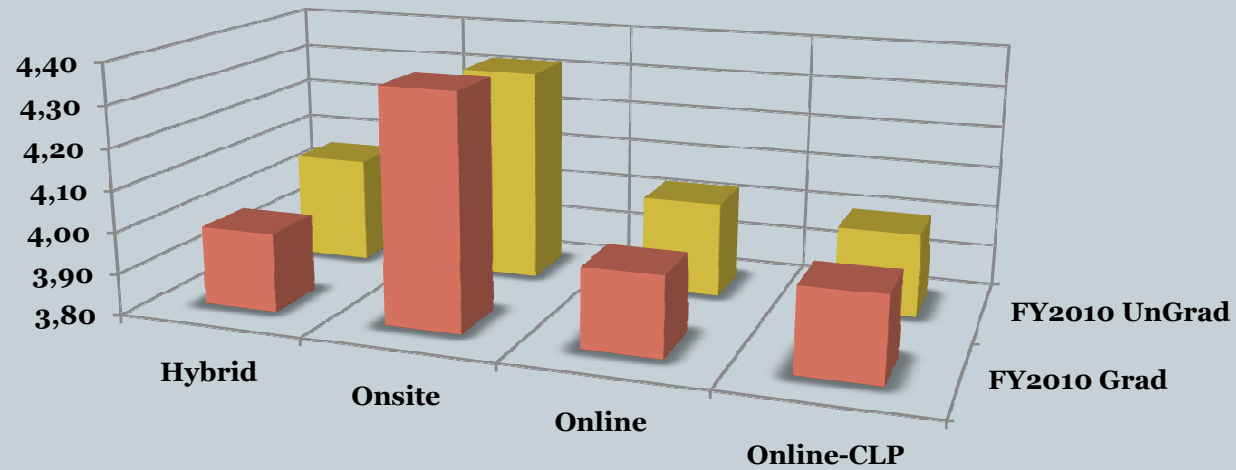
IT SHOULD BE NOTED THAT UNLIKE MOST OTHER U.S. INSTITUTIONS OF HIGHER EDUCATION WHICH OPERATE ON A SEMESTER OR QUARTER SCHEDULE, NU OFFERS STUDENTS A SINGLE COURSE PER MONTH FORMAT. THESE MONTH-LONG COURSES ARE RIGOROUS AND INTENSELY FOCUSED. AT THE END OF EACH COURSE, STUDENTS COMPLETE A CRITIQUE OF THE COURSE WHICH INCLUDES ASSESSMENT OF TEACHING, COURSE CONTENT MATERIALS, AND IN THE CASE OF ONLINE AND HYBRID COURSES ASSESSMENT OF QUALITY OF THE ONLINE TECHNOLOGY.

TWO IMPORTANT ASSESSMENT QUESTIONS ARE THE STUDENTS' SELF-ASSESSMENT OF LEARNING AND THE ABILITY TO APPLY WHAT THEY LEARNED BEYOND THE CLASSROOM. A FIVE-POINT LIKERT SCALE IS PROVIDED FOR RESPONSES TO ALL 30 QUESTIONS CONTAINED IN THE STUDENT END-OF-COURSE ASSESSMENT.

National University FY 2010



National University FY 2010 Data



	Hybrid	Onsite	Online	Online-CLP
FY2010 Grad	3,99	4,36	3,99	4,00
FY2010 UnGrad	4,06	4,32	4,03	4,00

National University

FY 2010



DATA FROM A TOTAL OF 2,484 FY 2010 GRADUATE COURSES WERE ANALYZED BY ANOVA AND SCHEFFE'. STUDENT LEARNING IN ONSITE COURSES WERE STATISTICALLY SIGNIFICANTLY HIGHER ($P < .001$, $F = 151.120$, $3/2480$ DF) THAN LEARNING IN HYBRID, ONLINE, AND ONLINE-CLP COURSES. SCHEFFE' ANALYSIS REVEALED THAT THERE WERE NO STATISTICALLY SIGNIFICANT DIFFERENCES BETWEEN LEARNING IN HYBRID, ONLINE, AND ONLINE-CLP COURSES.

ONLINE-CLP COURSES ARE THOSE THAT INCLUDE A SYNCHRONOUS COMMUNICATION COMPONENT THAT INSTRUCTORS CAN USE TO MEET WITH ONLINE STUDENTS IN A "REAL-TIME" SETTING.

National University

FY 2010



DATA FROM A TOTAL OF 1,562 FY 2010 UNDERGRADUATE COURSES WERE ANALYZED BY ANOVA AND SCHEFFE’.

SIMILAR TO GRADUATE COURSES, STUDENT LEARNING IN ONSITE UNDERGRADUATE COURSES WERE STATISTICALLY SIGNIFICANTLY HIGHER ($P < .001$, $F = 63.707$, $3/1558$ DF) THAN LEARNING IN HYBRID, ONLINE, AND ONLINE-CLP COURSES.

SCHEFFE ANALYSIS REVEALED THAT THERE WERE NO STATISTICALLY SIGNIFICANT DIFFERENCES BETWEEN LEARNING IN HYBRID, ONLINE, AND ONLINE-CLP COURSES.

National University

School of Education FY 2013 Study



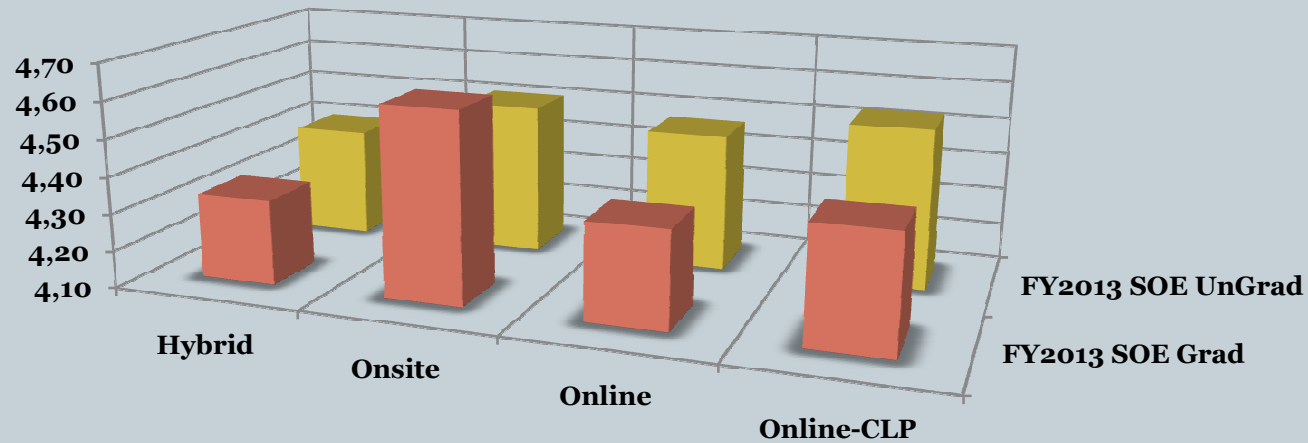
AS PART OF PREPARATION FOR A NCATE ACCREDITATION REVIEW, THE SCHOOL OF EDUCATION (SOE) UNDERTOOK A FOLLOW-UP STUDY WITH FY 2013 DATA SINCE THE DATABASE USED FOR THE EARLIER FY 2010 STUDY DID NOT DISAGGREGATE DATA FROM THE SIX (6) SCHOOLS COMPRISING NATIONAL UNIVERSITY.

A TOTAL OF 1,740 SOE GRADUATE COURSES AND 194 SOE UNDERGRADUATE COURSES WERE USED IN THE FY 2013 STUDY. THE UNDERGRADUATE PROGRAM WAS RELATIVELY NEW SINCE PRIOR TO FY 2012 THE SOE ONLY OFFERED GRADUATE PROGRAMS.

National University School of Education FY 2013 Study



National University School of Education FY 2013 Data



	Hybrid	Onsite	Online	Online-CLP
FY2013 SOE Grad	4,33	4,61	4,36	4,41
FY2013 SOE UnGrad	4,40	4,51	4,47	4,53

National University

School of Education FY 2013 Study



SIMILAR TO WHAT WAS NOTED IN THE EARLIER FY 2010 STUDY, SOE GRADUATE STUDENTS REPORTED GREATER LEARNING IN ONSITE THAN IN HYBRID, ONLINE, OR ONLINE-CLP COURSES ($P < .001$, $F = 21.979$, $3/1736$ DF).

SCHEFFE' POST-HOC ANALYSIS REVEALED NO STATISTICALLY SIGNIFICANT DIFFERENCES BETWEEN SOE GRADUATE STUDENT LEARNING IN HYBRID, ONLINE, AND ONLINE-CLP COURSES.

National University

School of Education FY 2013 Study



NO STATISTICALLY SIGNIFICANT DIFFERENCES WERE NOTED IN UNDERGRADUATE STUDENT LEARNING IN HYBRID, ONSITE, ONLINE, OR ONLINE-CLP COURSES. THIS IS A MAJOR FINDING AND MAY BE THE FIRST DOCUMENTED CASE OF STUDENT LEARNING IN ONLINE COURSES BEING EQUAL TO THAT IN ONSITE OR HYBRID COURSES.

WHILE NO STATISTICALLY SIGNIFICANT DIFFERENCES WERE FOUND, IT IS INTERESTING TO NOTE THAT STUDENTS REPORTED THE HIGHEST LEVEL OF LEARNING IN ONLINE-CLP COURSES.

ANOTHER INTERESTING FINDING WAS THAT STUDENT LEARNING IN BOTH GRADUATE AND UNDERGRADUATE COURSES WAS HIGHER THAN THAT FOUND IN THE EARLIER FY 2010 STUDY.

National University FY 2014 Study



BECAUSE OF THE FINDING IN THE SOE FY 2013 UNDERGRADUATE STUDY, THE PROVOST ORDERED A REVIEW OF ALL FY 2014 COURSES FROM THE SIX (6) SCHOOLS COMPRISING NATIONAL UNIVERSITY (NU). THREE MAJOR INITIATIVES IMPACTED THE NY SYSTEM BETWEEN FY 2010 AND FY 2014.

(I) THE PROVOST'S OFFICE DEVELOPED AND IMPLEMENTED A PROGRAM ANNUAL REVIEW (PAR) PROGRAM THAT REQUIRED ALL SIX SCHOOLS TO ANNUALLY REVIEW 20% OF THEIR ACADEMIC PROGRAMS. COMPONENTS OF THE PAR PROGRAM INCLUDE PROGRAM LEARNING OUTCOMES, CURRICULUM MAPPING, A MULTI-YEAR PLAN, ASSESSMENT FINDINGS, AND OVERALL PROGRAM RECOMMENDATIONS BASED UPON THE ASSESSMENT FINDINGS.

National University

FY 2014 Study



(II) LIKE THE OTHER FIVE NU SCHOOLS, THE SOE CREATED A SCHOOL ASSESSMENT COMMITTEE (SAC) BUT, UNLIKE THE OTHER FIVE NU SCHOOLS, THE SOE SAC WAS CHARGED WITH REQUIRING 100% OF SOE PROGRAMS TO BE ASSESSED ANNUALLY. THE SOE SAC IS TASKED WITH MENTORING AND OVERSIGHT RESPONSIBILITIES FOR THE ASSESSMENT OF SOE PROGRAMS AND A TWO-MEMBER SAC TEAM IS ASSIGNED TO EACH OF THE DEPARTMENTS WITHIN THE SOE. THESE SAC TEAMS ASSIST IN THE ANNUAL REVIEW OF ASSESSMENT DATA FOR EACH OF THE ACADEMIC PROGRAMS WITHIN THE DEPARTMENT.

National University

FY 2014 Study



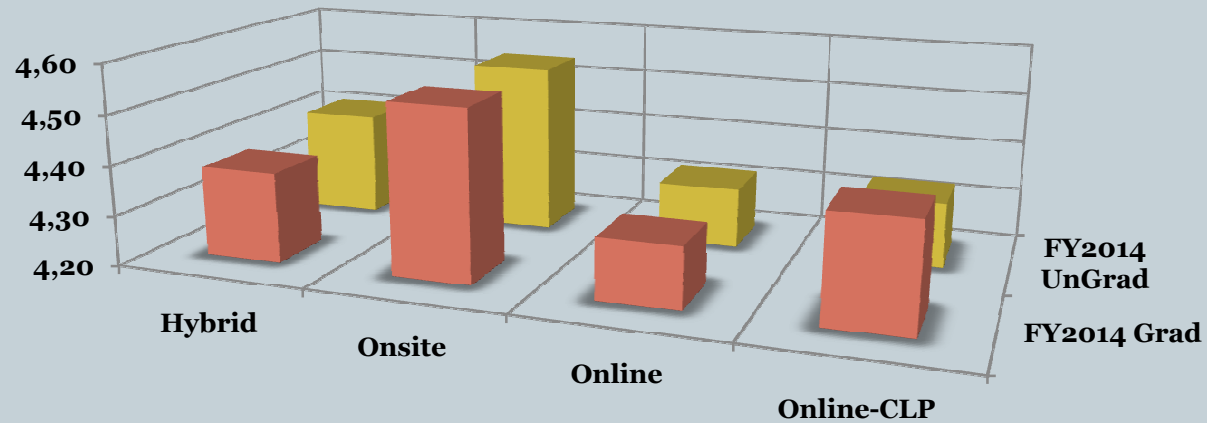
(III) SPECTRUM PACIFIC LEARNING (SPL) THE NU TECHNICAL COMPONENT THAT HAS RESPONSIBILITY FOR NU'S ONLINE ACADEMIC PROGRAM INSTITUTED FACULTY AND STUDENT DEVELOPMENT SUPPORT PROGRAMS AND SEMINARS. SOME EXAMPLES INCLUDE USE OF SOCIAL MEDIA TECHNOLOGIES IN ONLINE COURSES, ASSISTING FACULTY TO DEVELOP BEST ONLINE COURSE CONTENT MATERIALS, MODELING OF BEST ONLINE TEACHING PRACTICES, AND STUDENT ORIENTATION SEMINARS TO ONLINE COURSES.

SPL HAS ALSO CONTINUED RESEARCH INTO EMERGING TECHNOLOGY AND THE DEVELOPMENT OF INNOVATIVE WAYS OF PRESENTING ONLINE LEARNING OPPORTUNITIES TO STUDENTS WHICH INCLUDE A VIDEO ACCESSIBILITY COMPILER, MOBILE LEARNING WITH APS FOR I-PAD ACCESS OF NU ONLINE COURSES, DIGITAL LEARNING ACTIVITIES, AND THE DEVELOPMENT OF IMPROVED SYNCHRONOUS COMMUNICATION COMPONENTS.

National University FY 2014 Study



National University FY 2014 Data



	Hybrid	Onsite	Online	Online-CLP
FY2014 Grad	4,38	4,54	4,32	4,41
FY2014 UnGrad	4,41	4,54	4,32	4,33

National University

FY 2014 Study



WHILE GRADUATE STUDENTS REPORTED GREATER LEARNING IN ONSITE THAN IN HYBRID, ONLINE, OR ONLINE-CLP COURSES ($P < .001$, $F = 78.463$, $3/4589$ DF), HYBRID COURSE LEARNING – WHICH INCLUDES AN ONLINE COMPONENT – WAS STATISTICALLY SIGNIFICANTLY HIGHER THAN LEARNING IN ONLINE AND ONLINE-CLP COURSES AT THE $P < .05$ LEVEL.

THE IMPACT OF THE ADMINISTRATIVE INITIATIVES (PAR) AND TECHNOLOGICAL AND MENTORING EFFORTS OF SPL ARE EVIDENT IN THE HIGHER RATE OF LEARNING REPORTED BY GRADUATE STUDENTS IN ALL FOUR ACADEMIC MODALITIES IN THE FY 2014 STUDY VS. THE FY 2010 STUDY.

National University

FY 2014 Study



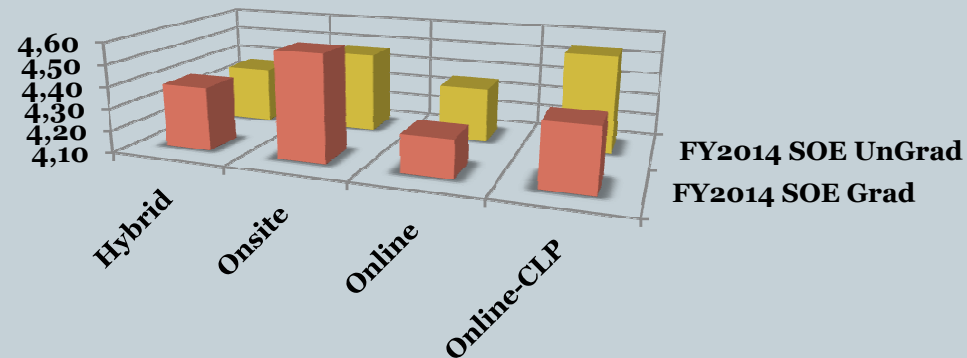
WHILE UNDERGRADUATE STUDENTS AGAIN REPORTED GREATER LEARNING IN ONSITE THAN IN HYBRID, ONLINE, OR ONLINE-CLP COURSES ($P < .001$, $F = 21.052$, $3/1791$ DF), HYBRID COURSE LEARNING – WHICH INCLUDES AN ONLINE COMPONENT – WAS STATISTICALLY SIGNIFICANTLY HIGHER THAN LEARNING IN ONLINE COURSES AT THE $P < .005$ LEVEL, HOWEVER, THE DIFFERENCE IN LEARNING IN HYBRID VS. ONLINE-CLP COURSES WAS NOT STATISTICALLY SIGNIFICANT.

THE IMPACT OF THE ADMINISTRATIVE INITIATIVES (PAR) AND TECHNOLOGICAL AND MENTORING EFFORTS OF SPL WERE ALSO EVIDENT IN THE HIGHER RATE OF LEARNING REPORTED BY UNDERGRADUATE STUDENTS IN ALL FOUR ACADEMIC MODALITIES IN THE FY 2014 STUDY VS. THE FY 2010 STUDY.

National University School of Education FY 2014 Study



National University School of Education FY 2014 Data



	Hybrid	Onsite	Online	Online-CLP
FY2014 SOE Grad	4,39	4,58	4,27	4,38
FY2014 SOE UnGrad	4,36	4,47	4,35	4,54

National University

School of Education FY 2014 Study



SIMILAR TO WHAT WAS NOTED IN THE EARLIER FY 2013 SOE STUDY, GRADUATE STUDENTS REPORTED GREATER LEARNING IN ONSITE THAN IN HYBRID, ONLINE, OR ONLINE-CLP COURSES ($P < .001$, $F = 21.052$, $3/1791$ DF).

WHILE GRADUATE STUDENTS IN HYBRID COURSES REPORTED GREATER LEARNING THAN IN ONLINE COURSES ($P < .005$) THERE WAS NO STATISTICALLY SIGNIFICANT DIFFERENCE BETWEEN LEARNING IN HYBRID VS. ONLINE-CLP COURSES.

National University

School of Education FY 2014 Study



BECAUSE OF THE MAJOR FINDING IN THE SY 2013 SOE STUDY OF NO STATISTICALLY SIGNIFICANT DIFFERENCES IN STUDENT LEARNING IN UNDERGRADUATE HYBRID, ONSITE, ONLINE, AND ONLINE-CLP COURSES, SOE DATA WAS DISAGGREGATED FROM THE FY 2014 DATABASE.

THE FY 2014 DATA REPLICATED THE FINDINGS FROM THE SOE FY 2013 STUDY IN THAT AGAIN NO STATISTICALLY SIGNIFICANT DIFFERENCES WERE NOTED IN UNDERGRADUATE STUDENT LEARNING ACROSS THE FOUR ACADEMIC MODALITIES. WHILE NOT STATISTICALLY SIGNIFICANT, ONLINE-CLP COURSES AGAIN REPORTED THE HIGHEST STUDENT LEARNING.

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SUMMARY NOTES

- (a)** THIS PAPER REPRESENTS THE FIRST STATISTICAL REVIEW OF THE FY 2014 STUDY DATA. FACTOR ANALYSIS, WHILE INCOMPLETE AT THE TIME OF THIS WRITING, HAS YIELDED SOME EVIDENCE FOR THE SOE UNDERGRADUATE PROGRAM FINDINGS AND WILL BE REPORTED IN A LATER PAPER.
- (b)** IN ITS CONTINUING EFFORTS TO IMPROVE TEACHING AND LEARNING ACROSS ALL ACADEMIC MODALITIES, NATIONAL UNIVERSITY HAS UNDERTAKEN TO REORGANIZE ITS TECHNICAL COMPONENT (SPL) INTO A NEW CENTER FOR INSTRUCTIONAL LEARNING (CIL) WHICH, WHILE STILL CONTINUING TO PROVIDE ADMINISTRATION OF THE ONLINE SYSTEM, WILL EXPAND ITS MENTORING PROGRAMS FOR FACULTY AND STUDENTS.
- (c)** AS PART OF THE SPL/CIL REORGANIZATION, NATIONAL UNIVERSITY IS MIGRATING FROM THE ECOLLEGE LEARNING PLATFORM TO BLACKBOARD.
- (d)** A FOLLOW-UP OF THE FY 2014 STUDY WILL BE CONDUCTED AT THE END OF FY 2016 ONCE THE MIGRATION FROM ECOLLEGE TO BLACKBOARD HAS BEEN COMPLETED AND FACULTY AND STUDENTS ARE FULLY ACLIMATED TO THE NEW BLACKBOARD SYSTEM.