DETA Online Student Survey: Instructional Components, Student Behaviors, and Student Characteristics Related to Perceptions of Online Course Experience

Spring 2016

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Overview of DETA Online Student Survey

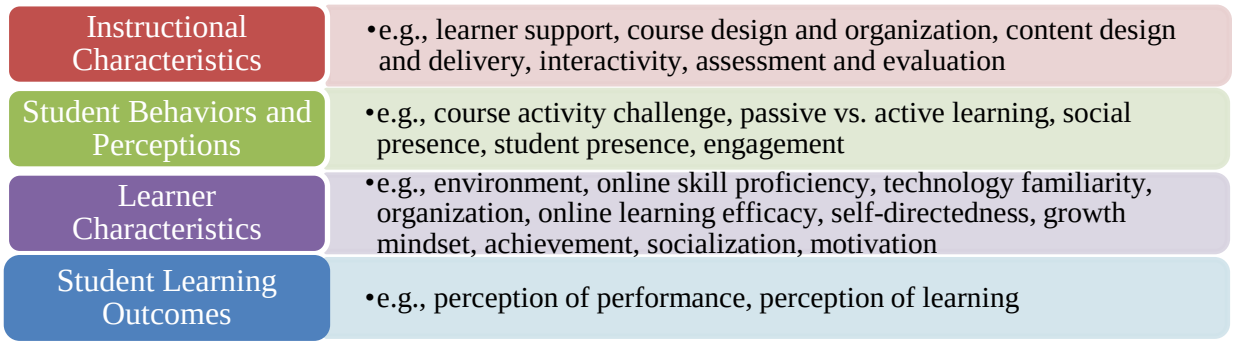
The San Diego Community College District (SDCCD) collaborated with the University of Wisconsin-Milwaukee National Research Center for Distance Education and Technological Advancements (DETA), with the goal of fostering student access and success through evidence-based online learning practices and technologies. The DETA project is a cross-institutional research project focused on 2-year and 4-year higher education institutions. The purpose of this study was to provide information about online student characteristics and courses in order to guide instructional programs, support services planning and decision-making. The information will be used to identify needed support services for online students and to evaluate the course components that impact online student outcomes (e.g. retention, successful course completion, grades).

The two primary research questions were:

1. Which educational components (e.g. content, interactivity, assessments) impact student learning?
2. Which patterns of behaviors lead to increased student learning for different populations?

The survey questions were selected from a pool of questions provided by DETA, and included 45 close-ended questions and seven open-ended questions. Each of the questions were grouped into one of four DETA survey dimensions: instructional characteristics, student behaviors and perceptions, learner characteristics, and perceived student learning outcomes. These dimensions were not tested for validity so they were merely groupings, rather than constructs.

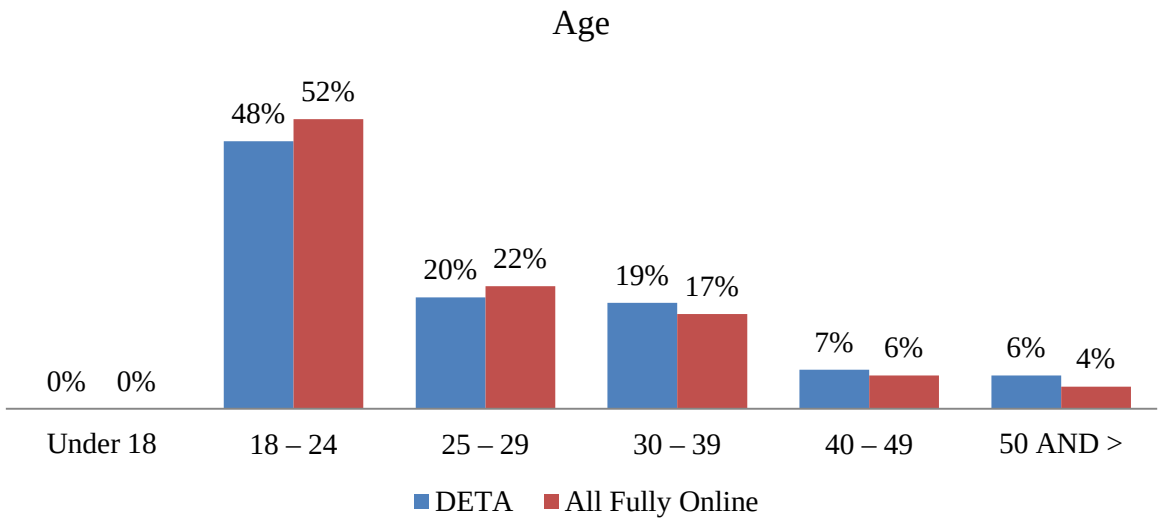
Figure1. DETA Survey Dimensions



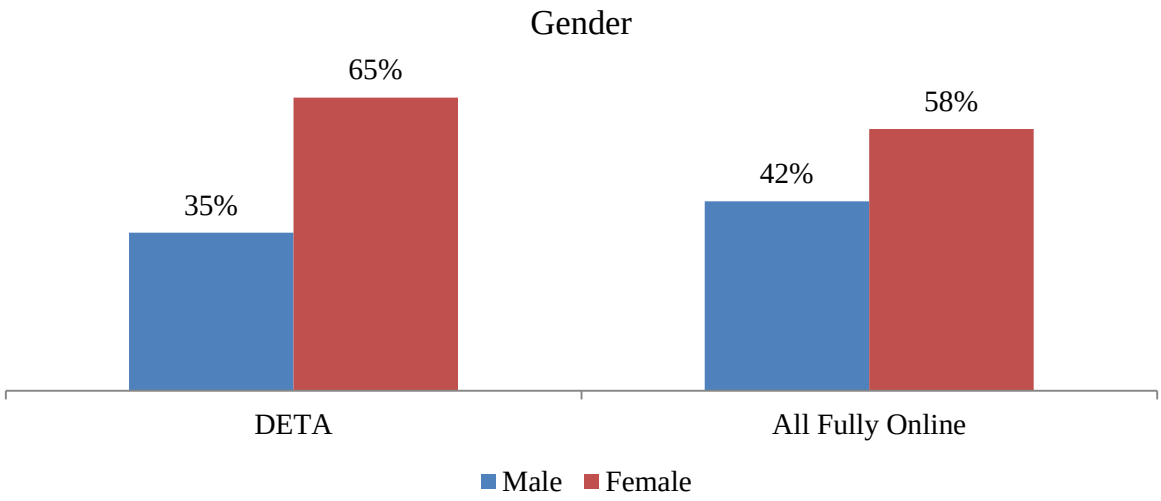
Methodology

The DETA online student survey was administered by the SDCCD Office of Institutional Research and Planning in Spring 2016 to a random sample of students enrolled in fully online credit courses at City, Mesa, and Miramar Colleges. The students were stratified by college and then randomly selected. This design was intended to provide representativeness and to allow for generalizing the results to the fully online student population, herein referred to as students or online students. A pre-notification was sent prior to the survey invitation, and two reminder emails were sent following the survey invitation to increase response rate. The survey was administered online only. A total of 1,805 students completed the survey, rendering the results representative of the fully online student population at SDCCD credit colleges.

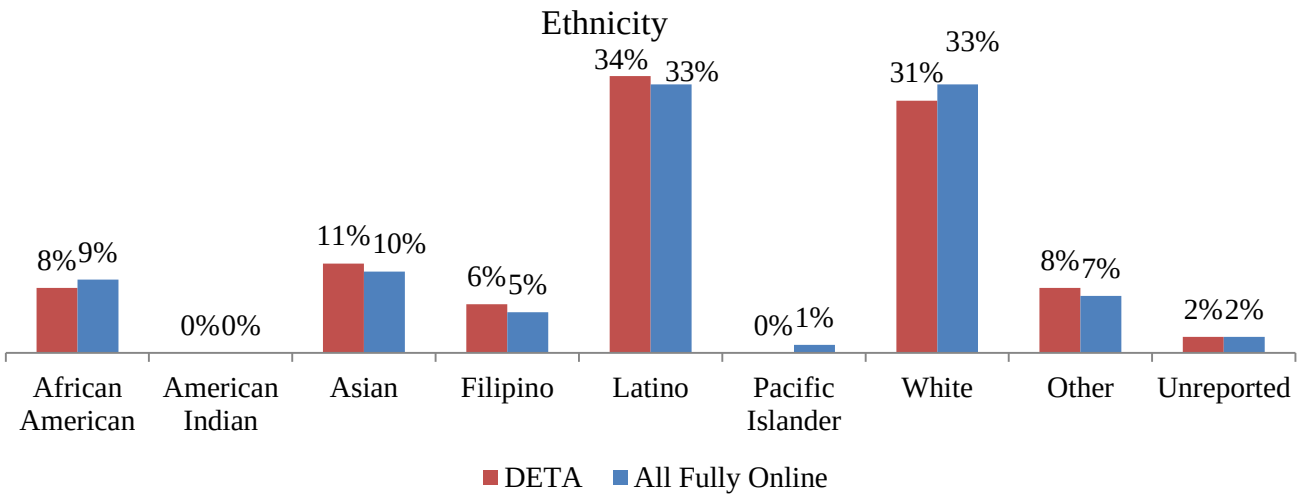
Student Profile



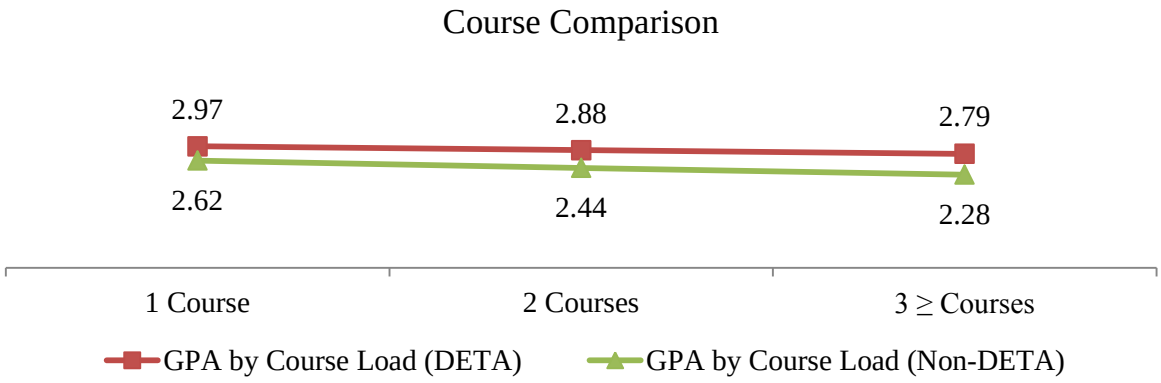
- The majority of students for both DETA respondents and the All Fully Online cohort (48% & 52%, respectively) fall within the 18-24 age range.
- Througout all age ranges, DETA respondents and the All Fully Online cohort are closely aligned by percentage of representation.



- For gender, DETA respondents and the All Fully Online cohort are moderately similar, with both displaying a tilt toward female participation.



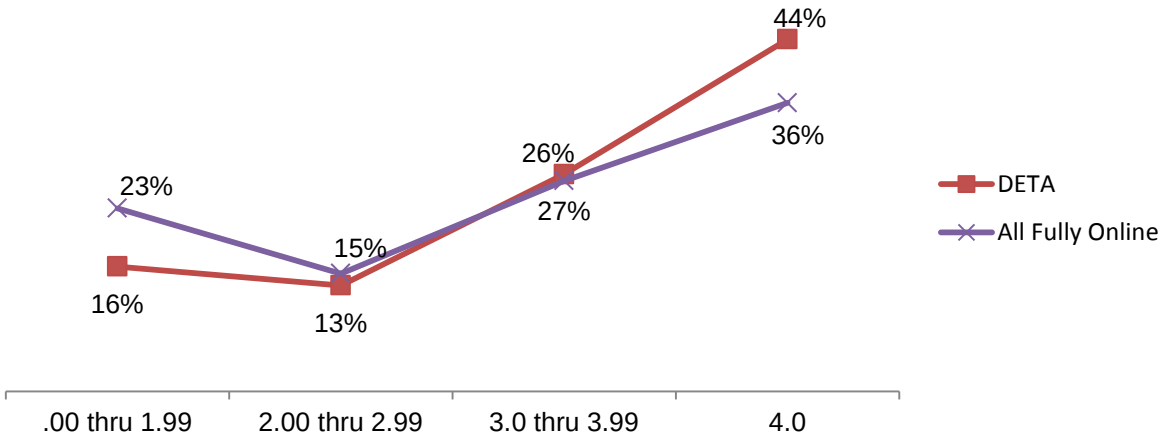
- Latino and White represent the majority of DETA and All Fully Online participants.



	DETA		Non-DETA	
1 Course	838	56%	5970	61%
2 Courses	386	26%	2408	25%
≥ 3 Courses	270	18%	1352	14%
Total	**1494**	**100%**	**9730**	**100%**

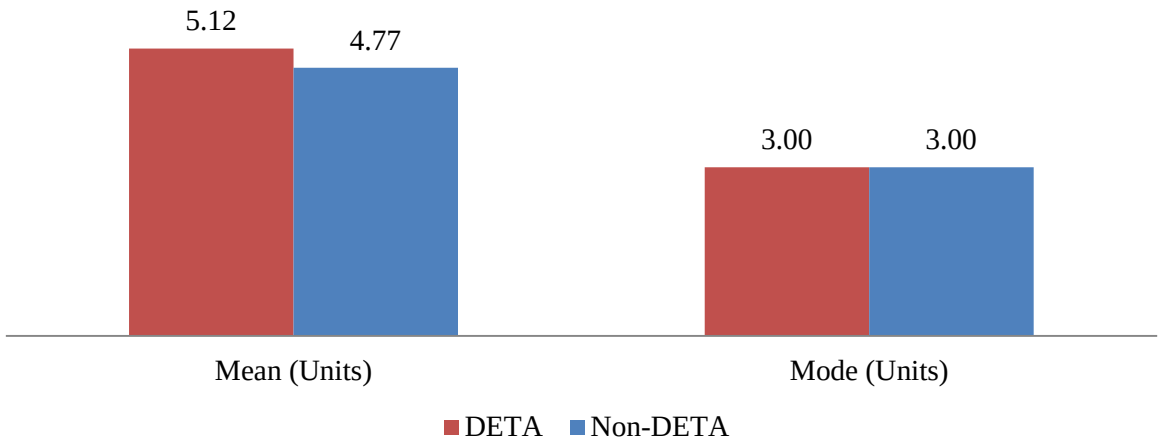
- Regardless of course load, the average GPA for DETA survey respondents is notably higher than Non-DETA respondents. The difference in GPA between the groups, may indicate that the DETA survey respondents are a more academic and/or motivated group of students.

Spring 2016 GPA Distribution



- For DETA and All Fully Online cohorts, a course grade of "A" was achieved at a higher rate than any other course grade.

Spring 2016 Credit Units



- For DETA survey respondents and the Non-DETA cohort, fully online participation in three units was the most common unit load.

Highlight of the Findings

Instructional Characteristics

- Eighty-two percent of students agreed that the introductory explanations on how to get started in their online class were clear, while 84% agreed that the requirements for their interaction with others in the class were clearly explained.
- Most students (92%) agreed that the grading expectations for the class were explained or provided in the syllabus.
- Eighty-five percent of students agreed that the relationship between the course materials and activities was clear.
- The majority of students agreed that technologies were convenient or easily accessible when and where they needed to use them, and that tools and media used were relevant to their achievement of the stated learning objectives (86% & 85%, respectively).
- About three quarters of students agreed that they had adequate support in completing their activities.
- Most students (86%) agreed that the online course content was organized in a logical format, and also that the instructional materials had sufficient breadth, depth, and currency to learn the subject (82%).
- Additionally, students agreed that the learning activities facilitated and supported learning that was active, and that graded assignments were appropriately timed within the length of the course (69% & 83%, respectively).

Student Behaviors and Perceptions

- Students were asked how challenging the tasks were in their online course:
    - Most students indicated that reading (78%), taking quizzes (70%), taking exams (58%), and completing projects/assignments (58%) required a lot of their time.
    - More than half of students (61%) indicated that utilizing social media required a little or virtually no time in their online course.
- Students were also asked how frequently they engaged in different activities in their online course:
    - About one quarter (24%) often asked the instructor questions, 40% often discussed ideas from the readings with other students in class, about half (53%) often conducted internet research, 21% often interacted in small groups, and 43% often used a variety of digital media.
- The majority of students agreed that they were comfortable interacting with others, and about half agreed that their course interactions with others made them feel validated (73% & 52%, respectively).
- More than half of students (62%) agreed that the learning experiences in their online course were active and collaborative.

Learner Characteristics

- The majority of students (67%) had previous experience in online courses, having taken at least two online courses. About one-third of students (34%) had either never taken an online course, or had previously taken only one course. Almost one quarter (23%) of students indicated that they used a modification or an accommodation in order to take online classes.
- Almost all students (91%) had a good environment in which to study for their online course, and 86% were comfortable communicating electronically.
- When using their computer, laptop, or other electronic device, 82% of students frequently accessed Blackboard, while 69% frequently sent or received emails.
- About three quarters (78%) of students agreed that they kept their notes on each subject arranged in a logical order.
- Sixty-seven percent of students agreed that they were motivated by material in online activities.
- Almost all students (95%) agreed that taking charge of their own learning was very important for their success in school and future career. However, a smaller proportion of students (75%) agreed that in their studies, they were self-disciplined and found it easy to set aside reading and homework time.
- Most students (82%) agreed that when learning something new, it is okay to make errors.
- Almost all students (96%) agreed that it was important that teachers give them feedback in order to further enhance their performance.
- Less than half of students (42%) agreed that they often had meaningful conversations with other students.
- Over half of students (59%) preferred to work at home or remotely rather than driving to campus.

DETA Student Learning Outcomes

- There were three self-reported perceived student learning outcomes included in the survey:
    - Sixty-nine percent of students agreed that their experience in the online course helped them do better on exams and other assignments.
    - Sixty-nine percent of students also agreed that class activities helped them get a better grade.
    - Finally, 84% of students agreed that the online course was beneficial to their learning.

Open-Ended Responses

The open-ended responses to seven questions at the end of the survey, where students wrote about their experiences in online courses, were analyzed and summarized. The content analysis provided indicators about students' academic experience in online courses and their general intentions, expectations, and opinions. Inherent in the more than 8,000 responses collected were statements of student values – what they did and did not like about participating in the online classroom, and their beliefs about topics, such as leadership, procedures, timelines, and faculty interactions in online courses. The themes in each of the seven open-ended questions in the survey are included in Tables one through seven.

Table1. Why did you choose to take this course in the mode you did rather than as a completely traditional face-to-face course?

Theme	Count	%
Time/Full-time	750	55%
Work	548	40%
Online/Engaged	426	31%
Schedule/Busy	421	31%
Convenience	152	11%
Children/At Home/Family	122	9%
Fit	108	8%
Course was Available	69	5%
Flexibility	55	4%
Commute	49	4%
My Own Pace	34	3%
Easier Time Management	7	<1%

Table 2. Which of your skills or experience were most helpful in preparing you for this course? Please explain.

Theme	Count	%
Time Management	383	30%
Computers/Literacy/Savvy/Technology	317	25%
Research/Skills	281	22%
Prior Knowledge/Already Taken/Other Online	270	21%
Read/Reading	254	20%
Online Courses	253	20%
Self/Motivate/Independence	186	14%
Knowledge/Knowing	110	9%
Organize/Schedule	90	7%
Familiar/Comfortable	48	4%
Programming	12	<1%
Dedication to Degree	12	<1%

Table 3: What practices can an instructor implement in order to help you succeed in an online course?

Theme	Count	%
Student/Instructor/Interaction	545	43%
Clear Assignments	175	14%
Communicate with Faculty	170	13%
Utilize Technology/Videos	132	10%
Feedback/Evaluation	110	9%
Answer Student Questions	65	5%
Better Communication	65	5%
Better Instructions	61	5%
Syllabus Clarity	60	5%
Be Available	50	4%
Due Date Reminders	48	4%
Increase Use/Relevance of Discussion Board	32	3%
Problems	19	2%

Table 4. Think of a time in which you've taken an online course. Explain an experience that influenced your learning.

Theme	Count	%
Resources/Course/Book	418	36%
Time/Manage	265	23%
Group Discussion/Forum	246	21%
Classmates/Feedback/Interact/Response/Chat/ Communicate/Convenient		
Course Organization	190	16%
Videos/Skype/Stimulating/ Strict/Recorded Lecture	111	10%
Examples/Show	37	3%
24/7 Access to Course	13	1%

Table 5: What are the necessary components of a good online course?

Theme	Count	%
Clear/Clarity	353	29%
Instructor/Teacher	337	28%
Communication/Discussion Board	286	23%
Interaction/Explain/Timely	268	22%
Deadlines/Due Dates/Expectations	152	12%
Materials	152	12%
Syllabus/Require	150	12%
Organization/Structure	113	9%
Clear Instructions/Lesson Plans	105	9%
Schedule/Calendar	99	8%
Access/Accessibility	81	7%
Video(s)	73	6%
Feedback	67	6%
Instructor/Available	28	2%

Table 6. What do you do, if anything, to prepare yourself to take online courses?

Theme	Count	%
Quiet Time/Study	339	29%
Organize/Materials/Place to Study	192	16%
Check Schedule/Due Dates	182	16%
Read/Print Syllabus	151	13%
Check Computer/Connection Internet/Printing	148	13%
Check Assignments	129	11%
Check/Due Dates	120	10%
Review Class Schedule	107	9%
Manage/Dedicate/ Set Specific Time to Study	77	7%
Get Notebook for Notes	59	5%
Check Blackboard Site	40	3%
Get Textbook	38	3%
Ask Questions	27	2%
Not Fall Behind	11	<1%

Table 7. What experiences or traits help you to be successful in online courses?

Theme	Count	%
Time/Management	466	40%
Organize	164	14%
Be Motivated	121	10%
Do Assignments	84	7%
Use Computer	64	5%
Study/Be Consistent	63	5%
Be Determined	44	4%
Keep on Track/Schedule	39	3%
Be Independent	35	3%
Stay on Task/Track/Top/Schedule	25	2%
Be Pro-Active	21	2%
Technology Savvy	17	1%
Be Prepared	16	1%
Pay Attention	13	1%

Summary of the Findings

This section of the report summarizes the findings of the DETA survey analyses, including the close-ended and open-ended responses. Correlation and multiple regression analyses were conducted to examine the relationships between instructional characteristics, student behaviors/perceptions, and learner characteristics with the three DETA student learning outcomes (DETA SLOs): 1) students' course experiences helped them do better on exams and assignments; 2) the class activities helped them receive a better grade; and 3) the class was beneficial to their learning. Although the correlation analysis does not prove causation nor predict how much one factor influences the other, it does demonstrate a relationship between two or more factors, as well as the strength and direction (positive or negative). In other words, if two factors are moderately positively related, then we would expect to see similar changes (in the same direction) to both. However, it is not known from the correlation coefficient how much one factor influences another, nor the potential variability. Table 8 summarizes the correlation results for the instructional characteristics and DETA SLOs.

Instructional Characteristics

The correlation results demonstrated moderate, positive relationships between the three DETA student learning outcomes and instructional characteristics related to course design, content, and the interactivity of an online course. Table 8 summarizes the correlation results for the instructional characteristics and DETA SLOs.

- The strongest, positive relationship was found between course organization and students' perceived learning (r=0.528).
- In addition, having tools and media relevant to learning was related to students' perception of learning in the class (r=0.521).

> *"The instructor needs to make sure that all of the content and learning modules are very organized and that the assignments and due dates are clear. And of course, be quick to respond to any emails with questions and concerns. An active and casual discussion forum also makes the experience more enjoyable."*

Table 8. Correlation Results of Instructional Characteristics and DETA SLOs.

DETA SLOs	Adequate support completing activities	Tools and media relevant to learning	Learning activities facilitated & supported learning.	Course organized in a logical format
1) Course Experiences Helped on Exams & Assignments	.469**	.486**	.485**	.467**
2) Class Activities Helped Get a Better Grade	.465**	.450**	.479**	.436**
3) Class was Beneficial to Learning	.474**	.521**	.473**	.528**

**Correlation is significant at the 0.01 level (2-tailed).

Note. A weak correlation coefficient is r = 0.1, moderate is r = 0.4, and strong is r = 0.7.

Further analyses demonstrated that certain course design elements, including course resources and organization, contributed to the DETA student learning outcomes.

"When I was taking an online course of Chicano studies I enjoyed how I had a document with video links all together which really made it easy to learn the content as opposed to normal textbooks. It influence my learning in a positive way."

- First, course resources were important to online students' course experiences and perceived learning. Students who reported that their courses had relevant course tools and media that allowed them to achieve the learning objectives reported more positive DETA SLOs. Positive DETA SLOs were also related to instructional materials with sufficient breadth, depth, and currency for students to learn the subject.
- DETA SLOs for online students were also positively impacted by course organization, incorporation of learning activities that facilitate and support active learning, and having graded assignments that were varied and appropriately timed within the length of the course.

Additionally, results showed that student support in an online course contributed to the DETA student learning outcomes. All of the following instructional components of support in an online class were related to more positive DETA SLOs:

- interaction requirements (with the instructor, content, other students) were clearly explained;
- grading expectations were explained or provided in the syllabus;
- there was a clear relationship between the course materials and activities;
- inclusion of easily accessible technologies;
- support in completing activities.

"I think the best thing an instructor can do to help students succeed, particularly in an online course, is to be very clear when it comes to instructions, and to try to give the instructions in a simplistic format. Also feedback is very great for students, to let the student know how (s) he is doing in the course."

Open-ended Responses – Instructional Characteristics

The open-ended responses regarding necessary components of an online course indicated that students needed clear instructions, clarity of purpose and ease of access in Blackboard for course assignments, and an organized online course structure that makes sense. Students also stated that it was important to have a faculty member who was timely, accessible, and available. Online students were appreciative when faculty gave clear and well-written assignments, and were also available for student questions or needs within 24 hours, or during specific times set within the syllabus. Students believed that this resolved issues and allowed them to move forward with their coursework, and that this *just-in-time* response method reduced problems during the semester.

"Contact the students regularly. It can be hard sometimes because of the load they have, but there's no substitute for regular interaction with the instructor."

Additionally, the analysis of the student comments showed that students need and respect deadlines and due dates for every assignment. Students enjoy a course structure that allows them to anticipate, review, and verify dates on a course-based calendar with easy and multiple ways of accessing

> *"I don't expect this to be a relatable experience, but just getting in the habit of doing things the second they are assigned was both good in short and the long term. When many assignments piled up, I would feel the pressure immediately when they were assigned instead when the deadlines piled up- if that makes sense."*

information. Students requested that faculty send reminders for special assignment due dates as well as recurring due dates (for projects, assignments or weekly journals), as sometimes they noticed that the syllabus did not align with actual due dates. Students also requested that a calendar of due dates be posted in Blackboard and explained that their primary purpose for this request was to stay on top of and complete every assignment on time.

Finally, students reported that class resources were necessary for success in an online course. Students value courses with online examples that they could view (e.g. videos), along with field studies and demonstrations. Other resources that were important to them in their higher education pursuits included books, and the content and materials of previous courses they had taken.

Student Behaviors and Perceptions

The correlation results also demonstrated positive relationships between certain student behaviors and perceptions, and the DETA student learning outcomes. Table 9 summarizes the correlation results for student behaviors and perceptions, and DETA SLOs

- A moderate, positive relationship was found between reading behavior and students' perception that the course experiences helped them on their exams and assignments (r=0.615). Similar relationships were found between reading behavior and student perception that the class activities helped them get a better grade in the class (r=0.551), as well as reading behavior and the perception that the class was beneficial to learning (r=0.472). In all of these relationships, agreement that students engaged in a significant amount of reading for their online class was positively related to the DETA SLOs.
- Another moderate, positive relationship was demonstrated between students' perception that the course included active and collaborative learning experiences, and the perception that the course experience helped on exams and assignments (r=0.496). Greater agreement that the course experiences were active, was positively related to student agreement that the experiences were helpful for course exams and assignments.

> *"I took an ENGL 205 course online where the professor required us to workshop our essay drafts in small groups prior to editing them. The feedback from our peers was invaluable and we became better collaborators, editors, and writers for it."*

Table 9. Correlation Results of Student Behaviors/Perceptions and DETA SLOs.

DETA SLOs	Did a significant amount of reading	Engaged in a lot of communication with instructor	Often conducted internet research	Course interactions are validating	Active and collaborative learning experiences
1) Course Experiences Helped on Exams & Assignments	.615**	.333**	.351**	.436**	.496**
2) Class Activities Helped Get a Better Grade	.551**	.273**	.321**	.414**	.478**
3) Class was Beneficial to Learning	.472**	.231**	.281**	.353**	.405**

**Correlation is significant at the 0.01 level (2-tailed).

Note. A weak correlation coefficient is r = 0.1, moderate is r = 0.4, and strong is r = 0.7.

Additional analyses revealed that the following student behaviors and perceptions contributed to more positive DETA student learning outcomes for online students:

- students' comfort interacting with other participants in the course;
- feeling validated by others during course interactions;
- engaging in active and collaborative learning experiences;

"I took U.S. History from a Black Perspective A & B in one semester - one was online, the other on-campus. I found the online course more interactive and rewarding because the material was more stimulating for discussion. I learned more from the online course because reading the material and thinking critically was imperative to your grade - if you did not participate you failed that assignment, so the accountability was clear."

Open-ended Responses – Student Behaviors and Perceptions

The responses included the skills or experiences that were most helpful in preparing students for their online course. Students emphasized the need to watch their time, use time for homework wisely, and managing or planning time to meet all requirements in the syllabus in a timely manner. Additionally, students mentioned reading the materials, keeping up with assignments, visiting other online sites to develop skills in researching and referencing course topics for assignments. Students voiced considerable appreciation for high levels of faculty communication, instruction, availability and interaction during the term in an online class. Again, students reported that being able to interact with faculty, often provided quick answers and eliminated problems early.

Students also emphasized pursuing all aspects of building personal expertise in computer literacy including knowing how to communicate well (with the professor and other students), being technology "savvy" and familiar with computers, interacting online, computer programs such as Excel and PowerPoint, and online inquiries in general. Students especially felt that they could be successful in the online classroom if they had previous experience with Blackboard, and knowledge of where to get help if needed.

In preparing to take online courses, students mentioned several key behaviors. First, students emphasized the need to find a quiet place to study and organize the schedule of assignments and activities, and highlight due dates to submit homework on time. Students also thought it was helpful to purchase the textbook early, print out the syllabus and post it on the wall of their study area. Many students mentioned taking a lot of notes when reading chapters, asking people if they have taken the course before, and having an open mind and patience with the process of signing up for the class and navigating the online classroom. Again, students mentioned that being able to ask questions in the online course helped a lot.

Students responding to the open-ended question about why they chose to take an online course rather than a traditional face-to-face course primarily focused on the opportunity to utilize their time effectively. They recognized opportunities to be successful in completing required course assignments in a timely way while also working around other obligations including work and family obligations.

"I work better online where I can take my time to get things done. Most of them give you a week to complete your work. As a stay at home mom, I need that type of flexibility. I prefer online mostly because of that fact."

The convenience of not having to commute to class allowed them to enjoy the flexibility of being able to complete course assignments whenever and wherever it was convenient, as their schedule permitted. For other students, after finding that courses were full, decided to try the same courses online, which were frequently available. Students saw many advantages to use time flexibly while enrolled in an online course – to work, travel, or save money by not having a day care or sitter arrangement for their children. For many, online course work is an easier commitment allowing better time management.

Learner Characteristics

The DETA student learning outcomes showed weak to moderate positive relationships with some of the variables measuring learner characteristics. These learner characteristics included students' organization skills, motivation, and self-discipline. Table 10 summarizes the correlation results for learner characteristics and the DETA SLOs.

- The strongest relationship was found between student motivation with the online activities, and the DETA SLOs. Student motivation was positively related to the perception that the class was beneficial to learning (r=.485), and also to the perception that the course experiences helped on exams and assignments (r=.483).
- Self-discipline was also positively, but more weakly related to, student perception that the course experiences helped on exams and assignments (r=.304), and to the perception that the class was beneficial to learning (r=.301).

"Being motivated to learn and do well in the course. Being highly organized and good time management are definitely required to being successful in this type of learning arena."

Table 10. Correlation Results of Learner Characteristics and DETA SLOs.

DETA SLOs	Keep notes in logical order	Motivated by materials in online activities	Easy to set aside reading & homework time (self-disciplined)
1) Course Experiences Helped on Exams & Assignments	.266**	.483**	.304**
2) Class Activities Helped Get a Better Grade	.241**	.409**	.254**
3) Class was Beneficial to Learning	.230**	.485**	.301**

**Correlation is significant at the 0.01 level (2-tailed).

Note. A weak correlation coefficient is r = 0.1, moderate is r = 0.4, and strong is r = 0.7.

Further analyses revealed the student learner characteristics that contributed to DETA student learning outcomes. These learner characteristics which led to more positive perceptions of performance and learning in an online course were:

- feeling motivated by online activities;
- finding it easy to set aside reading and homework time (self-discipline);
- valuing instructor feedback to enhance performance;
- having meaningful conversations with other students;
- a preference for working at home or remotely.

"I really enjoy the discussion board, instructors will give us a topic related to what we're learning and have us give our thoughts on it and interact with other students. I really like those because if there's something you didn't think about the topic, someone else has and it's really interesting to see other's viewpoints and it's just a great learning experience all together."

Open-ended Responses – Learner Characteristics

The learner characteristics needed for success in the online classroom that were conveyed in open-ended responses primarily revolved around using time wisely, being organized, staying motivated, and preparing and turning assignments in on time. Additionally, students believe that traits such as being consistent, determined, independent, self-motivated, and pro-active with the assignments are very helpful to course success. Keeping up with the course schedule, being prepared and being technology savvy help students navigate the Blackboard site and were also cited as critical components to success in online courses. Communication with other students for explanations or clarifications was also cited as important for success. Students valued opportunities to share information in group discussions without social boundaries, to interact and connect with classmates, and to communicate in new ways such as in study groups, and within the group discussion board.

"Prior experience with an online course was essential because the first online course I took, I withdrew from because I didn't understand how blackboard work and was constantly behind in assignments. Afterwards, all my classes made sense and I was able to manage blackboard better."

Conclusion

The components of a good face-to-face course do not necessarily translate to good pedagogy in the online classroom. Just as in a traditional class, the online instructor is vital as the central person who guides students in the learning process. An online instructor can incorporate certain features into their course to impact students' online course experiences. Results showed that support, resources, and design of an online course were contributors to positive student perceptions of their learning experiences in the course. Specifically, organization of a course, inclusion of relevant and accessible course tools, activities that support learning, current instructional materials, graded assignments and adequate support were instructional characteristics related to students' experiences. The results also demonstrated that clarity is important to student perceptions and experiences. Clear interaction course requirements, grading expectations, and the relationship between course materials and activities were influential to student perceptions of their online course experience. Additionally, as suggested in student comments, an instructor can ensure that students do not feel alone in the online environment by providing consistent presence and feedback to students, and by providing students with a time frame for answering emails. Students also indicated that an online course should be designed to have an intuitive and clear structure so that they can easily navigate the materials and anticipate upcoming deadlines.

Finally, student behaviors and characteristics related to positive learning experiences were identified. First, results showed that behaviors such as reading for the course, conducting internet research, and engaging in collaborative learning activities were positively related to students' perceptions of their experiences in an online class. Communication with the instructor and having validating interactions were also related to positive learning experiences. Students who were more comfortable interacting with others in the course reported more positive learning outcomes. Furthermore, traits including motivation, self-discipline, and organization were positively related to students' online learning experiences. Motivation, self-discipline, valuing instructor feedback, engaging in meaningful conversations with students, and a students' preference to work remotely were all influential to students' online learning perceptions. Student comments indicated that they appreciated the flexibility and convenience provided by an online course, and often mentioned the value of time management and previous online course experience. Students especially felt that they could be successful in the online classroom if they had previous experience with Blackboard, and knowledge of where to get help if needed.

Recommendations

1. Additional professional development opportunities should be considered to keep instructors up to date on current online tools and best pedagogical practices for online learners.
2. It may be beneficial to provide online students with additional resources that would allow them to learn or improve upon the skills (e.g. time management, organization, online communication) and knowledge (e.g. available online college services, Blackboard utilities) essential to succeed in online courses.

DETA Survey Addendum

Predictive Analysis

Spring 2016

Prepared by:
SDCCD Office of Institutional Research and Planning
Spring 2016

Overview

In conjunction with SDCCD, the University of Wisconsin Milwaukee National Research Center for Distance Education and Technological Advancements (DETA) engaged in a cross-institutional survey. With a focus on 2-year and 4-year higher education institutions, the DETA project was designed to assess and discern methods for improving student inclusion and performance in online learning environments.

For this study, the integration of course grades was used to analyze the response of 1,805 SDCCD students who completed the DETA survey in Spring 2016. As requested by the SDCCD Office of Instruction, the research questions addressed in this part of the study focused on predicting course GPA and the designated self-reported outcomes in the DETA survey, and specifically asked the following:

1. Which attitudinal items in the DETA survey have the greatest impact on student outcomes?
2. Based on DETA survey student behavioral responses, which behavioral items in the DETA survey have the greatest impact on student outcomes?
3. What is the strength of the relationship between attitudinal and behavioral responses, when examining students' course term GPA?

Methodology

A multi linear stepwise regression and correlation analysis were the main techniques used to determine the strength and direction of the relationships and predictive qualities of the attitudinal and behavioral survey items found in course GPA and the DETA self-reported outcome items. The self-reported outcomes used in the analysis included:

- **Course GPA:** The student's course GPA was based on all fully online credit classes taken at SDCCD in Spring 2016.
- **Self-reported Outcomes**
  - "My experience in the course helped me do better on my exams and other assignments"
  - "The class activities helped me get a better grade"
  - "The class was beneficial to my learning"

Attitudinal Findings

Course GPA

Students were asked in the survey to respond to a variety of questions that required their opinion or perspective, and essentially expressed their attitude toward the assessed items. These items collectively explained approximately 4% of the student's shift in course GPA, which is much lower than the normal threshold for determining any impactful action.

Self-Reported Outcome

Students were asked three questions in the DETA survey, which were considered as self-reported outcomes. These three items were used with the independent variables to determine what influences the student's shift in outcome. For attitudes, one outcome question demonstrated statistical significance in explaining a student's shift in the self-reported outcome: **My experience in a class helps me do better on exams and other assignments.** The top three attitudinal factors shown to influence students' perception of this outcome were as follows:

1. The learning experiences were active and collaborative
2. Instructional materials have sufficient breadth, depth, and currency for me to learn the subject
3. I am motivated by the material in online activities

The results showed that the more strongly students agreed on the three attitudinal factors, the more strongly they perceived their class experience helped them do better on exams and assignments. These attitudinal items collectively explained 51% of the change in students' perception on the self-reported outcome. Consequently, actions in a classroom that are related to the three areas in the attitudinal questions (active and collaborative, breadth and depth, currency of instruction materials, and online materials and activities), have a good chance of influencing the students' overall experience and perceived or real ability to do better on exams and assignments.

Behavioral Findings

Average Term GPA

Students were asked in the survey to respond to a variety of questions that inquired about their conduct during an online course, essentially gauging their behavior during participation. These items collectively explained approximately 3% of the student's shift in course GPA, which is much lower than the normal threshold for determining any impactful action.

Self-Reported Outcome

Students were asked three questions in the DETA survey, which were considered as self-reported outcomes. These three items were used with the independent variables to determine what influences the student's shift in outcome. For behaviors, the one outcome question that demonstrated statistical significance in explaining a student's shift in the self-reported outcome was: **My experience in a class helps me do better on exams and other assignments.** The top three behavioral factors shown to influence students' perception of this outcome were as follows:

1. Discuss ideas from the readings with other students in class
2. Use a variety of digital media
3. Communicating with the instructor

Similar to the attitudinal factors, the stronger a student agreed on the three behavioral factors, the more strongly they perceived their class experience helped them do better on exams and assignments. Collectively, the behavioral items explained 22% of the change in students' perception on the self-reported outcome. Discussion of ideas from the readings with classmates, utilization of digital media, and clear communication with the instructor are all potentially useful methods for influencing students overall experience, and perceived or real ability to do better on exams and assignments.