Drop Survey

Jennifer Klein, Director of Research, Planning, and Accreditation
Truong Tran, Research Analyst (Equity)
Saddleback College
Office of Research, Planning, and Accreditation
Overview

• Survey is presented to students immediately after drop or withdraw inside student portal
  • Why did they drop or withdraw from the class?

• Understand the students’ mindsets when they drop a class

• Instant feedback
  • Real time

• Top of mind research
Relevance

• Opportunity to further understand academic and non-academic barriers
  • Integrated Plan Goal 1
  • Student Equity

• Could the drop survey be used to contextualize in detail of what non-academic barriers are?

• Can give direction to how the college can improve student success through academic and student services
  • Completion
  • Persistence
  • Retention
Survey

• 3 Questions
  • Please indicate all of the reasons you are dropping or withdrawing from your class
    • If the time the course was scheduled was a problem for you, which of the following would have helped you to remain in the course?
    • Which of these services would have helped you complete the course?

• Students can select multiple check boxes, including “other,” which allows them to type their answer
Please indicate all of the reasons you are dropping or withdrawing from your class

- Withdrawing from all my classes
- Moving from the area
- Changing colleges
- Reliable transportation
- Inadequate childcare
- Obtained a job and could no longer take the class
- Work hours increased/changed
- I did not need the course
- Got too far behind in the course
- Financial costs associated with the course were too high
- My financial aid was late
- Wanted a different class format (online, hybrid), time, or instructor
- My life is too stressful at this time
- Unforeseen emergency or illness occurred
- Other
If the time the course was scheduled was a problem for you, which of the following would have helped you to remain in the course?

• Early morning (before 9:00am)
• Morning (before noon)
• Afternoon (noon – 5pm)
• Evening (after 5:00pm)
• Once a week class
• Friday class
• Saturday class
• Sunday class

• Online class
• Hybrid class (a mixture of on campus and online)
• Accelerated class (shorter, with more hours/week)
• Other
Which of these services would have helped you complete the course?

- Tutoring
- Financial aid
- Counseling
- Disability services
- Technical assistance in online classes
- Access to computers on campus
- Different schedule

- Book loan program
- Other
Spring 16 – Spring 19
Term Averages

24,170
Sections Dropped

6,097
Drop Survey Responses

25%
Response Rate
Survey respondents’ ethnicities are representative of the college
Survey Results
Please indicate the reasons you are dropping from your class:
Spring 16 – Spring 19

- Other: 23%
- Life is stressful: 14%
- Work hours increase: 12%
- Wanted a different format: 11%
- Didn’t need course: 10%
- Got behind course work: 7%
- Emergency or illness: 6%
- Dropping out: 4%
- Obtained a job: 4%
- Financial costs: 3%
- Moving away: 1%
- Changing Colleges: 1%
- Financial aid was late: 1%
- Childcare: 1%
- Transportation: 1%

n = 30,617 Responses
Which of the following times/format would have helped you to remain in the course?

Spring 16 – Spring 19

- Other: 30%
- Online class: 14%
- Morning: 10%
- Afternoon: 8%
- Evening: 7%
- Once a week class: 7%
- Hybrid class: 7%
- Early morning: 5%
- Saturday class: 5%
- Accelerated class: 4%
- Sunday class: 3%
- Friday class: 2%

n = 17,486 Responses
Which services would have helped you complete the course?
Spring 16 – Spring 19

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>27%</td>
</tr>
<tr>
<td>Different schedule</td>
<td>26%</td>
</tr>
<tr>
<td>Tutoring</td>
<td>13%</td>
</tr>
<tr>
<td>Financial aid</td>
<td>12%</td>
</tr>
<tr>
<td>Counseling</td>
<td>8%</td>
</tr>
<tr>
<td>Book loan program</td>
<td>6%</td>
</tr>
<tr>
<td>Technical assistance in online classes</td>
<td>3%</td>
</tr>
<tr>
<td>Disability services</td>
<td>3%</td>
</tr>
<tr>
<td>Access to computers on campus</td>
<td>1%</td>
</tr>
</tbody>
</table>

n = 18,112 Responses
What is “other?”
Challenges with “Other” Responses

• Approximately 22% of respondents only select “other”

• Open text responses
  • Many possibilities and reasons

• Large (enough) sample size
  • 24,645 open responses
  • Not sustainable to manually read each response and make actionable decisions
    • Won’t be able to intervene quickly to help students
Natural Language Processing and Topic Modeling

• Natural language processing (NLP)
  • The process of helping computers understand natural language such as speech and text.

• Topic modeling
  • Statistical modeling that discovers topics among collection of texts
Text Processing

• Remove stop words
  • “the”, “a”, “an”, “in”, etc.

• Remove punctuation

• Lemmatize
  • Convert words to lemma form (dictionary form)
    • Run, running, ran, runs -> run

• Packages: Python – NLTK (Natural Language Took Kit)
Topic Modeling

• Latent Dirichlet Allocation (LDA)
  • Popular model for topic modeling
    • Assigns words used in responses to latent topics
    • Gives each open response probabilities of being in topic “n” based on words used

• Packages: scikit-learn, lda, gensim
Example of LDA Output

Topic 0: instructor wa student did assignment help grade doe email
Topic 1: time work week hour wa online day able attend
Topic 2: semester taking summer time fall unit want decided instead
Topic 3: need math school wa did high level requirement needed
Topic 4: time schedule conflict different changed work change better major
Topic 5: instructor wa like online learning learn hard did really
Topic 6: time family need work issue semester health ha care
Topic 7: book wa online time didnt afford financial required work
Topic 8: wa wrong got different instructor cancelled enrolled wanted dropped
“this class shouldn't cost the student $200 out of pocket I realize you wanna make money but I'm struggling over here to eat twice today.”

<table>
<thead>
<tr>
<th>Response</th>
<th>“this class shouldn't cost the student $200 out of pocket I realize you wanna make money but I'm struggling over here to eat twice today.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic Probability</td>
<td>Topic 0: 2%</td>
</tr>
</tbody>
</table>
Other: Please indicate all of the reasons you are dropping or withdrawing from your class
Spring 16 - Spring 19

- Instructor: 25%
- Schedule Conflict: 15%
- Lack of time: 13%
- Personal reasons: medical, family, etc.: 13%
- Will take class in another semester: 12%
- No longer need course: 12%
- Lack of resources: money, book, etc.: 11%
Instructor: Lack of resources: money, books, materials
Lack of time
Personal: medical, family, etc.
Didn't need course
Class content
Etc.

Other: Which services would have helped you complete the course? Spring 16 - Spring 19
Other: Please indicate all of the reasons you are dropping or withdrawing from your class - Partial drop vs Completely dropped out

<table>
<thead>
<tr>
<th>Reason</th>
<th>Partial Drops</th>
<th>Completely Dropped Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>27%</td>
<td>20%</td>
</tr>
<tr>
<td>Class Content</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>Schedule Conflicts</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>Will take class in another semester</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Enrolled in wrong class class</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>No longer need course</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Personal reasons: Lack of resources: medical, family, money, book, etc.</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11%</td>
</tr>
</tbody>
</table>
Advantages of “Other”

• Provides us richer data
  • Students respond with more detail
    • Example: Financial costs (check box) vs Text book is too expensive (open text)
Actionable Insights
Examples

• Grocery and gas cards, textbook vouchers, laptop loans, etc.

• Targeted financial aid advisement

• Offering technical support

• Other services
Next steps

• Case management
  • Target equity gaps

• Data triangulation

• Raise awareness of services through faculty

• Modify the survey questions and choices
  • “My life is too stressful”

• Improve topic model
  • Will improve with more data/responses

• Use drop survey responses as predictors in classification models for retention and persistence
  • Decision tree, random forest, etc.
  • More levels of case management
Questions