Credit Recovery: Improving Student Graduation and Learning Experiences in an Online Master's

Degree Program

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Introduction

The number of students enrolling in online degree programs has been increasing in U.S. higher

education in the past decades (Allen & Seaman, 2013). Online education has made learning outside the

traditional classroom possible. It has also expanded access to higher education and created important

learning opportunities for non-traditional students (Moloney & Oakley, 2010). However, educators and

administrators of online programs face more challenges to improve student retention and graduation rates.

Numerous studies (e.g., Instructional Technology Council, 2009; Salazar, 2010; Terry, 2007) have found

that retention and graduation rates in online programs are constantly lower than campus-based programs.

One proactive approach to prevent students from dropping out is to implement credit recovery programs

(CRPs) (Center for Innovation & Improvement). Although there is no single model for this type of

intervention (Center for Public Education), CRPs provide students with additional opportunities (e.g.,

alternative courses) to gain credits for courses they may have missed or failed. However, it remains

unclear if CRPs increase student graduation rates and if it benefits students' learning in an online setting.

Thus, the purpose of this project was to explore the extent to which the CRP affects graduation of

students in an online Master's degree program and its impact on students' learning.

Research Questions

The project investigated and evaluated the CRP for its effectiveness as a quality

assurance process and as a new and/or effective idea for online degree program design. Three

research questions were specifically addressed in this project:

RQ1: To what extent does the credit recovery program affect students' graduation rates in

an online master's degree program?

RQ2: How students who have enrolled in the credit recovery program perceive their

learning experiences in an online master's degree program?

RQ3: What strategies can educators and administrators employ to improve students'

retention and graduation rates and their overall learning experience in an online master's degree

program?

Methods

Data Collection and Sources

Both quantitative and qualitative data were collected. Quantitative data were collected

from a CRP program that implemented in the Academic Partnership Educational Leadership and

Policy (APP) online Master's degree program. The APP online program started in fall 2009 with

its first cohort of 37 students. As of February 2014, 1980 students have enrolled in the program.

Students take the Administrative Internship course and then 10 content courses offered one at a

time in sequence followed by a capstone course. Early into the program, students who wanted to

continue in the program missed one or more courses for a variety of reasons (e.g., forgot to enroll

or pay tuition by the deadline, thought they had enrolled but pressed save button rather than

submit button, computer malfunction, family emergency, health reason). It quickly became

apparent that missing courses created retention concerns for the program and time to degree

concerns for students. To address these issues, a credit recovery program was developed for APP

students. Approved students were enrolled in a credit recovery course, where students conduct an

independent research project with faculty, and when completed, substituted for the content

course the students missed. Since the APP started, 219 students have been enrolled in the credit

recover course. This represents 11% of the 1980 students who took the first course in the

program. For the purpose of the analysis, we only included the first 27 cohorts of the students,

which consisted of 1632 students in total. The later cohorts were not included in the analysis

because that the students are still in the process of completing degrees and it was difficult to

predict if they will graduate or not.

Qualitative data were collected from APP students who took the credit recovery course. APP students who have taken the credit recovery course were invited to conduct an individual phone interview about their experiences prior to beginning the course, experiences in the course, and their overall assessment of the course. Finally, nine students volunteered to participate in the study. The interview questions are semi-structured, open-ended questions. Each interview lasted about 20 to 40 minutes.

Data Analysis

Using the quantitative data, the researchers first examined APP students' demographic characteristics. Next, the researchers conducted the logistic regression analysis to identify significant factors that predict students' graduation and whether taking the credit recovery course was a significant predictor to students' graduation.

The individual interviews were digitally recorded and transcribed verbatim. The researchers utilized open and axial coding to identify and establish relationships between emerging themes and subthemes. Each interviewee was assigned a pseudonym to protect their privacy.

Results

Question 1. To what extent does the credit recovery program affect students' graduation rates in an online master's degree program?

Descriptive Analysis

In total, 1632 students who were from the first 27 cohorts were included in the quantitative analysis. Among these students, almost two thirds (64.7%) were female (see Table 1). Over half (56.8%) of the students in the sample were identified as White, followed by Black or African American (16.4%) and Hispanic (15.0%). The age of these students varied from 24 to

71, with an average of 38.6. Almost half of the students (49.0%) were in their thirties. The

second largest group of students aged from 40 to 49 (28.0%).

In this research, students who finished the program before their projected graduation,

those graduated on time, and those obtained the degree within two subsequent semesters were

identified as "completers." Approximately, two-thirds (74.3%) of the students successfully

graduated from the program with a Master's degree within two subsequent semesters after their

projected graduation. The other students were classified as "non-completers." We were aware

that the graduation rates could be higher if we extend the graduation cut-off time, but we would

have to eliminate a larger number of students from the study. Given the fact that 74.3% students

graduated within two subsequent semesters, we decided to use two immediate semesters as the

cut-off time for calculation of graduation rates.

In the sample, 12.5% students took at least one credit recovery course. Among the

completers, 15.1% took at least one credit recovery course, while only 5.0% of the non-

completers took a credit recovery course (see Table 2).

Logistic Regression Analysis

The descriptive results portrayed the characteristics of the sample and indicated that the

percentage of the completers who took the credit recovery course was three times as high as the

non-completers. It is also important to examine the effect of taking the credit recovery course

after controlling for the effects of other variables, which can provide a better understanding

about the students' learning experience in the online Master's program.

The dependent variable was if the student graduated from the program within two

subsequent semesters after their projected graduation. The independent variables were students'

age, gender (male vs. female), ethnicity (White vs. non-White), and if they took at least one

credit recovery course. The results of the logistic regression indicated that the overall model for students' graduation was a welling-fitting one (*-2 Log Likelihood*=1793.59, *H-L Goodness of Fit* =.685). The *Nagelkerke's R^2* was 0.06, indicating that that only 6.0% of the variance in the dependent variable can be explained by the model. This may suggest that in the future study more dependent variables should be included in the model. Except for students' gender, all of the independent variables were significant predictors to students' graduation (see Table 4). More specifically, the odds of graduating with a Master's degree within two semesters increased by 1.02 when students' age decreased by one year. The odds of graduating were 1.74 times higher for students who were identified as White than for non-White students. The students who took the credit recovery course were 3.37 times more likely to graduate within two subsequent semesters. This may indicate that credit recovery course was beneficial to students' learning and enabled students to graduate from the program on time or with minimal delay.

Question 2: How students who have enrolled in the credit recovery program perceive their learning experiences in an online master's degree program?

Two themes merged from the interviews with the APP students who took the credit recovery course: 1) rational of taking the credit recovery course and 2) positive learning experiences. Each theme was reported with sub-themes and supporting quotes from the interviewees.

Rational of Taking the Credit Recovery Course

All of the students expressed appreciation towards the additional opportunity for them to graduate on time or with minimum delay. This was critical for the participants because of the time constraint, financial responsibilities, and career opportunities. The conversations with the students also revealed a wide variety of reasons that the students decided to take the credit

recovery course.

Graduation Time. Although the purpose varies, to be able to graduate on time was an important factor that motivated the students to take the credit recovery course. Due to financial constraints, for instance, Casey had to postpone her enrollment in the class. She was very excited when she learned about that she could still graduate on time by taking a credit recovery course. Helen indicated that she would not be promoted if she were unable to graduate in the summer. Without the credit recovery course, she would not be considered for the higher position. Helen wanted to graduate by August so that she can be promoted to a leadership position. She needed to take one more course. However, the course that she needed to take was not offered in summer sessions. As a result, she would have had to wait until the fall to complete her study and would miss the opportunity to be promoted to a leadership position. Helen described the consequences if this course were not available for her,

> *It would have affected my graduation date. And that would have affected my, um, ability to be — promoted – um, and seek, um, employment – in another capacity.*

Echoed with Helen, Jane chose to take the credit recovery course to fill a class that was not in the sequence for her cohort in order to be able to graduate by the summer. She stated,

> *I was under the assumption the whole time that the last class would still be after, like one week after –And then I found out that the last class was offered six weeks later –and so I had already like planned my summer.*

Missing Deadlines. Another reason that the participants took the credit recovery course was their failure of enrolling in the next course. Some students missed the deadline to make a payment to the course before it started. For instance, Mary indicated that she accidently skipped an important online message about payment and thus she was not able to enroll in the next class

in the sequence.

> *...when it came time to register for the next classes, I registered. And then I went to pay
> — and I didn't pay attention to where it said, "You need to make sure and pay no later
> than the Friday before the class started. "So that Friday, I went online and I looked at the
> syllabus and I was looking at the assignments and everything, and I had my book for the
> class and everything. Um, Monday morning I went to try and get into the class, and it
> wouldn't let me and it wasn't showing up.*

Similarly, Chad missed a class because of issues of payment. He thought he paid the
tuition but "something about financial aid didn't go through." Sally also failed to pay on time.
She was busy adjusting to her new position at a new school while she was getting ready for the
next course. However, Sally overlooked the deadline for payment. Consequently, she was not
able to enroll in the scheduled course in the sequence.

> *I went online and I registered on Wednesday. ...and I registered for the class on
> Wednesday and I don't know why, I had the money, I was prepared to pay, I just didn't
> pay on Wednesday and Friday was a crazy day. ...it was the day before in-service, the
> last 84 teacher in-service and it's very crazy here in the office and I totally forgot. On
> Monday morning at 8:00am I realized I had not paid for the class and I tried to fix it, but
> I could not.*

Personal Break. The credit recovery course provided flexibility for the students to
complete their course work and meanwhile allowed them to focus on personal or job-related
issues as needed. For instance, Maggie needed a break from the program because she
encountered many challenges at work. She decided to overcome these challenges first and then
focus on completing her degree. If the credit recovery course were not available, Maggie would

have to apply for readmission and it would greatly impact her progress on pursuing the degree.

Maggie indicated that "if a program is not flexible enough, then people get …discouraged." She

expressed her appreciation for the opportunity to take the credit recovery course to keep on track.

Positive Learning Experiences

The participants who took the credit recovery course reported positive learning

experiences. Overall, they enjoyed taking the credit recovery course. In fact, many rated it as one

of the best courses in the degree program. For instance, Ann, who will be completing her

program spring 2015, stated, "in my personal opinion, it has been my favorite course that I've

taken." Students' positive experiences were largely due to individual interaction with the

instructor, opportunities to develop their own research interests, and self-paced learning.

Personal Interaction with the Instructor. The participants appreciated that they had a

great amount of individual interaction with and received timely responses from the instructor of

the course. Different from their experiences in other classes in the program, the participants

expressed that they had more opportunities to interact with the instructor and to have one-on-one

discussions. For instance, Sally found the course very engaging and enjoyed the connection with

the instructor,

> *This is the most connection I've actually felt to being part of the university and to doing*
>
> *what – what, you know, to me was true education, only because I'm so old, you know,*
>
> *that I'm used to sitting in a class, having a relationship with the professor, getting*
>
> *feedback from the professor, turning something in and then, you know, mark it on your*
>
> *paper every little typo you've got, that to me is what I was used to –- and so this course*
>
> *provided that I had a lot of, um, a lot of feedback. Dr. Johnston gave me a lot of feedback*
>
> *and it was very obvious that he had read every single word that I wrote –because if there*

was even one typo he pointed it out.

Mary felt it "nerve wracking" when she first enrolled in the credit recovery course, because she had already missed a class and could not afford missing another one. However, the level of connection with the instructor made her feel more confident about her academic study. She indicated,

> *I liked it [the recovery course] more so because it – to me, it was more somewhere to my experience in my undergraduate studies. Even though it wasn't face to face — I had more contact and more help, you know, more guidance — from my professor — in this class than my other classes…*

Research Orientation. The participants enjoyed the course also because they were requested to conduct a research project on a topic of their own interests. In addition to other courses in the program, the students perceived taking the recovery course as an opportunity to develop their own research interests and to apply what they have learned in the Master's program to solve real-world problems. For instance, Mary reported that she analyzed the data that were collected at work in the credit recovery course. Ann shared similar experiences,

> *Doing the independent research program – or course, I've actually been able to continue what started researching at that time and have kind of transgressed through what I actually do in my position now. And I've been able to expand and bring other team members into that research piece...this is an opportunity that I could actually carry this over into what I do.*

Self-Paced Learning. Another important feature of the credit recovery course that motivated students' learning was that students were able to choose their own research topic and develop an individual syllabus. Casey felt that she had a voice in her own class. Ann enjoyed that

she was given the opportunity to develop her own timeline and to choose how she "wanted to

purse the research process and choose the topic." She added,

> *Being able to kind of go out and investigate and explore on my own, which I think is*
>
> *extremely applicable to what all people in education whether they're in the classroom or*
>
> *they're an instructor. … So I think it, …I think it would be very valuable for all within the*
>
> *program to have the opportunity to do an independent research course.*

**Question 3: What strategies can educators and administrators employ to improve students'
retention and graduation rates and their overall learning experience in an online master's
degree program?**

The analysis of both qualitative and quantitative data suggested that the credit recovery

course was beneficial to students' graduation and their overall learning experiences in the online

Master's program. The findings of this study also indicated that the following areas could be

further developed to enhance students' graduation and learning experiences.

Increasing the Awareness of the Credit Recovery Course

The conversations with the participants revealed that the students who took the credit

recovery course were not aware of the opportunity until they contacted the program coordinator.

For all of the interviewees, taking the credit recovery course was somewhat a last-minute

decision. Although they appreciated that they had another opportunity to catch up with the

course work, to keep on track, or to graduate on time, these students would have liked to know

about this option earlier. In so doing, the students would be able to better plan their academic

study and family life and work responsibilities.

Enhancing Communication about Program Requirements

The students indicated that they would like to have more information about the sequence

of the courses. Some interviewees indicated that they were not aware that they would need to wait for six weeks to take the last course, while the intermission between earlier courses was much shorter. This may suggest that a flowchart or a timeline of all of the courses in the program should be presented to the students when they first enrolled. This could provide them with more knowledge about the program and help them better monitor their study progress and graduation planning.

The findings of the study also indicated that some students missed the deadline for payment because of their other responsibilities. A reminder of payment through emails, phone calls, or text messages could help these working professionals better meet deadlines, thus increasing students' retention and graduation rates in the program. The administrators could also create learning communities for each cohort of the students via online learning tools (e.g., Blackboard) and social media (e.g., Facebook, LinkedIn, Twitter, etc.) to share important information within the group and create opportunities that students can contact each other for further information or assistance.

Improving Personal Connections

The findings of the interviews suggested that interaction with faculty members were highly appreciated. In comparison to other courses in the program, the students who took the credit recovery course valued greatly the personal attention and timely response that they received from the instructor. This may suggest that faculty members in the program should pay closer attention to the needs of each individual student and be more responsive to the students' questions and requests. The faculty members should work closely with coaches to create a learning environment where students feel safe and comfortable to share their experiences and voice their opinions. For instance, synchronous online meetings with students could enhance

their interactions with faculty members and increase their sense of belongings to the program.

Additionally, many participants indicated that discussion with classmates online provided them

with great opportunities to learn from each other. Thus, opportunities where students can connect

with each other should also be developed or improved. Both online and face-to-face meetings

within the cohort should be encouraged.

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Table 1

Students' Demographic Characteristics (N=1632)

	n	*%*
Gender		
Male	576	35.3
Female	1056	64.7
Age		
24-29	180	11.0
30-39	800	49.0
40-49	457	28.0
50-59	171	10.5
60 and above	24	1.5
Race/Ethnicity		
American Indian	14	0.9
Asian American/Pacific Islander	22	1.3
Black	268	16.4
White	927	56.8
Hispanic	244	15.0
Multiracial	26	1.6
Unknown	131	8.1
Graduation		
Completers	1212	74.3
Non-completers	420	25.7
Credit Recovery		
Took at least one	204	12.5
None	1428	87.5

Table 2

Number and Percentage of Students who Took the Credit Recovery Course by Graduation Status

| | Credit Recovery Course | | Total |
	None	At least one	
Non-Completers	399 (95.0%)	21 (5.0%)	420 (100.0%)
Completers	1029 (84.9%)	183 (15.1%)	1212 (100.0%)
Total	1428	204	1632

Table 3.

Logistic Regression Analysis (N=1632)

Predictor	*B*		Exp(*B*)	95% C.I.for Exp(*B*)	
				lower	upper
Gender	0.80		1.08	0.86	1.37
Age	-0.02	**	0.98	0.97	0.99
Race (White vs. non-White)	0.55	***	1.74	1.38	2.18
Credit Recovery	1.22	***	3.37	2.11	5.39
Nagelkerke R^2	0.06				

*p < .05. **p < .01. ***p < .001.