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Problem Definition

Carter University (CU) is an accredited, for-profit virtual university with over 25,000 distance education students matriculated in the spring term of 2005. Students are enrolled in a quarter-system. Over 90 percent of CU students are seeking undergraduate degrees. Approximately 9 percent of CU students are enrolled in diploma or certificate programs that require taking college-credit courses. Carter also offers an MBA program that enrolls less than 1 percent of the total student body.

Needs & Goals

Carter's drop/fail/withdraw rates during the first two terms of enrollment exceeded 50 percent during 2004. This leads to two problems, one for the student (and his/her family) and one for the institution:

1. Since internal research indicates that over 35 percent of Carter's students come to Carter to make their third (or greater) attempt at obtaining a college degree, many administrators at Carter believe that this information means that the students who withdraw from Carter are both less likely to attempt college another time and that their children are also less likely to attempt college.

2. Since Carter is a for-profit institution, drop/fail/withdraw rates have a significant effect on the bottom line, even though these drop/fail/withdraw rates are not dramatically different from other virtual universities. Carter University devotes significant resources to recruiting and retaining students. Given the university's current tuition and fee structure, it takes three terms of enrollment of six credits or more for each term for Carter to see a return on the costs of recruiting, orienting, and teaching.

During the first term new, non-transfer students are enrolled, they take an introductory course in the their major field as well as a course in academic success strategies. The course has eight units in a ten-week period, covering importance of education, learning styles, time management, stress, study skills, critical thinking, and diversity issues. Carter administration has identified several weaknesses the academic strategies course:

• Students with transfer credit rarely enroll
• Students are already well into their coursework by the time they begin working on study skills and time management
• Students in the academic skills course are more concerned with grades than with functionally adapting their actual behavior
• Students receive no assistance or training on necessary software (such as Microsoft Office programs)
• Students have no opportunity to review or rehearse the skills they encounter in their first term when they are in danger of academic suspension

Carter does not collect information on exit interviews, so there is no non-anecdotal information available on the reasons for student drops and withdrawals in the first term. However, observation of message board and seminar activity of a small group of non-successful students suggests that the following behaviors have been especially problematic for withdrawing and failing students:

- Students are unable to communicate clearly about content problems. Students are more prone to say, "I don't understand anything" than to describe specific problems that can aid in diagnosing and solving problems.
- Students are unable to determine appropriate academic situations in which to take risks ("when is it okay to be wrong?"). Students lack even an intuitive distinction between low-priority/formative assessments and high-priority/summative assessments.
- Students identify educational success with giving correct answers.
- Students are unable to clearly identify academic priorities, assigning equal priority to all assigned tasks without looking at the relationship to the overall goals of the course or program.
- Students view themselves as poor candidates for a college education.
- Students are able to memorize and recite appropriate standard time management strategies and study skills, but are unable to transfer them to their everyday lives, especially in the academic domain.
- Students have difficulty determining which time management and study strategies are most viable for their life situation, cognitive style, and personality.
- Students have difficulty transferring viable strategies across a variety of types of assignments.

In answer to these problems, the university provost has requested the development of the following self-paced course for use with three groups of students: self-selecting new students before they begin their first term (during the orientation period), self-selecting transfer students any time in their first two terms, students identified as being in-danger of academic suspension. Students seeking re-admission after academic suspension may also take the course, though these students may be asked to pay for enrollment. The provost and other officers have set the following goals for the course:

- Attitude: Students need to place a high value on completing their college degree
- Metacognition: Students need to learn how they learn (style, preferences, strategies)
- Skills: Students need to learn academic success strategies (time management, energy management, college-level reading, priority-setting)
- Critical thinking: Students need to develop critical thinking capabilities
- Momentum: Students need to develop strategies for overcoming disappointments

In consultation with the provost and other officers, these goals are prioritized as follows:

1. Students develop learning and thinking strategies that increase their effectiveness and success as students
2. Students understand how to prioritize academic tasks in relation to other academic tasks and other parts of their lives
3. Students understand their own unique ways of thinking and learning and how these affect their academic success strategies
4. Students develop intrinsic motivation for completing their college education
5. Students develop "disappointment-proof" attitudes to attaining their college degree

The Learner

Morrison et al (2004) suggest that, in completing a learner analysis, instructional designers collect information on several elements relevant to the aims and goals of the proposed course: student demographics, "motivation and attitude toward the subject" (p. 60), student goals and aspirations, and student learning styles.

As stated above, this course targets three groups of students: self-selecting new undergraduate students, self-selecting transfer undergraduate students, and undergraduate students at-risk of academic suspension. Carter University undergraduates are adult students, with over 70 percent of Carter students were the age of 30 and almost 90 percent are over the age of 25 in 2004. Over 75 percent work more than 25 hours a week, and more than 60 percent had one or more children in the home. Less than 5 percent of students seeking admission in any given term are required to submit TOEFL scores, which suggests that the majority of Carter students are English-language speakers. Additionally, in 2003, over 60 percent of Carter University students indicated they were primarily motivated to attend school in order to complete a degree, with this group split between those who were seeking career advancement and those who indicated they were fulfilling a personal goal or dream. However, observation of internal messages from less successful students have generally indicated that they have low confidence in regard to work in their discipline and are uncertain of their potential to succeed in university-level study. Additionally, many indicate that friends and family display skepticism about either their decision to attend school or else about the quality of Carter's online programs. Other student frustrations include anxiety about and lack of experience with required technology components, including online message boards and Microsoft Office applications.

Since Carter's students are either determined to be at academic risk or are self-selecting to participate in a program to improve their academic skills, it seems important to note significant patterns in their thinking and learning styles.

Carter has previously conducted learning style assessments on samples of its

undergraduate students using Robert Sternberg's (1997) mental self-government model. The results indicated that Carter students trended strongly to the following thinking styles:

- Executive function: Carter students tend to prefer functioning in a pragmatic capacity, interpreting existing rules to fit their current situations, rather than a legislative (creative) or judicial (analytic) function.
- Hierarchical form: Carter students tend to prefer to manage their thinking tasks in order of set priorities, rather than in a monarchic (one thing at a time), oligarchic (multiple tasks of equal priority), or anarchic (multiple tasks with no priority).
- Conservative leaning: Carter students tend to prefer to work with "tried and true" systems and methods rather than new ones. This trend is less marked that the other two.

Observation of messages from less successful students indicates that these trends are also visible in this group.

Finally, the course will presume the following prerequisite knowledge:

- Students will have readily-available Internet access (a pre-requisite for admission)
- Students will be able to navigate Carter's custom learning management platform and asynchronous message board system
- Students will know how to read and print PDF, Word, and other types of documents commonly found online
- Students are highly motivated to succeed in their undergraduate studies, but may lack confidence that they will be able to do so

Context

Morrison et al (2004) suggest examining three dimensions of learning context: orienting context (including learner goals, perceived utility of instruction, and perception of accountability), instructional context, and transfer context.

It would seem that the orienting context is especially important here. Since most students will be self-selecting (and even at-risk students are choosing to enroll in the additional course rather than give up), it would seem that most students are driven to succeed in school, though their reasons may differ (job success, personal goal, return on tuition investment). However, their perceived utility for the instruction is less certain. Students may perceive significant utility in particular modules (e.g., study skills), but may be dubious about the importance of others. This disparity could be because they have been unsuccessful with similar materials in the past (e.g., they may have found prior training in time management unhelpful), or because they do not doubt their abilities in a particular area (e.g., college-level reading). Most students will hold themselves accountable for learning the skills in this course.

As this will be a self-paced distance course, the instructional context will vary from student to student. However, we know that several significant elements in this context repeatedly interfere with student attention, such as family and work. Thus, many students do their online work late at night, on breaks from work, or early in the morning. Some students will take this course with their academic advisor acting as a mentor, while others may not request such mentoring or may reject it if offered.

The transfer context is the everyday academic life of the student. Students who continue in the college-level work at Carter will have an opportunity to use their skills almost every day during the term.

Topic Analysis

Since student success is an abstract topic that involves the interplay of several factors and involves multiple ways to demonstrate success, the critical incident method of topic/task analysis is most appropriate. The critical incident method allows for an analysis not only of content for individual modules but also of their individual relationships to the general aim of students success.

Morrison et al (2004) identify three types of information needed for a critical incident analysis: the conditions before, during, and after the incident; specific behaviors in response to the incident; how the incident helped or hindered. Examining messages from less-successful students in addition to interviewing academic advisors will provide a number of examples of both successful and unsuccessful students' behaviors and help deduce what particular misunderstandings about college-level work may be especially troublesome.

Most less-successful students perceived themselves as at least moderately successful in balancing work and family life before they beginning college-level study; however, the addition of a new time demand added significant stress to which they had trouble adapting. Less successful students either were completely unfamiliar with time management strategies or assigned erroneous priorities. Many of them lacked an intuitive understanding of the difference between formative and summative assessments, and thus were not able to effectively prioritize their work on assignments. Many also demonstrated naïve reading and note-taking skills that were not focused on course or lesson goals. Also, most unsuccessful students exhibited greater self-doubt than successful students.

In contrast, more successful students exhibited less stress about performance on low-priority assessments and assignments, using them as opportunities to develop their skills. They were also able to find time-management strategies that they could continue using and that would work for their personality and thinking style. More successful students also demonstrated goal-driven reading and writing skills, and perceived themselves as capable of doing college-level work given adequate time.

The Course

The course, CRTU 0100, "Strategies for Success," will be self-paced, free, non-credit, and have the following objectives:

1. Identify their own thinking and learning styles and their resulting strengths and weaknesses. *Indicators of success in this objective may include*:
   a. Use the mental self-government instrument (Sternberg 1997) or another instrument to identify their preferred ways of learning and working
   b. Use their thinking and learning styles to identify strengths and weaknesses in how they adapt to challenges, manage their time and energy, read and study, and cope with stress
   c. Appreciate their own unique capability to succeed in a college-level degree program
2. Develop strategies for managing time, personal energy, and level of stress. *Indicators of success in this objective may include:*
   a. Evaluates time management tools and strategies based on their own ability to use and maintain them over multiple terms
   b. Identifies priorities based on personal, professional, and academic goals
   c. Effectively allocates time and energy to meet personal, professional, and academic goals
   d. Precisely identifies sources of stress and deals with them based on their relationship to larger goals
   e. Demonstrates confidence in their own ability to identify priorities and adapt to challenges
   f. Develops a personal plan for overcoming and preventing burnout
3. Use goal-driven strategies in reading and studying. *Indicators of success in this objective may include:*
   a. Accurately identifies course and unit goals and how they relate to individual assignments
   b. Uses goal-driven strategies to read textbooks, articles, and other resource materials
   c. Demonstrates enthusiasm for finding ways to relate course and unit goals to personal goals
4. Demonstrate fundamental critical thinking skills. *Indicators of success in this objective may include:*
   a. Evaluates readings using basic critical thinking standards
   b. Adapts critical thinking standards to a variety of situations across courses
   c. Lists applications of specific critical thinking standards
5. Effectively identifies sources for academic support within the university. *Indicators of success in this objective may include:*
   a. Lists situations in which to use the university's tutorial services
   b. Distinguishes between situations that require talking to an academic advisor and situations that require talking to an instructor
   c. Describes how and when to contact student services

As noted above, the course will be self-paced, free, non-credit delivered online using the Carter University LMS, and may be taken in consultation with a student's advisor. Each unit will give students an opportunity to use both judicial (analytical, "what really is the problem I'm ecountering?") and legislative (creative, "how can I adapt the general principles I encounter to my situation?") thinking styles, but will always come back to the executive-pragmatic thinking style ("what rules or principles should I apply?"). In general, students should be able to complete the initial work on the course in one to two weeks, though they will maintain access to the course materials indefinitely after they enroll. Assessment will be self-check and self-evaluation, though Carter may at some point want to study the success rates of students who choose to take the course compared to those who choose not to take the course.

References

Morrison, G. R., Ross, S. M., Kemp, J. E. (2004) *Designing Effective Instruction* (4th ed.). Hoboken, NJ: Wiley.

Sternberg, R. J. (1997) *Thinking Styles*. New York: Cambridge University Press.