RAISING THE BAR TO NARROW THE SUCCESS GAP BETWEEN ONLINE AND ONSITE LEARNING

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Meet Our Presenters

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Background

- In the last few years we have conducted and presented the outcomes of research focusing on why students fail courses (and their college education) from:
  - Students’ perspectives (2013)
  - Faculty perspectives (2014)
  - Academic leaders’ perspectives (2015)

- In those studies, surveys of participants provided us with concrete root-cause factors for students’ failure.
Findings From Previous Studies

<table>
<thead>
<tr>
<th>Participants</th>
<th>Three root causes behind student failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td><strong>Motivation</strong>, study habits, student academic preparedness</td>
</tr>
<tr>
<td>Faculty</td>
<td>Student <strong>preparedness</strong> (not ready for college), faculty instruction and behavior, student lack of <strong>motivation</strong> or interest</td>
</tr>
<tr>
<td>Academic Leaders</td>
<td>Student <strong>preparedness</strong> (not ready for college), lack of <strong>motivation</strong> or interest</td>
</tr>
</tbody>
</table>

Note that lack of student motivation or interest was mentioned by all three groups as a critical factor in student failure. Furthermore, motivation and study habits, as well as academic readiness and student attitudes (mentioned first, second, third and fourth most frequently by students) are fundamentally under the control of the students.

*(Cherif, Adams, Martyn, and Movahedzadeh, 2013, 2014, and 2015)*
Rationale Of This Study

■ During our presentations at the Higher Learning Commission (HLC) in Chicago, we were asked repeatedly if we had broken out the specific delivery modes (online, onsite, blended), and looked at them separately. We had not, but took these questions as suggestions for further research.

■ Also, one of us (presenters) has been asked to lead online education for City Colleges of Chicago, system-wide (population of 7 Colleges).

■ We decided to conduct another study focusing on students’ success in online delivery formats.
Learning From A Distance Is Not New

*What has changed over time is the delivery mechanism*

Postal → Radio → TV → VHS/DVD → Internet → ???

Light Fidelity (Li-Fi)
Why Should You Care?

- The proportion of students who take at least one online course in higher education was at the highest point in history at **33.5%** in 2014.
- The number of students in higher education taking at least one online course in 2015 was up **3.9%** over the previous year.

- Growth is uneven among higher education institutions:
  - Private for-non-profit institutions grew by **11.3%**
  - Private for-profit institutions saw their distance enrollments decline by **2.8%** (Neghina, 2016, ¶.1)

- Despite growth in enrollments, academic leaders report that only **29%** of their faculty members believe that online learning education is “legitimate” and **26%** of their faculty still believe online courses are inferior to face-to-face (Allen & Seaman, 2016)
Mixed Messages For Online Learning

- Educational technology that can benefit online education has been advancing.
- Taking courses online has contributed to the completion rates of academic programs especially at 2-year colleges.
- However, there is still a growing concern that students in online courses are less successful than those in onsite courses. For example, “Online classes have a much higher dropout rate compared to traditional face-to-face classes.”

(Allen & Seaman, 2016; Kumar & Skrocki, 2016)

- Goals are to:
  - Address the quality issues in online learning to ensure its efficacy for student success
  - Address the causes of the “performance gap” between students taking online and onsite courses
  - Identify strategies for narrowing that gap
Current Research Study Methodology

- We surveyed and interviewed using a set of questions focusing on “Why Do Online Students Fail and How to Narrow their Success Gap” with 174 faculty from both two-year and four-year institutions who had taught both onsite and online courses.

<table>
<thead>
<tr>
<th>Data Gathering Tools</th>
<th>Approached</th>
<th>Aimed to Achieve</th>
<th>Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal interviews</td>
<td>100</td>
<td>50</td>
<td>28 (16%)</td>
</tr>
<tr>
<td>Online survey</td>
<td>150</td>
<td>75</td>
<td>67 (39%)</td>
</tr>
<tr>
<td>Direct targeted e-mails</td>
<td>150</td>
<td>75</td>
<td>79 (45%)</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>200</td>
<td>174 (100%)</td>
</tr>
</tbody>
</table>
Research Questions

1. Which modalities have you been using in teaching your courses?
2. Why do students fail in online courses?
3. If you have taught both onsite and online classes, and you saw a difference in student success between the delivery modes, to what do you attribute the difference?
### Additional Questions For Interviews
(Every interview took on the average 45-80 minutes)

<table>
<thead>
<tr>
<th>Questions asked during personal interviews only</th>
<th>1</th>
<th>Based on your own experience with online and onsite courses, if you could select only one modality, in which one would you elect to teach and why.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>If all things were equal except the modalities, in which modality do you think you would spend more time and energy in preparing for and teaching your courses?</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>If all things were equal except the modalities, in which modality do you think students would spend more time and energy in learning the course materials?</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Based on your experience, do you think we should restrict the students we allow in online courses, or require preparatory training for students before taking online classes?</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Based on your experience, do you think all types of courses and topics are suitable for teaching through the online modality?</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Based on your experience, do you think the assessment mechanisms and techniques used in onsite delivery can also be effective in online delivery?</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>From your perspective, what is the future of online education?</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>What advice would you give an institution starting an online education program?</td>
</tr>
</tbody>
</table>
Impactful Interview Questions

Eight additional questions were asked during the interviews and of those eight, *three had a significant impact* on the research findings:

1. If all things were equal except the modalities, in which modality do you think you would spend more time and energy in preparing for and teaching your courses?

2. If all things were equal except the modalities, in which modality do you think students would spend more time and energy in learning the course materials?

3. Based on your experience, do you think we should restrict the students we allow in online courses, or require preparatory training for students before online classes?
A total of **83%** of the participants have taught both onsite and online.
Results: Student Success Based on Delivery Mode

68% see a difference in student success between online and onsite delivery modes; 32% see no difference or provide no answer

<table>
<thead>
<tr>
<th>Data gathering instrument</th>
<th>Performance gap</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>I  Online survey</td>
<td>47</td>
<td>20</td>
</tr>
<tr>
<td>II Interviews</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>III Direct e-mails</td>
<td>50</td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>118</strong> (68%)</td>
<td><strong>56</strong> (32%)</td>
</tr>
</tbody>
</table>
Results: Student Attrition Rates In Online Classes

63% of participants indicated that the attrition rates in their own online courses tend to be higher than in their face-to-face classes.

<table>
<thead>
<tr>
<th>Data gathering instrument</th>
<th>Students’ attrition rates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Higher Online</td>
<td>Higher Onsite</td>
</tr>
<tr>
<td>I  Online survey</td>
<td>46</td>
<td>8</td>
</tr>
<tr>
<td>II Interviews</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>III Direct e-mails</td>
<td>48</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>109 (63%)</td>
<td>28 (16%)</td>
</tr>
</tbody>
</table>

Saw a difference in student attrition rates between delivery modes.
# Results: Why Do Students Fail in Online Courses?

## Major reasons (root causes) given by the participants (n=153*)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Procrastination and/or lack of time management skills</td>
<td>115</td>
<td>75%</td>
</tr>
<tr>
<td>2. Lack of teacher-student interaction</td>
<td>80</td>
<td>52%</td>
</tr>
<tr>
<td>3. Lack of self-motivation and commitment; not self-learners</td>
<td>64</td>
<td>42%</td>
</tr>
<tr>
<td>4. Students’ attitude about online courses: Online courses are much easier than onsite courses</td>
<td>60</td>
<td>39%</td>
</tr>
<tr>
<td>5. Some students lack the needed characteristics to succeed in the online course environment</td>
<td>50</td>
<td>33%</td>
</tr>
<tr>
<td>6. Other reasons students fail in online courses</td>
<td>15</td>
<td>10%</td>
</tr>
</tbody>
</table>

*153/174 (88%) provided significant reasons
### Results: Reasons for Success Differences By Delivery Mode

<table>
<thead>
<tr>
<th>Factors contributing to the performance gap between onsite and online courses (n=124*)</th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td><strong>1</strong> Students need teacher-student interaction</td>
<td>108</td>
<td>87%</td>
</tr>
<tr>
<td><strong>2</strong> Classroom atmosphere helps to motivate students</td>
<td>94</td>
<td>76%</td>
</tr>
<tr>
<td><strong>3</strong> Onsite classes are more structured</td>
<td>79</td>
<td>64%</td>
</tr>
<tr>
<td><strong>4</strong> The teacher is better able to identify &amp; help struggling students</td>
<td>73</td>
<td>59%</td>
</tr>
<tr>
<td><strong>5</strong> Some students lack the characteristics or discipline to succeed in online learning</td>
<td>63</td>
<td>51%</td>
</tr>
<tr>
<td><strong>6</strong> Onsite students are more committed to learning</td>
<td>61</td>
<td>49%</td>
</tr>
<tr>
<td><strong>7</strong> No differences in online and onsite learning success</td>
<td>26</td>
<td>21%</td>
</tr>
</tbody>
</table>

*124/174 (71%) provided significant reasons*
Results: Reasons vs. Factors Contributing To Gap

Major reasons students failing online classes (N=153)

- Procrastination: 75%
- Lack of self-motivation: 52%
- Lack of teacher-student interaction: 42%
- Students think online courses are easier than onsite: 39%
- Other reasons: 33%
- Other: 10%

Factors contributing to the performance gap between onsite and online courses (n=124)

- Need for teacher-student interaction: 87%
- Classroom helps to motivate students: 76%
- Onsite classes are more structured: 64%
- Teacher can identify struggling students in classroom: 59%
- Onsite students are more committed to learning: 51%
- No differences in online and onsite learning success: 49%
- Other: 21%

Listed in order of response frequency
Results: Root Factors To Improve

- Over **85%** of the participants thought that when there is a difference in student performance between online and onsite classes, the root cause of the difference **is not inherent in the online modality**

- Poor online course design
- Inappropriate learning assessment methods for online learning
- Lack of proper faculty, effective advising, and student training
- Failure to acknowledge that online delivery is different from onsite delivery or that online learning is not appropriate for every student
- Uncertainty on the best way to evaluate online courses and how to address any necessary changes
Results: More Root Factors To Improve

- Determine which students can be successful in online learning
- Educate students on the behaviors that will lead to success in online learning
- Determine which courses are best suitable for the online learning environment
- Evaluate if there is still a need for a proctored testing environment for online learning
- Develop strategies and train instructors on how to create a comfortable learning environment for students where they can feel connected to their peers regardless of not being face-to-face with them
- Design courses with the structure and interactive components that will encourage students’ engagement and provide tools and platforms to do so
Analysis And Discussion

Three Main Buckets For Challenges

Instructional Strategies

Student Characteristics

Student Behaviors
1) Instructional Strategies

- Lack of teacher-student interaction was second most frequently mentioned (52%) as a root-cause failure in online courses.

- Lack of teacher-student interaction was also the most frequently mentioned (87%) as a contributing factor in the achievement gap.

- Classroom atmosphere was the second most mentioned cause for the difference in the achievement gap and could be created in a way to motivate students (76%).

- Two thirds of the participants felt that face-to-face interaction allows instructors to know their students better and to grasp students’ levels of understanding; thus, they could “recycle material” when necessary and give students encouragement and positive feedback in a more effective manner than in a “time-delayed” online venue.

- Many participants recommended that a different pedagogical approach or course design might be needed for teaching and learning in an online environment.
1) **Instructional Strategies** (continued)

- Online students should be required to attend a **mandatory orientation or a “screening” class** to determine if they are a good fit for online learning.
- **Structured course design** incorporating modules, and **automatic** reminder announcements and emails were suggested to assist students with time management challenges.
- **Engaging strategies** were noted as useful to increase student interest and participation (synchronous chats, videos, introductory discussion boards).
- **Student-student interaction techniques** including discussion boards, group projects, peer review could increase engagement and participation.
- Instructors need to **share on the first day of class how much time, energy and effort is needed** to prepare for each class, and ask the students to do the same.
Does Your Institution Require a Different Syllabus or Addendum for Online and Hybrid Classes?

- **Contract for Teaching Online**
  - *Number of times faculty enter the course online per week*
  - *Time required to respond to emails and students’ inquiries*
  - *Deadlines to post grades*
  - *Other*

- **Syllabi Outline teaching strategies & type of assessment**
  - *Videos*
  - *PowerPoint with recorded lecture*
  - *Synchronous meetings*
  - *Virtual office hours*
  - *Strategies for communication and student engagement*
2) **Student Personality Characteristics**

- Lack of self-motivation and commitment; self-learner, was mentioned the third most frequently (42%) as a decisive root-cause factor in the failure rate for online students.

- Students lack the characteristics to succeed in an online class (33%) was listed as the fifth most frequently mentioned root-cause factor in online course failure and a contributing factor for achievement gap (51%).

- Many participants mentioned that online students need to be independent, dedicated learners and have the ability to learn on their own. Our job as educators is to help students to discover whether or not they have these characteristics and if not, to help them to acquire them.

- Some participants said that online students don’t answer questions or don’t have anything meaningful or relevant to share when teachers communicate with them.
2) **Student Personality Characteristics** (continued)

- Onsite students are more committed to learning was also the sixth most mentioned as contributing factor (49%) for the achievement gap.

- Procrastination was cited as a major reason for failure among online students, amplifying issues like poor Internet access, work commitments, and family and personal problems that force students to fall behind.

- Online students were also described as studying and reading less, not understanding the requirements of the course, and not possessing the same level of persistence, effort and motivation.
Does Your Institution Require Pre-screening or Mandatory Orientation for Online/Hybrid Enrollments?

Ten Steps to Take Before Enrolling in an Online Course

1. Discover Your Own Self
   Ask yourself and those around you who know you very well, such as parents, siblings, good friends, or a teacher or mentor whom you respect, to tell you if you are:
   a. A self-motivated, self-driven person who wants to learn, and is willing to go the lengths to do so?
   b. Willing to initiate conversation and communication with new people who you have just met?
   c. Someone that possesses effective time management and is rarely known to procrastinate?
   d. Someone who never gives up easily under pressure, being persistent and persevering through the pressure?
   e. Willing to admit “I don’t know”, and ask for help?

<table>
<thead>
<tr>
<th>Questions For Discovering Yourself</th>
<th>Ranking Based on the Scale of 1-to-5; 5 being the Highest &amp; 1 the Lowest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yourself</td>
</tr>
<tr>
<td>A self-motivated, self-driven learner?</td>
<td></td>
</tr>
<tr>
<td>Willing to initiate conversation and communication with new people who you just met?</td>
<td></td>
</tr>
<tr>
<td>Have no tendency to procrastinate and possess effective time management?</td>
<td></td>
</tr>
<tr>
<td>Don’t give up easily under pressure, instead showing persistence and perseverance?</td>
<td></td>
</tr>
<tr>
<td>Willing to admit you don’t know, and ask for help?</td>
<td></td>
</tr>
<tr>
<td>Total Points</td>
<td></td>
</tr>
</tbody>
</table>
3) **Student Behaviors**

- **Procrastination** and lack of time management skills was the first mentioned root-cause factor 75% for failure for online students.

- This is more prevalent within online courses, since students are not required to be in a specific place at a designated time and receiving reminders of deadlines.

- 40% of respondents stated that students believe that online courses will be easier than onsite courses.

- Misconceptions about the rigor of online courses and the perception of them being “easier” may cause a student to underestimate the time commitment needed for success and was the fourth mentioned 39% root-cause factor in the failure rate of online students.

http://duffmcduffee.com/articles/procrastination-is-an-opportunity-to-become-a-better-person/
No Differences In Onsite and Online Learning Success

21% of respondents stated that delivery mode does not influence student success because:

- The instructor has the same impact in all delivery modes
- Life challenges and priorities affect both online and onsite students
- Students in all delivery modes fail to communicate with instructors and disappear from class and the instructor’s ‘radar’
Recommendations:

• More than 60 ideas and recommendations have been identified through our study.

• Those ideas and recommendations were either suggested directly by the participants based on their own teaching experiences or as a result of the discussion and the analysis of the participants’ responses and feedback supported with literature reviews.

• However, most of the recommendations come under the category of Pedagogical Strategies (Instructional Strategies and Course Design) which is understandable since all the participants are active faculty members.
Recommendations

We will share some of these ideas and recommendations:

*Three Main Buckets For Challenges*

Instructional Strategies

Student Characteristics

Student Behaviors
Instructional Strategies

The Three Students’ Needs To Succeed Content-wise

1. Need for involvement in the learning process
   - Promotes students to actively engage and explore

2. Need for understanding
   - Promotes students to search for better explanations

3. Need for mastery
   - Promotes students to invest time and energy in the learning process
Instructional Strategies

1. Require faculty to prepare before initially teaching online
2. Provide an opportunity for faculty to take an online class to experience it before teaching
3. Invest in instructional designers to create a uniform structure and format so that students don’t need to re-learn the structure for every course but make it flexible for faculty to be able to make immediate change if needed on weekly basis
4. Ensure that all online classes have active learning and assignments that require faculty-student and student-student interaction
5. Provide experienced mentors for faculty teaching online courses
6. Create a friendly and healthy digital and web atmosphere in online classes
7. Link services (tutoring, writing support, help desk) to the online courses so that students are aware and utilize
8. Research which classes work best to offer online
9. Assess courses in all delivery modes and use data to improve courses
Instructional Strategies

Time to Practice the Newly Mastered Skill

After every learned and acquired skill, provide mandatory time to practice the newly mastered skill.

This is an optimal condition for learning as cited by study in *Nature Neuroscience* article. Specifically, the study suggests that “it might improve performance by altering chemicals in the brain that “lock” in training” (Pierr-Louis, 2017, ¶.1).

http://medicalmassageinternational.com/become-a-therapist/the-learning-process/
Instructional Strategies

Focusing More on Why and How In Online Teaching & Learning Environment

• Students can read the factual information, but faculty can help students learn how to apply and use it.
• Students can obtain the needed “What”, “Where”, and “When” (the facts) independently so the instructor can focus on asking them about the relationship between the “Why” and “How” (applications) through interaction in all of the assignments and discussion boards including those which require calculations, illustration, inferences, etc.
Student-Student Interaction

Students in “Online Learning Environment” need to be in and form “Community of Learners”

■ Group work
■ Virtual reality games
■ Peer review
■ Discussion boards
  – “Collaborating with peers in an online learning environment may help boost learning, compared with environments with optional or no components of collaboration, according to a study by a researcher at Cornell University. The study measured performance for 48 students participating in a virtual game designed for language learning.” (Michael Hart, 06/22/16)

■ Role-play, debate, and disputing the outcomes of a real case studies & scenarios
■ Related current-events based discussion
■ Virtual field studies of actual locations

https://thejournal.com/articles/2016/06/22/research-suggests-students-learn-more-when-working-together-in-virtual-reality-
Course Design

Many instructors recommended that a different pedagogical approach or course design might be needed for teaching and learning in an online environment.

Design courses with the structure and interactive components that will encourage students’ engagement and provide tools and platform for students to do so. Participants thought backward design might help to achieve this!

https://pace.oregonstate.edu/catalog/web-design-principles
“Effective Online Course Design to Assist Students’ Success”

Effective Online Course Design That Works

- Encourages contact between students and faculty
- Develops reciprocity and cooperation among students
- Encourages active learning
- Gives prompt feedback
- Emphasizes time on task
- Communicates high expectations
- Respects diverse talents and ways of learning

# Universal Design for Learning That Is Inclusive for All Learners

By Dr. Thomas Tobin, January 26th, 2017

<table>
<thead>
<tr>
<th>Step</th>
<th>Universal Design for Learning Inclusive for All Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Start new design process with <strong>text</strong></td>
</tr>
<tr>
<td>2</td>
<td>Create <strong>alternatives</strong> for all multimedia</td>
</tr>
<tr>
<td>3</td>
<td>Design alternative ways for learners to <strong>demonstrate</strong> each course objective.</td>
</tr>
<tr>
<td>4</td>
<td>Break up tasks into separate <strong>components</strong></td>
</tr>
<tr>
<td>5</td>
<td>Expand, document, and share <strong>interactions</strong> in online course using free or low-cost tools.</td>
</tr>
</tbody>
</table>

https://mg.mail.yahoo.com/neo/launch?partner=sbc&rand=cujnfg3vspob0
Steps Educators and Leaders Can Take to Ensure Online Students Succeed

Laura Ascione Devaney, Managing Editor eCampusNews, suggested:

- **A well-defined set of standards** lets students know what is expected of them and how they can maintain their academic integrity.

- Along with a **personalized code of conduct**, institutions should provide students with support tools that address the unique needs of online learners.

- **Connecting and building relationships** among and across online students can not only enhance their course experience, but also provide them with a support system and outside resources that can help deepen their understanding of the course material.

Pedagogical Course Concept Map

Literature has indicated that students who have a Pedagogical Course Concept Map (such as this) in hand before starting a given course have a better chance in successfully completing and passing the course.

Pedagogical Course Concept Map helps students to visually see the relationship between all the critical components of a given course and how they relate to and interact with each other. It also helps students to see why they need to acquire certain skills to learn certain concepts and why they need to learn certain concepts to acquire certain skills.
Today, faculty in general and online faculty in particular, need to be expert not only in their academic disciplines, but also in the digital, pedagogical and communication tools to ensure effective reciprocal interaction with their students.
Faculty Training

- **Training within the same institution**
  - Specific designed course
  - Mentoring, shadowing

- **Training outside the institution**
  - Online consortiums
  - Conferences

- **Training through being an online student**
  - College classes
  - MOOCs

- Faculty who teach both onsite and online, the same course in the same semester have experienced better student academic performance and student satisfaction in their classes (*Young, 2016*). They also have, themselves, experienced less frustrations with the students and the classes.

http://www.keyword-suggestions.com/dHJhaW5pbmcgd29ya3Nob3A/;
http://apil.info/Events/BranchOffice/Kolkata/CampusDrive/
https://www.slideshare.net/rdshaff/faculty-training-lesson-planning-for-interactive-learning
Faculty who teach both onsite and online, the same course in the same semester have experienced better student academic performance and student satisfaction in their classes (Young, 2016).
What Training/Professional Development Does Your Institution Require For Online Instructors?

- Internal training?
- External training?
- Ongoing training after initial training?
- Is the strategy to hire faculty from the outside who have already taught online?

Does Your Institution Require Training For:

- Academic advisors?
- Student counsellors?
- Providers of student IT support?
Student Characteristics

1. Provide tools for students to assess whether they are a good candidate for online learning
2. Review the differences between procrastination and proactivity
3. Review learning styles and learning preferences (e.g. like to work in-person or virtually, in groups or alone, self-directed or assisted)
4. Assess digital readiness and ease with learning new technologies
5. Evaluate student’s comfort with change, facing difficulties, or roadblocks
Student Behaviors

1. Ensure that students understand the true commitments of online classes
2. Provide access to other students who have taken courses online to get information about the online learning platform and strategies for success
3. Create a mentor system for online students
4. Provide access to an online orientation or other “low stakes” online class to gain access to the learning management system
5. Offer course options in blended/hybrid or flipped course formats to prepare for online
6. Provide training to resolve limitations in media and digital literacy
7. Students should be encouraged to analyze their own level of motivation, time management, time available for coursework, and ability to self-direct one’s learning before taking an online class.

8. Assist students to check the status of the devices that they plan to use for the online class.

9. Advise students to have a backup plan to access the Internet and Wi-Fi.

10. Help students research whether online courses are accepted in their desired career path.

11. Help students to research their post-graduation career plans carefully.
# Time Allocation Helps A Student Prepare

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Time to Allocate</th>
<th>Total Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weeks 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reading and Preparation</td>
<td>2.0 hours</td>
<td></td>
</tr>
<tr>
<td>• Discussion #1</td>
<td>.5 hours</td>
<td></td>
</tr>
<tr>
<td>• Discussion #2</td>
<td>.5 hours</td>
<td></td>
</tr>
<tr>
<td>• Discussion #3</td>
<td>.5 hours</td>
<td></td>
</tr>
<tr>
<td>• Interactive Learning Activity Week 3: ILA #7 and 8</td>
<td>3.0 hours</td>
<td></td>
</tr>
<tr>
<td>• Homework</td>
<td>2.0 hours</td>
<td></td>
</tr>
<tr>
<td>• Review</td>
<td>2.0 hours</td>
<td></td>
</tr>
<tr>
<td>• Quiz</td>
<td>2.0 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.5 hours</td>
<td></td>
</tr>
</tbody>
</table>

Students who are educated in advance about the time commitment and time required to actively participate in a given course performed better than those who don’t have this information beforehand.
Example from a given course syllabus of what is written for the students related to Time Allocation

**Weekly Time Allocations (Student)**

**Weekly Time Allocations**  
It is very important that students understand the time required to actively participate in this class. These times are considered average; it may take some students less time while it may take others more time. The purpose of this chart is to give the students an idea of the time needed to allocate each week in order to successfully complete this course.  
*Times will vary for individual students typical expected variation = +/- 4 hours

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Time to Allocate</th>
<th>Total Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preview Week</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e-College Shell Syllabus</td>
<td>2 hours</td>
<td></td>
</tr>
<tr>
<td><strong>Week 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syllabus, Minitab Access Assignment Reading Preparation Introduction Post Discussion #1 Discussion #2 Quiz Lab Homework</td>
<td>1.0 hours 2.0 hours 1.0 hours 1.0 hours 1.0 hours 1.0 hours 2.0 hours 4.0 hours</td>
<td>12 hours *</td>
</tr>
</tbody>
</table>
Conclusion

- 68% of the participants in this study see a difference in student success between online and onsite delivery modes. In addition, 63% of participants indicated that the attrition rates in their own online courses tend to be higher than in face-to-face classes.

- However, over 85% of the participants thought that when there is a difference in student performance between online and onsite classes, the root cause of the difference is not inherent in the online modality.
Conclusion (continued)

- **Student characteristics** and **student behaviors** such as procrastination, not self-learners, lack of efficient time management, etc., cited on the top of the root-cause factors behind students failing online courses.

- Indeed, “procrastination” was cited as a major reason for failure for online students since like Internet access, work commitments and family and personal problems force students to fall behind.

- **Student interaction and communication** with peers and with their faculty were also mentioned significantly as contributing factors in the achievement gap between online and onsite student’s performances.
While the challenges with the online course design have been dealt with by educators and instructional designers since the beginning of online education, the majority of the participants still hold strong belief that online success and student’s performance rate in online courses reside in the heart of the course design and the pedagogical strategies.

They think that the successful formula for effective online course design is still needed but will be found as a discipline-based design instead of a generic course design.

When this design formula is discovered and implemented, all the other factors from course content to assessment strategies and from student performance to student success will be more readily dealt with and improved upon.
Conclusion (continued)

- **Instructional strategies** can improve student success in online and hybrid courses

- **Assessment of student characteristics** will help students determine if they are a good fit for the online learning environment

- Student education (before they take an online or hybrid course) can help students understand the demands of the online learning environment so that they are prepared to utilize the behaviors needed to succeed

- In learning environment,
  
  Engagement = Preparation + Participation

  (Almagno, 2017, ¶ 7)
Conclusion (continued)

U.S. News & World Report’s 2017 Best Online Program Rankings

As reported by Laura Ascione Devaney, Managing Editor of eCampusNews (2017), those universities which have excellent online education programs share seven hallmarks of excellence in online leadership:

1. Advocacy and leadership within the university
2. Entrepreneurial initiative
3. Faculty support
4. Student support
5. Digital technology
6. External advocacy and leadership beyond the university
7. Professionalism

Does your Institution Require Synchronous Interaction in Online Classes?

- Meetings
- Virtual Office Hours
- Chat Sessions
- Other
Does Your Institution Require Proctored Exams?

- What other methods is your institution using to verify student identity and ensuring that they are doing the work in online classes?
  - Biometrics
  - Outsourced tools that “watch” students taking the exam?
  - Other?
Does Your Institution Do Anything to Address Academic Integrity in Online Classes?

- Does your academic integrity policy or plagiarism policy specify different policies or procedures for online learning?
- Do you believe that there is more cheating happening in online that onsite classes?
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• Benson, Jeffrey (2015). *10 Steps to Manage Change in Schools*. Baltimore, MD: ASCD.


• Doubet, Kristin and Hockett, Jessica (2015). *Differentiated In Middle and High School*. Baltimore, MD: ASCD.


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- Weimer, Maryellen (2017). An Integrated Approach to Student Exams. Online Seminar conducted on Tuesday, January 24, 2017 | 01:00PM Central | Length: 60 Minutes.
- Williams, Allison (2016), Say Hi To Li-Fi. Popular Science, 288 (4):36.
Online College Students 2016: Comprehensive Data on Demands and

As reported by Hart, Michael (2016), in Campus Technology:

1. "Current estimates place the number of students working toward their degrees online at 3.5 million," said Learning House Chief Academic Officer David Clinefelter. "Institutions of higher learning cannot afford to ignore this population."

2. New research into the demographics of online college students found “50 percent of them would probably not choose to attend classes on a physical campus”.

3. “Online college students are getting younger. In this year’s survey, the average age for undergraduates was 29 and 33 for graduate students. That is down from 36 and 37, respectively, in 2014.”

LAZINESS, LACK OF MOTIVATION, AND OR LACK OF INTEREST LEAD TO

**Procrastination**
- Missing deadlines
- Doing poorly on a given tasks
- Cheatings, dishonesty, misconduct

**Blaming & Avoiding Taking Ownership**
- Dodging Self-responsibility
- Dodging Self-responsibility
In her most recent blog post, Dr. Kaye Shelton, Institute faculty for the OLC Quality Scorecard Mastery Series, wrote that

“If you have been involved in online learning for any length of time, you have defended the quality of this delivery method, at least once or twice along the way, probably to colleagues, administrators, or even external accreditors. There were many doubts early on if students could learn without the instructor standing in the room, if instructors could effectively teach without seeing the students, and if students could receive the same quality support services we so readily offer to our traditional campus students. Online learning doesn’t mean that it costs less to produce or that it is less rigorous for the students. On the contrary, quality online learning requires resources, policies, and structure to successfully support all stakeholders.” (¶ 1)

Shelton, Kaye (2017). Kaye Shelton on Quality in Online Learning. OLC Insights of Online Learning Consortium, February 24, 2017. https://onlinelearningconsortium.org/kshelfonquality/?mkt_tok=eyJpIjoiTkdOaFpXWTFNVGxrTVRSalsInQiOiJhaE94aFqOWc5U3V0bVJ5aXcybFZ2QzJMYVVVncVdEdw0Ykt6NXZjSHkzZ0lTOEZpTm1yS2VwOWpiQ3hHZmZxTDJRYFReTlcL2RRSDBE51Nvd1MkM0ZUMaGpCZm10ZmdEbU9QcEtLQVpwN0tkd09DTnbxUnN3NTZadji1MifQ%3D%3D
Online education has been facing two persistent concerns for a long time. They are:

- Students’ procrastination
  - Deferring action until an opportunity is lost
- Cheating on and the contamination of online testing
  - Biggest challenge facing the credibility of online education.
Why Procrastination Matters in Students’ Lives!

• **Procrastination** (deferring action until an opportunity is lost) leads to missing deadlines!
• Missing deadlines leads to failing to follow through!
• Failing to follow through leads to having a negative attitude!
• Having negative attitude leads to repeating mistakes and failing to take responsibility for them!
• Repeating mistakes and failing to take responsibility for them leads to developing bad habits over time!
• Developing bad habits over time, as David Maxfield once said, can absolutely derail a person's career and in turn life!
Two Major Persistent Concerns

Cheating on and the contamination of online testing is still one of the biggest challenges facing the credibility of online education.

While cheating on testing, exams, and homework, etc., is not a phenomenon associated only with online learning environment, it is more a challenging problem for online than onsite learning environment.
Online Students Need Mentors

Every online student needs a Mentor who can help in identifying student’s strengths and creating a study and success plans for accomplishing goals. Specifically, the mentor needs to:

1. **Suggest Strengths and Point Out Weaknesses**
2. **Create Study and Success Plans**
3. **Give Advice**
4. **Teach, Show and Advice By Example**
5. **Push the Student to Succeed**
6. **Inspire the Student and those around them**

However, not everyone can be a qualify mentor. A mentor can be anyone willing to take a strong interest in another person’s academic success and professional career. He or she is already went through the process successfully and thus is more experienced.

Best Strategy For Taking Courses

Two Hours or More Driving From A Higher Education Campus
- Take Competency-Based Courses

Less than Two Hours or More Driving From Designated Campus or A Higher Education Campus
- Take Online Courses with at least one-day onsite component

One Hours or Less Driving From Designated Campus or A Higher Education Campus
- Take Blended/Flip Course
- Take Online Courses with at least once or twice onsite component.
40% of all college students are more than 25 years old.
Li-Fi: Light Fidelity Developments

- Chinese scientists at Shanghai’s Fudan University have developed LED light bulbs with Wireless Internet connectivity based on visible light communications.

- Li-Fi may provide access to people who currently can’t access the Internet (Williams, 2016)
As Dr. Jill Buban explained, it is possible to provide an engaging lab environment in online and blended modalities. Specifically, through OLC’s Online Science Labs Mastery Series which, over the course of a series of workshops, provides participants with best practices in the design and implementation of virtual science labs.
Without being Engaged Academically, students will not be able to accomplish anything worthwhile educationally or be prepared for careers.

Without being Engaged Cognitively, students will not be able to complete academic assignments to their own satisfaction and thus will become emotionally disturbed, and unhappy.

Without being Engaged Emotionally, students will not retain learning.
When we asked academic leaders how administration & faculty can help, they told us:

- **Student Success**
  - **Pre-College Factors**
    - Institutional Conditions for Effecting Student Behaviors to Invest in Educationally Purposeful Activities
    - Institutional Conditions for Using Effective Educational Practices
  - **During College Factors**
## Results: Participants’ Teaching Modalities

83% of the participants have taught both onsite and online.

### Participant’s Teaching Modalities

<table>
<thead>
<tr>
<th>Teaching Modality</th>
<th>Total</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>174</td>
<td>100%</td>
</tr>
<tr>
<td>I Onsite only</td>
<td>9</td>
<td>5%</td>
</tr>
<tr>
<td>II Online only</td>
<td>21</td>
<td>12%</td>
</tr>
<tr>
<td>III Onsite and Online</td>
<td>68</td>
<td>39%</td>
</tr>
<tr>
<td>IV Onsite, Blended, and Online</td>
<td>76</td>
<td>44%</td>
</tr>
</tbody>
</table>

Total Number
Results: Student Success Based on Delivery Mode

68% see a difference in student success between online and onsite delivery modes; 32% see no difference or provide no answer

<table>
<thead>
<tr>
<th>Data gathering instrument</th>
<th>Performance gap</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Online survey</td>
<td>47</td>
<td>20</td>
</tr>
<tr>
<td>Interviews</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Direct e-mails</td>
<td>50</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
<td>56</td>
</tr>
</tbody>
</table>

(68%) (32%) (100%)
Results: Student Attrition Rates In Online Classes

63% of participants indicated that the attrition rates in their own online courses tend to be higher than in face-to-face classes

<table>
<thead>
<tr>
<th>Data gathering instrument</th>
<th>Students’ attrition rates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Higher Online</td>
<td>Higher Onsite</td>
</tr>
<tr>
<td>I  Online survey</td>
<td>46</td>
<td>8</td>
</tr>
<tr>
<td>II Interviews</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>III Direct e-mails</td>
<td>48</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>109 (63%)</td>
<td>28 (16%)</td>
</tr>
</tbody>
</table>
### Results: Why Do Students Fail in Online Courses?

<table>
<thead>
<tr>
<th>Major reasons (root causes) given by the participants (n=153*)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
</tr>
<tr>
<td>1 Procrastination and/or lack of time management skills</td>
<td>115</td>
</tr>
<tr>
<td>2 Lack of teacher-student interaction</td>
<td>80</td>
</tr>
<tr>
<td>3 Lack of self-motivation and commitment; not self-learners</td>
<td>64</td>
</tr>
<tr>
<td>4 Students’ attitude about online courses: many think online courses are much easier than onsite courses</td>
<td>60</td>
</tr>
<tr>
<td>5 Some students lack the needed characteristics to succeed in the online course environment</td>
<td>50</td>
</tr>
<tr>
<td>6 Other reasons students fail in online courses</td>
<td>15</td>
</tr>
</tbody>
</table>

*153/174 (88%) provided significant reasons
### Results: Reasons for Success Differences By Delivery Mode

Factors contributing to the performance gap between onsite and online courses (n=124*)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Freq.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students need teacher-student interaction</td>
<td>108</td>
<td>87%</td>
</tr>
<tr>
<td>2</td>
<td>The classroom atmosphere helps to motivate students</td>
<td>94</td>
<td>76%</td>
</tr>
<tr>
<td>3</td>
<td>Onsite classes are more structured</td>
<td>79</td>
<td>64%</td>
</tr>
<tr>
<td>4</td>
<td>The teacher is better able to identify and help struggling students</td>
<td>73</td>
<td>59%</td>
</tr>
<tr>
<td>5</td>
<td>Some students lack the characteristics or discipline to succeed in online learning</td>
<td>63</td>
<td>51%</td>
</tr>
<tr>
<td>6</td>
<td>Onsite students are more committed to learning</td>
<td>61</td>
<td>49%</td>
</tr>
<tr>
<td>7</td>
<td>No differences in online and onsite learning success</td>
<td>26</td>
<td>21%</td>
</tr>
</tbody>
</table>

*124/174 (71%) provided significant reasons
### Results: Reasons vs. Factors Contributing To Gap

*Listed in order of response frequency*

<table>
<thead>
<tr>
<th>Major reasons given for students failing online classes (n=135)</th>
<th>Factors contributing to the performance gap between onsite and online courses (n=124)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Procrastination and/or lack of time management skills</td>
<td>Students need teacher-student interaction</td>
</tr>
<tr>
<td>2. Lack of efficient teacher-student interaction</td>
<td>The classroom atmosphere helps to motivate students</td>
</tr>
<tr>
<td>3. Lack of self-motivation and commitment; not self-learners</td>
<td>Onsite classes are more structured</td>
</tr>
<tr>
<td>4. Students thinking online courses are much easier than onsite courses</td>
<td>The teacher is better able to identify and help struggling students in onsite classes</td>
</tr>
<tr>
<td>5. Students lacking the needed characteristics to succeed in the online environment</td>
<td>Some students lack the characteristics or discipline to succeed in online learning</td>
</tr>
<tr>
<td>6. Other reasons</td>
<td>Onsite students are more committed to learning</td>
</tr>
</tbody>
</table>