Faculty Perspectives on Narrowing the Success Gap Between Online and Onsite Learning

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Abstract  
With growth in enrollment in online courses at the university level, the quality of those courses is coming under increased scrutiny. This study surveyed faculty with experience in online, onsite, and blended courses to identify factors most likely to impede student success in online courses as well as strategies to improve online courses. The most common responses for why students might find online courses more challenging focus in the areas time management, student-teacher interaction, and motivation. The strategies for improving student success in online courses fall into the categories of assignments, teaching strategies, and training for both faculty and students. Steps for students to take before enrolling in an online course and tips for faculty who want to teach online courses for the first time are also included as appendices.

Keywords: Career orientation; Factors; New generation; Turkish human resource.

1. Introduction  
The expansion of online course offerings in higher education is undeniable. The proportion of students who take at least one online course in higher education was (in 2014) at the highest point in history at 33.5%. By the end of 2015, the number of students taking at least one online course was up by an additional 3.9%.

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mentioned most frequently as the root cause behind student failure at the college level by faculty respondents. Students are not ready for college, lack of effort, and lack of motivation and interest among students are mentioned most frequently as the root cause behind student failure at the college level by academic leaders. In summary, lack of motivation and interest among students was mentioned by the three groups of stakeholders as the critical root-cause factor in why students fail courses and college. Furthermore, motivation and study habits, as well as academic readiness and student attitudes (which are mentioned first, second, third and the fourth most frequently by students) are fundamentally under the control of the students. (Cherif et al., 2015)

Having heard clearly from the stakeholders, the question becomes: “Why do online students fail?” When considered in this specific delivery mode, would stakeholders share the same overarching reasons found in previous studies or would there be a different set of causes? More importantly, would the strategies to improve student outcomes differ when the focus is on the online delivery mode? Is there a gap between students’ success in online classes compared to onsite delivery of similar course material? And if so, how can that gap be closed?

2. The Research Study

Survey feedback and interviews using a set of questions focusing on “Why Do Online Students Fail and How to Narrow their Success Gap” were conducted with a total of 174 faculty members from both two-year and four-year institutions who had taught onsite and online courses. The survey posed three main questions to the respondents in the online survey and in the direct targeted e-mails, while in the personal interviews included an additional eight, related questions (Table 1). Of the 174 faculty participants in the study, 28 (16%) shared their views through face-to-face or telephone interviews; each for 45-85 minutes. Furthermore, collectively, 83% of the participants have taught both onsite and online courses. On the other hand, 12% of the participants indicated that they were only teaching online courses. Only 5% of the participants had never taught fully online courses, but only onsite and/or blended courses. However, all of them stated that they were aware of and well informed about the online modality from their colleagues, academic administrators, or through the professional literature.

<table>
<thead>
<tr>
<th>Questions asked and discussed</th>
<th>Questions asked of all the participants</th>
<th>Questions asked during personal interviews only</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Which modalities you have been using in teaching your courses?</td>
<td>1 Based on your own experience of teaching online and onsite courses, if you have the choice to select to teach only in one modality (onsite or online), which one would you select to teach in and why.</td>
</tr>
<tr>
<td>2</td>
<td>Why do online students fail online courses?</td>
<td>2 Given all things being equal except the teaching modalities, in which modality do you think you are spending more time and energy in preparing for and in teaching your courses?</td>
</tr>
<tr>
<td>3</td>
<td>If you have taught both onsite and online classes, and you saw a difference in student success in each delivery mode, to what do you attribute the differences?</td>
<td>3 Given all things being equal except the teaching modalities, in which modality do you think your students were spending more time and energy in preparing and learning the course materials?</td>
</tr>
<tr>
<td>4</td>
<td>Based on your own experience of teaching online and onsite courses, do you think we should have restrictions on what students should be allowed to enroll in online courses, or offer preparatory training for students before they take online classes?</td>
<td>4 Based on your own experience of teaching online and onsite courses, do you think all type of courses and topics are suitable for teaching through an online modality?</td>
</tr>
<tr>
<td>5</td>
<td>Based on your own experience of teaching online and onsite courses, do you think the assessment mechanisms and techniques that have been used in onsite delivery can also be effective in the online environment?</td>
<td>5 Based on your own experience of teaching online and onsite courses, do you think the assessment mechanisms and techniques that have been used in onsite delivery can also be effective in the online environment?</td>
</tr>
<tr>
<td>6</td>
<td>From your perspective, what is the future of online education?</td>
<td>7 From your perspective, what is the future of online education?</td>
</tr>
<tr>
<td>7</td>
<td>What type of advice would you give to an institution which just decided to start an online education program?</td>
<td>8 From your perspective, what is the future of online education?</td>
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3. Results and Findings

3.1. Why do Students Fail Online Courses?

Of the 174 faculty members who participated in this study, 153 (88%) of them answered this question and provided one or more reasons for why students fail online courses. The remaining 21 (12%) either stated that reasons students failed in online courses were the same reasons that they failed in onsite courses (8%) or provided no clear answers (4%).
Table 2 below shows the reasons provided by the 153 respondents for students failing online classes. *Procrastination and/or lack of time management skills* was mentioned most frequently (115 responses or 75% of the total) as a root-cause factor leading to students failing online classes. *Lack of teacher-student interaction*, was mentioned second most frequently as a root-cause factor (80 responses or 52%), and *Lack of self-motivation and commitment; not self-learners* was mentioned third most frequently (64 responses or 42%) by the participants. Participants also observed that problems for students may arise because *Many students think online courses are much easier than onsite courses* (60 responses or 39%) and *Some online students lack the needed characteristics to succeed in the online course environment* (50 responses or 33%). Collectively, all the other mentioned root-causes for students failing online courses were present in only 15 responses (10%) of the total.

<table>
<thead>
<tr>
<th>Major reasons given for students failing online classes (N=153)</th>
<th>Total</th>
<th>Times mentioned</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Procrastination and/or lack of time management skills</td>
<td>115</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>2. Lack of teacher-student Interaction, not self-learners</td>
<td>80</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>3. Lack of self-motivation and commitment</td>
<td>64</td>
<td>42%</td>
<td></td>
</tr>
<tr>
<td>4. Many students think online courses are much easier than onsite courses</td>
<td>60</td>
<td>39%</td>
<td></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>
<td></td>
</tr>
<tr>
<td>6. Other reasons students fail in online courses</td>
<td>15</td>
<td>10%</td>
<td></td>
</tr>
</tbody>
</table>

3.1.1. If You Have Taught Both Onsite and Online Classes, And You Saw a Difference in Student Success in Each Delivery Mode, To What Do You Attribute The Differences? Specifically

3.1.1.1. Did You See a Difference in Student Success in Each Delivery Mode?

Over two-thirds of the participants (68%) see a difference in student success in online compared to onsite delivery, while one-third of the participants perceived no differences or provided no answer (32%). Furthermore, while 21% of the participants saw no significant difference between onsite and online deliveries in their students’ performances, 63% indicated that the attrition rates in their own online courses tend to be higher than in face-to-face classes.

3.1.1.2. To What Do You Attribute the Differences in Students’ Performances?

As shown in table 3 below, “Students need teacher-student interactions” was the most frequently mentioned contributing factor for the performance gap (87%); these respondents all stated that students need interaction with teachers in order to be successful. The need for student-faculty interaction was also mentioned as a root-cause factor by 75% of the participants (Table 2). The lack of the physical nature and intellectual support of the classroom atmosphere for online students was mentioned second most frequently as a contributing factor for the performance gap (76%) between onsite and online. The lack of the needed personal characteristics or discipline to succeed in online learning was fifth most mentioned root-cause factor (33%) and contributing factor for the performance gap (49%).

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

3.2. Student Personality Characteristics

Students lack the characteristics to succeed in an online class was listed as the fifth most frequently mentioned root-cause factor in online course failure (33%) and a contributing factor for achievement gap (51%) between onsite and online students. Many participants mentioned that online students need to be independent, dedicated learners and have the ability to learn on their own. However, the participants indicated that most of their online students either lack or are not able to demonstrate these personal characteristics.
More than 2/3 of the participants agree that “online education” is not suitable for every student. Some of those who fail don’t have the characteristics that are needed in order for them to succeed in an online learning environment, including self-motivation, responsibility, ability to initiate communication and conversation with other students and teachers, as well as to engage and initiate engagement, etc. One instructor said there were a “variety of reasons the student cannot overcome subject matter deficiencies; family/work dynamics and conflicts, student self-esteem struggles; etc.” that could be better dealt with in an onsite class environment.

Other respondents listed a variety of examples, such as: challenges with technology, lack of necessary study skills and habits, lack of self-confidence and reluctance to ask for help, lack of self-discipline and organization, lack of structure in online courses, lack of self-motivation and responsibility, and failure to search for and use online resources when needed.

However, most of the respondents indicated that when it comes to the lack of characteristics necessary to succeed in a technology-based online course, the fault fell partly on the college more than the students. They explained that since not every student can succeed in an online learning environment, the admissions offices in colleges and universities that provide online courses need to understand this and must be selective in admitting students to programs with significant online curricula. If selectivity is against the institution’s policy of accessibility, they must ensure that students are aware of what it will take to succeed in online curricula and what characteristics they should possess as students. Furthermore, some faculty respondents recommended offering a free course on how to navigate and succeed in the online learning environment, for students to take as part of the admission processes and student recruitment strategies. A course like this could help reduce students’ anxieties, especially for those who taking online classes for the first time.

In addition, some participants suggested that admissions offices and academic advising centers should become enabled to evaluate whether the students who come to their offices possess the qualities needed for success in the online learning environment. If they don’t see these signs during interaction with potential students, they should advise them to focus on onsite courses or at least bring this issue to students’ attention. In this regard, the responsibility as educators, college administrators and academic leaders is to help students discover whether or not they have these characteristics, and if not, how those characteristics can be developed successfully.

Lack of self-motivation and commitment; not self-learners was mentioned third most frequently by the participants as a decisive root-cause factor in the failure rate for online students (42%).

As one faculty member summarized, “Online classes require a lot of independence and self-motivation, which not all students have. You need to be motivated and self-learner to make it in the online world.” Many others used only a few words, such as; “lack of focus, lack of commitment, lack of engagement, lack of commitment to working as long as it takes to master the content, and lack of dedication” to describe this problem. A few respondents said it was lack of effort: “Once students have problems they often stop trying rather than using the resources available and putting in the time that's necessary to succeed.” Another instructor said motivation was the problem. “I think it is easier to put off homework etc. when students are not in the classroom.”

One instructor summed up the difficulty for online students as follows: students need to be active in the course at least every other day. Otherwise, when problems like internet access, work commitments, or other personal issues come up, they fall behind. And when they do, they lose interest or become reluctant to ask for help. Another instructor, who teaches the same course both online and onsite, mentioned that he was astonished not only with the number of excuses, but also with the sophistication of the explanations that online students have been giving him for missing assignments in comparison to his onsite students. He suggests that it is more difficult to fabricate excuses when students know that they are going to see their professor face-to-face.

More than half of these respondents blamed online students themselves for their failures. They said that:

(i) Most students failed to “understand the dynamics” of online learning.
(ii) They did not understand the time requirements for success.
(iii) They did not take the course seriously by accepting responsibility for their own learning.
Participants also stated that online students tend to:
(i) Study and read less than traditional students.
(ii) Not see the same rigor in their courses compared to onsite students.
(iii) Not have the same level of persistence, effort, and motivation.
(iv) Not answer questions or not have anything meaningful or relevant to share when teachers communicate with them online or by telephone.

Additional root-cause factors and contributing factors mentioned by the participants include the following.
(i) Onsite students are more committed to learning was also the sixth most mentioned as contributing factor (49%) for the achievement gap.
(ii) The participants felt that online classes require a lot of independence and self-motivation, which not all online students possess.
(iii) Procrastination was cited as a major reason for failure for online students since factors like unreliable Internet access, work commitments, and family and personal problems cause students to fall behind.
(iv) Online students were also described as studying and reading less, not understanding the requirements of the course, and not displaying the same levels of persistence, effort and motivation.

3.3. Instructional Strategies
Lack of efficient teacher-student interaction, was second most frequently mentioned (52%) by the participants as the reason why students failed online courses. It was also the most frequently mentioned (87%) contributing factor
for the achievement gap between onsite and online students. While the nature of the online versus onsite modality was accurately described as different, the type and quality of the interaction between teacher and students matters the most in students’ success regardless of the delivery modality. But the participants stated this is especially true for online students.

One can feel the underlying frustration in many of the participants’ comments. Many stated outright that students are failing because they “lack meaningful interactions with classmates and especially with their professors.” They felt that the face-to-face interaction allowed them [instructors] to “understand students’ level of understanding,” as well as student frustrations and adjust accordingly. Therefore, they could “recycle material” when necessary and could give students encouragement and provide positive feedback in a more effective manner than in a “time delayed” online venue. Also, as many others pointed out, “onsite students get more mentoring and tutoring support because they are dealt with in real time rather than asynchronously.” A few others added that enthusiasm was easier to promote in the classroom, and that compelling students to undertake difficult tasks was also easier face-to-face.

Most of the participants who responded to this question stated that many online students don’t bother to communicate with their instructors or classmates on a regular basis. Those who do communicate still lack meaningful interactions with classmates and professors. The participants attributed this to students’ characteristics by saying that many of the online students are not truly independent, dedicated learners and lack the ability or motivation to learn on their own.

The design and the structure of the online courses was mentioned as part of the problem. As one participant summed it up, life distractions and boredom were more serious for online students:

Courses become a dull routine - log in, post, do an assignment, post again, repeat each week. In online courses, students don’t encounter surprises, unexpected requests and assignments, or thinking out of the norm, that make them not only to base and pay attention, but also to re-think. Routines bring with them laziness, and boredomness which leads students to procrastination and do things without much thinking, time and efforts. The student’s mind must be engaged and they must be helped to see value in what they are learning so that they WANT to Learn, not just “get a grade.” This is harder to do in an online course, and honestly, rests more on the faculty member’s personality and dedication than it does on the course content. Students may feel more alone.

Other participants added concerns about the accessibility of assistance with the subject matter of courses. Onsite, students may be able to enlist the help of a staff member, a professor (even if not their own professor) or an upper-class student or a crafty classmate. The onsite students may be more supported in their courses; in other words, online students do not get the same level of intellectual support as do those in an onsite or blended class.

A few other participants explained that it is “more difficult to give positive encouragement,” in an online course, and it is hard “to let them know they are not the only one who is having trouble with the material.”

Another faculty participant mentioned that in her college, they tried a peer tutoring approach; while it was very successful with onsite students and classes, it didn’t work with online students and classes with the same success rate.

However, while the nature of online and onsite modality is definitely different, it is the type and the quality of the interaction between teacher and students which matters the most in students’ success regardless of the delivery modality. Student-student interaction is also an essential ingredient in most students’ learning and success. Yet, by its nature, this kind of interaction is more common in the onsite learning environment than the online learning environment. One instructor mentioned that she has been experimenting with providing a grade incentive for students who demonstrated interacting with 10-12 other classmates on class learning materials. While she admitted that she doesn’t have real data to help her make a decision whether or not it is working, she did see increases in the traffic and communication between students and other students, as well as students with the instructor.

In short, a number of study participants recommended that a different pedagogical approach or course design might be needed for teaching and learning for the online learning environment.

Classroom atmosphere helps to motivate students was the second most mentioned contributing factor for performance gap by the participants (76%). Those respondents said that the classroom atmosphere itself helps motivate students. In class, everyone is there for (mostly) one purpose, to learn. There are too many distractions for students when they are online. Another group said that peer pressure gave “more impetus to succeed” in class where competition could affect motivation. A few other respondents thought the classroom was more comfortable simply because there is a psychological advantage by being in the classroom. The entire classroom setting “puts the student in a greater mind frame to learn since this is the way we are accustomed to learning since grade school.”

Several said that just sitting in the classroom with other students allowed for student interaction and different methods of learning not available online. As a few participants mentioned, it is easier to motivate students and get them engaged when you have them in front of you, meaning in the classroom. It is the same for the students; it is easier for them to be engaged when they are sitting side-by-side with their classmates and with the instructor.

Finally, as one instructor explained, in a real classroom, there are various methods of teaching and learning that are not yet “fine-tuned” to be efficient and/or available online, such as group learning, hands-on learning, laboratories, and the interactions of teacher-student and student-student.

Onsite classes are more structured was the third most mentioned contributing factor for performance gap by the participants (64%). While many respondents alluded to the lack of structure in online courses, some came right out and stated it clearly as a disadvantage. The participants clearly stated that they think “the differences in success can
be attributed to a lack of preparedness and a need for a more structured learning environment.” Others added that an onsite instructor can stress the importance of organization, while a few more said that online students have poor time-management skills, which in a structured classroom setting can be dealt with face-to-face. One faculty respondent stated that “Onsite, the instructor can motivate and stress the importance of study, reading, [and] organizing.” In summary, one teacher averred that, “contrary to what many others believe, onsite courses are highly structured in comparison to online courses.”

The teacher is better able to identify and help struggling students was the fourth most frequently mentioned as an advantage of onsite classes among the respondents (59%). These instructors hold the belief (often but not always supported by the facts) that the majority of colleges and universities put more students into online classes than onsite classes. They stated that this makes it harder for teachers “to learn how students think in an online class, so [it is] harder to make a connection.” This often precludes effective online and face-to-face interaction that would allow teachers to recognize when students are falling behind, not completing required work, and eventually failing.

Participants who answered this question also stated that onsite students simply get “more mentoring and tutoring support” because the teacher can see when they need it or the student can ask for help. As one teacher said, “If recognized early enough, a professor can reach out and perhaps build student confidence or interest in an early intervention and get them back on track.” Another stated, “In the online setting, with no scheduled required meetings, it can be difficult to influence the students who fall behind in their participation.” Teachers can email students and send them support, but the student has to take advantage of that support. Many other participants also repeated this sentiment in different ways; “As faculty members, we're able to interact with the students in a face-to-face environment and see where they're having problems and help them through those problems. Doing so is much harder online.”

A few participants alluded to the perception that online instruction doesn’t give the same opportunities for teachers to really engage in self-reflection on their own teaching practices and use the reflection process to get better at what they do.

Additional ideas mentioned by the participants related to Instructional Strategies include the following suggestions.

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

(ii) Online students should be required to attend an orientation or “screening” class to determine if they are a good fit for online learning.

(iii) Structured Course Design, Modules, and Reminder Announcements and Emails were suggested to assist students with time management challenges.

(iv) Engaging strategies were noted as useful to increase student interest and participation (synchronous chats, videos, introductory discussion boards)

(v) Student-student interaction techniques including discussion boards, group projects, peer review could increase engagement and participation

(vi) 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.

Other reasons students fail in online courses (10 responses or 10%)

Other reasons mentioned by the participants included the following: not reading announcements and emails on time, not completing assignments on time, lack of grit (for math and technical classes), poor participation, negative attitudes towards the course subject matter, low ability, and the inability to recover after falling behind. Several study participants indicated that online classes were too large to get individual help and personal attention.

3.4. No Differences in Onsite and Online Learning Success

About 21% of respondents held a different view regarding online students’ success or failure. These participants stated:

(i) Delivery mode does not influence student success.

(ii) The instructor has the same impact in all delivery modes.

(iii) Life challenges and priorities impact both online and onsite students.

(iv) Students in all delivery modes fail to communicate with instructors and disappear from class and the instructor’s ‘radar’.

Because of this, the respondents stress the need to educate instructors and academic leaders on ways to assist all students regardless of delivery mode.

Finally a few participants described advantages of both learning venues. They indicated that some students needed the “accountability and physical presence of an instructor to be successful”, but that the online venue also had advantages including flexibility. A working or career-minded student could work at his/her own pace and had the flexibility to do that work whenever or wherever as long as it was completed by the required date. For others, it gave the flexibility to progress or review concepts at his or her own pace, something not generally possible in a traditional classroom.

Several respondents thought the problems in learning were not related to the venue, but to the time students had “to prepare and study for the concepts. Most of the time students are not successful due to other life obligations.” Another problem could be lack of interest. As a few participants explained, even in onsite courses, students can fail. If their instructor and the material don't hold their attention, they become easily distracted by other life priorities and
they postpone what they are most afraid of, so they don't turn in work and don't communicate with their instructors, and after a time, they “disappear.”

However, three respondents alluded that both online and onsite students had the “same problem of not paying attention or not getting all the course work done.” One respondent said her results had been a little mixed:

It varies with 100% online semesters. I have experienced having the online section of a course I teach onsite also do better. If I end up with a large number of procrastinators in the online section, I see more there. However, those that complete the work in a consistently regular basis do better in either setting. In May 2015, 100% of my campus students successfully completed their course and 95% of my online students successfully completed their course. This is not a particularly significant difference. If anything, it is the weekly face-to-face contact that seems to make a difference.

There was one respondent who only taught in one venue and another who admitted there was a gap in success between onsite and online learning, but that the reasons for this gap could be resolved “with special pedagogical training and technology.”

3.5. Ideas and Recommendations for Narrowing the Achievement

3.5.1. Gap Between Onsite and Online Courses

This study identified and generated numerous ideas and recommendations for narrowing the achievement gap between onsite and online students. These ideas were either recommended directly by participants based on their own teaching experiences or came about as a result of the discussion and the analysis of the participants’ responses and feedback supported with literature reviews. Some of these ideas and recommendations are presented in the following section. However, for those who would like to have all the ideas and recommendations, they are encouraged to communicate directly with the lead author.

4. Analysis and Discussion

With the main reasons identified, specific suggestions and ideas can be shared for the areas of assignments, course structure and teaching, and training for both students and instructors.

4.1. Assignments

4.1.1. Onsite Component of Online Classes

Independently, four instructors have been using the following approach successfully in their online classes with minor differences. From the first week, on a specific day and time, their students agree to meet for 3-4 hours twice a semester to join a live conference call and/or video call. When the day and the time are identified and agreed upon, every student should sign and commit himself or herself to be there. Students were also told that there would be two grades which each student could get; one for attending, and one for the learning activities based on student’s academic performance and reciprocal communication with peers and instructor.

4.1.2. Test Your Knowledge: Know it, Use it, Interpret it, And Bring it Home

One instructor adopted the strategy of having her students answer several textbook concept questions two days before the next class session or lesson. After implementing this strategy for a few semesters with online and onsite students, the faculty noticed that the student’s performance and the quality of their work has improved in comparison to classes before using this strategy. The instructor also reported that missing assignments and weekly posts, and the tendency for procrastination among her online students started to decrease significantly by the beginning of the third chapter onward. While the improvements cannot be definitively attributed to the questions, the strategy has been working for the class. Students in both online and onsite classrooms not only ask and post better questions, but also seem to come prepared, improving the quality of classroom and online discussions.

4.1.3. Use Student Polling

In his recent article, “5 Ways to Use Student Choice to Improve Learning” (Armstrong, 2017), wrote that “Teachers are increasingly using free or low-cost apps for mobile phones and tablets to gauge student opinion on a variety of topics or to glean responses to content-related questions and issues, such as Poll Everywhere, LocaModa, Socrative, The Answer Pad, ClassPager, and even Twitter. Such technologies provide students with immediate feedback on their peers’ opinions, get them to think more deeply about an issue, and may even prompt them to revise their views once they’ve heard other points of view” (¶.5).

4.1.4. Field Study Assignments and Civic Engagement

One instructor has taught online sections of an environmental science course for a number of years. She often has students from various cities and states in the U.S., along with students from other countries. To ensure student’s engagement and interaction, she has developed a set of strategies, including field study assignments.

She uses Google Map to review where a given student lives, and identifies parks, rivers, lakes, seas, oceans, dams, industrial facilities, forests, shopping malls, oil and natural gas wells, oil refineries, mineral and coal mines, windmills and wind generators, nuclear power plants, and even gas stations. Based on her findings, she designs specific field study assignments for each student and relates the assignments to concepts being taught in the class.
Students must create either a short video or provide several photos showing themselves conducting the study and/or explaining the findings from their chosen location. Online, students then need to present their work and lead an online discussion about their findings. Questions to the presenters are part of everyone’s grade, in addition to their own presentation. Students enjoy seeing the same type of ecosystem in various parts of the world, and the fact that one or more of their classmates are reporting to them from there.

4.1.5. Tasks of Collaboration with Peers in Online Learning Environment

Design and integrate collaboration with peers as a component of some tasks in the online learning environment. Research has shown that online assignments whose completion requires some form of collaboration with peers help boost learning compared with environments that have no components of collaboration (Hart, 2016).

Educators always need to keep in mind that learning is a social event, built on relationships, reciprocity and trust, even when it’s personalized (Cleland et al., 2016). This means that in order for students to acquire meaningful understanding and lasting mastery of learned concepts students need a degree of social interaction with their peers, their teachers, or the world around them. In fact, (Vogt, 2016) argued “meeting the individual needs of a student actually requires and depends upon a strong degree of social interaction.”

A group of advocates of project-based learning (PBL) have started to push for and promote the use of PBL in online learning environments. This is because, in order to succeed and in turn learn through the PBL approach, students must engage in and practice social skills like collaboration, communication, commitment, self-responsibility, accountability, and interacting with peers, others and the world around them. It also forces students to figure out how their own individual learning goals fit within and are advanced by their engagement with their peers, teachers, others, and the world around them (Movahedzadeh et al., 2012; Vogt, 2016). However, since today’s students prefer to work on things that matter so they can make a difference (Oblinger, 2007), instructors need to select and design PBL activities on and around topics that are relevant to both students and the communities in which they live.

4.2. Course Structure and Teaching Strategies

4.2.1. Integrated Onsite Components with Online Courses

Fully online courses and programs with occasional onsite components have become popular in higher education. The most successful online courses in the areas of nursing, sciences, and related fields are those which also have hands-on experience by offering primarily online courses but with a component on campus as well. This is simply because there are certain techniques that you cannot see clearly even on video, and thus you need to be there to practice them and also see how others conduct them to learn from their success and failure. In addition, for these types of skills, having a professor critiquing up close is an added advantage for being there in person. University of Texas—Tyler’s hybrid family nurse practitioner program, is a good example. Another example is University of Central Florida, the Masters and Doctorate of Nursing Practice tracks (Friedman, 2016c); these are online programs with hands-on experience offered at specific time and locations; where all the students come for face-to-face hands-on learning experience.

4.2.2. Effective Online Course Design

More than 2/3 of the participants in this study perceived course design as one of the cornerstones in the improvement of online education. While many of them didn’t provide clear ideas on how, and what, they assert that the existing forms of online course designs are not helping and new alternatives must be found.

Proposal for principles for good practice in effective online course design to assist students’ success at undergraduate education, has been around for a number of years e.g., (Chickering and Gamson, 1991; Chickering and Ehrmann, 1996; Crews et al., 2015; Guidera, 2004). The proposed of course designs consist of:

(i) Encourage contact between students and faculty
(ii) Develop reciprocity and cooperation among students
(iii) Encourage active learning
(iv) Give prompt feedback
(v) Emphasize time on task
(vi) Communicate high expectations
(vii) Respect diverse talents and ways of learning

4.2.3. Elements of Surprise

Some of the participants thought the keys to solving procrastination witnessed among online students might reside in course design, weekly structured assignments, and course management. The element of surprise, the unexpected, or thinking out of the norm, is often missing in online courses. Furthermore, the easily available “canned courses” tend to be more routine oriented, increasing the problem of student engagement, student-student interaction and student-teacher interaction. A more inconsistent course structure with varied assignments might decrease the tendency for procrastination.
4.2.4. Teaching Onsite and Online of the Same Course in the Same Semester

Institutions could require faculty who teach onsite to also teach the same course(s) online in the same semester. This approach has been found to be very useful for faculty to use what they encounter and learn in their onsite classes to enhance their online classes and vice versa.

For example, Professor Matthew, who is also a medical doctor teaches Human Anatomy and Physiology to nursing students both onsite and online. He arranges for his onsite lectures and lab sessions to be recorded and directly aired for his online students who would like to join them digitally especially during the lab parts. In every lab session, he selects one group of students in his onsite class and arranges them in a way that they will be exposed clearly and directly to a camera while they are conducting their lab assignment; not only what they are doing but also the way they interact with each other and the type of conversation they have related to the lab among the members of the group. Dr. Matthew found out that those online students who took the opportunities and joined his onsite classes and lab digitally performed much better academically than those online students who didn’t avail themselves of the same opportunities.

4.3. Training for Faculty and Students

4.3.1. Reliable High Quality Technical Support System

Availability of reliable and high quality technical support is very critical for the success of online students. It is not enough to say that there is 24/7 support, but the type and extent of support and how reliable it is, is important for students’ success. Furthermore, the support is needed not only for students but also for faculty, academic advisors, academic support staff, librarians, and the IT personnel themselves. The technical support would also need continuous support and professional training not only in their career area, but also in the rapid development of digital technology and communication related to the university’s academic responsibilities and initiatives.

4.3.2. Communication and Personal Connection with Student

As Weimer (2016) recently wrote, in today’s instruction, the syllabus is often posted on the course website even before the class convenes, a written and perhaps more impersonal first communication. Most faculty communication with their online students is in written forms. Faculty should be trained in how to effectively communicate while adding a more personal touch to these communications.

But beyond this explicit information are other, more subtle messages. They are conveyed not as much by what we say as by how we say it. Without the benefit of tone, facial expressions, and other nonverbal cues, written communication creates new challenges for establishing a positive learning environment. Several parameters guide our written communication with students. We need to be polite, and most of us are. We need to be professional, and most of us don’t have a problem with that either. But we also a need to be personable. There’s all sorts of evidence that creating personal connections with students has a positive effect on learning experiences, but how much thought do we give to making those connections in writing? (Weimer, 2016).

Since online students don’t have the opportunity to meet with their instructor face-to-face, how to communicate effectively is a critical factor in student’s success. Therefore, simplicity, focus, clarity, and understanding are essential components of effective communication, that instructors must be aware of and apply at all times. Focusing on what is the most important requires clarity, and clarity requires understanding, and understanding requires depth and breadth of knowledge at both academic discipline, pedagogical instruction, and human personalities and how they learn. Thus, using (Calloway, 2016) phrase, “Keep It Simple” through focus, clarity and understanding. Furthermore, effective communication requires instructors to listen, read, and understand everything their students say or write to them carefully. After all, as professor (Goralski and Gorniak-Kocikowska, 2013) explained, listening is as important a part of successful communication as speaking or perhaps even more so, however, this rarely has a direct impact on the process of communication.

4.3.3. Preparing Faculty to Teach in an Online Environment

Previous research (Marek, 2009; Wolf, 2006) suggests that in their first semester newly hired faculty should be asked to teach only 50% of the customary teaching load. The other 50% of their accountabilities should be used to take two courses: one on how to teach online courses and one on how to teach blended-learning courses. In the following semester, 75% of the faculty accountability should be in teaching courses, and the other 25% should be in taking a course on how to teach courses of different modalities in the same semester. In the following semesters, each faculty should teach in more than one modality in a given semester at least once a year (Cherif et al., 2014).
4.3.4. Helping Students Correct Their Misconceptions About Online Courses

A useful approach to changing the mistaken perceptions of students who think online courses are easier than onsite courses, is for the instructor to share with their students on the first day or week of the class how much time, energy, and effort they, the instructor, spend on preparing and teaching online courses in comparison to onsite courses. Then use this fact as starting point to bring to their attention that students in the online learning environment need to devote more time, energy, and effort as well in order for them to succeed. Emphasize that it is false to believe that online courses are easier than onsite courses.

4.3.5. Mentors for Online Students

Every first-time online student should be assigned a mentor who can help them identify their strengths and create a successful study plan for accomplishing goals. Specifically, the mentor needs to:

- Suggest strengths, point out weaknesses and show how to use strengths to overcome and improve weaknesses.
- Create a successful study plan.
- Offer advice for connections related to subject matter, time management, and study habits, etc.
- Give advice based on personal concert examples and experience.
- Push the student to succeed.
- Inspire the student by sharing and showing personal experience for success and overcoming obstacles.

4.3.6. Student Mindset Toward Online Courses

An orientation program designed specifically for online students might help to better set the expectations for the rigors of online studies. These programs should include time management and technology skills.

Several participants in the study mentioned that they distribute a table such as the one below to their students one week before the start of the class. According to those instructors, there appears to be a correlation between those whose Time Available, Time to Study, and Best Time to Communicate, are all within their Time Devoted for the Class. Students whose identified Time Available, Time to Study, and Best Time to Communicate, don’t match their identified Time Devoted for the Class often perform poorly in the class.
Orientation might also include a type of short course or training workshop that should focus on how to search and identify quality information in a specific discipline. This means students might need to take such a workshop every time they decide to take a course in a different academic discipline. With such tools available for students, they will not only feel confident in learning, but also feel that a new world of opportunities has opened up for them for ensuring success and increasing productivity.

It has been found that preparing and conducting free workshops on taking and succeeding in the online learning environment that can be offered one or two weeks before registration in each session does greatly assist in easing the transition of students into online learning. This is simply because they help students gain the study skills and confidence required for success not only in the online learning environment, but in higher education in all disciplines (Thalluri, 2016).

5. Conclusion and Final Remark

An undisputed reality is that online education is here not only to stay but also to flourish and expand. This is simply because:

1. While enrollment in higher education is declining, the enrollment in online and distance education is rising.
2. Colleges and universities have started to look at distance education as a necessity, not only for financial stability and academic development but for survival.
3. The technology that is needed for continuous improvement in delivering academic content and for learning efficiencies has been rapidly advancing.
4. Today, more than 40% of all college students are more than 25 years old. This makes the percentage of non-traditional college students very high. While traditional college students are content-centered, the non-traditional students are more often learner-centered, learner-self-directed, and problem-centered. Learner-self-directed, and problem-centered are among the desirable traits that online learning requires for student’s success. In other words, traditional college students are considered pedagogical students, the non-traditional college students are considered andragogic students.
5. A growing number of college students use YouTube and other web-resources on their own to learn intended subject matters without even being asked by their professors.
6. The number of instructors and academic administrators and leaders who disfavor distance and online education has been declining for a number of reasons; older, more traditional academics are retiring and being replaced by a generation of younger faculty members and academic administrators who are more open-minded to the role of technology in education. They also don’t share the same biases as the older generation on the disadvantages of online education.

5.1. Desirable Students for Online Modality

When asked, “What type of students are needed for success in the online learning environment?”, the answer is simple. Active learning starts with students’ effective engagement. Students who are motivated, confident, and self-directed learners are most likely to succeed in the online learning environment. Unlike in the onsite learning environment where the teacher can assess each student’s situation and provide the means to motivate and engage the students in the learning activities, in the online learning environment, the students must be self-motivated and self-directed so they can, on their own, not only access the course shells and stay there as long as needed, but also initiate conversations, and keep them going by engaging with both the instructor and classmates. Clarity, context, challenge, and culture are essential keys for real students’ engagements (Zmuda and Jackson, 2015).

5.2. Course Design and Content

Creating course-content engagement and effective student partnerships with classmates and instructor are a must for students’ success in online learning. Without students being willing to engage in continuous communication, instructors cannot get to know the online students’ real needs and be able to successfully develop differentiated instruction for each student or group of students that help them to learn and succeed. Through fully engaged communication, the instructor can discover students’ unique qualities and potential learning needs and thus be able to design differentiated learning assignments and assessments that give each student informative potential pathways toward success.

More than the face-to-face learning environment, the online education and learning environment needs reflective learners who are able to decipher their own learning needs and able to elicit evidence from their work to support their growth and learning. Students who are able to set actionable learning goals and use a variety of tools, approaches, and strategies to chart and reflect on their own learning assessment and learning progress are most likely
to succeed in the online learning environment. Because of this, it is important to discern how to identify and activate students’ unique aptitudes, abilities, competencies and talents that are helpful for students to learn in the online learning environment. Then, courses and lesson plans should be designed that engage and reward these students by helping them go beyond a surface understanding of the learning materials and see the connection between what they are learning in a course and their ultimate learning goals (Jackson, 2010; Jackson and McDermatt, 2015).

5.3. Learning Assessment and Student Performance

Cheating 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 the online learning environment, it is a more challenging problem for online learning assessment. Thus, assessments and grading should be devised and implemented for online learning that genuinely reflect students’ learning and progress toward specific learning outcomes, not only mastery of content but also the ability to be creative critical thinkers and problem solvers (Vatterott, 2015). And since active learning starts with students’ effective engagement, assessment should be about advancing the learning process and must be used as a learning tool as well.

Finally, instructors should be not only competent in their subject matter and in technology (both in self-use and in the teaching and learning setting), but also as professor Rob Jenkins convincingly argued, who are good-natured, professional without being aloof, have a good sense of humor, enjoy what they do (teaching), are demanding without being unkind, comfortable in their own skin, tremendously creative and innovators, and make teaching look enjoyably easy (Jenkins, 2016).

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**Appendix A**

**Ten Steps for Students to Take Before Enrolling in an Online Course**

**Determine if you are a good fit for an online class**

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 self-motivated, self-driven person who wants to learn, and is willing to go the lengths necessary to do so?
- Willing to initiate conversation and communication with new people who you have just met?
- Someone who possesses effective time management and is rarely known to procrastinate?
- Someone who never gives up easily under pressure, is persistent and persevering through the pressure?
- 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>A self-motivated, self-driven learner?</td>
<td>Yourself One of your Parents Close Friend Sibling or Cousin Student Know You Know Faculty You Know Total Points</td>
</tr>
<tr>
<td>Willing to initiate conversation and communication with new people who you just met?</td>
<td></td>
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<tr>
<td>Has no tendency to procrastinate and possesses effective time management?</td>
<td></td>
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<tr>
<td>Won’t give up easily under pressure, instead</td>
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<td>Has no tendency to procrastinate and possesses effective time management?</td>
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<td>Won’t give up easily under pressure, instead</td>
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showing persistence and perseverance?

Willing to admit you don’t know, and ask for help?

Total Points

Know Your Own Limitations in Regards to Literacy with Media and Digital Skills

Having a computer and knowing how to use it, is not enough to ensure success in the online learning environment. Today, digital literacy is the main way to gather information. You must have the ability to find, access, manage, evaluate, analyze, synthesize, utilize, share, and create new knowledge and content using information technologies and the Internet.

Research the Status of Your Devices for Accessing Online Learning Environment

What type of devices do you have for accessing the online learning environment and complete your online work assignments? Which one of them your primary device?

<table>
<thead>
<tr>
<th>Available Devices</th>
<th>Years Old</th>
<th>Functional Status</th>
<th>Primary Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop Computer</td>
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<tr>
<td>Laptop Computer</td>
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<td>Smart Phone</td>
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<td>iPad</td>
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<td>Tablet</td>
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<tr>
<td>Others</td>
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</table>

Identify Your Primary Connection to the Internet and Backup Connection

a. Do you have a reliable internet access?

b. How close are you to public library with computers, internet access, and Wi-Fi access?

c. How close are you to other public places that have internet access such as Starbucks, Panera, Whole Food Markets, Target, etc.?

d. What is your alternative plans into distributions in internet access?

e. In addition to Wi-Fi, do you have the possibility to directly connect to internet at home?

f. If you are also working, does your workplace allow you to use internet and/or Wi-Fi access to do your school assignments before and after work?

Talk to Other Students Who Have Taken Courses Online To Get Information About the Online Learning Platform

Getting information about the online learning platform by talking to those students that have taken courses online is very useful for any student who is thinking of taking online courses. You can learn a lot from a recent student about the kind of personal characteristics that you must have in order to succeed in the online learning environment. In addition, you will learn about the types of support systems that are available.

Find a Mentor

Colleges and universities provide students with mentors and advisors through the student services and student advising departments. Those that do take advantage of this opportunity, perform better in their online classes.

Try Taking a Blended/Hybrid or Flipped Course

If the opportunity available for you to take blended/hybrid and or flipped courses, before taking online courses, do so without any hesitation. These type of courses will provide you with the experience on how to manage self-management as well as learning how to learn on your own and in online learning environment.

Take Free Online Course(s)

If the college or university provides free online courses for students, employees, etc., (such as MIT opencourseware and Coursera, to name a few), regardless of the subject, look for one that interests you, and enroll in it; this allows you to actually get a sense of what will be involved in online learning.

Consider Whether or not Your Online Courses of Interest are Accepted and Accredited in Your Desired Career Path

Before taking any online course, think about whether online course is going to be accepted as you move towards your career goals.
Consider Your Post-Graduation Career Plans Carefully

Some graduate schools and corporations are open to students who have earned a degree with online learning and others are not.

Appendix B
Tips for Faculty Who Want to Teach Online Courses for the First Time

1. Prepare strategies on how to:
   a. Engage students in the learning process without seeing them face-to-face?
   b. Prevent student’s procrastination
   c. Motivate students to
2. Think about how to effectively communicate the course requirements, subject matter, etc. to the students via technology
3. Work before class to organize course materials and resources
4. Be prepared to dedicate more hours than in the onsite environment
5. Ensure that you have flexibility in your family/personal life and work schedules so as not to compromise either your professional and private life as you dedicate time to your online course
6. If you are teaching an online course that is likely to be the first for many of the students, draft some email and/or phone communications to reach out to those students having trouble or falling behind
7. Have you ever taken an online course? If so, be sure to apply what you experienced as a student to improve your teaching
8. If possible, have a conversation with colleagues who taught online courses before to learn from their insights specific to the institution
9. It is best to have more than one device to access the internet and to have a backup plan for accessing the internet if your home/office connection goes down
10. Be prepared to check your online course each day for both posting to discussions and for grading
11. Be prepared to check email at least once each day and immediately reply to any student issues received by email. While a day can be missed here or there, the goal should be all 7 days
12. Be ready to proactively contact students, especially during the first week or two. This can be by email or by phone. Phone calls are important for students who have not started the course or are falling behind.
13. Allow for sufficient training and experience if you are new to a platform; if training is offered by the institution, be sure to complete that even if you know the platform in order to become familiar with that institution’s specific requirements
14. Become comfortable using web links and videos by finding resources to help you or to share with students
15. What is the content of the course you are thinking to teach? Lab-course, Non-lab courses, etc. The more familiar you are with the material in the course, the more you can become organized and gather resources to share with students
16. Prepare guidance for students on the process of learning, especially online, such as questioning the validity of additional internet resources students might find online
17. Having classroom experience prior to teaching online can help in anticipating student questions and concerns
18. Make sure your home computer and internet etc. are up to date and fast.
19. Read/study some general best practices of online learning – tons of this kind of thing – just google
20. If you can, find a mentor who has taught for the same school and talk to them about expectations. Generally, faculty who spend the time in the course, respond to students in a timely manner and are generally flexible do fine. The main adjustment is to go from viewing your course as a “once a week” thing to viewing it as a “little bit each day” thing.