The world of education is rapidly changing as we move onward in the digital world. From preschool to graduate school more instruction utilizes multimedia and digital resources and relies less on the printed word. Toddlers are playing games on iPads, kindergarteners are drawing and creating stories using laptops, middle school students are conducting online computer research, and college students are producing and submitting digital stories instead of research papers. Advantages of the increase in educational technology include education becoming more accessible, affordable, adaptable, and equitable (Bai & Smith, 2010). We have Ebooks and libraries that offer varied digitalized material and even a library with no books! The first bookless library recently opened at Florida Polytechnic University in central Florida. One of the attributes of such a library is that students can research and select material independently which often is easier and more productive than seeking assistance at a library’s help desk. Support from librarians is still available, if needed.

Working independently. . . Conducting research. . . Using investigative and critical thinking skills. . . These are the same cognitive components that most educators stress in their curriculum however, the way in which courses are structured is quite varied as are the rates of success. In
spite of all the advances in technology-based education there still is reluctance on the part of
some educators, especially in higher education, to use multimedia and technological
resources. Nowadays, use of such material is generally expected by students, but they frequently
are either not utilized in college settings, used minimally, or inappropriately. Many college
professors expect learning to take place via students: listening attentively to classroom lectures,
taking copious notes, and religiously reading, and if needed, re-reading, their textbooks. A more
contemporary approach to teaching recognizes that such a limited strategy may no longer be
exclusively workable.

**Characteristics of Contemporary Educational Institutions**

Educational institutions are now very diverse by race, ethnicity, gender, age, and socioeconomic
status, and we have an increasing number of students who have recently immigrated to the
United States. This makes instruction and learning even more complex since native language
and culture may interfere with the educational process. For example, the institution where I
teach, LaGuardia Community College of the City University of New York, is located in Queens,
NY, which is one of the most diverse areas of the nation. Our institutional profile (2014) reveals
that one-half of our 20,000 students come from 157 countries and speak 111 native
languages. Over 60 percent of students receive some type of financial aid and 40 percent are
employed, at least part-time. This means that one class may consist of students from a dozen
different countries, single parents, returning veterans, local business owners, recent high school
graduates, re-entry felons, graduates and professionals from foreign universities, and high school
drop outs with a GED. As one might surmise, teaching at such an urban campus is demanding
and as the United States becomes even more diverse, these challenges will only increase, especially for community colleges where many students initiate their academic careers.

One of the complicated tasks all colleges face today is how to effectively deliver the ever increasing number of hybrid and online courses expected by students from all types of institutions of higher education; from two-year colleges to graduate schools, and even doctoral programs. The hybrid or blended model consists of face-to-face instruction, plus time devoted for students to work independently while using instructional technology. This structure varies by type of course and educational institution, in addition to the amount of time in each setting, e.g. two hours of class time and one hour of online work per week, or one-half face-to-face contact and the other half online, etc. In some colleges, students meet with their instructors at the first and last class meetings and the rest of the time is spent online. An overall goal of hybrid learning is to combine best practices of the face-to-face classroom experience with the online tools needed to create a virtual classroom (Rausch & Crawford, 2012). Strictly online courses are just that; all instruction takes place online.

Hybrid and Online Instruction

Some of the advantages of hybrid and online instruction include: alternative ways of creating interesting and active learning using technology, opportunities for students to engage in self-directed learning with added flexibility (Wichadee, 2013), a high level of engagement that typically occurs in a virtual environment, the degree of comfort students feel with a well-designed hybrid/online course (Rausch & Crawford, 2012), and the amount of instructor/student interaction which contributes to course satisfaction (Martyn, 2003).
In addition, institutions such as Rutgers University, found that “hybrid instruction allows students to benefit from the strengths of both face-to-face and online instruction and when properly developed and implemented, hybrid courses in many cases allow for greater interaction between instructor and student, and greater interaction and collaboration between students than is possible in a traditional face-to-face course” (Rutgers University Senate Report and Recommendations on Hybrid Courses, 2009). Regarding retention in hybrid and online environments, there is evidence that a sense of community is significantly associated with perceived learning (Rausch & Crawford, 2012) and student satisfaction was the highest of three modes of learning tested (face-to-face, fully online, and hybrid) and test scores were the same for all three methods of delivery (Wichadee, 2013).

Based on feedback from the hybrid courses I teach, students tend to like the format of the course (two hours face-to-face and one hour computer-based), the active learning modality, and the flexibility the course offers. In addition to the beneficial aspects of a hybrid class such as: greater instructor/student interaction, implementation of active learning strategies, experiential learning, etc., less in-class time is valuable to many students. One or two hours a week not needing to travel to class may not seem like very much time to savor, but for students who are working, have childcare or family responsibilities, and use public transportation or travel long distances, one to two hours of class time translates to three or four hours when you consider travel time. Plus there is the cost of transportation which can be expensive especially for lower income students.
Strategies for Structuring Online & Hybrid Courses

The following strategies are designed to effectively structure hybrid or online classes keeping in mind pedagogy that will complement course goals and increase student success. I have found them to be useful when designing courses for a virtual environment.

1. Create pre-course requirements; number of credits needed or a certain GPA, in order to enroll in a hybrid/online course. Many colleges require at least a 2.0 GPA and at least one semester of traditional courses before enrolling in a hybrid or online one. This gives students the opportunity to first gain some traditional college experience. Endorsement of this requirement is supported by a study of 320 college students taking an online course at Kentucky Community & Technical College, final course grade served as the dependent variable. The results of the analysis indicated that only cumulative GPA was a significant predictor, explaining approximately 40% of the variance of the final grade. Although differences in final grades were present among the variables age and ethnicity, these differences disappeared when controlling for cumulative GPA, (Bruce et al, 2012).

2. Encourage the use of a pre-enrollment assessment that taps into students’ motivation and ability to be successful in a hybrid/online class. Such an assessment will determine students’ readiness for a blended or online class and make them aware that these types of courses are not easier than face-to-face courses. In fact, many are more difficult. You can find many different types of free assessments online or one may be available at the institution where you teach. One example of an online readiness quiz can be found at the website of Sierra College listed in Teaching Online (Ko & Rossen, 2010) at,

http://lrc.sierracollege.edu/dl/survey/OL-student-assess.html
3. Determine what technological resources students must have in order to be successful in the course you are teaching. This is very important because students may not have an updated computer or software to manage course requirements. Since not all students have computers at home, determine where students can borrow or use them such as school computer labs or neighborhood public libraries. Each institution is different; therefore, check the availability of your college’s instructional technology facilities.

4. Regularly check on students’ progress and communicate with them. Students can easily get lost in the virtual world so regular emails, reminders, course postings, etc. will help students stay on track. You may also wish to consider using Facebook, instant messaging, and/or texting (separate from personal accounts) to keep in regular contact with them.

5. Determine a realistic and clear timeframe for assignments, grading, and email replies. This can be stated in the syllabus so students are aware of when they will receive feedback. A guide containing elements of good syllabus construction can be found at, www2.honolulu.hawaii.edu/facdev/guidebk/online/web-elem.htm (Madden, 2011, Honolulu Community College). Also, decide which assessments will be completed online and which ones will be completed in class. In my hybrid course, student’s complete assignments and quizzes online and midterms and finals are given in class. Their written tasks, including papers, are uploaded to the course website.

6. Use creative assignments and real-world examples to keep students interested. Students tend to be much more engaged when they are working on projects or assignments they find relevant and challenging. Make sure you have goals and objectives, not only for the course itself, but for all the assignments, and that they are appropriately connected to course content. This will help you organize course requirements and help students
understand why they are completing specific tasks. As noted by Ko & Rossen (2010), the use of a recent version of Bloom’s Taxonomy, a hierarchy of different levels of thinking, can be of great assistance in formulating learning objectives and can be found at www.odu.edu/educ/roverbau/Bloom/blooms_taxonomy.htm.

7. Determine if the virtual components will be completed asynchronously or synchronously. There is value in doing both. By having all students virtually present with you at the same time, activities can be fast paced and engaging. Students completing work on their own time allows them (and you) more flexibility. Structuring assignments asynchronously is not as complicated; therefore, you may wish to start there. Make sure students are aware of where they can go for technical/computer assistance, if needed, especially if there is a synchronous component. Remember that synchronous components require full attendance of all course participants who may or may not be in the same time zone (Globokar, 2010).

8. Decide how students will collaborate with one another. This can be tricky since some students do not like team work or giving feedback to one another, however; collaboration is an important component of the learning process, especially in a hybrid or online environment. Rausch & Crawford (2012) stress the importance of community, and even though students may not know one another, group projects should be designed so learners will work as a collaborative team. Churches (2011) emphasizes collaboration even further by stating that “working with peers is a critical motivator for students.”

9. Maintain contact which will help students feel connected to the class. One way of initiating this is to have students introduce themselves online at a “discussion” site, early on in the course. You can then require students to comment by responding to at least two
student postings. This provides you with information about each student and encourages them to communicate with one another. I always acquire all types of information about students when they form a long chain of correspondence. I’m also generally amazed at the quality of feedback many students provide one another.

10. Provide support and encourage students to ask questions and to seek help, if needed. You can set up virtual office hours in addition to face-to-face meetings. This makes it easier for students who have difficulty seeing you during regular office hours.

11. Repeat instructions for assignments, activities, quizzes, etc. This may be needed for some students especially if they have challenges learning. Also, a hybrid course, like traditional ones, should meet all requirements for students with disabilities.

12. Maintain high yet realistic expectations making sure the course is not too hard or too easy. If you include online assessments, decide what type of feedback students will be given. For example, when students first take a quiz online in one of my hybrid courses, they are only told their score. After all students complete the quiz, they are then given the correct answers. This prevents students from sharing the correct answers with others before they take the quiz themselves.

13. Don’t “pile on” assignments because it is a hybrid or online course. There is a tendency to do this since face-to-face time is limited or non-existent. Remember, if you pile on the work for students you are also increasing your own work since you need to grade all the assignments in a timely manner. Just like you don’t want your students to feel overwhelmed, you don’t want to create the same dilemma for yourself. I know this from experience!
14. Allow students sufficient time to complete online assignments. This will help students keep pace with course requirements and increase chances of success and retention.

Some professors may have already implemented some of the above-mentioned suggestions, however, the intent here is to be as inclusive as possible for instructors who may be just beginning to design their hybrid or online course and are uncertain as to where to begin. I found this to be the case in the seminars I have taught over the past few years.

**Common Misconceptions about Online & Hybrid Teaching**

Some college instructors are reluctant to even ponder the idea of offering a hybrid or online class and find themselves victim to one or more of the following common misconceptions:

(1) Hybrid/online courses are inferior in terms of both quality and quantity of learning. This is a myth since the quality of education students receive in non-traditional courses is at least equal to what they receive in traditional ones. As mentioned previously, a study done at Rutgers University found the hybrid format pedagogically sound and appealing to many students. Add more citations. The sentiment of some professors is they don’t think students can learn as well if instructors are not present in the classroom all the time. This may go back to “old school” thinking where only the exalted professor can impart knowledge to passive students. Nowadays, many educators recognize that there are other components of teaching that are equally important such as inquiry-based activities, debates, independent research, group work, and use of multimedia resources. Students today learn differently—they multitask, find information instantly using technology, and frequently don’t even take notes. I became cognizant of this the
first time I saw students taking pictures of what I had written on the board. One student said, why take notes when you can snap a picture with a smart phone! When students have the opportunity to work independently on meaningful tasks with guidance, they become excited about learning and feel empowered. This is what college is all about and it can take place in both traditional and non-traditional settings.

(2) A hybrid or non-traditional course takes a great deal of effort to create. Actually there is some truth to this statement. Initially, preparation does require a lot of work and time, however, after teaching the course a few times, it becomes more manageable and the end result is worth the effort. Think back to the first time you taught a college course. How much time did it take to prepare? How smoothly did it go? I doubt any instructor would say it was easy as pie! Subsequently, we all learned the importance of good course preparation and organization which is also true for structuring a hybrid/online course.

(3) The failure rate is high. If a course is not structured properly and appropriate course prerequisites put in place, the failure rate could indeed be higher than in traditional courses. However, this is not always true. For example, at the college where I teach, a study was recently done looking at the pass/fail rate of hybrid/online courses versus those strictly face-to-face for the same courses and the outcomes were similar. It should be noted that we do have prerequisites in place that could affect the pass rate and we offer extensive faculty support in the creation of non-traditional courses. In the research project mentioned above at Rutgers Graduate School of Education, a 300-level course in Educational Psychology met for 8 weeks face-to-face and then half the students went to a hybrid model while half continued face-to-face. Students who had been working at an above average level got even better in the hybrid environment,
however; students who had been working at a below average level did worse in a hybrid environment (Rutgers, 2009). Hybrid courses may not be for everyone, but for those motivated to teach or take one, the experience can be rewarding, meaningful, and educationally sound.

**How Students Learn**

Some of us may remember the college courses we took as students about the process of learning and different ways people learn. If we reflect on our own dominant learning style we may become aware that our students may learn differently. One of the advantages of using multimedia resources and computer-based technology, whether the course is hybrid, online, or face-to-face, is that they can be utilized to tap into different learning modalities. By requiring the use of: reading material, websites to investigate, videos, documentaries, group and experiential activities, and reflection, all styles of learning are addressed—combinations of visual/verbal, auditory, and kinesthetic/tactile. According to the University of Illinois Online Network (2011), the online environment can be particularly well suited for students with varying learning styles and those who do not approach learning in a systematic or linear fashion. They note that because of this, online educators should design activities that address different modes of learning for the benefit of a wide array of learning preferences especially the most common: (1) Visual/Verbal who prefers to read information; (2) Visual/Nonverbal who uses graphics or diagrams to represent information; (3) Auditory/Verbal who prefers to listen to information; and (4) Tactile/Kinesthetic who prefers physical hands-on experiences. By utilizing multiple instructional strategies that reflect different channels of perception (seeing, hearing,
touching/moving), the learning needs of most students will be more fully addressed (University of Illinois Online Network).

There are learning style inventories that instructors can give to students to help them understand the best ways they learn, along with lists of the characteristics of learning styles. Both types of inventories are available free at numerous online educational websites.

**The Learning Process**

So, what exactly is learning? As Mayer (2002) points out, learning is a process that leads to change as the result of experience. He notes how students interpret and respond to experiences is crucial since learning is not something we DO to students but rather something they do to themselves.

Seven principles of good instructional practice by Checkering and Gamson is a useful rubric for evaluating effective online instruction. This study focused on whether the use of instructional strategies as measured by the seven principles had an effect on student attrition rates in online courses. Full and part-time faculty at three community colleges in Virginia who taught online course(s) in the last three semesters completed an online survey to determine the extent to which they used instructional strategies reflecting the constructivist-based seven principles in their online courses. Scores from the survey were then compared to the attrition rates in their courses. Results indicated both groups strongly used instructional strategies reflecting the seven principles of good practice in their online courses with full-time faculty scores ranging a bit higher. A moderate relation was found with the third principle, “encourage
active learning.” This indicated that faculty who made strides toward actively engaging students found some success in reducing student attrition (Tirrell & Quick, 2012).

Research conducted by Chang & Chen (2014) used what is referred to as the Kirkpatrick Framework in evaluating the effectiveness of online learning. The Kirkpatrick Framework is based on four core elements designed to enable digital learning to be effective: a relevant curriculum, challenging assessment, emphasis on higher order thinking skills including creativity, and providing students the opportunity of ownership of their learning and assessment. In Chang & Chen’s study of 206 university students over two academic years (2010-2012), they found that empirical data provided support for the effectiveness of online learning using the Kirkpatrick model. It is interesting to note that the components of this model are similar to other learning models such as Dewey’s (1938) cycle of learning which is based on the premise that with appropriate guidance by educators, students will assume responsibility for their own learning by actively creating new knowledge based on connections with past learning. Dewey’s cycle of learning supports the importance of students going through five stages as they learn: ask questions, investigate via problem solving, create new knowledge by synthesizing information, discussion with others, and reflecting on new knowledge learned. This approach is further supported by others including Bonwell & Eison (1991) who identified student engagement, active learning, and integrative instruction as crucial components of learning.

Discussion

The growth in the number of hybrid and online college courses is indicative of their popularity and ability to offer instruction to consumers who might otherwise lack access to higher education or find it difficult to attend traditional classes. A key point emphasized here is that the social
aspects of learning provided by: Discussion Board activities, frequent instructor/student interaction, group and experiential opportunities, has greatly enhanced teaching and learning in a virtual educational environment. Rausch & Crawford (2012) have noted that the social aspects of learning have been ignored or undermined, yet they greatly contribute to a sense of community and engagement—components of effective course structure. They further note that analysis, reflection, and synthesis can be effectively used to create, support, and facilitate rigorous hybrid or online learning.

Whether courses are structured traditionally (face-to-face), hybrid, or online, we can only create an environment that is conducive to learning by working skillfully together; the rest is up to our students.

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