

Toward a Better Experience: Examining Student Needs in the Online Classroom through Maslow's Hierarchy of Needs Model

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Abstract

Current research continues to support the notion that students participating in online courses experience dissatisfaction for a number of reasons. Instructors carry on their search for ways to enhance learning and increase levels of satisfaction with respect to all aspects of the online classroom experience. This paper focuses specifically on students in the online classroom, and how to attend to their needs in an effort to foster a more satisfying learning experience. Using Maslow's hierarchy of needs model as a conceptual framework, the paper examines how student needs can be addressed at various levels in online courses, from basic needs to the ultimate goal of self-actualization. Based on this analysis, recommendations are discussed in the way of strategies and tools that can be used to positively affect the online student experience.

Keywords: online learning, distance education, student needs, student satisfaction, teaching strategies

Introduction

Distance education has rapidly evolved over the past decade. While courses have been delivered at a distance for more than a century ([Valentine, 2002](#)), as recently as the 1990s, traditional brick-and-mortar universities continued to engage students in paper-based correspondence courses, using course packets and the postal service as a primary means of delivering content and materials. The progression of distance education over the past decade can be attributed mostly to factors related to technology, including the proliferation of the Internet and other digital and networked learning tools.

Before the advent of the Internet, distance education relied on audiocassettes, television, radio, and print materials (Bates, 2005). While the future of distance education continues to lie with the Internet and the World Wide Web, new forms of software, communication technologies, and learning platforms are fuelling a move from one-way transmission of knowledge to two-way, interactive communication and collaboration between instructors and students (Bates, 2005; [Sumner, 2000](#)). Early distance courses did not necessarily rely solely on one-way communication, but there was often a significant delay in response time. Students had to rely on mail or the telephone to receive feedback or interact with their instructor. Interaction can now occur through a variety of digital means, including blogs, wikis, instant messaging, and podcasts, helping to alleviate problems arising from the lack of face-to-face contact ([Beldarrain, 2006](#)). Although delayed response and interaction still exist, there is a marked improvement in communication in present-day forms of online learning when compared to those of the past.

Distance education research continues to inform the way practitioners operate in this environment. As more becomes known about student preferences, instructional strategies, and assessment methods, the online classroom experience keeps on improving. Yet, despite the efforts that influence the growth and effectiveness of online education, skepticism remains, particularly from the point of view of some traditional educators ([Casey, 2008](#)). One reason for this uncertainty is the lack of understanding about how best to replicate many of the elements of the "live" classroom experience in an online environment, as the risk of reduced interaction among students and with the instructor in an online course triggers significant concern. Research findings repeatedly emphasize the fact that students participating in

distance education programs experience dissatisfaction for a number of reasons, most notably the following:

- lack of interaction, either among students, or between the student and the instructor ([Furst-Bowe, 2002](#); [Johnson, Aragon, & Shalik, 2000](#); [Levy, 2009-2010](#); [Picciano, 2002](#); [Richardson & Swan, 2003](#); [Rovai & Downey, 2010](#); [Swan, 2001, 2003](#); [Wasilik & Bolliger, 2009](#));
- inappropriateness of course content for online delivery ([Bequiri, Chase, & Bishka, 2009](#));
- absence of a strong collaborative, supportive learning environment ([Murphy & Cifuentes, 2001](#); [Rovai, 2002](#); [Thorpe, 2002](#));
- poor course design that involves the mere distribution or "dumping" of information ([Howell, 2001](#); [Linge, 2003](#));
- low student familiarity with technology when entering or taking a course ([Song, Singleton, Hill, & Koh, 2004](#); [Thierry & Lord, 2000](#));
- low student motivation ([Chandras, DeLambo, & Eddy, 2005](#); [Hoskins & Van Hooff, 2005](#); [Lim & Kim, 2002-2003](#); [Song et al., 2004](#)).

It is important for instructors and others involved in designing and delivering virtual courses to understand these and other issues so they can respond appropriately to cultivate a more satisfying learning environment and experience for students. Using [Maslow's \(1943\)](#) hierarchy of needs model as a conceptual framework, this paper examines how students' needs can be met in online courses at multiple levels, from basic needs to the ultimate goal of self-actualization.

Conceptual Framework: Maslow's Hierarchy of Needs Model

Abraham Maslow's background as a psychologist strongly influenced his research. Some of his earlier writings focused on motivation and animal behavior (e.g., [Maslow, 1932, 1935](#); [Maslow & Harlow, 1932](#)), presenting an early indication of his interest in human motivation. Later studies of his concentrated on areas such as social behaviors, self-esteem, and dominance (e.g., [Maslow, 1939, 1940](#)). At the heart of Maslow's research is the question of how motivation affects a particular experience. While Maslow did not apply his concepts in an educational setting, per se, his earlier works pointed to a specific interest in how certain motivational factors impact upon learning and the learning experience, primarily from a psychological standpoint (see, for example, [Maslow & Groshong, 1934](#)).

In the early 1940s, Maslow expressed his concern at the lack of a definitive, motivational theory; as a result, he proposed a hierarchy of needs model ([Maslow, 1943](#)) featuring five goals, or needs levels, that he suggested should underpin future research on motivation, thereby providing a way to better understand how individual needs are met. The five levels of motivational need are:

- 1) *physiological needs*, such as food, water, and air that we, as humans, need to exist;
- 2) *safety needs*, such as protection from harm, and an orderly, familiar environment that is comfortable and non-threatening;
- 3) *belonging*, including relationships with a spouse, partner, children, and/or friends;
- 4) *esteem*, comprising both desire for achievement and for recognition and prestige;
- 5) *self-actualization*, referring to the ultimate self-fulfillment, essentially doing what one is meant to do in life.

This model paved the way for subsequent research on motivation and self-fulfillment in various settings, including education. Over the years, it has informed and influenced various fields of scholarly inquiry, such as psychology (e.g., [Goebel, 1981](#); [Leidy, 1994](#); [Lester, Hvezda, Sullivan, & Plourde, 1983](#)), organizational behavior (e.g., [Hall & Nougaim, 1968](#)), healthcare (e.g., [Benson & Dundis, 2003](#); [Nydén, Petersson, & Nyström, 2003](#)), and management and staff development (e.g., [Bailey & Pownell, 1998](#); [Shoura & Singh, 1999](#)). In addition, the model continues to inform new and emerging areas of study.

[Zalenski and Raspa \(2006\)](#), for example, applied Maslow's model in a healthcare setting. Specifically, they adapted the five levels of the hierarchy to the hospice and palliative care environment. Their modified model provides a multi-leveled approach for patient care, ensuring patient needs are met at the various levels. In a similar manner, [Yawson, Armah, and Pappoe \(2009\)](#) explored the model's use for

planning and promoting a sustainable data infrastructure (SDI) in developing countries. They found the model to be a useful framework for conceptualizing, developing, and evaluating SDI initiatives.

Applying Maslow's Model to the Online Learning Environment

Prior to the Internet becoming a vital component in distance learning, earlier studies on distance education and motivation often examined concepts related to personalization of feedback and student–instructor interaction (Scales, 1984; Store & Armstrong, 1981), with many concentrating on the incorporation of technologies (e.g., audiocassettes and videotapes) (Daniel, 1983). The Internet, when it arrived, proved to be a promising innovation for distance education, opening up opportunities in areas such as computer-supported collaboration, self-directed learning, web-based tools, and course management systems (CMSs).

Comparable to its use in other fields, Maslow's hierarchy of needs model can also be applied in distance education, particularly with respect to student motivation and satisfaction within an online learning environment. As other researchers have discovered, the model can be used as a lens through which to examine and explore various educational contexts, including the online classroom. This paper considers how Maslow's model can serve as a framework for seeking to understand the factors influencing student satisfaction in online learning.

First Level: Physiological

Humans require basic needs to survive, including food, water, and air. Maslow (1943) refers to these as *physiological* needs. In online education, these basics must be identified and supplied to students in order for successful learning to occur. In the online classroom, there are several fundamental elements and tools students must have access to in order to meet their first-level needs. Many of these should be supplied at an institutional level; the remaining levels in the hierarchy are more reliant on what actually occurs in the course or classroom itself. First-level needs are the easiest to accommodate in an online learning setting, since they are the least complex and require minimal effort to address.

The first essential need that students must have satisfied in order to be successful in an online course relates to some of the obvious necessities required to take a course, such as books and materials, appropriate software, and a computer with adequately high-bandwidth Internet access. Without these basic resources, students will not be able to achieve higher levels of satisfaction in Maslow's hierarchy. One way in which an educational institution can help prepare students to ensure basic needs such as these are met is through the provision of clear, concise checklists of essential items that should be obtained by students ahead of the date when classes are scheduled to begin. Lynch (2001) recommends that these items be covered in a pre-course orientation, which will also attend to some of the second-level needs, as discussed in the next subsection.

Instructors in the virtual classroom have an important role to play in ensuring students' basic needs are met prior to the course start date. Institutions should thoroughly prepare instructors to convey and reinforce the level-one tools and other requirements; this can be done through appropriate faculty preparation (Bennett, Priest, & Macpherson, 1999). Others who have contact with students during the enrollment process, including administrative staff and program advisors, should also ensure the relevant basic needs are met at this level.

Second Level: Safety

In the original model proposed by Maslow (1943), *safety* referred to shelter, including a sense of familiarity and comfort. According to him, without safety, people feel anxious and uncertain. While online education potentially alleviates some stressful factors found in a traditional classroom setting (such as lack of flexibility with time and location), the virtual classroom can also be stressful to students in other ways. By exploring the concept of safety through questioning what can or will make students anxious or give them a sense of uncertainty, research reveals several key factors.

For example, students' unfamiliarity with the online classroom is one of the most significant stressors when studying in this mode. Studies have shown that there is often a period of time needed to adjust to the virtual classroom, for both students and teachers (Conrad, 2002; Kenny, 2002). Issues such as learning how to communicate within the online environment, becoming acquainted with the course format, and understanding course expectations are all points of concern. There is much evidence attesting to the fact that student preparation is a key factor in alleviating issues related to student uncertainty in the online environment (Bozarth, Chapman, & LaMonica, 2004; Lorenzi, MacKeogh, & Fox, 2004).

The instructor can play a significant role in establishing a comfortable climate for students. One way of discouraging student anxiety when initially entering the online classroom is, in addition to pre-course preparation, having an allotted adjustment period during the first week of the course. Students should be allowed ample time to digest information and respond to postings, upload assignments, etc., particularly in the beginning stages of the course. Moreover, if early access to the course site can be arranged, students may be able to familiarize themselves with the course format and environment ahead of time (Conrad, 2002). Lynch (2001) suggests holding a student orientation session give students a chance to familiarize themselves with the technology, course format, and communication tools in order to increase their likelihood of having a successful and satisfying course experience. Along these lines, Stokes (1999) found that requiring students to complete an introductory course focusing on technology-based, online learning early on in their program of study can be an effective way of equipping them with the technical competence required to ensure that difficulty with the technology does not act as a distraction or deterrent as they undertake subsequent online courses.

Implementing consistent course formatting and interface/material design can also help alleviate students' difficulty in preparing for an online class. Consistency, particularly in a program containing multiple online classes (or one that consists solely of such courses) assists students with knowing what to expect as they progress through their path of study. Of course, this does not mean that courses should be stiflingly uniform in media and activities. Kearns (2011), for example, suggests varying media and other content, including learning activities, and optimizing opportunities to capture student attention and maintain their interest. However, she warns this should be done with a carefully selected and pre-determined set of media so as to present a structured environment that does not deviate too drastically from what students are used to and comfortable with.

Earlier work by Miller (1967) used Maslow's model as a backdrop for understanding participation of adults in education. Miller identified one of the greatest threats to safety needs in our culture as "loss of a job" (p. 5). If we consider Miller's notion of loss as a threat, in the online classroom (or, most formal learning environments, in general), the equivalent scenario might be a loss of marks or a poor grade on an assignment – possibly leading to a failure to graduate or delayed graduation from the relevant program. In the virtual classroom, uncertainty related to grading standards and requirements for assignments typically associated only with the online mode, such as online participation or discussion board postings, may be particularly worrisome for students who have not previously taken a course of this type.

To assist with this, it is important to clarify grading requirements prior to, or on the first day of, a course. For assignments that are unique to the online environment, special attention should be given to laying out expectations lucidly and explicitly. Discussion forums, for example, benefit from rubrics that should be implemented and made available to students to promote transparency in grading through a clearer understanding of relevant criteria, which might include quality and timeliness of postings, content, and appropriate use of references (Rovai, 2003; Swan, Shen, & Hiltz, 2006).

Ultimately, uncovering sources of potential student stress and anxiety is crucial to understanding how to assist with the fulfillment of the second-level needs in Maslow's (1943) model. Predicting these issues and attending to them in advance of as well as during an online course can aid in mitigating negative student emotions and enhancing the experience for them overall.

Third Level: Relationships

Moving upward in Maslow's (1943) hierarchy of needs model, the third level relates to an individual's goal of belonging and being accepted by others. In an online course, students have opportunities to develop *relationships* with one another and with the instructor through dialogue and collaborative activities. In the words of Palloff and Pratt (2005), "In the online environment, collaboration can be seen as the cornerstone of the educational experience. Just about everything that students engage in online, from participation on a discussion board to working in small groups, can be viewed as collaborative" (p. 334).

Multiple factors influence a student's experience with respect to collaboration in the online classroom. One of the most apparent is the need to establish a meaningful, collegial relationship with the instructor. Often, this is difficult because of the lack of face-to-face communication; instructors must rely primarily on discussion board postings, e-mail, and feedback on assignments as a means to communicate with students, and vice-versa. Questions remain as to how much and what types of communication are necessary to adequately develop the relationship (Woods, 2002). However, the available tools and mechanisms, if used appropriately, can lift instructor presence, permitting the building of strong rapport.

The first step in cultivating the student–instructor relationship is having students post introductory comments about themselves, with the instructor responding to each ([Anderson, 2008](#)). In this and other situations throughout the course calling for a response, the instructor should always be prepared to give swift, personalized feedback. Immediacy of instructor response time to questions and postings positively affects student perceptions of their learning experience ([Baker, 2003](#); [Richardson & Swan, 2003](#)). More individually customized feedback, as opposed to collective or generic feedback to the entire class, leaves students more satisfied with a course overall ([Gallien & Oomen-Early, 2008](#)). Instructors should not wait until assignments are due to provide feedback, since ongoing, formative feedback has been shown to be a more relevant and useful approach ([Furnborough & Truman, 2009](#)).

Just as significant as the student–instructor relationship is the relationships among peers and the community of learning that is created among those enrolled in the course. Students in an online course have the ability to converse and interact with one another through venues such as discussion boards and group projects. "Collaborative interactions are an essential element of any pedagogy which assumes that good learning is collaborative and that understanding comes through modeling, participation in, and reaction to the behaviors and thoughts of others" ([Pawan, Paulus, Yalcin, & Chang, 2003](#), p. 119). The lack of a sense of community among students often has a negative effect, leaving some feeling isolated or even excluded from the learning process ([Sadera, Robertson, Song, & Midon, 2009](#)).

To fulfill the third level in Maslow's need hierarchy, students must know what they are expected to do in order to build a sense of community with their peers. As with a traditional classroom, in which it is important to attend and participate in class, a central part of this goal in an online setting is achieving a suitable degree of presence ([Danaher, Hickey, Brown, & Conway, 2007](#); [Hrastinski, 2009](#)). The instructor plays a pivotal role in encouraging students to take part through monitoring patterns of participation ([Vonderwell & Zawahriah, 2005](#)) and setting goals and expectations for online presence. Palloff and Pratt (2005) suggest that the instructor participate as an equal member of the learning community, allowing students to become experts in their own learning.

More recently, research has begun to look more closely at the use of newer technologies to assist in facilitating online student collaboration. Emergent "Web 2.0" tools including wikis ([Choy & Ng, 2007](#); [Judd, Kennedy, & Cropper, 2010](#); [Raitman, Augar, & Zhou, 2004](#)), blogs ([Lai & Land, 2009](#); [Miyazoe & Anderson, 2010](#)), virtual worlds ([Monahan, McArdle, & Bertolotto, 2008](#)), and other forms of social media and social sharing applications ([Friedman & Friedman, 2011](#); [Tu, 2011](#)) show promise in encouraging student collaboration and a sense of community in the online classroom. In the future, online learning will likely become increasingly reliant on such tools to help boost student interest and satisfaction in an online course, making it even easier to cater to the third level in Maslow's hierarchy.

Fourth Level: Self-Esteem

The fourth level in [Maslow's \(1943\)](#) hierarchy is *self-esteem*. This can be described as the need for humans to be respected and valued by others. While this need exists in online learning as it does in other facets of life, as noted earlier, the lack of in-person interface is an impediment to reaching this goal in the virtual classroom. Online communications often assist with building mutual respect among peers and with the instructor in the learning community.

Students in the virtual classroom can feel undervalued due to a variety of circumstances. In many ways, as is depicted in Maslow's hierarchy, self-esteem and a sense of value cannot be attained in the absence of a foundation of a strong community of learning and collaboration ([Curtis & Lawson, 2001](#)). Most of the technology-mediated learning research that references self-esteem deals more broadly with collaboration (e.g., [Abrami & Bures, 1996](#)) or student attrition (e.g., [Morgan & Tam, 1999](#); [Rovai, 2003](#)) in online learning, giving little insight into how self-esteem is actually achieved in an online setting.

To understand this concept more fully, consider a typical student enrolled in an online course. He/she enters the course with a level of (un)certainly and self-assuredness (or lack thereof) about him/herself and his/her role in the classroom. Students who lack familiarity with an online course setting may feel apprehensive, causing them to have a lower sense of self-esteem and self-efficacy/confidence in the course environment ([Lynch, 2001](#)). Such students will, perhaps, delay their responses to discussion board postings (waiting for others to post before they do), and hold back on initiating dialogue with peers because they are unsure of how they should operate in the environment.

Additionally, student uncertainty and low self-esteem may be exacerbated by a lack of or misinterpretation of positive reinforcement by peers and the instructor ([Nicol & Milligan, 2006](#); [Rovai,](#)

2003). This is of particular concern in a virtual classroom because it is typical for students to experience little, if any, verbal feedback, essentially relying on written communication that can often be misunderstood. Along these lines, written feedback on assignments and projects may often be misjudged as well, leaving students with questions or doubts related to their performance in the course.

Factors such as course preparation, positive reinforcement, and, as noted earlier, quick and responsive feedback all play an important part in supporting students and helping them feel valued, respected, and appreciated. Nicol and Milligan (2006) examine [Nicol and MacFarlane-Dick's \(2006\)](#) seven principles of good assessment and adapt these for a hybrid or online course situation. They provide several noteworthy insights with regard to feedback. According to them, instructors should strive to:

- clarify goals and assessment requirements and provide examples (both good and bad);
- afford students opportunities to continually self-assess their progress and understanding;
- supply descriptive feedback and reflective comments to students when possible.

Also, instructors should take steps to foster a climate that is conducive to *all* learners. As Palloff and Pratt (2003) suggest, good instruction in an online setting exhibits characteristics such as flexibility, willingness to learn from students, ability to give up some control to the students, collaboration, and a facilitative (as opposed to purely transmissive) teaching tactic. Such an approach will assist students with feeling an overall inclusiveness and sense of worth in the online classroom.

Fifth Level: Self-Actualization

Intrinsic learning involves the processes which can help people become all that they are capable of becoming. Intrinsic learning is the ultimate goal of all education, including adult education... Self-actualizing people learn through the processes of intrinsic learning. Self-actualizing people are described as those who listen to their own voices, take responsibility, are honest, and who work. ([Maslow, 1965](#), p. 65)

The fifth needs level in Maslow's hierarchy, *self-actualization*, is a somewhat more problematic concept. A good part of the research on this topic lies within the field of psychology. In the 1960s, [Shostrom \(1964\)](#) devised an inventory of self-actualization based on competence, self-directedness, and a series of other scales. Since then, others have followed, developing questionnaires and similar instruments aimed at identifying the qualities of a self-actualized person (e.g., [Boyum, 2011](#); Sorochan, 1976). Maslow (1962) describes this fifth-level need as the "urge to grow, the pressure to self-actualize, the quest for one's identity" (p. 307). Tennant (2000) equates the pursuit of self-actualization to developmental progress culminating in the "ability [of the self] to stand apart and separate from the world" (p. 89).

[Kenrick, Griskevicius, Neuberg, and Schaller \(2010\)](#) reworked the earlier model, suggesting that self-actualization be removed from the original model to fit better with modern times. In educational settings, in particular, most of the research in this area has been concerned largely with how best to attend to the needs of students in traditional, face-to-face classroom environments in order to assist them in reaching self-actualization (e.g., [Carmody & Berge, 2005](#); [Oomen-Early & Murphy, 2009](#)). In this vein, it makes sense to explore similar factors related to learner needs in the online classroom.

Once again, the instructor serves an important function in supporting students as they strive for self-actualization. In the online classroom, the role of the instructor shifts toward one in which he/she assists learners in managing their own learning (Levitch & Milheim, 2003). As [Kanuka \(2008\)](#) notes, the humanist instructor supports individual growth and self-actualization. This implies that the instructor should adopt a more facilitative orientation, focused on targeting individual student needs through self-directed learning ([Tisdell & Taylor, 1999](#)). This is especially true in the online learning environment. Others have described humanistic teachers as those who have a positive, mutual relationship with their students ([Ginsberg, 2007](#)) – once again, a characteristic seen as desirable in the online instructor.

In addition to instructor support, [Nash \(2005\)](#) advocates the use of various strategies, resources, and tools to help students visualize and get a better sense of self. She uses the example of a student who aspires to be a concert pianist; the instructor can provide the student with a learning object (such as a repertoire of music) in line with this aspiration. The goal in this instance is for the instructor to be open and willing to connect students with resources to assist with the fulfillment of their individual needs and goals. Along these same lines, [Milheim \(2011\)](#) suggests that "educators can provide an assignment, and the learner can use various websites, develop their own material on the web, and use additional

technology tools and resources to meet individual interests and the goals of a course" (p. 27). Online learning journals or e-portfolios can also be used as vehicles for students to document and reflect on their learning. Learning journals offer opportunities for students to "think about past experiences, current situations, and expected outcomes of their actions" (Thorpe, 2004, p. 327). Such reflection can assist students in achieving a more productive and fulfilling experience in the online classroom.

While there is no certain or "guaranteed" method of assisting students in achieving self-actualization in any setting, instructors can engage them through the use of techniques and tools that enable them to personalize the learning process and make it meaningful and relevant to them. This will go a long way toward nurturing an encouraging environment centered around individual needs and goals.

Discussion

This paper has applied Maslow's (1943) hierarchical model to online learning and considered how the five levels (needs) in his model – physiological, safety, belonging, esteem, and self-actualization – can be reconceptualized and adapted to suit the online classroom. Table 1 summarizes the levels in Maslow's model and lists the pedagogical prescriptions detailed in this paper that correspond to each level.

Table 1. *The five levels of Maslow's model and respective pedagogical prescriptions for online learning (based on Maslow, 1943)*

Maslow's Five Levels	Major Tenets	Pedagogical Prescription for Online Learning
Level 5: <i>Self-actualization</i>	Achieving potential	<ul style="list-style-type: none"> • Learner guided • Humanistic • Assistive tools to foster sense of self
Level 4: <i>Self-esteem</i>	Acceptance	<ul style="list-style-type: none"> • Course preparation • Responsive feedback • Assessment • Inclusive climate
Level 3: <i>Relationships</i>	Belonging to a group	<ul style="list-style-type: none"> • Collaboration • Instructor presence • Personalized feedback • Community of learning • Technological communication tools
Level 2: <i>Safety</i>	Safe home environment, comfort	<ul style="list-style-type: none"> • Pre-course preparation • Consistent formatting and design • Clear requirements
Level 1: <i>Physiological</i>	Food, shelter, health	<ul style="list-style-type: none"> • Books • Software • Computer access • Checklists

In order to arrive at Level 5 (self-actualization), students must first reach each successive prior level. With no access to a computer, books, and other basic materials, for instance, they will be ill prepared to even commence a course. Once enrolled, instructors should ensure students are familiar and comfortable with the course format and online learning platform through preliminary training sessions and the provision of other information to assist students with preparation. Clarity of assignments and expectations is critical; without these essential elements, students will feel uncertain and unsafe in the online classroom.

Level 3, relationships, has to do with collaboration among peers and with the instructor. In an online course, where in-person, face-to-face interaction is absent, this must be done through use of other means of communications, such as e-mail and discussion boards. The instructor and peers play important roles in fostering a supportive, collaborative community of learning. Instructors should anticipate students' need for prompt and timely feedback and be prepared to supply descriptive, reflective, and personalized responses as and when required to build relationships with and among students.

To satisfy fourth-level needs, students must feel respected and valued, and gain a sense of assuredness about their role and performance in a course. This cannot occur without a strong community of learning

(part of Level 3). Students need the foundation of a strong group in order to be receptive to feedback, and to allow their peers and the instructor to positively influence their learning. Otherwise, they may feel combative in discussions, and/or unwilling to take constructive criticism. The ultimate goal in online learning, as far as the hierarchy of needs model is concerned, is the fifth level – self-actualization. This was interpreted earlier as self-fulfillment based on individual needs and goals. It remains unclear whether or not, and if so how, this can actually be achieved, but instructors may use a humanistic, facilitative approach to help increase students' chances of self-actualization by working with them to tailor the tools and activities in the online environment to suit their individual interests and learning goals. Among the myriad tools they can draw upon are those included within the provided toolset of the CMS, as well as other freely available Web 2.0 applications that exist beyond the confines of the institution's network.

Future Research Recommendations

In spite of being nearly 70 years old, [Maslow's \(1943\)](#) hierarchy of needs model certainly has a place in contemporary education. Its psychological underpinnings, combined with its relevance to influences on motivation and fulfillment, ensure it remains a useful framework for a variety of situations and settings, including online learning. Future research is needed that examines the efficacy of the strategies and tools suggested in this paper at the five levels, both individually and holistically, in terms of their impact on student satisfaction in online courses. As technologies and pedagogies further evolve, attention should be given to these and other components that may affect the online student experience.

As researchers seek to use Maslow's model to improve online course design and delivery, specific areas warranting additional exploration include:

- new technologies and tools and their impact on student needs and satisfaction;
- more effective ways to analyze self-actualization in online settings;
- the relationship between course design, instructional/teaching strategy, and student satisfaction.

[Maslow's \(1943\)](#) hierarchy of needs model provides a useful framework for analyzing the links between the design of an online course and its various elements, the instructional strategy adopted, and the resulting impact on student satisfaction. As online education practitioners and researchers search for new, innovative ways to improve and enhance the student experience, Maslow offers a promising means of attempting to frame and understand the complexities of the online classroom.

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