**Motivation in E-learning — Super Summery Search**

# Bibliography

The following 17 articles on the topic of “motivation in e-learning” are categorized according to their themes.

## Cultural Perspective

1. **Clem, F. A. (2004). Culture and Motivation in Online Learning Environments. *Association for Educational Communications and Technology*, 27, 183-191.**

**Conclusion**: Cognition, cultural goals, and values, motivation… the pieces are all there for online learning and instructional design experts to find. The problem is that they are scattered across disparate disciplines: anthropology, psychology, sociology, and education. Given the current state of relevant knowledge and theory, it would be illogical that there might not be an effect—or a range of effects—on learner motivation and persistence, rooted in the interplay between the online learning environment and learner culture. It only remains to find what those effects might be so that we can allow and plan for them, and in so doing, provide added means by which all learners can advance equally on the path offered by online learning.

1. **Rasmussen, K. L., Nichols, J. C., & Ferguson, F. (2006). It’s a new world: multiculturalism in a virtual environment. *Distance Education*, 27 (2), 265-278.**

The notion of multiculturalism is vital in our global society. The emergence of efficient and effective distance learning technologies has permitted the integration of innovative techniques in the delivery of multicultural content to individuals who need flexible and convenient education and training opportunities. Strategies form the instructional foundation that promotes engagement of learners. Integral to these strategies are those that relate to personal belief systems and extension of those belief systems to behaviors. This article will add new ways of teaching and learning in the areas of diversity and multiculturalism by offering a model for building highly supportive, engaging online environments, where instructors, trainers, and instructional designers use multiple strategies to build virtual environments that foster a sense of dignity, respect, and understanding: all critical elements in a global environment.

## Theoretical Foundation

1. **Clark, D. (2002). Psychological myths in e-learning. *Medical Teacher,* 24 (6), 598-604.**

**Summary**: Traditional education and training has paid scant attention to the psychology of learning. Despite detailed research into motivation, distribution and reinforcement, most current methods of delivery still rely on a supply-led, lecture and classroom-based model that flies in the face of the theory. With e-learning we have a chance to reflect on this gap between theory and practice. E-learning, in the sense of web-based learning, is a new discipline but the psychology of learning has a much longer pedigree. This paper relates some common myths about e-learning back to some major themes in the psychology of learning. Is e-learning faster and more effective? Many people get the wrong learning at the wrong time. Can e-learning help with prerequisite knowledge? Should the learning be massed or distributed, i.e. all at once or little and often? There are also the issues of motivation and cognitive engagement. How can e-learning motivate learners or how can we motivate learners into using this new medium? What type of cognitive engagement is necessary for learning? Traditional ‘sheep-dip’ methods of learning are poor on reinforcement. Can e-learning help reinforce learning?

1. **Malone, T. W. (1981). Toward a theory of intrinsically motivating instruction. *Cognitive Science*, 4, 333-369.**

First, a number of previous theories of intrinsic motivation are reviewed. Then, several studies of highly motivating computer games are described. These studies focus on what makes the games fun, not on what makes them educational. Finally, with this background, a rudimentary theory of intrinsically motivating instruction is developed, based on three categories: challenge, fantasy, and curiosity.

Challenge is hypothesized to depend on goals with uncertain outcomes. Several ways of making outcomes uncertain are discussed, including variable difficulty level, multiple level goals, hidden information, and randomness. Fantasy is claimed to have both cognitive and emotional advantages in designing instructional environments. A distinction is made between extrinsic fantasies that depend only weakly on the skill used in a game, and intrinsic fantasies that are intimately related to the use of the skill. Curiosity is separated into sensory and cognitive components, and it is suggested that cognitive curiosity can be aroused by making learners believe their knowledge structures are incomplete, inconsistent, or unparsimonious.

## Practical Techniques and Design

1. **Blanchard, E., & Frasson, C. (2004). An autonomy-oriented system design for enhancement of learner’s motivation in e-learning. In J.C. Lester et al. (Eds.), 34–44.**

**Abstract:** Many e-Learning practices don’t care about learner’s motivation. There are elements showing that this is an important factor in learner’s success and that a lack of motivation produces a negative emotional impact. This work is aimed at establishing a survey of motivation literature and proposing a Motivation-Oriented System Design for e-Learning. Psychological theories underline the importance of giving control of his activities (i.e. providing autonomy) to a learner in order to enhance learner’s self-beliefs, hence motivation. Coaching is also important to keep learners focused on an activity. ITS and Pedagogical Agents provide coaching whereas Open Environments offer autonomy to learners. The presented system is a hybrid solution taking motivational positive aspects of Open-Environments and Pedagogical Agents. It also uses role-playing practices in order to enhance constructivist learning.

1. **Bonk, C. J., Kim, K. J., & Lee, S. H. (2004). Pedagogical and motivational techniques in corporate e-learning. In S. Reddy (Ed.). *E-Learning and Technology: New Opportunities in Training and Development* (pp. 93-112). ICFAI Books: Hyderabad, India.**

There is a need to push corporate e-learning toward more rich pedagogical ideas and strategies. There is a need to explore emerging online instructional roles that elevate the pedagogy while engaging learners and motivating them through e-learning. In response, this study explores such e-learning issues and dilemmas. For instance, it documents the instructional approaches that favor either online or traditional environments. It also provides information related to the principles of motivation deemed effective in online training as well as specific motivational techniques that might be utilized.

1. **Dennen, V. P., & Bonk, C. J. (2007). We’ll leave the light on for you: keeping learners motivated in online courses (Chapter VI).**

**Introduction**: Motivating online learners is a key challenge facing instructors in both higher education and corporate settings. Attrition rates and low participation levels in course activities are frequent instructor complaints about online learning environments. Part of the problem is a lack of sophistication in online tools and courseware (Bonk & Dennen, 1999). Added to this problem is that, even when tools exist for engaging and motivating students, instructors lack training in how to effectively use them. Instructors not only need to know the types of online and collaborative tools for engaging students, but also how to embed effective pedagogy when the technologies are weak.

1. **Hodges, C. B. (2004). Designing to motivate: motivational techniques to incorporate in e-learning experiences. *The Journal of Interactive Online Learning,* 2 (3), 1-7.**

**Abstract**: This paper addresses the construct of motivation as it relates to learning. Questions that will be discussed are (a) What is motivation, (b), how can motivation be incorporated in the instructional design process, and finally, (c) what motivational techniques have been used successfully in e-learning settings? Some general background information on motivation will be discussed. Two instructional design models for motivation will be described and examples of best practices for Web-based learning will be supplied.

1. **Keller, J. M., & Suzuki, K. (2004). Learner motivation and e-learning design: a multi-nationally validated process. *Journal of Educational Media*, 29 (3), 229-239.**

A general model for motivational design of instruction is described and reviewed in terms of its application to E-learning contexts. Following a description of what is meant by E-learning environments and an overview of the four category model and design process known as the ARCS model, a variety of studies are summarized. The ARCS model is based on a synthesis of motivational concepts and a problem-solving approach to design, rather than the application of specific motivational solutions that are advocated without regard to the specific characteristics of a given situation. The first group of reviewed studies illustrates the results of testing the motivational design process in several different E-learning settings, in relation to learner self-regulation and in terms of the interaction of personality characteristics and motivational strategies. The second group of studies includes tests of the validity of a simplified motivational design process that has been used in diverse types of E-learning settings, including multiple countries and cultures. Overall, the results of these empirical studies have confirmed the validity of this model for the systematic design of motivationally enhanced instruction in E-learning settings with regard to lowering drop-out rates and other positive motivational outcomes.

1. **Koike, H., Akama, K., Chiba, M., Ishikawa, T., & Miura, K. (2005). Developing an E-Learning System Which Enhances Students' Academic Motivation. *SIGUCCS*, 05, 147-150.**

**Abstract**: In large classes, teachers find it difficult to care about the personality and ability of individual students. One of the ways to grasp the learning state of students is to conduct a number of short tests during every class. If a system can automatically give the appropriate instructions and teaching materials to individual students based on the test results of each student, students in the large classes will be able to obtain the same advantages as those that can be obtained in tutorial classes. We have developed automatic marking systems and have been able to conduct a number of short tests. In this paper, we discuss the development of an integrated e-learning system for realizing large classes that enhance students' academic motivation by recognizing each student's state of learning.

1. **MacKeogh, K., & Fox, S. (2009). Strategies for embedding e-learning in traditional universities: drivers and barriers. *Electronic Journal of e-Learning*, 7 (2), 147–154.**

**Abstract**: This paper addresses the question: how can e-learning be embedded in traditional universities so that it contributes to the transformation of the university? The paper examines e-learning strategies in higher education, locating the institutional context within the broader framework of national and international policy drivers which link e-learning with the achievement of strategic goals such as widening access to lifelong learning, and up skilling for the knowledge and information society. The focus will be on traditional universities i.e. universities whose main form of teaching is on-campus and face-to-face, rather than on open and distance teaching universities, which face different strategic issues in implementing e-learning. Reports on the adoption of e-learning in traditional universities indicate extensive use of e-learning to improve the quality of learning for on-campus students, but this has not yet translated into a significant increase in opportunities for lifelong learners in the workforce and those unable to attend on-campus. One vision of the future of universities is that ‘Virtualization and remote working technologies will enable us to study at any university in the world, from home*’*. However, this paper will point out that realization of this vision of ubiquitous and lifelong access to higher education requires that a fully articulated e-learning strategy aims to have a ‘transformative’ rather than just a ‘sustaining’ effect on teaching functions carried out in traditional universities. In order words, rather than just facilitating universities to improve their teaching, e-learning should transform how universities currently teach. However, to achieve this transformation, universities will have to introduce strategies and policies which implement flexible academic frameworks, innovative pedagogical approaches, new forms of assessments, cross-institutional accreditation and credit transfer agreements, institutional collaboration in development and delivery, and, most crucially, commitment to equivalence of access for students on and off-campus. The insights in this paper are drawn from an action research case study involving both qualitative and quantitative approaches, utilizing interviews, surveys and focus groups with stakeholders, in addition to comparative research on international best practice. The paper will review the drivers and rationales at international, national and institutional level which are leading to the development of e-learning strategies, before outlining the outcomes of a case study of e-learning strategy development in a traditional Irish university. This study examined the drivers and barriers which increase or decrease motivation to engage in e-learning, and provides some insights into the challenges of embedding e-learning in higher education. While recognizing the desirability of reaching out to new students and engaging in innovative pedagogical approaches, many academic staff continue to prefer traditional lectures, and are skeptical about the potential for student learning in online settings. Extrinsic factors in terms of lack of time and support serve to decrease motivation and there are also fears of loss of academic control to central administration. The paper concludes with some observations on how university e-learning strategies must address staff concerns through capacity building, awareness raising and the establishment of effective support structures for embedding e-learning.

1. **Taran, C. (2005). Motivation Techniques in eLearning. *Proceedings of the Fifth IEEE International Conference on Advanced Learning Technologies (ICALT’05).***

**Abstract**: Understanding what motivates students while they are learning online has a critical impact on how we help them improve their performance. Unfortunately, there is currently limited research on how to build eLearning programs that instigate and maintain adult students' motivation. This paper proposes 10 techniques for capturing and sustaining students' attention, which is considered one of the most important ingredients in achieving motivation while learning online.

## Status Analysis

1. **Paas, F., Tuovinen, J. E., van Merriënboer, J., & Darab I, A. (2005). A motivational perspective on the relation between mental effort and performance: optimizing learner involvement in instruction. *Educational Technology Research and Development,* 53 (3), 25–34.**

Motivation can be identified as a dimension that determines learning success and causes the high dropout rate among online learners, especially in complex e-learning environments. It is argued that these learning environments represent a new challenge to cognitive load researchers to investigate the motivational effects of instructional conditions and help instructional designers to predict which instructional configurations will maximize learning and transfer. Consistent with the efficiency perspective introduced by Paas and Van Merriënboer (1993), an alternative motivational perspective of the relation between mental effort and performance is presented. We propose a procedure to compute and visualize the differential effects of instructional conditions on learner motivation, and illustrate this procedure on the basis of an existing data set. Theoretical and practical implications of the motivational perspective are discussed.

1. **Hoskins, S. L., & van Hooff, J. C. (2005). Motivation and ability: which students use online learning and what influence does it have on their achievement? *British Journal of Educational Technology,* 36 (2), 177–192.**

**Abstract:** There has been much recent research examining online learning in universities, but two questions seem to have been largely overlooked in this context: (1) Which students voluntarily utilize web-based learning; and (2) Does this use influence their academic achievement? The current study aimed to determine whether the approaches to studying, ability, age, and gender of 110 undergraduates in the second year of a psychology degree predicted the extent to which they utilized online learning using Web Course Tools (WebCT) in support of a core Biological Psychology unit. Data were obtained from WebCT’s student tracking system, Entwistle and Ramsden’s 18-item Approaches to Studying Inventory (1983) and academic records. Multiple linear regressions and discriminant function analysis were used to examine whether individual differences predicted WebCT use, while analysis of covariance determined whether web use influenced academic achievement. The number of hits, length of access, and use of the bulletin board was predicted by age, with older students using WebCT more. These factors were also influenced by ability and achievement orientation. The degree of participation in self-assessment was not predicted by student variables, but, of those that repeated an online quiz, improvement was more likely in those with lower achievement orientation. Only bulletin board use influenced achievement, with those posting messages outperforming those not using, or passively using bulletin boards. However, because individual differences will determine the extent to which students utilize this facility, it is suggested that future research should focus on developing online learning environments that incorporate activities with both a beneficial influence on learning and appeal to a wide student population.

1. **Shroff, R. H., Vogel, D., & Coombes, J. (2007). Student e-learning intrinsic motivation: a qualitative analysis. *Communications of the Association for Information Systems*, 19, 241-260.**

**Abstract:** In the age of life-long learning and increased competition for time, motivation becomes a salient issue. Students need to be more intrinsically motivated in the absence of more formal structure. This is especially true in online learning environments where direct instructor influence is mitigated. Online learning environments typically embrace many choices in ways in which learning material is presented and interaction with students is supported in both individual and collaborative contexts. As such, it is imperative that we better understand the implications of various learning activities and associated technologies on aspects of intrinsic motivation in e-learning. In this paper we examine these effects through qualitative analysis of semi-structured interviews with students in an online MBA program. Results encourage use of a pedagogically driven portfolio of learning activities supported by well-selected and integrated audio, video, and data technologies. Extension to use of mobile devices in ubiquitous e-learning contexts is explored.

1. **Park, J. (2007). Factors related to learner dropout in online learning. *Online retention from HRD Conference*.**

This study reviewed dropout research in online learning, particularly focusing on nontraditional students and examined what progress has been made since Garrison’s 1987 review. This study categorized factors identified from literature into student characteristics, student prior skills, external factors, and internal factors, all of which are based on Rovai’s persistence model (2003). Current status of dropout studies for adult learners in distance learning is discussed and future research directions are proposed.

1. **Martens, R. L., Gulikersw, J., & Bastiaensw, T. (2004). The impact of intrinsic motivation on e-learning in authentic computer tasks. *Journal of Computer Assisted learning*, 20, 368–376.**

**Abstract**: Students with high intrinsic motivation often outperform students with low intrinsic motivation. However, little is known about the processes that lead to these differences. In education based on simulations or authentic electronic learning environments, this lack of insight is even clearer. The present study investigated what students actually did in an electronic learning environment that was designed as a game-like realistic simulation in which students had to play the role of a junior consultant. The results show that students with high intrinsic motivation did not do more, rather they tended to do different things. Analysis of log files showed that the increased curiosity that students with high intrinsic motivation have, resulted in proportionally more explorative study behavior. However, the learning outcomes of students with high intrinsic motivation were not better.

# Brief Summary

1. **Clem, F. A. (2004). Culture and Motivation in Online Learning Environments. *Association for Educational Communications and Technology*, 27, 183-191.**

This article demonstrates the important interrelationship between culture and motivation in online learning environments, by referring to many existing theories and studies. The connections between culture, cognition, values, motivation and persistence are discussed in detail. Both the brain’s perception of information and reasoning is strongly influenced by culture. By linking the larger socio-cultural context of cognition with the individual context of cognitive growth, the learner’s mind is organized and shaped in ways that are suited to the needs and aspirations of the community in which growth occurs. Ford’s Motivational Systems Theory, which can be stated as “Motivation = Goals x Emotions x Personal Agency Beliefs**”,** is introduced to prove the cultural influence on motivation. Rokeach and Hofstede made clear that goals and the values that support them are heavily influenced by one’s national culture, and Gauvain and Nisbett showed in exhaustive detail the extent to which culture is seen to affect the individual’s cognitive processes. This interlinking of values, goals, cognition, and culture is at the heart of the theoretical connections being proposed by this paper.

The culture issue in online learning is quite important, as distance education enables international students to take courses from universities abroad. Unfortunately, so far research in this area is very sparse. Neither has it gained adequate attention from instructors of online learning. Taking culture factor into account will help us better understand learner’s characteristic and thus provide equal access and opportunities for success to all learners.

1. **Clark, D. (2002). Psychological myths in e-learning. *Medical Teacher,* 24 (6), 598-604.**

This is an article published in 2002, so some of the content must be familiar to us.

This paper relates some common myths about e-learning back to some major themes in the psychology of learning. The conclusions are:

* E-learning is not just another method of delivery. It forces us to address fundamental issues in the psychology of learning.
* Learners learn more using computer-based instruction than they do with conventional ways of teaching.
* When faced with learning the same things as learners using other approaches, learners using computer-based instruction generally do so in less time.
* The advantages of e-learning, such as self-pacing, easier access to data gathering such as pretests and future learning needs and the possibility of intelligent tutoring, make it possible that individuals matter and individual needs are catered for.
* E-learning can be very motivating, when: content are related to individual and role; there is an opportunity for reflective experiences; learners are allowed to choose media individually; the role of the teacher changes away from a “chalk and talk” one.
* Well-designed e-learning content has high levels of interactivity which is very engaging.
* Learning is best spread over many days rather than crammed into a few. Little and often (distributed practice) may also be more convenient for the learner.
* People’s responses to media are fundamentally social and natural. Our responses are not willed; they are automatic.
* Practice in the workplace is the reinforcing agent of e-learning. It is this proximity of learning to actual practice that may give e-learning a much higher retention rate.

The author is actually referring to the e-learning in workplace. I pay more attention to the motivation part, and find a few intriguing points. Dropout rate is a big concern in e-learning. But dropout is not necessarily a sign of failure. Some believe that new learner-centric models of learning should allow and encourage the learner to drop out and drop in. we learn through incremental steps building and adapting our own mental models as we go. It is an advantage for e-learning to allow learners to go on with what they really want, since learning is enhanced when people are driven by personal rather than external drivers.

This paper provides a pragmatic and perspective that thoroughly takes learner’s needs into account, which must be of great value.

1. **Dennen, V. P., & Bonk, C. J. (2007). We’ll leave the light on for you: keeping learners motivated in online courses (Chapter VI).**

The paper starts by identifying the key problems learners encounter in an online class, including no knowing participation expectations, not feeling comfortable engaging in activities with people they have never met, and not having enough time to participate in activities. Many effective motivating skills are being used in conventional classrooms. However, they are rarely used online. 10 key elements for motivating on line learners include tone/climate, feedback, engagement, meaningfulness, choice, variety, curiosity, tension, peer interaction and goal driven. The effect of group-based and self-paced activities and synchronous and asynchronous communications are then discussed.

This provides a very practical guideline for motivation in online learning, targeting at the three key problems. As similar activities I have experienced in an in-person class, these strategies must be effective in e-learning environments as well.

1. **Taran, C. (2005). Motivation Techniques in eLearning. *Proceedings of the Fifth IEEE International Conference on Advanced Learning Technologies (ICALT’05).***

The author refers to one of the most popular motivational design theories – Keller’s ARCS theory, including four factors that influence and sustain students' motivation: **a**ttention, **r**elevance, **c**onfidence, and **s**uccess. This paper focuses on the first one, attention, which is believed to be the prerequisite to all the others. There are 10 techniques proposed in this paper, for capturing and sustaining students' attention while learning online. These techniques are manding stimuli, anticipation, incongruity, concreteness, variability, humor, inquiry, participation, breaks/energizers, and storytelling.

In this paper, e-learning is defined as standalone Web-based training, which involves only the student and the computer, without any other educational agent. As not all e-learning are the same as online courses, which involves instructors, students and the Internet, with synchronous and asynchronous communications, this definition of scope helps provide implications for the design of e-learning programs that don’t have an instructor.