

3-1-2004

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Anna Tupchiy  
anyat82@yahoo.com

Steven Hornik

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## Recommended Citation

Tupchiy, Anna and Hornik, Steven, "Toward an Explanation of an Individuals' Culture on Learning Outcomes in a Distance Education Environment" (2004). *SAIS 2004 Proceedings*. 43.  
<http://aisel.aisnet.org/sais2004/43>

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# TOWARD AN EXPLANATION OF AN INDIVIDUALS' CULTURE ON LEARNING OUTCOMES IN A DISTANCE EDUCATION ENVIRONMENT

**Anna Tupchiy**  
University of Central Florida  
anyat82@yahoo.com

**Steven Hornik**  
University of Central Florida  
shornik@bus.ucf.edu

## Abstract

*There has been much research done on the subject of distance learning; also the same can be applied to the studies of culture and its effect on how the people work in groups. However, very little research has been done regarding culture's effects on the outcomes of distance learning. The goal of this research is to show whether cultural traits (individualistic-collectivistic) have an impact (directly or indirectly) on learning outcomes (perceived satisfaction, perceived learning and objective performance) in a distance education environment. Also, this research will look at the difference between the inherent culture and the sub-culture, which characterizes the community of the class.*

**Keywords:** Culture, distance education, individualism - collectivism

## Introduction

There has been much research done on the subject of distance learning. While findings with respect to comparisons to face-to-face instruction are mixed (Bordia, 1997), many other studies support the effectiveness of distance learning (Swan, 2003). Also the same can be applied to the studies of culture. The studies show the effects culture has in the area of business and management and culture's effects on group process and consensus (Anderson & Hiltz, 2001; Hofstede, 1980). However, very little research has been done regarding culture's effects on the outcomes of distance learning (cf. Anderson & Hiltz, 2001; Chang & Lim, 2002).

Distance learning is of great importance in our society today (Alavi & Leidner, 2001). There are more and more universities that provide online classes to the students, as there is more and more demand for it (Twigg, 2001). There is a growing demand for post-secondary education by the traditional students as well as the increased need for on-the-job training. Also, as the economy is growing, there is a constant call for a highly educated workforce, so companies are looking for continuing education to improve the skills of their employees. In addition, professionals or students would be able to access the educational system from any part of the planet in this world of globalization (Branden & Lambert, 1999; Rozin, 2003). Distance learning is defined as "an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner" (Perraton, 1982, p. 4).

And what is culture? There is no definite definition of culture. On one side, the anthropologists look at culture as an active and ongoing process; on the other side, they consider culture to be common and steady. Summarizing the different descriptions of culture, it is composed of "beliefs, norms, assumptions, knowledge, values, or sets of practice that are shared and form a system" (Rapport, 2000, p.94).

At the same time, culture can be subdivided into subcultures (communities) as a person can be new to a community and not share the beliefs or values of this particular society (Salvatore, 2002). As it is, some researchers point out that persons

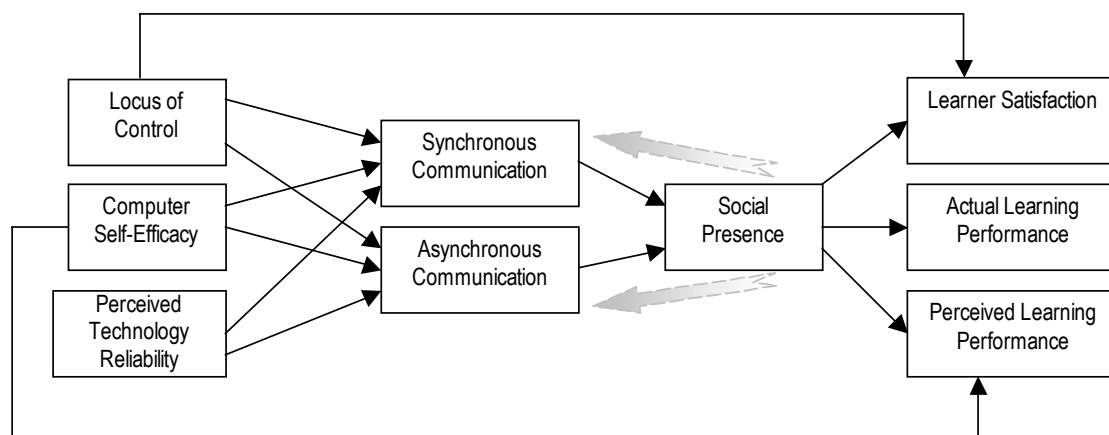
need a sense of belonging in the community; therefore distance education should pay more attention to community building. It is important not just for the feeling of togetherness in the virtual class, but also for the successful completion of the course, full participation in the program, assisting in collaborative learning, and support in continuing the communication even after the course is completed (Rovai, 2002).

Interaction is the component that encourages this togetherness. Interaction can be directed toward relationships among peers, between instructor and learner, and between learner and content. By interacting among each other, students build the circle of trust and support, which leads to satisfaction about the class. Instructors also play a big role in building the community, as they are the persons who deliver information and needed feedback to the class. Finally, an interaction with the content includes “knowledge, skills and attitudes being studied” (Swan, 2003). The content should be easy to read, straightforward in using, and received in a timely manner.

## Theory section

The model to be tested and extended was developed by Hornik and Johnson. This research is also based on the Hofstede’s (1980) general conception of culture but more specifically it also relies on refined dimensions of vertical and horizontal collectivism and individualism by Singelis, Triandis, Bhawuk, and Gelfand (1995).

The main concept of the research conducted by Hornik and Johnson (2003, see figure 1) is the concept of social presence. By their research, they demonstrated that “social presence was a significant predictor of all three learning outcomes including satisfaction with the course, objective measures of performance, as well as learners’ perceptions of their change in knowledge.” By definition, social presence is an indication of “the degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships” (Short, Williams, & Christie, 1976, p. 65). In other words, social presence is how the person feels connected to the others: learners, peers, instructors, material. This research is looking at how culture affects the degree of social presence or whether it affects it at all.



**Figure 1. Hornik and Johnson Model**

Hofstede contributed the most influential work in cross-cultural research where he proposed a series of five dimensions that distinguish between work-related values. They are Individualism – Collectivism, Power Distance, Uncertainty Avoidance, Masculinity – Femininity, and Confucian Dynamism (Anderson & Hiltz, 2001). Although these five dimensions are equally important in assessing culture, this research focuses on Individualism-Collectivism as this dimension can affect how learners will interact with each other and is the most commonly examined with respect to distance education (Anderson & Hiltz, 2001; Chang & Lim, 2002). Individualism implies that social behavior is established by personal goals and does not overlie the goals of the collective; while in collectivism the group is more important than the individual and the people in the group are ready to cooperate.

Additional research by Singelis, Triandis, Bhawuk, and Gelfand looked more closely at the constructs of individualism and collectivism. Vertical collectivism is defined as “perceiving the self a part (or an aspect) of a collective and accepting inequalities within the collective.” Horizontal collectivism is defined as “perceiving the self a part of the collective, but seeing all members of the collective as the same.” Vertical individualism is defined as “the conception of an autonomous

individual and acceptance of inequality.” Horizontal individualism is defined as “the conception of an autonomous individual and acceptance of equality” (Singelis et al., 1995). The researchers are looking at vertical and horizontal individualism and collectivism as they feel that the narrower the constructs, the higher the fidelity.

How do these traits affect learning ability? Research has shown that individualistic learners support individual identity and think that they should be self-sufficient (Hofstede, 1980). The task for them is more important than the relationship (Trumbull et al., 2000). Also, individualistic learners will rely on the words that were said to interpret the meaning (Hall, 1976). These findings demonstrate that individualistic learners can be successful in distance learning as they value the completion of the task over anything else, even though they are not very efficient in cooperating with the group members. On the other hand, collectivistic learners are more group oriented, and support the group identity over the individual identity (Chang & Lim, 2002). Therefore, the relationship for the collectivistic learner is more essential than the task to be completed (Trumbull et al., 2000). Also, collectivistic learners rely not just on words but also the nonverbal language, like gestures, timing, and facial expressions (Francesco & Gold, 1998). These results reveal that though collectivistic learners are not task-oriented, they can still do well in distance learning as they can collaborate easily with the members of the class.

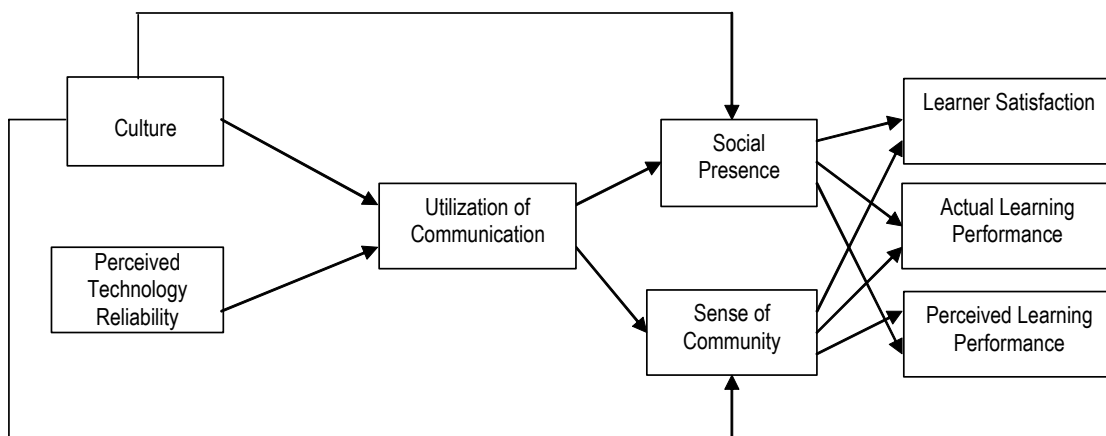
Individualistic-collectivistic dimensions have beneficial, as well as, detrimental characteristics for distance education. Furthermore, learners can have both individualistic and collectivistic traits depending on the situation. Even by narrowing these two dimensions into vertical and horizontal traits, we still are left with equivocal conclusions with respect to cultures effect on learning in distance education. Therefore, this research will begin to explore the effects that an individual’s culture has on learning outcomes in a distance education environment.

## Research questions

1. Do cultural traits (Individualistic-Collectivistic) have an impact (directly or indirectly) on learning outcomes (perceived satisfaction, perceived learning and objective performance) in a distance education environment?
2. Which culture is more important: your innate culture or the sub-culture that represents the class community?

## Research model

This is the modified model created by Hornik and Johnson that is going to be tested (see figure 2).



**Figure 2. The research model**

## Methodology

The participants of this study are going to be students from the Universities in the United States, Russia, and Italy. These students will be taking and completing an online course during the study period. The data is going to be gathered via a survey, which will be completed toward the end of the course.

As the survey is going to be presented on international level, it is very difficult to make sure that the courses, in which the participants are going to be enrolled, would be identical. That is why it will be controlled by introducing a special variable that will represent the particular course.

The variables are going to be measured as follows: Sense of Community will be measured with a CCS (Classroom Community Scale) instrument developed by Rovai (2002). Culture will be measured 32-item instrument built by Singelis et al. (1995). Social presence will be measured with a 5-item instrument constructed by Short et al. (1976). Perceived technology reliability will be measured by the 3 items that rely on system reliability created by Goodhue and Thompson (1995). Utilization of communication will be measured with a 5-item instrument developed by Hornik and Johnson. Perceived satisfaction will be measure with a 7-item instrument constructed by Biner (1993). Perceived performance will be measured by a 12-item instrument generated by Alavi (1994), and actual performance will be measured by looking at the course grade at the end of the semester. A pilot study will be conducted during the fall 2003 semester at one of the U.S. University to assess the reliability of these instruments.

## Limitations

Only European countries and the United States of America will be represented in this study. The number of students in the European countries will be small as classes are usually not very big in Europe.

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