Effectiveness of Telementoring communication for a College Student

—— Approach for College Retention ——

大学生を対象としたテレメンターリングの効果

——大学生の在籍率へのアプローチ——

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Abstract

This study explores the effectiveness of the telementoring on a student's retention in a college mentoring program. Telementoring contacts are defined as a usage of internet communications for mentorship, such as emails, chat rooms, instant messages and voice messages. In this study, the student's retention is measured as how often the subject participates in a peer mentoring program. The student's participations include telephone, the internet communications, correspondents and walk-in to the office. The data was collected from a mentor at a state college in Denver, CO USA. Analysis shows that the increased amount of telementoring communication influences a student's retention from both qualitative and quantitative perspectives. This study presents that telementoring is a possible preventive intervention for college students from dropouts

Keywords: telementoring, college student, retention, mentoring

［要 約］

本研究では，メンタリングプログラムにおけるテレメンタリングの大学生の在籍率への効果を研究しました。そして，テレメンタリングをメイル，チャットルーム，インスタントメッセージや音声メッセージなどのインターネットを媒介としたコミュニケーションをメンター関係に活用することと定義しました。そして被験者がピアメンタリングプログラムに参加する頻度を学生の在籍率としました。ここにおける参加とは，電話，手紙，インターネットでのコミュニケーションやメンターの部屋を訪問することなどが含まれます。アメリカのコロラド州デンバーの州立大学のメンタリングプラグラムでデータを収集しました。分析結果から，質的そして量的にも，テレメンターリングは学生の在籍率に影響を及ぼしたと示されました。このことからテレメンタリングは大学生の在籍率に対する予防的介入として可能性があると示唆されました。

Statement of Problem

Unfortunately, many adults have not earned college degree in the United States. The number of people who enrolled in college had increased from 10,985,600 in 1976 to 14,791,224 in 1999 (*the Chronicle of Higher Education,* 1998 and 2001). Although many people have been enrolled in college, the percent of educational attainment of people with no degree was 66.5 in 2000 (*the Chronicle of Higher Education,* 2001). The percent of people who have had some college experiences and no degree was 20.5 in 2000 (*the Chronicle of Higher Education,* 2001). Even though many people have been enrolled in colleges, many have not completed their degree.

One possible reason why students depart from college is that they are unable to feel connected to the college. Braxton, Milem, and Sullivan (2000) stated

> The initial level of communication to the institution influences the subsequent level of commitment to the institution. This subsequent level of institutional commitment is also positively affected by the extent of a student's integration into the social communities of the college. The greater the level of subsequent commitment to the institution, the greater the likelihood of student persistence in college (p. 569).

When students are integrated into college communities, they tend to continue going to the college and eventually earn degrees. Mentoring is a method to increase feelings of belongingness among college students, which may lead to a higher student retention rate and college degree attainment (Grant-Vallone & Ensher, 1999).

Mentoring

Kelly-Vance and Thompson (2001) defined mentoring as "one-on-one relationship between a pair of unrelated individuals, usually of different ages and is developmental in nature...a mentor is an older, more experienced person who seeks to develop the character and competence of a younger person" (p. 229). Additionally, Brain (1994) stated, "Mentoring is defined as a supportive relationship between a youth or young adult and someone who offers support, guidance and concrete assistance as the younger partner goes through a difficult period, takes on important tasks or corrects an earlier problem" (p.4). One-on-one relationships provide meaningful support for mentees and influence mentees' lives. Furthermore, mentoring is used in many areas for personal development, such as for teachers (Boyle & Boice, 1998), businessmen (Framer, Wright & Johnson, 1999), parents (Blake & Blake, 1999), students (Grant-Vallone & Ensher, 1999), and minorities (Murrel, Crosby & Ely, 1999). There are many successful mentoring programs. This study was conducted at a peer mentoring program in a college, located in Denver, CO USA, established as a student's mentoring program.

Description of the Mentoring program for college students

The Mentoring program, named LINKS (Leadership, Interaction, Networking, Knowledge and Success), provides college students a connection through a mentoring relationship. According to their web site (2001), there are approximately 17,000 students, enrolled in the college. The purpose of this mentoring program, LINKS, is to enhance a sense of belongingness to the campus community among college students by providing opportunities to meet with other students, faculties and staffs through mentoring experiences. The mentoring program uses four types of contact forms, such as in-person, an electric mail, telephone and correspondent. A mentor and a mentee are required to meet in-person weekly basis for one hour because a study shows an in-person contact is the most effective way to enhance connections between a mentor and a mentee.

However, an in-person contact is a big challenge for a mentoring relationship. For instance, the LINKS's mentors and mentees are required to meet in-person weekly basis; however, some mentors have difficulties in holding a mentee and setting a meeting time with their mentees. A possible reason for this matter may be that mentees are voluntarily involved in the mentoring program. They seem to consider the mentoring program activities are extra curriculums, and do not come to the top of their priorities. In addition, both mentors and mentees tend to have a tight college schedule; therefore, it is hard for the both parties to set an in-person meeting. Moreover, the college is not a traditional one, which had a dormitory; therefore, students commute from a variety of places. Some students might not be able to come to the college on regular basis due to the fact that they live far away from the campus or they have other things to do, like working, taking care of children and families and so forth. This environment may create difficulties for students in participating in extra activities, connecting with and being integrated into the campus community. One potential resource "is technology: computer mediated interaction has been demonstrated to facilitate a wide variety of educational endeavors, including developing relationships... and creating enthusiasm" (Cascio & Gasker, 2001, p.1). This study explores a possible efficient way to provide mentoring for college students in order to increase a retention rate among college students.

Literature Review

Mentoring relationships influence academic achievements among youth. One of the programs is called Big Brothers and Big Sisters of America (BBBSA), which provides adult support and friendship to youth. *CSPV (Center for the Study and Prevention of Violence) Blueprints Fact Sheet* (1999) explained the program. The target population was aged 6 to 18. The volunteer mentors interacted with youth regularly through one-on-one relationship. Kelly-Vance and Thompson (2001) compared BBBSA youth who were involved in mentoring

for eighteen months (a treatment group) to non-participating youth (a control group). The participants were recruited for four months, and there were 12 participants in the treatment group and 13 participants in the control group. The result showed that BBBSA youth in the treatment group did better academically. For instance, the treatment group performed better on reading than the control group (Kelly-Vance & Thompson, 2001).

Another program is called Juvenile Mentoring Program (JUMP) that influences attitudes of youth towards school. Wilson (1998) wrote that JUMP "provides one-on-one mentoring for youth at risk of delinquency" (p.1). Perez and Dorman (2001) stated, " youth who participated in the program at least for a year, were 53 percent less likely to skip school and 37percent less likely to skip class" (p.122). Mentoring relationships influence youth on their school performance positively.

Mentoring has also been studied in the area of higher education. Grant-Vallone and Ensher (1999) predicted, "The increased contact in mentoring relationship would be related to increased psychosocial support (e.g., a peer mentor provides emotional support to a mentee student), instrumental support (e.g., a mentor gives advice to work with a faculty to a mentee student), and program satisfaction" (p.109). The participants were thirty-five pairs in a peer-mentoring program at a private graduate school in California. The mentors and the mentees were supposed to meet once a month for one hour, but some pairs met less than this schedule. The result showed that a pair of a mentor and a mentee who had a high contact reported higher level of psychosocial and instrumental support. Those pairs who had a high contact reported higher satisfaction with the peer-mentoring program than pairs who had a less contact. These studies are focused on the in-person contacts; however, there is another way of contact, such as telementoring.

What is Telementoring

Perez and Dorman (2001) defined telementoring as "an electric version of mentoring, in which an older, more experienced person shares his or her experience with a younger protégé in a way that helps the protégé achieve a goal or gain entry into the mentor's world" (p.122). Telementoring occurs when a mentor and a mentee interact via emails or other internet communication forms, such as instant messages, chat rooms and so on.

Literature Review on Telementoring

The Hewlett Packard (HP) Email mentoring program was started 1995, when Davis Neils and a HP software engineer create an Internet class for a local school (Helen, 1999). The HP email mentoring program had teachers, student participants who were in grades 5-12, HP employees and HP developers for the email mentoring program. Each teacher may have had

up to 10 students. Cobb (2001) conducted surveys that collected qualitative and quantitative data. The data focused on perceived outcomes related to the mentoring experiences in the Fall 1996 and the Spring 1997. The total of 1,429 in the Fall and 237 students in the Spring responded to questioners. The outcome showed that students reported the mentored experience was valuable and fun for them. They also noted that mentors helped personal matters of students, school work, projects, and career and educational issues. Additionally, the students reported that their grade was improved as well as skills in computer, the internet and the web (Cobb, 2001).

Telementoring is used not only for students, but also for people with disabilities. DO-IT (Disabilities, Opportunities, Internetworking and Technology) mentoring began in 1992. The purpose was to increase academic and career success in science, engineering and mathematics for people with disabilities (Burgstahler, 1997). DO-IT conducted "an extensive research study on nature and value of electric mentoring" (Burgstaher and Nourse, 1998). They collected more than 12,000 electric mail messages, and the messages were analyzed. The outcome made suggestions that peer-peer relationships and mentor-protégé relationships were initiated and sustained. The usage of the internet communications alleviated issues of "schedule limitations, physical distance, and disabilities of participants" (Burgstaher and Nourse, 1998, p.2). Moreover, the internet communication tended to include more in-depth personal information between mentors and mentees than in-person contacts. However, the study also noted negative aspects that include difficulties in expressing ideas and feelings clearly, technical difficulties and a lack of face-to-face contacts.

Center for Children and Technology (CCT) conducted a study on telementoring for three years. The purpose of this study was to explore dynamics of telementoring relationships from both students' and mentors' perspectives (Bennett, Tshikalas, Hupert, Meade & Honey, 1998). The participants were from various high schools in Alabama, Colorado, Iowa, New Mexico and Tennessee by recruiting through the Department of Energy's Adventures in Supercomputing (AiS) program. Thirty-five percent of the schools were located in a small city, and about 23 percent come from large cities. The rest of the schools were located in rural and small town or farming communities. These schools equipped computers, and students could use them during their lunchtime, study hall and after school. The project recruited 216 students from 19 high schools in six states and 153 of these students were matched with mentees. The racial distributions of the telementoring participants were 56 percent of Caucasians of non-Hispanic descent, 23 percent of Black/African Americans, 13 percent of Hispanics and 6 percent of Asian Americans or Pacific Islanders. The findings indicated that telementoring relationships help mentee students to make a smooth transition from a high school to a college and to take a more pro-active role in the future and academic and career development. Moreover, their satisfaction and positive feelings were increased when a mentor and a mentee frequently communicate.

Cascio and Gasker (2001) reported a research in the *Journal of Social Work Education,* which was about how to use computer-mediated mentoring among students. The purpose of this study was to explore the effects of structured, computer-medicated mentoring experiences between undergraduate social work (BSW) students and graduate social work student (MSW). Moreover, this study explored whether or not their interactions influenced an enhancement of a professional identity as a social worker. The participants were selected from one section of baccalaureate level and randomly matched with graduate students who were in a family therapy course. They were enrolled in a Council on Social Work Education (CSWE). Students communicated weekly via emails. This project was voluntary; however, students who chose to participate were offered an extra credit. Twelve undergraduate students chose to participate in this project out of fourteen. Their age was from 20 to 25. There was one African American, one Hispanic, and the remainders were Caucasians. One male was participated. The total of fourteen graduate students was participated in this project, out of fifteen as a mentor. The participants were two African Americans women, and the rest were Caucasian women. They were aged of 22 to 41. This study conducted both qualitative and quantitative components. The quantitative findings indicated a positive influence on a professional identity of BSW students by their MSW counterparts (Cascio & Gasker, 2001). Moreover, the qualitative findings showed developmental stages of a professional identity.

These studies show that telementoring is a useful tool to increases academic success, interest in science, engineering, and technology, and career development among youth, children, college students and people with disabilities. Furthermore, the frequent communication influences mentoring relationships positively and increases the satisfaction of a mentor and a mentee. Telementoring takes some barrier away from mentoring relationships, such as physical distances, difficulties to set schedule and time, and the limitation of opportunities due to the shortage of mentors. A variety factors could influence these studies, such as technical difficulties, less skills in usage of computers, a lack of access to the internet or computers, a lack of fiscal resources to equip computers and less internet among mentees in usage of computers. Can a telementoring be an effective mentoring method for college student retention when the frequency of the contacts is increased?

Hypothesis

The goal of this study is to determine the effectiveness of an increase in the frequency of telementoring contacts and a student's retention in the LINKS, the mentoring program. The hypothesis is: an increase in the frequency of telementoring contacts influences a student's retention. In this study telementoring is defined as mentoring via emails, chat rooms, voice messages, and instant messages. The retention is defined as the frequency of a student's participation in the LINKS program as a mentee student. The student's participations include

telephone, the internet contacts, correspondents, and walk-in to the office.

Independent Variable

The independent variable is the frequency of telementoring contacts. According to Computer Concepts 4th Edition (2000), the terminologies of telementoring communication forms are defined as following: email is "message that are transmitted between computers over a communication network" (p.723); chat room is a group of people can communicate online; chat group is "a discussion in which a group of people communicates online simultaneously" (p.720); instant message is that people can see their friends and family online and exchange messages one another (http://www.msn.com, 2001). In addition, some service providers provide computer-to-computer call; and voice message is that a person sends a voice message via the internet to another person's email account.

Dependent Variable

The dependent variable is measured as how often the subject participants in the LINKS program. The participations of the subject including attending in the LINKS program events as well as contacting his/her mentor through any contact forms, such as telephone, the internet communications, correspondents and walk-in the mentor's office.

Description of Intent

The intention of this study is that it is significant to create an approach for a college retention. A college degree attainment influences not only a person, but also the society as a whole. At the micro level, a feeling of connection influences on a person whether or not he/she stays in college and graduates. If the person feels disconnected, he/she might dropout from the college, which may create a negative self-image and low self-esteem. The negative self-image and low self-esteem might lead to substance abuse, delinquent behaviors, committing crimes, and oppressed feeling among those people. At the mezzo and macro levels, a lower college degree attainment rate might lead underemployment and unemployment, which create poverty or other social problems. One problem at the micro level influences negatively the mezzo and macro levels. I hope to establish importance of telementoring in student retention as a preventive approach. It is relevant for helping professions to create and implement a preventive approach for college dropouts because we might encounter people who are struggling with staying in college and attaining a degree. We need to explore an innovative way of approach to assist those people.

Methodology

Population

The subject was a freshman of a state college in a metro area of Denver, Colorado, USA.

The subject was recruited from the LINKS program mentees. He was a Hispanic male, aged 19. He started enrolling in the college in summer 2001. He did not have the internet access at his home; therefore, he used the computer labs on campus. The subject was asked whether or not he was able to use the internet comfortably. He indicated his confidence in using the internet and a computer.

Informed Consent

The subject's anonymity was protected by not disclosing personal information to the public, such as his name, phone number, email account and home address as well as unnecessary information of the subject for this study. The subject was asked his signature on an informed consent form, which explained his rights as a participant: his participation was voluntary, the subjects might withdraw at any time, and he could ask questions at any time.

Intervention

The intervention is an increased amount of telementoring contacts in the mentoring relationship. The context of telementoring conveyed information about school events, activities, information about the LINKS events, and conversations about the college, academic and personal issues.

The Basic Time Series (AB) design

The basic time series (AB design) is conducted in this study. The data collection was started as the subject's involvement in the LINKS program, in the middle of November 2001. The record was collected by the middle of March 2002. The data collection was started in the semester of fall 2001, A phase, which was used for determination of the baseline. The A phase was from the middle of November to the end of December, which was about 8 weeks. In the A phase, a mentor sent emails or used other forms of telementoring communications one or two times per week.

The intervention started in the semester of spring 2001, which started in January 21, 2002. The intervention, called B phase, was from the middle of January to the middle of March. It was about 8 weeks. In the B phase, the frequency of the contacts was increased at least three times or more per week.

One problem, occurred in the data collection procedure, was that mentor could not access to the voice messages, neither instant message services. However, this issue was controlled by an increased amount of email contacts.

The record was kept in and collected from three forms, such as contact logs, activity logs and a data collection sheet. The purpose of each contact form as following: the contact log is used for keeping a record of an individual mentee student at the LINKS program. The contact log has detailed information about what is going on a mentee student; the activity log

is to keep a record of a mentor student about his/her activities with the mentee students; and the data collection sheet is to keep a record on the frequency of contacts and responses for this project. These three records were used for this research project.

The instrument, which was coding format, was used for this study to organize the collected data. However, the validity and reliability was not confirmed because this instrument was never used in the past or for other studies. The instrumentation was considered, such as in-person contacts because the contact could be an alternative explanation for the behavioral change of the subject between pre- and post- intervention periods.

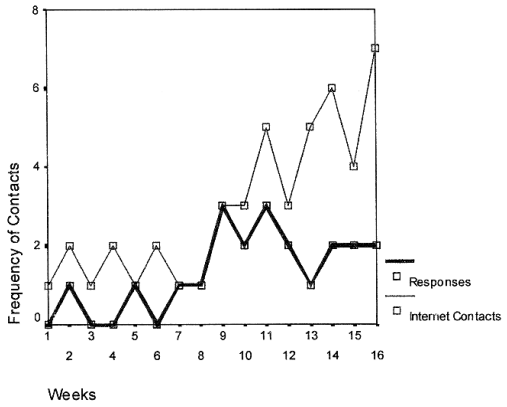
Independent variable was measured by points of any telementoring contact. For instance, the mentor sent an email, which was counted as one point in the data collection sheet. Dependent variable was measured through the retention in LINKS of the subject. The retention was measured by the frequency of his responses to the mentor, which were through any contact form. The contact forms included telephone, the internet communication, correspondent and walk-in to the office. In addition, the point was counted whenever the subject took an initiative step to contact his mentor. Each contact was counted as one point. For instance, if the subject called his mentor, one point was counted in the data collection sheet.

Findings

The hypothesis in this study is that the frequent amount of telementoring contacts influences on a student's retention in the mentoring program, LINKS. The graph A showed the significant behavioral differences of the subject between the pre-intervention and the intervention periods. First of all, the baseline was slightly flat and less likely variability, which means that data indicated the effectiveness of the intervention. In comparison of pre-and post-intervention periods, the frequency of the mentee's responses was obviously increased.

Graph A

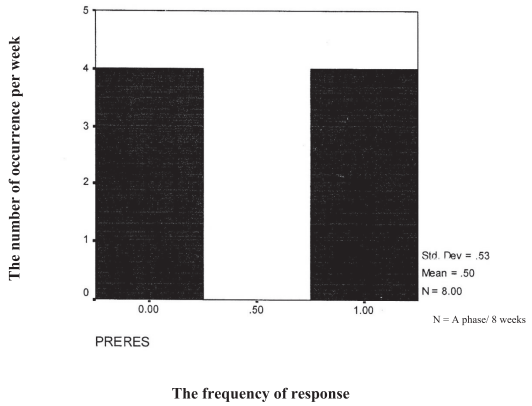
The responses indicated that the frequency of the responses from the subject, which is drawn by the bold line. The internet contact shows that the frequency of the telementoring contacts from the mentor, which is drawn by thin line.



The mean of the frequency of the subject's responses in the pre-intervention period was 0.50. In comparison, the mean in the post-intervention period was 2.13, which increased more than four times (see histograms B & C). The difference between the standard deviation was from 0.47 to 3.0. The standard deviation was 0.53 in the pre-intervention period, and 0.64 in the post-intervention period, which means that the result of the data could possibly fluctuate from a half time to nine times.

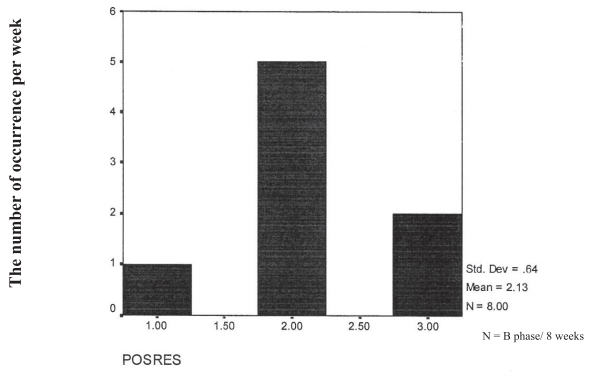
Histogram B

This histogram shows the mean and the standard deviation of the responses from the subject in the pre-intervention stage.



Histogram C

This histogram shows the mean and the standard deviation of the responses from the subjects in the post-intervention stage.

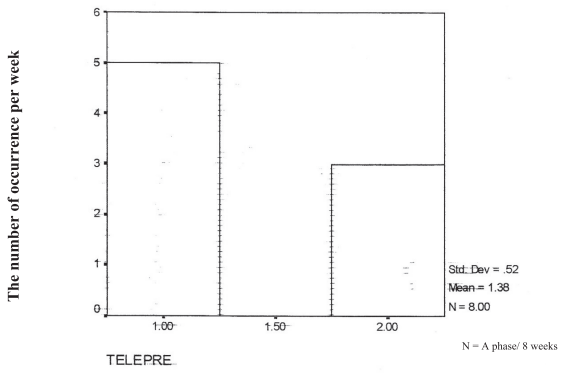


The mean of the frequency of the telementoring contacts in the baseline was 1.38, whereas in the intervention period, the mean was 4.5 (see histograms D & E). The amount of the telementoring contacts increased about more than three times. After the intervention was implemented, which was the increased amount of the telementoring contacts, the subjects increased his responses. The data showed a significant relationship between the subject's participation to the mentoring program and the intervention.

In qualitative analysis, the mentee indicated behavioral differences in comparison of the pre-intervention and the intervention periods. The data collection was from the contact longs and observation of the mentor. The subject appeared to share more personal and deeper information with his mentor. The personal information includes; his grades, family history, activities and friends. The subject did not share the personal information in the baseline period. In addition, the subject appeared to be more relaxed in the intervention period than in the pre-intervention period.

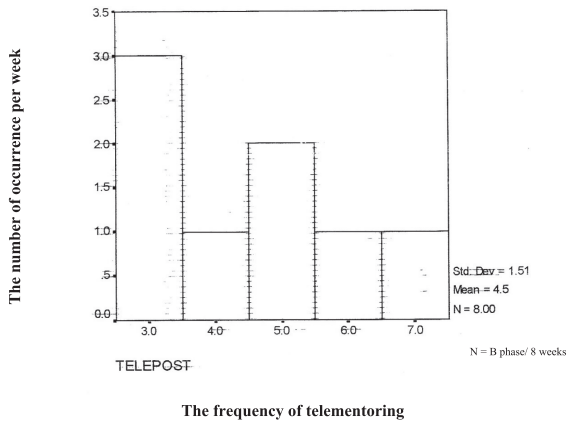
Histogram D

This histogram shows the mean and the standard deviation of the frequency of the telementoring contacts in the pre-intervention stage.



Histogram E

This histogram shows the mean and the standard deviation of the frequency of the telementoring contacts in the post-intervention stage.



Discussion

This study showed that telementoring could be a useful tool for a mentoring relationship. The subject and the mentor seemed to develop a close mentoring relationship because the frequent amount of subject's responses was increased along with the increased telementoring contacts. In the qualitative analysis, the subject was able to develop a close mentoring relationship with his mentor because he shared his personal information with his mentor. The result of this study indicated that telementoring influence the subject in order to establish trust in his mentor due to his behavioral change, such as more frequent contacts and sharing his personal stories and information with his mentor. In addition, the telememtoring would be

useful between a mentor and mentee who have less time to meet in-person as well as have a physical distance (Burgtaher & Nourse, 1998). The tally indicated a time when the mentee and mentor could not meet in-person, they used the internet communication instead of the in-person contact (see the data collection sheet F). The telementoring contacts might subsidize the in-person contacts when they are unable to meet easily.

Data Collection sheet F

Con/Week	Responses from the subject (email)	Other forms of Responses	Telementoring Contacts	In-Person Meeting
1 week	0	0	1	1
2 week	1	0	2	1
3 week	0	0	1	1
4 week	0	0	2	1
5 week	1	0	1	1
6 week	0	0	2	1
7 week	1	0	1	1
8 week	1	0	2	1
9 week	3	0	3	1
10 week	2	0	3	0
11 week	3	0	5	1
12 week	2	0	3	0
13 week	1	0	5	0
14 week	2	0	6	1
15 week	2	0	4	1
16 week	2	0	7	0

The limitation of this study might be in the instrumentation and the characteristics of the population. For example, the reason that the data showed a significant result may be the characteristics of the subject, such as personality, age, interest and availability. The subject mentioned that he did not like to miss a meeting or make other people wait because he sees it as rude. He might try to be polite by replying emails to his mentor. His age, which was nineteen, was another factor that possibly influenced the indication of this study. He appeared to be knowledgeable about the internet use. He might have learned how to use the internet and a computer in his early age, which created his interest in involving the telementoring. In

addition, he mentioned his interest in the internet, and his frequent use of it, which means that his access to the internet was very frequent, such as at least once a day. However, the subject might have less accessibility to a computer because he did not have a computer at home. Often the computer labs on campus were crowded. It might be hard for him to contact the mentor via emails because of his accessibility to a computer. However, the technology has been progressed and developed more convenient communication tools these days. Many people own a smart phone or a cellar phone, which has been widespread. This technological progress may assist telementoring as a useful tool for a mentoring relationship among college students. Another factor might be his time availability. Although he was a full time student, he had neither a job nor any dependent. He might have more time available than counterparts who have a child and a job. Moreover, the subject met in-person once a week with his mentor regularly, which may assist to develop a close mentoring relationship. These factors were less likely controlled in this study.

For further study, it is significant to make some recommendations to be addressed in a telementoring approach for college students. Some recommendations are how the frequent telementoring contacts influences on the following topics: how comfortable a mentee feels with his mentor; how a mentee develops a connection to a campus as well as his mentor; how a mentee establishes a mentoring relationship with a mentor. Other recommendations will be that how telementoring effect grades of the subject, active campus involvement, a development of leadership, personal development, and satisfaction toward the program as well as the college.

This study is relevant for helping professions because there are many college students who are struggling with staying college and attaining a degree in the United States. If we can assist and help this population at risk, we may have a better outcome on the retention rate and the college degree attainment rate. The better outcome may help the whole society. A problem at the micro level affects the mezzo and macro levels. For instance, a student drops out from college, which might cause a higher underemployment rate or unemployment rate in the society. The higher underemployment and unemployment rates may cause a higher rate of poverty, which is a part of ripple effects. Although further resarches are recommended, telementoring could be a beneficial mentoring method for college students as well as a preventive intervention for the student retention issues in the United States.

References

Bennett, D., Tshikalas, K., Hupert, N., Meade, T. and Honey, M. (1998, September). The Benefits of Online Mentoring for High School Girls: Telementoring Young Women in Science, Engineering and Computer Project- Year 3 Evaluation. *Center for Children and Technology Reports September 1998.* Center for Children and Technology.

Blake, D. and Blake, J. (1999). Parents as Mentoring Proceeding. *1999 Diversity in Mentoring Proceeding.* Atlanta, Georgia: The International Mentoring Association.

Boyle, P and Boice, B. (1998, Spring). Systematic Mentoring for New Faculty, Teachers and Graduate Teaching Assistant. *Innovative Higher Education, 22.*

Braxton, J. M., Milem, J. F. and Sullivan, A.S. (2000). The Influence of Active Learning on the College Students Departure Process. *Journal of Higher Education, 71,* 569.

Burgstahler, S. (1997). *Peer and Mentor Support for People with Disabilities- And Effective Use of the Internet.* Retrieved from http://www.jsrd.or.jp/dinf_US/csun_97_024.html

Burgstahler, S. and Nourse, S. (1998, November). *Opening Doors: Mentoring on the Internet.* Retrieved from http://www.jsrd.or.jp/dinf_csun_99/session0032.html

Center for the Study and Prevention of Violence (1999). *CSPV Blueprints Fact Sheet: Big Brothers Big and Sisters of America.* Boulder, CO: Colorado State Documents.

The Chronicle of Higher Education (1998). *The Chronicle of Higher Education 1998-1999 Almanac Issue, XLV,* 1. New York and Washington, D.C.: Author.

The Chronicle of Higher Education (2001, August). *The Chronicle of Higher Education Almanac Issues, 2001-1, XL VIII,* 1. New York and Washington, D.C.: Author.

Cascio, T. amd Gasker, J. (2001). Everyone Has a Shining Side: Computer-Mediated Mentoring in Social Work Education. *Journal of Social Work Education, 37,* 283. Council on Social Work Education.

Cobb, B. (2001). *Evaluation Results from Student and HP mentor Surveys September 1996-May 1997.* International Telementoring Program. Retrieved from http://www.telementor.org.

Farmer, B. and Wright, K. (1999). Pondering the Power and Process of Mentoring: The Relationship between Job Satisfaction, Organizational Commitment, Mentoring Functions and Mentoring Communication. *1999 Diversity in Mentoring Proceeding.* Atlanta, Georgia: The International Mentoring Association.

Grant-Vallone, E. and Ensher, E. (1999). Peer Mentoring: The Effect of Social Support on Students' Perceived Stress during the First Year of Graduate School. *1999 Diversity in Mentoring Proceeding.* Atlanta, Georgia: The International Mentoring Association.

Helen, R.A. (1999). Telementoring: Providing Authentic Learning Opportunities for Students. *Book Report, 17,* 27-9. OCLC First Search.

Kelly-Vance, L. and Thompson, L.A. (2001). The Impact of Mentoring on Academic Achievement of At-Risk Youth. *Children and Youth Service Review, 23,* 227-242. New York: Pergamon Press.

The Metropolitan State College of Denver. (2001). The LINKS Program. Retrieved from http://clem.mscd.ed/~links/

Murrel, A. J., Crosby, F. J. and Ely, R. J. (1999). *Mentoring Dilemmas: Developmental Relationship within Multicultural Organizations.* Mahwah, N.J.,: L. Erlbaum Associations.

Perez, S. and Dorman, S. M. (2001, March). Enhancing Youth Achievement Through Telementoring. *Journal of School Health, 71,* 122. American School Health Association.

Wilson, J. J. (2000, September). Juvenile Mentoring Program: A Progress Review. *Juvenile Justice Bulletin.* Washington, D.C.: US Department of Justice.