社会人学習者のEラーニングにおける動機づけ：日本人の場合

Motivation in E-learning for Adult Learners: A Japanese Context

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Keywords Eラーニング，社会人学習者，オンライン学習環境，自信，オンラインインターラクション

E-learning, adult e-learners, online learning environment, confidence, online interaction

ABSTRACT

In Japan the Internet-based learning is still at the early stage. However, adult learners in Japanese society expect the development of flexible e-learning programs. The purpose of this case study was to examine motivational factors affecting online-learning for adult learners in Japan based on observations, interviews and questionnaire survey. The data were investigated from motivational factors of the ARCS model and influence of e-learners learning environment, considering changeability of motivational factors and affection of Japanese characteristics. This case study revealed motivation of adult e-learners was individually different, but was mostly positively influenced by online interaction in particular with peers and in a group activity. Interaction in e-learning settings goes beyond social activities and the simple exchange of information. In addition, their confidence level toward online activities was increased as they became more experienced with online learning. It was also observed that active participants in online interactions had developed higher level of self-confidence and self-regulation than less active students. Motivation factors of successful e-Learners are highly interrelated among factors. Improving Japanese e-Learners self-efficacy is the most difficult in the process of instruction, but important for other motivational factors. These results suggest the importance of offering sufficient opportunities for interactions and providing supports when we implement e-learning programs for adult learners.

日本におけるEラーニングはまだ初期段階にあるが，学習意欲の高い社会人はフレキシブルなEラーニングでの学習を求めている．本論文は，日本のEラーニングにおけるケーススタディーを通し，社会人がEラーニングでの学習意欲を持続させ，学習環境を最大限に活用するために必要な動機づけについて調査した．学習者の観察，インタビュー，さらにEラーニングの初期段階にある群と，２年間のEラーニングを経た群に分け，アンケート調査からデータを入手した．インストラクショナルデザインで広く使用されているARCSモデルの動機付け要因に関してと，各学習者の学習環境に関する要因に関しての２つの視点，各要因の相関関係，さらに，日本人の特徴を考慮しながら分析を試みた．その結果，動機付けに必要なものは学習者同士のインターラクションであり，それはまた学習者の自己効力感を高めることがわかった．

1 INTRODUCTION

The Internet has opened an opportunity for working adult Learners to pursue their further studies in a more flexible way by effectively interacting with contents, teachers and other e-learners synchronously and asynchronously. However, in Japan the Internet-based learning; that is, e-learning is still at the early stage. According to the National Institute of Multimedia Education (NIME) (2005), only 4 % of the university courses have applied an e-learning mode to credit bearing courses. Jung and Suzuki (2005) indicate three reasons for Japan's low adoption of e-learning. First of all, in Japan the development of comprehensive national strategic plan for Information and Communication Technology (ICT) and the use of ICT in education have delayed, compared with other developed countries and emerging ones in Asia. Most higher education offering distance education concerns the digital divide among e-Learners (NIME, 2005; Hashimoto, 2005). Another reason is derived from Japanese culture. Education in Japan values synchronous and face-to-face modes over asynchronous interaction in more than any other countries. The Japanese government used to allow exclusively synchronous settings of interaction in distance education until 2001. Even now, Yoshida and Taguchi (2005) report that 53.7 % of the universities claim the necessity of a blend of face-to-face schooling with e-learning components, concerning lack of promoting humanistic character-building education in an e-learning environment. It also seems that Japan concerns reliability and security of e-learning. As the third reason, Jung and Suzuki (2005) mention that mobile phones have been used rather extensively in personal communications and information search among both the elders and the youth.

Despite of this slow e-learning adoption in Japan, the number of adults who would like to go back to school has been rapidly increasing. According to the most recent report of Ministry of Education, Culture, Sports, Science and Technology (MEXT) (August, 2005), 17.7% at graduate schools and 46.4% at professional graduate schools are adult learners who have job. Another report (NIME, 2004) says that among the ages of 20's to 40's, 52.2 % are interested in studying at universities while working. Further, 65.8% prefer the Internet-based education over face-to-face classes (Japan, Ministry of Economy, Trade and Industry, 2004). These figures suggest strong needs for the development of flexible e-learning programs for adult learners in Japanese society.

The findings from studies on e-learning are mostly positive. For example, such studies report that students' satisfaction is high (e.g., Allen, et al, 2004; National Center for Education Statistics, 2005) and a learner-centered, collaborative knowledge building community is possible in e-learning environment (e.g., Li, 2004; Luca & McLoughlin, 2004). Furthermore, several studies show that e-learning can be more effective than classroom settings when it is designed appropriately for target learners (e.g., Becker, 2002; Chou & Liu, 2005; Scheuermann, 2003; Sitzmann & Wisher, 2005).

There also have been many studies on adult e-learners motivation in other countries. For example, Kim et.al (2004) conducted a case study on e-learners motivation in online MBA courses in the US and revealed that both the e-learners and the faculty indicated a high level motivation for completing their program due to their clear goal, the flexibility and convenience. Stepheson (2003) studied the learning experience of adult e-learners

in Denmark, France, Germany, Greece, Hungary, Italy, Romania, Spain and UK based on lengthy semi-structured interviews and the data were analyzed on a cross-European cross sector basis, and found that key motivators were to gain new skills and knowledge relevant to their work (93%), personal development (86%), and future careers (80%). This study suggested e-learning succeed where "it is personalized, managed by the user, relevant to the user's everyday work and aspirations, supported by the employer, linked to just-in-time specialist material and fully supported within a healthy learning milieu" (p.16). Bird and Morgan (2003) investigated the motivational factors of adult e-learners in Australia and found that adult e-learners concern many issues including family support, ability, fear of failure, financial problems, and suggested that educators need to provide clear pre-information and proper advice for e-learners prior to their start. Lim (2004) studied on comparison between e-learners motivation in Korea and the US, and found that American e-learners showed significantly higher motivation scores for course relevancy, course interest, reinforcement and self-efficacy than Korean e-learners, and suggests that educators realize that each culture's achievement-relevant beliefs, goals and values, and also individual level variables highly influence each e-learner motivation.

In contrast, not much research has been done to investigate motivational factors affecting Japanese e-learners. With the increase of the number of adult e-learners in Japan, there is a need for understanding Japanese e-learners in order to make an effective use of e-learning environment. This study is to conduct a case study which examines factors affecting motivation of working adult e-learners in Japan and to provide some suggestions and further research areas for the improvement of design of Japanese e-learning programs. More specifically, this study attempts to answer the following three questions:

- What factors affect motivation of adult e-Learners in Japan?
- Can these motivational factors be changed over time?
- How are Japanese general characteristics related to e-learning experience and motivation?

2 METHODOLOGY

2. 1. Setting

This study analyzed a case of an online MBA (Master of Business Administration) program called the Bond-BBT MBA program in Japan. In 2001 a for-profit company called Business Breakthrough Inc. started this online MBA program by affiliating with the Bond University in Queensland; Australian's first government authorized private university. This program, as the first totally online MBA program in Japan, offers the same accredited MBA degree as the one offered on-campus of the Bond University. This program provides half of its courses in English, and the other half in Japanese. Whereas English courses are created by the Bond University, focusing on theory in business and administration, Japanese courses are developed by the Business Breakthrough Inc., emphasizing practical cases. The duration of this program is two years, and students are allowed to expand their study period up to five years.

The Bond-BBT MBA program delivers its courses via TV lectures, Blackboard (an online learning management system) and 7-day face-to-face campus study tour at the end of the first and second year. Each course has around 45 to 100 e-learners under one professor and one to three teaching assistants, and assigns a group work with 4 to 5 members, weekly online discussions, four to

six online virtual classes, 10 quizzes, and a final examination. Unlike any other MBA programs, this program basically accepts all applicants without TOEFL or GMAT, and has three entry points a year. Currently, the completion rate is about 50% within two years, because around half e-learners extend their graduation to three months to one year. The rate of e-learners who completely quit this program is no more than 5%.

2.2. Participants

99% in the Bond-BBT MBA e-learning program are working adults. Most of the students have more than 10 years of working experiences in corporations. The average age is 36, and the range is between 27 and 58. Almost all of them graduated from prestigious universities or graduate universities. 13 % of these e-learners have a doctor or master's degree in another field such as Technology or Science. 91% are males and 9% are females. 69% lives in Kanto area; around Tokyo and 3% live in overseas. Over 70% have their own family with or without children.

For the purpose of this study, two groups were selected, and named as Group A and Group B. Group A consisted of 72 e-learners who have begun the program and just completed only one course in Japanese while stating next two courses in English. Group B consisted of 102 e-learners who have completed almost all the courses required for graduation except one or two courses. In other words, participants in Group A were novice e-learners whereas those in Group B were successful e-learners. All participants, a total of 174, were self-financed e-learners. A total of 138 out of 174 e-learners replied to the survey, 68 from Group A and 70 from Group B.

The response rate in Group B was rather low due to their final project required for graduation.

2. 3. Procedure

The author has worked for this MBA program as a manager since 2001. This position has offered her the opportunity to collect information which would not have been obtained under other circumstances.

First, observation data were collected through direct observations of e-learners' everyday online activities and face-to-face study tours to the Bond University campus. Observation data were recorded and reviewed by other staff members of the program.

In addition to the author's observations, a series of interviews with a selected group of e-learners were conducted with regard to motivational factors. During the interviews, the e-learners were asked about factors motivating them to continue the program and other factors hindering them from online study.

Table 1 *Participants of the Study*

	Group A	Group B
Survey Sent to	72	102
Replies from	**68**	**70**
Response Rate	94.4%	68.6%

The data collected from observations and interviews were analyzed and categorized by the author and two other staff members to delineate motivational factors salient to our e-learners. The KJ method helped us categorize motivational factors into 26 categories. The KJ method was invented by Kawakita, a Japanese cultural anthropologist in 1968. One way of conducting this is to write areas of concern on a large board, discuss them with other members, and group those areas of concern into some categories.

Using these categories developed during the implementation of the KJ method and four motivational factors suggested in the ARCS Model, the author developed five-point Likert type scale with 26 questions (1 for 'strongly disagree' to 5 for 'strongly agree') for the survey of this study (See below in detail). To ensure the validity and reliability of the questions, a pretest was run with 17 e-learners. A reliability alpha was 0.89 for the overall questionnaire. Some parts of the questions were revised and five questions were deleted as a result of the test. In August 2005, the revised questionnaire consisting of 21 question items was distributed to a total of 174 e-learners through online; 72 in Group A and 102 in Group B. The data were collected for 10 days. In total, 138 responses were collected. The data were analyzed by comparison between Group A and Group B, and further correlation among each category of motivational factors among Group A and B respectively was examined. The following section will explain about the categories of motivational factors for this questionnaire survey.

2. 4. Development of Instrument

The questionnaire survey in this study was developed by adopting four motivational categories of the ARCS Model (Gagne et.al, 2005) and three learning environmental factors identified from the KJ method. The ARCS model is a method for improving the motivational appeal of instructional materials (Keller, 2001) and has widely applied for formative evaluation studies of web design and provides suitable suggestions. This model is an expanded Expectancy-Value theory; a positive expectancy for success and the satisfaction of personal needs, into four motivational categories. The category of Value was subcategorized into two and named 'Attention' and 'Relevance,' the category of Expectancy was called 'Confidence', and 'Satisfaction' was added. The ARCS is an acronym for these categories 'Attention', 'Relevance', 'Confidence' and 'Satisfaction'. Keller (2004) explains each category as follows. 'Attention' is a prerequisite condition for starting and maintaining the study, by stimulating perceptual curiosity and epistemic curiosity. "Relevance refers to learners' perceptions that the instructional requirements are consistent with their goals, compatible with their learning styles, and connected to their past experiences" (p.10). Learners are motivated when the requirements are compatible with their future usefulness, their present worth and their past experiences. Learner goals can be extrinsic to the learning in that it is necessary to acquire the degree to be eligible for a desired chance, but 'Relevance' emphasizes more intrinsic motivation (Keller & Suzuki, 2004). Confidence "refers to the effects of positive expectancies for success, experiences of success, and attributions of successes to one's own abilities and efforts rather than to luck or to task challenge levels that are too easy or difficult" (p.11). Positive expectancies for success and experiences of success affect 'Confidence.' Satisfaction "refers to sustaining motivation and performance by using extrinsic reinforcements, such as positive rewards and recognition, in accordance with established principles of behavior management, in ways that do not have a detrimental effect on intrinsic

motivation" (p.11). This model was developed by synthesizing various concepts and theories of human motivation into each simple category.

Four factors of the ARCS model represented instructional factors whereas three factors identified from the KJ method showed learning environmental factors. Instructional factors are defined as internal motivational factors whereas learning environmental factors are external in nature. Table 2 shows the questionnaire survey items adopting these two factors: instructional and environmental.

Table 2 *Questionnaire survey*

No.	Likert question items	Subcategories
	INSTRUCTIONAL FACTORS	
Attention		
1	Various learning tools such as lecture TV, textbooks, BBS attract my attention.	Perceptual arousal
2	I would like to study further by myself	Epistemic curiosity
Relevance		
3	I have my clear learning goal for each course or this MBA program.	Goal orientation
4	Knowledge learned here is appropriate to my current situation.	Present worth
5	The course contents are generally familiar to me.	Experience
Confidence		
6	I am sure I will be able to complete this program.	Learning requirements
7	It is easy for me to study here while working.	Personal control
Satisfaction		
8	I am sure I can use acquired knowledge in a real setting.	Natural consequences
9	What I acquire here including course grades satisfies me.	Equity
10	Learned knowledge (will) lead/s me to better results in my life.	Positive consequences
	LEARNING ENVIRONMENTAL FACTORS	
Personal environment		
11	My family encourage my study.	
12	My company helps me study here.	
13	My colleagues encourage my study.	
Time and place flexibility		
14	Time flexibility is helpful for my study.	
15	Place flexibility is helpful for my study.	
Interaction		
16	Virtual class (online chat) is helpful for my study.	
17	I try to keep good relationship with peers.	
18	I try to find a chance to meet peers face-to-face.	
19	Group work helps my study and understanding.	
20	Online interaction with teachers helps my study.	
21	Online interaction with peers helps my study.	

3 FINDINGS

The findings reported below are from the survey results, observations and interviews. Table 3 shows the overall results of the survey. Bivariate correlation among e-learners in Group A was found in Table 4 and that in Group B was in Table 5. There were three major findings in terms of motivational factors.

Table 3 Differences in Likert questions between two groups

No.	Likert questions	Group	N	Mean	SD	t -test
1	Various learning tools such as lecture TV, textbooks, BBS attract my attention.	1	68	3.40	0.76	-5.735 **
		2	70	4.11	0.71	
2	I would like to study further by myself	1	68	3.31	0.89	-9.117 **
		2	70	4.53	0.68	
3	I have my clear learning goal for each course or this MBA program.	1	68	4.38	0.62	-4.856 **
		2	70	4.81	0.39	
4	Knowledge learned here is appropriate to my current situation.	1	68	3.54	0.70	-5.127 **
		2	70	4.19	0.77	
5	The course contents are generally familiar to me.	1	68	3.88	0.87	-2.544 *
		2	70	4.20	0.55	
6	I am sure I will be able to complete this program.	1	68	2.79	0.87	-12.693 **
		2	70	4.31	0.47	
7	It is easy for me to study here while working.	1	68	2.62	1.12	-11.689 **
		2	70	4.41	0.60	
8	I am sure I can use acquired knowledge in a real setting.	1	68	3.88	0.78	-3.640 **
		2	70	4.33	0.65	
9	What I acquire here including course grades satisfies me.	1	68	4.32	0.80	-0.398
		2	70	4.37	0.59	
10	Learned knowledge (will) lead/s me to better results in my life.	1	68	4.26	0.73	-0.277
		2	70	4.30	0.77	
11	My family encourage my study.	1	68	3.51	0.89	-3.356 **
		2	70	4.01	0.86	
12	My company helps me study here.	1	68	3.10	1.26	-0.579
		2	70	3.23	1.29	
13	My colleagues encourage my study.	1	68	3.13	0.96	-0.222
		2	70	3.17	1.10	
14	Time flexibility is helpful for my study.	1	68	4.13	0.71	-4.571 **
		2	70	4.67	0.68	
15	Place flexibility is helpful for my study.	1	68	4.04	0.74	-3.965 **
		2	70	4.54	0.74	
16	Virtual class (online chat) is helpful for my study.	1	68	3.32	0.70	-10.473 **
		2	70	4.60	0.73	
17	I try to keep good relationship with peers.	1	68	3.01	0.78	-11.521 **
		2	70	4.49	0.72	
18	I try to find a chance to meet peers face-to-face.	1	68	3.10	0.76	-13.513 **
		2	70	4.66	0.59	
19	Group work helps my study and understanding.	1	68	2.99	0.74	-11.372 **
		2	70	4.31	0.63	
20	Online interaction with teachers helps my study.	1	68	3.24	0.76	-6.793 **
		2	70	4.01	0.58	
21	Online interaction with peers helps my study.	1	68	3.66	0.87	-7.065 **
		2	70	4.56	0.58	

Note. Group 1: the initial group, Group 2: the final group

* $p < 0.05$ (2-tailed)

** $p < 0.01$ level (2-tailed)

Table 4 *Bivariate Correlations among e-Learners in Group A*

Category	A	R	C	S	*P*	*F*	*I*
Attention	—						
Relevance	0.188	—					
Confidence	-0.162	0.088	—				
Satisfaction	.240(*)	.674(**)	0.082	—			
Personal environment	-0.038	0.109	.633(**)	-0.081	—		
Flexibility	-0.203	.390(**)	.364(**)	0.043	0.225	—	
Interaction	0.49	0.223	.315(**)	0.152	0.116	.385(**)	—

Note. Flexibility = Time and place flexibility

* p <0.05 (2-tailed)

** p < 0.01 level (2-tailed)

Table 5 *Bivariate Correlations among e-Learners in Group B*

Category	A	R	C	S	*P*	*F*	*I*
Attention	—						
Relevance	.437(**)	—					
Confidence	.462(**)	.514(**)	—				
Satisfaction	.359(**)	.381(**)	.364(**)	—			
Personal environment	-0.106	-0.124	-.308(**)	-0.111	—		
Flexibility	-0.041	-0.01	0.175	0.111	0.181	—	
Interaction	.361(**)	.427(**)	.382(**)	.350(**)	-0.018	-0.13	—

Note. Flexibility = Time and place flexibility

* p <0.05 (2-tailed)

** p < 0.01 level (2-tailed)

3. 1. Motivational factors

Firstly, almost all e-learners had high intrinsic motivation in this program and had a clear goal for their future. Many respondents said that the purpose to enter this program was not to earn the degree, but to acquire knowledge and skills to improve their current job-related performance, or to establish their own company. The e-learners did not expect that an MBA degree itself would help their future in Japan because an MBA degree is not a prescript certificate like other professional areas such as Accounting and Law. They rather wanted to acquire knowledge directly related to their current or future jobs and skills to help them develop further career in business. Regarding the value of the questionnaire survey, 'I have my clear learning goal for each course or this MBA program' also marked the highest mean scores in both groups.

Secondly, each e-learner had individually different motivational factors, along with each personal environment and also possibly each characteristic. The most notably finding on the difference was identified in the highest standard deviation (SD) in the value of "My company helps me study here' of both groups. In reality, some e-learners said that whereas some companies expected knowledge and skills learned in this program, other companies wanted employees to contribute to working within the companies rather than to acquiring new knowledge and skills in this program and the bosses in those companies wondered how to make great use of those acquired knowledge and skills. This fact reveals that some companies still follow seniority systems or others in Japanese society. Remarkably, Bivariate correlation among e-learners in Group B showed a negative correlation between 'Confidence' and Personal environment (r=-0.308, p=0.01), although Group A showed a strong positive correlation among them (r=0.663, p<0.01). The factors related to their current company, current colleagues in their company and their family were influenced individually different degrees and even negatively to some e-learners. That is, the factors some e-learners regarded as motivation were similar to barriers and demotivation others struggled with.

Thirdly, Interaction category in the survey showed significantly positive correlation with 'Confidence' in both groups and also with other three categories among the ARCS model in Group B. In particular, in the survey the value of interaction related to peer-to-peer marked rather high in Group B. In addition, virtual class (online chat) and face-to-face interaction were highly correlated (r=0.551, p<0.01). E-learners said that they worked a group assignment by often using online chat, and satisfied this tool. In effect, some e-learners reported the purpose of entering this program was to create and build up my network online.

3. 2. Changes in motivational factors

The survey mostly showed significant difference in average score between Group A and Group B. The value of all questions in Group B except 'Satisfaction' category and 'My company helps me study here' and 'My colleagues encourage my study' marked higher than those of Group A. The most difference between Group A and Group B can be seen in 'Confidence' and 'Interaction'.

Almost all e-learners in Group A felt difficulty with the first and second courses. Even before they started the course, if it needs English, some e-learners said they expected difficulty in that course. However, the correlations of 'Confidence' in Group A showed highly correlation with learning environment factors; Personal environment, Time and place flexibility, and Interaction. That is, Group A strongly relied on their learning environment factors in terms of 'Confidence.' On the other hand, 'Confidence' in Group B marked much higher and was strongly influenced by the other three motivational factors in the ARCS model and Interaction category.

Among 'Interaction', the remarkable differences between Group A and B were seen in the value of 'I try to find a chance to meet peers face-to-face', 'I try to keep good relationship with peers' and 'Group work helps my study and understanding'. In terms of group work activities, we observed some e-learners in the first stage felt the necessity to fix their own schedule for the activities and even showed great restraint in contacting with other group members. However, once they meet each other face-to-face, they became relaxed and continue their discussion online synchronously and asynchronously with little concerning their own

schedule. In effect, that virtual class (online chat) and face-to-face interaction in Group B were highly correlated (r=.551, p<0.01).

By considering those findings of Japanese e-learners motivational factors, how Japanese general characteristics are related to e-learning experience and motivation will be discussed.

4 DISCUSSIONS

From Japanese general characteristics, e-learning experience in Japan revealed two major points. First, online interaction strongly affected e-Learner's motivation. In particular, a group work seems to be the key to keep e-learners' motivation to stay online. This finding is compatible with the research finding of Hayamizu (1998). Hayamizu reports that affiliation motivation helps achievement motivation in Japanese society on the basis of Japan's collectivism. Most e-learners said that they felt responsibility when working with group members, and worked harder than when working alone. Group work activities will also be able to facilitate online discussion in Japan. Many literature points to the relation between teaching presence and perceived learning, and concluded that interaction with teachers have a much larger effect on satisfaction and perceived learning than interaction with peers (e.g., Pawain et. al., 2003; Picciano, 2002; Swan, 2001). However, in general Japanese feel uneasy at asking questions to teachers (Matsumoto, 1999), and is sensitive to teachers reaction. Biesebach-Lucas (2005) studied on comparison of e-mail messages from American students to professors and from students from Korea, Japan, Taiwan and Thailand to professors and found that American students were more active than other students, which resulted in similar conclusion to face-to-face environments.

Further, Japanese society encompasses high context cultures, and expects to establish social trust with long term relation (Doi & Saito, 2004). The e-learners in this program who worked at the same company for more than 10 years have had little or no opportunity to interact with people in other business fields without any serious concerns. They said they appreciate this interdisciplinary online environment and would like to keep this online network even after they graduate. Whereas online communication requires quick clear statements with its lack of nonverbal communication cues, interaction with peers under less pressure will be able to provide plenty of practices to share or convert tacit knowledge and to learn practical negotiations of meaning and leadership online. And peers function as modeling of each e-learner, and professor seems to play a role to provide appropriate tension for the online class. Thus, interaction with others, in particular within a small group and with peers, seems inevitable for successful e-learning modes in Japan.

The second major point was that e-learner 'Confidence' in both group was strongly correlated to Interaction category. Several explanations are possible by reasonable attributions of difficulties in developing adult e-learner confidence in general. Adult learners often face various disrupting factors such as family, job and financial issues beyond their control. And further, generally speaking, adults tend to judge changes in their intellectual abilities mainly in terms of their memory performance and in their physical capacities. In addition to these general reasons, two reasons are considered from Japanese characteristics point of view. One reason can be found in the study finding of Scholz et. al. (2002). Their research on cross cultural self-efficacy found that Japan marked the lowest among 25 countries, and reasoned that self-efficacy may be valued lower in collectivistic

cultures than in individualistic cultures. The other reason might be attributed to lack of Japanese mental health care systems and to general Japanese business society. It has been unusual to meet a public counselor or mental supporter (Wada, 2004), but it seems to seek those who listen to their business problems or provide some advices under a relaxed mood. Still more, even considering that the fear of failure may also be higher for distance e-learners, e-learner confidence will incline to decrease easily. Those possible causes are linked to individual emotion and affection, and might not be influenced by 'Attention', 'Relevance', and 'Satisfaction' in the initial stage. As the process of learning continues, e-learners will be able to increase their learning and motivation strategies. In due course, individual online-learning schedule including time and place seems to become fixed and not be directly influenced by other factors or various problems. In fact, our administration site online (Blackboard) tells us their individual learning time becomes gradually stable; quite early morning or late night every day. It appears to form the habit. Japanese tend to endure hardship (Singleton, 1995), partly which may help adult e-learners motivation.

While Japanese general characteristics strongly affect e-learners motivation, it might be also true that the e-learning environment of this program has established its own society and online culture.

5 CONCLUSIONS

The purpose of this case study was to examine various motivation factors of working adult Japanese e-Learners. The data were gathered from observation for an extended period of time since 2001, interviews and questionnaires conducted in 2005. While motivational factors were similar to those of other countries, there were some peculiarities. First, adult Japanese e-Learners motivation is highly influenced by interaction, particularly with peers. Interaction in e-learning settings goes beyond social activities and the simple exchange of information. Vygotsky (1978) identified learners' verbalizations of their actions and their cognitive strategy developments are directly influenced by their interactions with more capable members of their culture. Adult learners have individually various unique experiences and backgrounds, which will make it easy to create optimum interaction with peers.

Second, their confidence was highly correlated to time and place flexibility in the beginning, but was not in the final stage. Motivation factors of successful e-Learners are highly interrelated among factors. It seems that to improve Japanese e-Learners self-efficacy is the most difficult in the process of instruction, but important for other motivational factors.

The results of this study cannot be generalized to other e-learning contexts in Japan due to limited number of participants, their unique learning situation and the nature of this study as a case study. Further research will be needed to provide more decisive conclusions in the field of motivation of adult e-learners. For example, what motivational factors influence adult Japanese e-learners under different learning situations, how individual cognitive style, characteristics, past learning experiences, or backgrounds affect their motivation, how assimilation or acculturation processes in online learning environment influence motivation, and how social presence in an online learning environment affects motivation will be expected to investigate.

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