

## 【附錄13】 Construction of Mystery-Seeking Motive Theory in Internet Behavior and Its Application on the General Technology Education

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*Abstract:* - Researching into a good many mysterious problems on the Internet through a search engine is an indispensable behavior of our daily studying life. This article aimed at the construction of mystery-seeking motive theory (MSMT) related to the Internet behavior and its application on the general technology education. The researchers intend to explore motives and hidden factors, especially the locus of internal and external control attribution and sensation-seeking viewpoint through investigating related papers. In recent years, many papers related to Internet addiction have popped up like mushroom and bamboo shoots after rain. Most of them stressed unduly the negative or problematic behavior and rarely mentioned the positive exploration. Hence, to visit scenic spots and to understand the truth, the researchers devote ambition to construct the motive theory and to explain network behavior in order to unearth its implication on the general technology education. Study group discovered the motive theory related to network behavior was based on inquiring and searching of related data. After clarification, the questionnaire for empirical study was composed. There were 604 students selected as the testing samples from four universities in Taiwan. The results showed that the MSMT had a great mysterious extent from beginning to end, and also obtained the interaction with one another among flow experience, peak phenomena, and Internet addiction. We established MSMT for the instruction of general technology education. If teachers could handle the information of web-based learning and explore the truth to solve the problem, then students would enhance their learning abilities and pursue truths. Finally, several suggestions were proposed: to compile a more rigid questionnaire; to spread the MSMT; to occupy the status of general technology education; to keep on same study tracks for more understanding and to complete general or liberal education through embedding technological literacy for general courses teaching.

*Key-Words:* -MSMT application, Internet behavior, Locus of control, Sensation-seeking, Flow experience, Peak phenomenon, Internet addiction, General technology education

### 1 Introduction

All people searched for the mysterious experience, such as "visiting quietly scenic spots," "inquiring about the secret boundary," and so on. To fulfill the curious mind of human nature, people inquire the outcome, truth and the causes of everything. Especially in the virtual reality, the world is mystical. General psychology concerned some kind of motivation hidden behind any behavior. This article was concerned with users' behavior of network from a motive viewpoint, and wanted to construct a theory of the motivation. The network users face the searchable process of virtual reality; they actually want to seek something mysterious, and look up to come to light. The motive theory hidden behind these behaviors is important, including self-attribute,

self-efficacy, hierarchy of needs, and sensation seeking [2]. We search for information by network related with motive and seeking diligently a precise balance [12]. This article focused the motive theory on self-attribute and sensation seeking, because they were effective in searching mysteries and had a scale to measure motive. Simultaneously, we aimed the motive theory with an applicable domain at general technology education.

Self-attribute motive theory showed that one faced the situation, such as network, to inquire the reason of reflecting on success or failure in the disposition, and internal-controller turned causes to internal attribute and external-controller turned causes to external attribute. The network users meet the setback and conflict in the realistic environment; they

actually can obtain compensation, satisfaction or achievement in network situation. The sensation seeking motive theory emphasized that a person with high needs of the stimulating experience had a more profound like for the novelties and was more willing to take a risk than a person with low needs[26].

We survey the related research materials of Internet addiction for nearly six years, and may mainly discover four items of the motive ingredient about Internet addiction: individual psychological factor, situation factor, social interaction factor, and personal behavior factor[4]. The research materials of Internet addiction aimed mostly addicting behaviors at negative or morbid state or questionable behaviors. This article directed the immersing network into positive development and the meaning of peak experience. And the common network user or the computer game one who faces the virtual reality may also discover these factors. Now in the network world with fast convenience, the users want to inquire about and satisfy the curious mind, and receive the unique attractive intensity of the network connotation and stimulate, and seek the high level of psychological demand and pursue a new satisfaction of network. Especially in the net coffee situation, the computer games or electrical toy and pleasant sensation of obtaining the treasure, the users just like the demand of self-realization to satisfy "virtual peak experience". The general network user, even in an individual significant behavior, may experience immersing experience or peak phenomena with all his heart. Therefore we inquire into the network behavior of student to seek its mysterious process, and want to understand the truth in view of items as follows.

1. Students who face the daily network situation have psychological factors with inspiring something mysterious, and are involved in self-attribution and sensational orientation of motivation to reach the result for the self-realization of the peak phenomenon.

2. Students who face the virtual reality control a mystery-seeking process in trying to evade the face-to-face social interaction for simulating interpersonal relationship. They transform themselves and adjust their moods to seek the special conscious experience of network.

3. Students who face the setback and conflict of realistic society are unable to obtain the psychological need, and their psychological defense mechanism often seek to compensate the similar satisfactory feeling of self-realization through network situation.

4. The peak phenomenon is a satisfaction of self-realization need, and it possibly produces in the

network situation resembling to attain the peak experience of ordinary life situation.

5. The entire process of mystery-seeking phenomena has several stages, and appears possibly the tendency of addicting to network, flow experience and peak phenomena from stimulate-seeking with motive control to seek compensation and satisfaction through mystery-seeking process of daily situation.

6. In general technology education, the students are enabled to have the macroscopic field of vision, multiple viewpoints and broad mind to achieve the goal which they learn thoroughly to understand the truth and the true meaning of life via the Internet. We hope to construct the mystery-seeking motive theory of Internet for promoting students' healthy behavior.

## 2 Theory and hypotheses development

The purpose of this study was to construct the theory of mystery-seeking to interpret the behavior of Internet addiction via searching for the related literatures. We reviewed deliberately the network behavioral documentary, then analyze real diagnosis to verify the mystery-seeking motive theory through the result of surveying the questionnaire. It interpreted that the on-line mystery-seeking behavior was significant and could deduce to other behavior. We explored further to understand the special meaning of this theory on general technology education.

### 2.1 On-line mystery-seeking phenomenon

Now we access the network to seek mysterious phenomena in developing information technology, and inquire the virtual reality into the hot topic of discussion. It means that using special equipment lets person feel personally the situation experiences in computer software simulation. The virtual reality is a 3D three-dimensional space produced by the computer, and the user may carry on the conversation with this spatial thing, and operate partial thing with user's free will in virtual space. Then he had a suitable feeling of participation and infusion, and could result in a phenomenon of peak experience which was originally a manner situation where the psychologist A. Maslow (1908-1970) indicated the one achieving a satisfactory situation of the self-actualization need. The virtual peak experience is to satisfy the need of self-realization through the network; attaining the peak experience in virtual reality is like the one gained in the ordinary life situation. The flow experience of Internet addiction which the users play in the net route and want to stop

the involuntary phenomenon but cannot do it. There were the problematic Internet to use [5] and pathological using Internet [8] from stimulates-seeking the performance to the dependent feeling of network [14], and exploring the relation between sensation seeking and Internet addiction [23]. We speculated that sensation seeking would be more advantageous in dynamic workplaces. [19] The flow experience was an intrinsic pleasant experience like the similar peak experience, and respected intensely and highly joyful enjoying the time of spiritual pleasure [17]. The pleasure of flow was decided by the intrinsic motive that possibly filled in the active process filled possibly in the active process with joyful stimulus and a bad miss. When the master of computer game created good results in game process, his consciousness and cognitive condition had some special conditions of subjective self-transcendence, and dedicating focal investment of narrow point [18]. The motive of behavior urged users to use the search engine to pick up the information for understanding the truth [13]. Thus on-line users always enjoyed unconsciously and addicted themselves to the Internet.

Flow theory was used in the network research in recent years, and confirmed that the using network behavior had a flow phenomenon. The translated name of “flow” is diverse, such as smooth experience, fascinating and charming [25], current immersing in network [11], the interactive satisfaction of network game, and turning one's thought toward a loved thing. No matter what the translated name was, “flow” demonstrated the positive peak experience on-line motive and the negative galloping phenomenon.

## 2.2 Suppositions of mystery-seeking theory

By inquiring the related literatures, we may induce several supposition as follows:

A. When using network, external controller of motive self-attribution is in more favor of seeking compensation and producing flow experience in network situation than internal controller.

The internal controller handles everything himself and attributes his success to endeavor and on the other hand, failure to negligence. The external-controller accepts failure fate with resignation; he can't handle everything and attribute his success to luck or opportunities and failure to the evil environment. The network users depend on the strength of intrinsic drives order and not external factor, and want to do whatever they like, thus result in flow experience [6]. They are involuntary to the network situation, immersing themselves unconsciously to network for compensating for unsatisfactory need in the realistic environment.

B. In the network situation, the more one seeks compensation, the more one enables to obtain the flow experience and peak phenomena.

The flow experience of network and reading experience are the same feeling. When the users immerse completely themselves in network, they lose self-awareness. They usually pay attention to the self-image in daily life, but in the immersing situation they evacuate temporarily with the self-defense [3]. They can't obtain satisfaction of psychological need in real life situation, and often transform need into the network virtual situation to get a compensatory satisfaction.

C. In the process of network search, the self-efficacy affects the flow experience.

Immersing himself in the network, one accepts the skill and challenge to face the higher and more complex level. One attains a self-harmony by flow experience, and infuses consciousness into action. The master of network indulges himself heartily in an activity, and usually achieves a impossible duty; he never realized the challenge for surpassing process of former activity, and this feeling let him even more affirm his self-efficacy and urged him to verify diligently the new skill [7]. One could continue diligently to obtain this flow feeling [6]. Immersing themselves in the browsing condition of network, the users interacted with machines to enjoy continuously and lose self-determination, and strengthen actually self-efficacy [16].

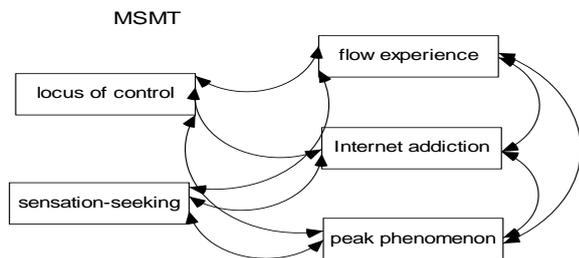
D. The more one has strong sensation-seeking, the more one obtains the peak phenomenon.

When people carry on the activity, they feel completely investing their attention into the situation, filter out all unrelated perception, and they enter to the flow condition. Flow is a temporary and subjective experience, and the reason indicates that one wants to engage continually in some kind of activity [25].

The fact that an individual is absorbed completely in network game means that he has a whole concentration and enjoyment. The effect of flow experience let the user more intensify the process than the result and time factors [10]. Flow is a kind of subjective experience of man-machine interaction, and the special characteristic of game and exploration. In the period of a man-machine interaction, Internet users could sense the subjective joy and infusion. Their special characteristic of playing games may result in a positive mood, satisfaction and further exploration [24], and obtain the peak phenomenon.

## 2.3 Research model and hypotheses

Based on the development of basic motive theories mentioned above, we offer the following model as shown in Figure 1.



**Figure 1 Research model**

According to this research model, we offer the hypotheses concerning the mystery-seeking person in his network behavior.

H1: There is a positive relationship among locus of control and flow experience, addiction to Internet and peak phenomenon.

H2: There is a positive relationship among sensation-seeking and flow experience, Internet addiction and peak phenomenon.

H3: There is a positive relationship between flow experience and Internet addiction.

H4: There is a positive relationship between Internet addiction and peak phenomenon.

H5: There is a positive relationship between flow experience and peak phenomenon.

### 3 Methods

#### 3.1 Content analysis

The content analysis is made by using the related articles, periodicals and network materials to analyze and explore. In view of the on-line behavior mentioned above, we illustrate the origin, process and result of mystery-seeking motive. And try to make a bridge of connection between mystery-seeking theory and general technology education to explain the meaning and application in general technology education.

#### 3.2 Survey

##### 3.2.1 Instrument

Concerning the measuring tool, authors had woven a "Network Technology and Health Caring Questionnaire (NTHCQ)" covering 34 items. This questionnaire derived from five scales for reference and revision: (1) Rotter's internal and external control scale[20]; (2) Zukerman's Sensation Seeking Scale (3) Students Using Network Technology

Questionnaire [4]; Using Network Behavior Scale [9]; and Peak Experience Rating of Self-realization[4]. Participants respond to these items on a four-point or two-point Likert-type scale ranging from Strongly Disagree to Strongly Agree. NTHCQ covers five subscales of Internet addiction (items4-12), flow experience (items 13-20), locus of control (items 21-25), sensation-seeking (items 26- 29), and peak phenomenon (items31-34).

#### 3.2.2 Participants

Participants mainly came from four colleges in Taiwan : Fooyin University, National Kaohsiung Normal University, Mindao Institute of Management, and Lingtung University. The principle of sampling accorded with teaching convenience and the simple random rule. The total of sampling subjects was 604.

### 4 Results

According to 604 subjects responding to items in NTHCQ, factor analyses and research hypotheses were examined in order.

The results with Cronbach's  $\alpha$  coefficient of Internet addiction(items 4-12), flow experience (items 13-20), locus of internal or external control (items 21-25), sensation-seeking (items 26- 29),and peak phenomenon (items31-34) covering five subscales were 0.54, 0.81, 0.44, 0.40 and 0.67, respectively. Subscales carry on the validity test of construction by a main axle fact or analysis, and the result could explain the total variation weighs. The hypotheses are examined and tables are listed as follows:

Table 1 correlations

Pearson	locus	seeking	flow	peak	addict
locus		-.044	.016	.122**	-.069
seeking	-.044		.024	-.159**	.076
flow	.016	.024		.040	.383**
peak	.122**	-.159**	.040		-.148**
addict	-.069	.076	.383**	-.148**	

\*\*Correlation is significant at the .01 level (2-tailed)

Table 2 locus of control Mean, SD

control		flow	peak	addict
external	Mean	18.32	17.93	19.30
	N	237	237	237
	SD	4.428	2.500	4.007
internal	Mean	18.47	18.39	18.78
	N	367	367	367
	SD	4.485	2.779	4.074
Total	Mean	18.42	18.21	18.99
	N	604	604	604
	SD	4.460	2.680	4.053

Table 3 one-way ANOVA (locus of control)

	SS	df	MS	F	Sig.
flow B	3.206	1	3.206	.161	.688
W	11991.5	602	19.919		
T	11994.7	603			
peak B	29.487	1	29.738	4.161	.042*
W	4301.98	602	7.146		
T	4331.72	603			
addict B	38.170	1	38.170	2.329	.128
W	9865.73	602	16.388		
T	9903.89	603			

There is a positive relationship between locus of control and peak phenomenon( $r=.122$ ), but there is not significant differences among locus of control and flow experience( $r=.016$ ), Internet addiction( $r=-.069$ ) (see Table 1). Then using one-way ANOVA, we can discover a significant difference between locus of control and the peak phenomenon, and the internal controller is more manageable than external controller in achieving the peak phenomenon(see Table 2, 3). It is different that the user of network can immerse himself in flow experience according to the order of his intrinsic drives and non-external factor [6]. Thus, H1 is supported partly.

Table 4 sensation-seeking Mean, SD

sensation		flow	peak	Addict
weaker	Mean	18.39	18.48	18.66
	N	422	422	422
	SD	4.258	2.345	3.859
stronger	Mean	18.47	17.58	19.74
	N	182	182	182
	SD	4.908	3.251	4.388
Total	Mean	18.42	18.21	18.99
	N	604	604	604
	SD	4.460	2.680	4.053

Table 5 one-way ANOVA (sensation-seeking)

	SS	df	MS	F	Sig.
flow B.	.690	1	.690	.035	.852
W	11994.0	602	19.924		
T	11994.69	603			
peak B	103.944	1	101.147	14.80	.000**
W	4227.77	602	6.896		
T	4331.71	603			
addict B	148.489	1	148.489	9.163	.003**
W	9755.41	602	16.205		
T	9903.89	603			

There is a significant negative relationship( $-.159$ ) between sensation-seeking and peak phenomenon, but there is not a significant positive relationship between sensation-seeking and Internet addiction( $.076$ ), and there is also not a significant relationship( $.024$ ) between sensation-seeking and flow experience [15].Then using one-way ANOVA, we can discover a significant difference among sensation-seeking and peak phenomena, Internet

addiction, and the sensation weaker is much easier than stronger to achieve peak phenomenon; and the sensation stronger is much easier than weaker to addict to Internet (see Table 4, 5). We can infer that the participants ( $N=422$ ) of sensation weaker in network are more than sensation stronger( $N=182$ ) (Table 4 ).The inequality between sensation weaker and stronger brings forth errors. So the sensation weaker who converges the stimulate-seeking is much easier than stronger to achieve peak phenomenon, and the sensation stronger who has a tendency of Internet addiction is much easier than weaker to addict to Internet. Thus H2 is supported partly.

The flow experience is a kind of the subjective man-machine experience of interaction. In the man-machine interactive period, one has the special characteristic of exploring a game and may result in the positive mood and satisfaction with subjective and joyful sensation, and initiate a plan to inquire further into the game [23].

From Table 1, there is a significant positive correlation( $r=.383$ ) between flow experience and addiction to Internet, and thus H3 is supported. It demonstrated that the deeper flow experience, the more obvious Internet addiction.

From Table 1, there is a significant negative correlation ( $r=-.148$ ) between Internet addiction and peak phenomena, and H4 is not supported, which. It demonstrated that the more tendency of Internet addiction the easier not to achieve the peak phenomenon. Students addicted to Internet or net coffee more often than not forgot to return home, affecting their life quality, the health in mind and body, and never achieving to peak phenomenon.

From Table 1, there is no significant correlation ( $r=.040$ ) between flow experience and peak phenomena, and H5 is really not supported. It demonstrating that the flow experience is unequal to the peak phenomenon.

## 5. The application of MSMT tp general technology education

### 5.1 The meaning of general education

The general education originated in the western liberal education from a historical viewpoint, and it cultivated the general talented person, regardless of the geometry, astronomy, music, language and so on, and all of these need to be understood thoroughly. The differences between the general education and professional education were listed in Table 6.

Table 6 Differences between the general education and professional education

	general education	professional education
focus	a vast learning on liberal knowledge	expert training on practical knowledge
function	integrated view of technical real things	specialization and diversification

In other words, the general education enabled learners to obtain the macroscopic field of vision, the open heart, the basic literacy of widely learned experience through a teaching process. And it was also a kind of establishing complete personality to facilitate validly students' self-liberation education. Therefore the general technology education let the students realize that in addition to accepting the professional education, they still needed to understand the manner of basic literacy, and long for the perfect traits of personality in order to promote the technological blessing and quality of life.

## 5.2 The characteristics of general technology education

### 5.2.1 Vastness

In the pluralistic technological society, general education emphasized knowledge vastness. The current universities trained regularly the technological talented person who had respectively the different cultural context, idea and goal; therefore the general technology education presented properly the traits of multiple learning. We need to show the general technology education and integrate different ideas and visions.

### 5.2.2 Caring

In general technology education, we must kindly care for social questions of technology, treasures of national culture, the national duty and show a loving care for future. At present the university students need to raise the macroscopic field of vision to show caring for basic traits. The university needs to regard caring as the basic personality trait of students.

### 5.2.3 Balance and elaboration

We should keep the balance and elaboration between indigenization and globalization. The general technology education inquired about the eternal invariable classics, and appreciated the core value to balance the field of vision and give students foresighted judgment and view of progress.

## 5.3 The curriculum planning

Now the curriculum of general education in universities usually went through the process from planning, designing to practicing. All the courses of core curriculum, including basic ability, were the developmental general knowledge, and the different

domains consisted of humanities, social sciences, natural sciences, applied science, and life science. And the related scientific and technological domains were courses, such as natural sciences, applied science, and life science. According to the school characteristics, students' needs, and social responses, the teachers should project practically a liberal course. The humanities and social sciences also may actually be integrated with the general technological knowledge in an attempt to embed technology literacy into the humanities and social sciences.

Concerning the general technology education in universities, its curriculum planning contains the technological philosophy and social knowledge. The knowledge of general technology curriculum consists of concepts in technological philosophy, value, ethics, innovative thinking, technological development, resources, technology and culture, technology and life, technology and environment, technological law and standard, technological appraisal, etc. These courses may include general technology literacy for reference. The core curriculum of general technology education is compulsory courses and the curriculum of technological system is an elective course. The curriculum project of general technology education in colleges regard "the experience of technological development, adaptation of technologic environment, the basic life of technology " as the core curriculum, and consist of " promoting survival security, living conditions improvement by exploring technological knowledge, and enhancing self-control professional ability of technology, etc. We regard the technical vicissitude, technical model, and promoting technical value as overhead construction for the curriculum. The technological literacy education is the same as the general technology education. Therefore, the aim of general technology education is to let student have the basic literacy of knowledge through the course in technological teaching.

## 5.4 The objectives of general technology education in mystery-seeking motivation

### 5.4.1 The domain of cognition

The general technology education was to let the students know the basic literacy and vast knowledge. Students should understand themselves, and inspired their rational thought and moral judgment, and when they were confronted with moral question, they could make a rational judgment and correct choice. Then they could enhance their quality of life, and integrate the life significance with the value justification. And the aim of general technology educational is to seek the true meaning of life to technology. They had the learning motivation of seeking the truth, goodness

and beauty, and accorded with the cognitive and innovative thinking.

#### 5.4.2 The domain of affection

The general technology education cultivated the students to yearn for sentiment of high quality, to show the social caring and practice the spirit of humanitarianism. Then students were trained with the worldwide outlook and the better mood management, and explored other cultures, other people, and the interaction of man-nature for a better understanding of themselves. Simultaneously, they could experience a historical sentiment, further understand sincerely the relationship between modern society and individual responsibility, and receive continually the wisdom of the Bible to find the future mission for themselves and their later generations. This seeking motivation accorded with the affection and sentiment.

#### 5.4.3 The domain of psychomotor

The general technology education guided the students to display their ability and expression, communication, synthesis, analysis, understanding, and critique. Its goal is clearly know the education indicator from commenting the quantity, and could subscribe explicitly the educational goal and characteristic to direct diligently teaching and research of the teachers and students. The teachers present the subject for the academic specialty to coordinate. And the teachers of general technology education planned appropriately a course according to their academic specialty to let the students obtain the core specialized domain of language ability, creative thinking, future career planning, and could be good at expressing their creative and critical thinking ability. This seeking motivation accorded with the domain of psychomotor.

## 6 Conclusions

We inquired into the network motive hidden behind the behavior to construct the mystery-seeking motive theory (MSMT) through the related literatures analysis and survey study concerning the start, process and result stage of mystery-seeking, the research goal was achieved. In order to confirm this theory, we developed the NTHCQ with 34 items, and assessed the mystery-seeking motive of the Internet behavior.

Through the data analysis of 604 participants by SPSS 14.0 for Window, it was indicated that the hypotheses 1, 2 were supported partly, hypotheses 3 was supported wholly, but hypothesis 4, 5 were not supported. There was a positive relationship between locus of control and peak phenomena, but there was not a positive relationship among locus of control and

flow experience, Internet addiction. There was a negative relationship between sensation-seeking and peak phenomenon, and was a positive relationship between sensation-seeking and Internet addiction, but was not a significant difference between sensation-seeking and flow experience. And there was a positive relationship between flow experience and Internet addiction, and a significant negative correlation between Internet addiction and peak phenomenon, and there was no significant correlation between flow experience and peak phenomenon.

Furthermore, the investigation showed that the MSMT could apply general technology education, and design a program of general curriculum and teaching on technology education for college students.

## 7 Implications and Suggestions

The implications of this study on general education are to inquire about the truth of on-line behavior, and to establish a macroscopic field of teaching and learning vision. The general education originated in the western liberal education, and it cultivated the general talented persons, regardless of the geometry, astronomy, music, language, and so on. It was a cognitive problem that concerned the changing from the ancient to modern and the relation between heaven and earth, and had the basic technological literacy, and it was relative to professional education. The professional education emphasized the importance of expert training, and the general education focused a vast learning on self-control. The professional education moved towards to specialization and diversification, and the general education enabled the students to integrate view of technical real things and perform the series of reorganization to achieve the harmony between nature and humanity. In other words, the general education enabled the learners to obtain the macroscopic field of vision, the open mind, and the basic literacy of widely experience through the teaching process. Therefore, the general technology education let the student not only cognitively accept the professional education, but also need to thoroughly understand the manner of basic literacy, and long for the perfect personality and healthy spirituality to promote the technological blessing and life meaning.

The focus of constructing MSMT is to apply this mystery-seeking motivation to general technology education. The objectives of general technology education cover three domains: cognitive thinking, affection and sentiment, and psychomotor. The

students should inspire their rational thought and moral judgment, and when they faced moral question, they could make the keen judgment and correct choice. Then they could enhance their life quality; integrate the life meaning and the value viewpoint. They could understand sincerely the relation between modern civilization and individual duty, and receive continually the wisdom to find the mission of future. The general technology education would guide the students to display their ability and expression, communication, synthesis, analysis, understanding, and evaluation. The teachers of general technology education should design appropriately a course according to their academic specialty to let students obtain the core specialized domain of language ability, creative thinking, career planning, and could be good at expressing their creative and critical thinking ability.

The suggestions of this study are proposed to establish a rigorous questionnaire or scale with high reliability and validity to examine the truth of students' on-line behavior; to define explicitly the special nouns, such as flow experience, peak phenomena, Internet addiction, etc.; to apply SMST to promote effectively the network behavior on health technological literacy and to develop macroscopic field of vision; and to research into the application of SMST in technical education with quantitative and qualitative method. Finally, we could complete general or liberal education through embedding technological literacy into general courses teaching. We will conduct the comparative analysis of instruction in the virtual and traditional classrooms [21], students' personality traits in sensation seeking [1] of Internet for tracking students' behavior, persistence, and achievement in online courses, and knowledge construction in universities' students through asynchronous discussion groups [22] by using MSMT for further research.

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