ASLI QoL2015, Annual Serial Landmark International Conferences on Quality of Life
ASEAN-Turkey ASLI QoL2015
AicQoL2015Jakarta, Indonesia. AMER International Conference on Quality of Life
The Akmani Hotel, Jakarta, Indonesia, 25-27 April 2015
*"Quality of Life in the Built & Natural Environment 3"*

# Can Self-directed Learning Environment Improve Quality of Life?

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**Abstract**

The SeDLE (Self-directed Learning Environment) Index is developed to measure the strength and ability of the learning environment to facilitate self-directed learning. This paper is descriptively explained the development and validation of the SeDLE index. Studies showed that a self-directed learning environment will produce a learner who is self-directed that can be a contributing factor to enhance the individual quality of life or at a workplace. Thus, this paper viewed the self-directed environment as a solution to support and inhibit the ability to function with minimal supervision that improve individual and group responsibilities among instructors and learners.

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Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers) and cE-Bs (Centre for Environment- Behaviour Studies, Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.

*Keywords*: Self-directed learning; environment; performance; sustainable

## 1. Introduction

In the past several years, the approach of self-directed learning has emerged in the streamline under the realms of learning and education. It theorizes that individuals can become more self-directed with additional support and

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motivation to endure more self-autonomy that can cater the problem of spoon feeding. At the same time, learning environment such as self-directed learning is seemingly able to improve one's life (Shireen Haron, 2004) as defined in the context of the quality of life in this study. One of the well-known proponents in support of the adult education and self-directed learning is Knowles (1975). He had indicated that the broadest meaning of a self-directed learning' is a process whereby the individuals are taking the initiative, with or without the assistance of others. Knowles's definition also includes determining students' learning needs as to formulate their learning goals. In addition, identifying human and material resources for learning, choosing and implement appropriate learning strategies as well as evaluating learning outcomes are part of the self-directed learning process.

Apparently, the activities provide a learning environment that promotes learner's intellectual growth that may improve learner's cognitive quality of life for better thinking skills. Studies in the areas of self-directed learning are seemly in popularity for various reasons. The growing dissatisfaction with students' attitude in the class, the public schooling rigid system, the role of instructors in a classroom, and the rich formal and informal learning materials available online are some of the reasons. Along with the problem of spoon feeding the factors associated with the interest in the self-directed learning stems out from those reasons mentioned. After all, this is the "age of information" and self-directed learning can be the solution. Hanaffin et al., (2014) stated that the new learning environment designs and frameworks have emerged that are consistent with constructivist-inspired views of learning.

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**Nomenclature**

SeDLE   Self-directed Learning Environment

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## 2. Research objective

The objective of this study on the SeDLE (Self-directed Learning Environment) Index is to measure the strength and ability of the learning environment to facilitate self-directed learning. Most importantly, this study is to describe the main components or domains of the Self Directed Learning Environment Index (SeDLE Index) that helps to determine the evaluation of the instrument further.

## 3. Operational definition

- Self-directed learning

Self-directing learning is about a process whereby the learners are to determine their learning direction with minimal assistance from others. Later, the learners are to diagnose their learning needs to formulate their learning goals. Identifying human and material resources for learning, choosing and implement appropriate learning strategies, and evaluating learning outcomes are parts of the process (Knowles, 1975).

- Learning environment

In the context of learning environment, the operational definition for this study is how learning environment describe interaction amongst students and teachers in everyday classrooms. (Rickinson et al, 2010).

## 4. Literature review

### 4.1. The self directed learning environment index (SeDLE INDEX)

The development of Self-directed Learning Index came into existence in 2012. It had won the innovation competition conducted by the Faculty of Administrative Science and Policy Studies University Technologi MARA Malaysia with the Gold Award. In fact, research on self-directed learning has started way back in 1999 where many initiatives were emphasized to inculcate the self-learning among students to reduce their total dependency on the lecturers or in other words spoon feeding. During the development of this Index, the co-author has produced more than twenty publications to measure the scores of each component. Amongst the publications are Shireen Haron et.

al. (2000), Shireen Haron (2004), Shireen Haron (2009), Shireen Haron and Fauziah Hassan (2009). Further insight on the issue of the self-directed learning environment were conducted by Shireen Haron and Rahmah Mohd Rashid (2012), Noorriati Din and Shireen Haron (2012) and Noorriati Din et. al.,(2014).

## 4.2. The domains of SeDLE Index are

In this section, a description of the SeDLE functions in each domain is explained as to measure the strength and ability which is relevant to the self-directed environment. The domains are as follows:
- Teaching environment
- Learning environment
- The technology
- Administrative support

### 4.2.1. Teaching environment
Teaching environment consists of;
- effective instructional processes,
- instructors' skills and roles, and
- effective learning materials.

#### 4.2.1.1. Effective instructional processes
One prevalent issue that most instructors faced is to establish an optimal self-directed learning environment with an effective instructional process. As the adults entering a training setting, formal classroom, or self-directed learning activity, it comes with a variety of needs, differences, and expectations. Therefore, such varieties must be met as to accommodate the survival of the self-directed learning environment (Raemdock et al., 2012; Kvan, 2013).

The web that facilitates self-directed learning must have these characteristics that include; firstly provisions of facilities and support servicessuch as the study skills programs that can help learners to locate resources using the electronic library and links. Study skill programs refer to induction courses and computer competency training as the examples. Secondly, the provision of services such as e-mail, forum, and chatthat give opportunity for learners to get connected.

On the other hands, characteristics of support that can facilitate self-directed learning will include; the availability of technical support to assist learners when they have technical difficulties, orientation on how to adapt to the web-based that is the learning environment. Lastly, the technology which must be designed and developed as simple as possible for easy use.

#### 4.2.1.2. Instructors skills and roles
Instructors need to be trained with the skills to facilitate self-directed learning in their classrooms (Shireen Haron et. al, 2000; Shireen Haron, 2004). One issue that most instructors faced is to establish an optimal self-directed learning environment with an effective instructional process. Apparently, Raemdock (2012) argued that when adults entering a training setting, formal classroom, or self-directed learning activity come with a variety of needs, differences, and expectations, therefore, the learning environment must be able to accommodate such variety as mentioned above.

A higher level of individual attention is also required of instructors as students need support and direction in making the transition to self-directed learning (University of Idaho, 1995). The best way to instruct adults is through an individualized process in order to help learners assume more responsibility for their own learning. On that note, it means that an effective instructor for adult learners must be responsible for helping learners to become more self-sustained, intellectually curious, and capable of learning by themselves. This statement refers to the role and skills of facilitators to facilitate self-directed learning. In addition, the lecturers should be competent themselves in online learning (Hiemstra 2013).

A study by Schmidt et. al., (2011) found that students who had tutors with subject matter experts and a good tutoring skills tend to engage in more self-directed learning behaviors. Another study by Egan and Akdere (2004)

had surveyed among the educators. The educators were to identify key roles, outputs, and competencies of Distance Education professionals, rate the importance of these competencies and outputs. The findings showed that educators need to adapt teaching patterns to technology, maintain interaction, engage learners, and collaborate with others in course development. Instructors wanted more training on how to foster interaction with the students, design visual aids, and deal with technicians and site coordinators and how to use the technology more efficiently. In addition to that they highlighted important factors that include: praising students, calling them by name, smiling, and providing individual feedback. These factors will create confidence and motivation for students. Another key factor is communication. Communication between students at different sites, the instructor, and the support staff isimportant. An effective interaction between student and technology is needed to impartan appropriate collaboration use. Activities to promote interaction among students is also important. Finally, instructors need to develop teamwork among students at various sites for more involvement.

### 4.2.1.3. Effective learning material.

The role of learning materials in all Learning Models is important. Gruwel et al., (2014) explained a strategic implementation on the aspects of the learning materials and to coordinate on the contents and contexts to fit the need for Self-Regulated Learning and Self-Directed Learning. Gruwel (2014) further explained the need for basic skills that is crucial for the self-directed teams. The success of education programs depends on significant educational support materials. The educational support includes published documents, textbooks, videotapes, Internet resources, and the use of adjunct modes of communication internet and emails such as telephone, mail, and classroom activities to augment the online interactions. Good examples include programs like those at the University of Phoenix and Nova University. The two universities provide detailed printed training modules with lesson plans and reading lists to support the online lectures developed by the faculty. There are some web-based learning programs with materials for a course that include textbooks that provide as files that are retrievable through the computer network. Some programs rely on the usage of pre-packaged and printed materials that are purchased by students from bookstores or publishers prior to starting a course. The learning materials and instruction should be available at any location where there are learners even if there is only one learner. On the other hand, the materials should also be available whether or not there is instructor at the location and the time the materials are being accessed. On that note, most importantly the available materials should emphasize on the learning of the learners.

The learning materials and instruction should evaluate learner achievement by assessing the learner directly through the attainment of the learning goals. The learning material and instruction should allow learners to learn at their own pace, consistent with the learner short and long range goals, situations and characteristics.

From the above discussions, learning materials can facilitate self-directed learning and need to have several traits. Among them, the learning materials need to be designed and written so that users can study by themselves. Next, instructional design elements such as learning objectives, study plan, questions, and examples must also be available. At the same time, the learning materials need to be clear and provide precise instruction. Lastly, assessment for self-evaluation must be available for corrections and improvements.

### 4.2.2. The learning environment

The Learning Environment is divided into three types. They are;
- the collaborative learning,
- flexible learning, communication and
- interaction.

### 4.2.2.1. Collaborative learning

The first variable is collaborative learning. Meta-analysis studies indicate that collaborative learning strategies can increase student academic achievement. Collaborative Learning means that both teachers and learners are active participants in the learning process. The knowledge is not something that is transferred to learners, but rather something that emerges from active dialog among those who seek to understand and apply concepts and techniques (Trentin, 2010). It is an educational approach to teaching and learning. It involves groups of learners working together to solve a problem, complete a task, or create a product.

In the collaborative learning environment, the learners can create their own unique conceptual framework without relying merely on an expert's or a text's framework. The experts give the opportunity to communicate with the peers. They were able to present and defend ideas, exchange diverse beliefs, question other conceptual frameworks and be actively engaged. The processes of collaborative learning can be embedded in many ways such as long-term project or answer and question sessions. Woods et al., (2012) says that to achieve effectiveness in collaborative learning, group goals and individual accountability must be defined clearly. Woods (2012) statement is in agreement of another study conducted by Webb since 1985. The study stated that research in self-directed learning has consistently found that learners who gain most from co-operative work are those who give and receive elaborated explanations.

The characteristics of collaborative learning have been identified and summarized in the literature (McMahon et al., 2005). The first characteristic that is highlighted is learning to be centered on learner based activities rather than being teacher focused. An example would be that learners can initiate online discussion. The second emphasis was on learners assisting each other to find answers to areas of shared inquiry rather than seeking answers from teachers. The third characteristic is learning to be based on the solving of problems by data gathering, analysis and discussions by learner groups.

### 4.2.2.2. Flexible learning

Flexible learning that adapt to student requirement describes that learning can be conducted anywhere not necessary only in a classroom. Flexible learning takes this idea and makes it happen for the progress of learning activities. Students for an example, who were given a task or any other scheduling constraints class assignment plus any other learning activities programs, the environments compromise a variety of schedules and paces for student to keep up with their work. In other words, "Flex block helps kids manage their time" (Gerard, 2014).

### 4.2.2.3. Communication and interaction

Literature on the study of education shows that communication and interaction are of ultimate importance in the classroom (Banerjee, 2013; Hiemstra, 2013). Students in general often learn most effectively when they can interact with their peers or other students. Student to student interaction is a vital element of any learning situation and for successful learning. Anderson and Elloumi (2004) discussed that, regardless of the media used, it is the responsibility of the institution and instructor to provide proper content and a learning environment. In doing so, the learner has the opportunity for appropriate interaction with others. Banerjee says that, the wrong use of technology can lead to the loss of the student's attention, information overload, or frustration and costly time lost.

Research by Song and Hill (2007), Moore et al., (2011) and Garisson (2003) mentioned the works of Moore (2011) who identified three distinct interactions namely Learner-Instructor, Learner-Learner, and Learner-Content. Later, Jung et al. (2002) cited the work of Hillman et.al., (1994) which added a fourth interaction to the list, that is, Learner-Interface interaction. Nonverbal cues that would be evident in the traditional classroom setting are absent in web-based learning environment. The use of computer-mediated conferencing for student and teacher interaction seems to have produced positive results. (Lee et al., 2003). Introducing technology into the learning environment has been shown to make learning more student-centered, to encourage cooperative learning, and to stimulate increased teacher and student interaction (Dixon & Dixon, 2008). Positive changes in the learning environment, brought about by technology are more evolutionary than revolutionary (Lee et. al., 2003). As the result of the positive environment that takes place throughout the years, the involvement of the instructors and teachers with the technology will make them become more proficient with the technology.

Courses which are conducted online or computer-based networks usage seems to increase student to student and the student to teacher interaction. At the same time, the usage also increased student to teacher interaction towards the lower-performing students (Bialo & Kachala,1996). In spite of the fact, the relationship did not decrease the traditional forms of communication used in the learning activities earlier mentioned. Many students who seldom participate in face-to-face class discussions became more active participants online (Poe, M., et al. (2002). These conclusions suggest the complexities of teaching and learning in the technology-rich environments that will be common in education in the next century. They offer both challenges and encouragement to educators who are committed to fostering learning - not just key stroking and mouse clicking within those environments.

*4.2.3. The technology*

The technology includes web-based learning and presently the social media usage for learning is gaining mileage among learners. The social media includes the Facebook and blogs. The training to use of the technology for learning and the availability of the technology become the two components under this domain (Shireen Haron, 2004). They are:
- the training to use the technology for learning
- the availability of the technology

*4.2.3.1. The training to use the technology for learning*

Technology plays an important role in whether a course succeeds or fails (Bates, 2005). Liaw et al., (2007) stated that internet facilities can enhance learning. The most exciting aspect of using the Web, social media and the internet facilities as a delivery tool is the ability to enhance self-directed learning by pointing to resources and support materials that may be viewed and incorporated directly into a lesson for 'real time' learning with direct application to the lesson in process.

Savin-Baden and Major (2004), defined self-directed learning as the student control of the learning process. Savin-Baden and Major (2004) contributed several ideas, which include allowing diversity in learning activities such as welcoming other points of view and promoting the use of outside sources or resources for learning. By allowing the students to further explore the portions of the lesson in the web that they are particularly interested in, students can become self-directed.

*4.2.3.2. The availability of the technology*

The relevant technology need to be designed and developed for easy use. This is important element as to enable student to participate without much difficulties.For example, students and facilitators can use the online social networking such as Facebookfor discussion and information retrieval. Moreover, learning can be done openly where other students worldwide can join in the discussion. However, it must be done with good faith and integrity (Noorriati Din et al., 2012).

*4.2.4. Administrative support*

The administrative support domain has three main component variables that are effective administration that support Self-directed Learning; self-directed learning skills, and technical support. (Shireen Haron, 2004; Shireen Haron, 2009, Shiren Haron and Fauziah Hassan, 2009; Shireen Haron and Rahmah Mohd Rashid, 2002). The three main components are:
- effective administration that support self-directed learning
- self-directed learning skills
- technical support

*4.2.4.1. Effective administration that support self-directed learning*

Technology can provide increased efficiency in agency administration through word processing, database management, financial management, fax and Internet communication, local area computer networks and improved telephone systems. It also increases efficiency in maintaining student records, reporting on student assessments and analyzing student assessment results. Technology can assist with student recruitment and registration, even allowing for off-site electronic registration. When face-to-face staff meetings are not convenient, technology can facilitate the staff team communication activities.

Administrative staff team also plays an important role in providing a sense of community and belonging to students who live distance away from the campus. The need for staff support applies to prospective students as well. Time and resources invested in administrative support can improve enrollments as well as serving as an important information feeder for the continuing success and retention of enrolled students.

*4.2.4.2. Self-directed learning skills*

Most learners have had no prior experience with this form of learning. Many are adults who left school a long time ago or were underachievers in their early education. Thus, learners often need to be taught the skills required

for this form of study. The most important study skills include time management, efficient use of reading and other materials (notably television broadcasts). An effective listening in teleconferences, effective group participation especially in the absence of a teacher and effective techniques for taking notes, writing essays and preparing for examinations. Such skills may be taught before a course begins or through remedial assistance during the course, as deficiencies become apparent. Courses on study skills may be taught in face-to-face settings or more usually through self-study packages. Technical and administrative support staffs often play a larger role in the success of - education.

Facilitators and students must be able to rely on the skills and cooperation of other staff. For example, the availability of the technicians to assist students if there is any problem with the online technology. In addition, the technicians also play an important role in the presentation and delivery of the information online. Therefore, the capability of the technical teams and the administrative support are important. The learning process is often impacted by the student's unfamiliarity with the technology used. Students grow anxious and quickly disengage when they cannot move forward, or if they cannot find assistance for the technological obstacles they face (Hiemstra, 2013). Staff support is also important to the programs as they help students deal with administrative details.

### 4.2.4.3. Technical support

In accommodating the learners with web-based learning, element such as technical support should be given an attention for active learning. Technical support is one of the essential characteristics of self-directed learning as the environment would help students if they faced with technical problems. The orientation to customize learning to web-based environment is necessary as to prepare the learners with the skills to make learning more efficient and effective. On that aspect, learners will be pleased with the facilities while improving motives to learn. Provision for computer induction courses is facilitating computer competency. Computer competency is to prepare the students for a service such as e-library that allows students to access learning materials through the internet. By having the computer competency, students will be able to engage in learning anytime and anywhere. The computer competency does give impact to the successful learning. Last but not least, the support for student learning such as providing study skills programs since study skills can be used for any forms of learning. (Shireen Haron, 2004; Shireen Haron and Fauziah Hassan, 2009).

## 5. Conclusion

From the discussion above, it is believed that the quality of teaching and learning will improve if learning environment can facilitate self-directed. Sustainable measures, planning, control and implementation of the learning environment must be carefully thought and strategized for a useful and long-term application. It is because a well-planned setting of the self-directed learning environment will allow more flexibility in learning and increase students' ability to become more self-directed. Most importantly, it will benefit learners' future learning activities and improve their life better. The latter contribute an important aspect in the quality of life of the self-directed individual in a way they become more independent and roles by taking the advantage of self-directed learning development. Self-directed learners do not have to wait for assistance but will become self-reliance in their task engagement which can be useful and practical in their later working life. Therefore, all four domains or components in the SeDLE Index must work together to achieve self-directed environment effectively. Thus, the quality of life which is related to self-directed learning environment can be a contributing factor to improve one's life for a better future.

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