

Misappropriation of Self-Directed Learning: A Case Study

Sarita Deshpande¹ and Ravindra Kumar Prajapati^{2*}

¹Ex-Professor-Education, College of Humanities and Education, Fiji National University, Fiji

²Consultant Course Coordinator, Pacific Tafe, University of South Pacific, Fiji

***Corresponding Author:** Ravindra Kumar Prajapati, Consultant Course Coordinator, Pacific Tafe, University of South Pacific, Fiji.

Received: August 01, 2020; **Published:** August 27, 2020

Abstract

Self-directed learning (SDL) enables learners to enhance and expand their learning. It is a type of learning that students carry out on their own. It implies that students learn outside the class room also. In Higher Education SDL is emphasized in order to make the learners independent, taking initiative, acquiring new information and learning new things. Also, in the world where knowledge explosion is experienced every time, it is not possible for a teacher, tutor or a lecturer to teach everything inside the classroom. They are busy as other administrative/research work. Also, they want their students to be independent learners by researching information available in the books or journals in library or on the internet. It was inquisitive to search how university students utilize their SDL, they were given some questions to answer from where it was found out that the way students use their study time during SDL is not robust. On the contrary, SDL hours are inappropriately used.

Keywords: Adult Learners; SDL; Higher Education; Tertiary Education

Introduction

Educational milieu is becoming more complex because of knowledge explosion world over at a faster rate and university and school teachers are finding it difficult to teach each and everything inside the classrooms in a formal way. Moreover, the goal of higher education is to make students independent learners. This situation further demands on the role of students to study on their own. Since university students are adult learners, they are expected to spend much of the time on self-directed learning, after spending time on other pursuits such as attending classes, laboratories, tutorials workshops etc. Self-Directed Learning (SDL) prevalent by its abbreviation SDL has become an important aspect of adult learning. A Canadian researcher-Tough made the first attempt to better comprehend self-directed learning, resulting in a book, *The Adult's Learning Projects* (1979). According to <http://home.twcny.rr.com/hiemstra/sdlhdbk.html> during these times (1975) Knowles in North America propagated in North America the term, andragogy, with corresponding adult instructional processes. His 1975 publication, *Self-directed Learning*, provided foundational definitions and assumptions that guided much subsequent research: (a) self-directed learning assumes that humans grow in capacity and need to be self-directing; (b) learners' experiences are rich resources for learning; (c) individuals learn what is required to perform their evolving life tasks; (d) an adult's natural orientation is task or problem-centered learning; (e) self-directed learners are motivated by various internal incentives, such as need for self-esteem, curiosity, desire to achieve, and satisfaction of accomplishment. The term, andragogy, with corresponding adult instructional processes.

Knowles describes self-directed learning as “a process in which individuals take the initiative without the help of others in diagnosing their learning needs, formulating goals, identifying human and material resources and evaluating learning outcomes” In order to know more, it would be in the fitness of the terms if the key words are defined in a perspective that is used throughout this paper.

Knowles also emphasized that learners are vital resources for teaching; in teaching, if rich experiences are activated and incorporated, it will make learning more relevant. Education of adult learners has to go beyond the transmission of knowledge so as to help persons in directing and managing their own learning, as a life-long process. This makes a possible reference to self-directed learning. Adult learning according to Knowles should also include a psychological climate favorable to learning.

Definitions

- **Adult learners:** A person who has crossed adolescence, is in early young age and is involved in learning/education.
- **SDL:** Self-Directed Learning - It is the learning that occurs due to individual's own efforts, with the help of extra reading, web information, understanding concepts in different perspectives. The individuals plan, implement and evaluate their own efforts for new learning.
- **Higher education:** As defined by www.dictionary.com/browse/higher-education, it is Education beyond high school, specifically that provided by colleges and graduate schools, and also professional schools.
- **Tertiary education:** Wikipedia defines it as, “Tertiary Education, also referred to as third stage, third level, and post-secondary education, is the educational level following the completion of a school providing a secondary education. According to http://learn.org/articles/what_is_Tertiary_Education.html [1], “Tertiary education, more commonly referred to as postsecondary education, refers to academic pursuit undertaken after high school”.

Rationale

It was comprehended by authors of this piece of work that students can and do learn better when the urge of learning is from their within, when learners are intrinsically motivated, learning is self-directed. However, while working at FNU, it was observed that the students utilize most of their SDL time in surfing the information for completion of assignments. Although generally the assignments are built up in coherence with the course outline/unit descriptor/topic taught, yet the basic concepts to be learnt through unit/course remain unclear, which becomes evident from their answers in examination papers-either Mid-trimester or final examination paper. Having experienced this through several exam papers, it was thought to probe into the usage of SDL by the university students, where the authors have been working.

Research questions

- How do students prioritize their SDL time?
- How do students get benefitted by SDL?

Hypotheses

1. Students do not prioritize learning during SDL hours.
2. Students do not have adequate information and understanding about SDL and its benefits.

3. There is no relationship between SDL and achievement of students.

Objectives of the Study

- To identify students' priorities in SDL.
- To evaluate students' opinion about benefits of SDL.
- To ascertain relationship between SDL and students' achievement.

Review of Literature

The roots of adult learning theories can be traced to research in group dynamics approaches in the late 1940s and 1950s; Knowles theory seems to be the first scientific effort to understand adult learning. The topic of adult learning gave birth to concept of Self-Directed Learning in adults. Much research has been done as o far and still it is ongoing. Knowles further contended that adults flourish in learning situations where they feel highly motivated, where they can participate in the learning process, and where learning content has practical submissions:

1. Philippe Baveye (2015): Where did the research on Self-directed learning disappear and why? It is as if SDL has almost entirely disappeared from the radar screen, at a time when, paradoxically, more and more learning, at all levels, happens outside formal classrooms.
2. Lucy Guglielmino (August 05, 2014): What is self-directed learning and why is it essential for 21st century learners? (vol. 1, issue 7, no.2).

The findings of her research are:

- Finding 1: Readiness for SDL exists along a continuum
- Finding 2: Readiness for SDL is a developable capacity
- Finding 3: Self-directed learning readiness correlates with academic achievement and completion; thus readiness for self-directed learning also correlates with workplace performance.

Research Methodology

Having decided to use self-made questionnaire and students final exam marks as tools for data collection, the research design became mixed approach that is qualitative as well as quantitative.

Population and sample

University has varied number of students enrolled for different programs. B. Ed program is one amongst them. B.Ed. is offered to students to become either Primary teachers or Secondary teachers. Out of population of some hundreds of students, those that were allocated to the researchers were 38 year two and year three students for the Unit on Assessment and Evaluation and 32 year one students under tutorship for another Unit on Financial Education which constituted the sample of 70 for this study. In each Unit there is one Principal Lecturer-PL- who delivers lectures and depending on tutorial group size there are different tutors. Normally 25 - 30 students are assigned to each tutor. Tutorial and workshop activities are prepared by PL. However, authors' experience reveals that students do not

want to explore beyond Tutorial and workshop activities.

The unit common to both primary and secondary program was selected for this study. The unit Descriptor advocates 112 SDL hours and 72 contact hours through lectures, tutorials and workshops that have been prescribed for the unit - Assessment and Evaluation, as well as the unit on Financial Education. As per University Academic and Students Regulations, SDL is defined as, "Learning a student undertakes through formal structured study by one's self as per the course prescription" - UASR, p4. These 112 SDL hours are distributed over a period of trimester such that during term-84 hours amounting to 7 hours per week, Mid-term break-13 hours and study and exam weeks-15 hours are put together with 72 contact hours making 184 hours for 12 credit points-one credit point comprising of 15 hours of classroom studies and specified SDL (UASR: p2-2.1.17).

Data collection

For this research the data was collected with the help of two tools-viz. self-made questionnaire and students' final exam marks.

The tools used

1-self-made questionnaire and students' final exam marks were the two major sources of information collected about SDL.

Questionnaire

The researchers prepared a questionnaire having 20 questions, of which first four questions were general and remaining 16 questions were pertaining to 4 areas such as personal autonomy, learner control, managing learning and independent pursuit.

Final exam marks: The actual scores obtained by these student-teachers on the Mid-Trimester short test and End-of-trimester Final exam paper.

Reliability and validity of self-made tools

As mentioned by Deshpande and Prajapati in Test anxiety [2] "Validity is the degree to which an instrument or a tool measures what it is supposed to measure. It is the accuracy, soundness and effectiveness with which an instrument measures what it is intended to measure. According to, Kothari (2010) and as stated by Avit Theophil (2015) "The degree to which results obtained from the analysis of the data actually represent the phenomena under study" (p. 24).

Reliability is a consistency with which the tool or instrument gives the same result every time.

The reliability of the tool was decided to be measured in terms of internal consistency for the most important reason of single administration of tool. As supported by Popham, "...whereas stability and alternate form reliability require two administrations of a test, internal consistency reliability can be computed on the basis of only a single test administration" ([3]: p. 68). Internal consistency reliability reflects the degree to which the items on a test are doing the measurement job in a consistent manner-that is the degree to which the test's items are functioning homogeneously.

Also, supported by Ellen Drost, (January 2011) in International Perspectives on Higher Education Research 38(1):105-124 "Internal consistency concerns the reliability of the test components. Internal consistency measures consistency within the instrument and questions how well a set of items measures a particular behavior or characteristic within the test. For a test to be internally consistent, estimates of reliability are based on the average inter-correlations among all the single items within a test".

As for Mid-trimester short test and End of trimester Final Exam test, question papers were prepared by Principal Lecturer following the guidelines and requirements of College Quality Assurance Committee, thus claiming to have construct validity and internal consistency. Short test included definition of 20 concepts, each having 2 marks, thus making the total of 40 marks, whereas, Year two/three final examination in Assessment and Evaluation, it had four sections as follows:

- Section A: 10 MCQ worth 10 marks,
- Section B: Definition of any 10 concepts out of 20 worth 10 marks,
- Section C: Any 5 Short answered questions out of 8, worth 40 marks and
- Section D: Any two essay questions out of 4, worth 40 marks.

For year one students doing Financial Education, the Mid-trimester short test had 30 MCQ worth 30 marks and final exam of 100 marks that included:

- Section A: 10 MCQ worth 10 marks,
- Section B: Definition of 10 concepts worth 20 marks,
- Section C: Ten questions on Paragraph writing, worth 40 marks,
- Section D: Case study worth 10 marks and
- Section E: Two essay questions, worth 20 marks.

Statistical techniques

The numerical data related to test scores was statistically analyzed using descriptive statistics such as mean, standard deviation and correlation. The descriptive data was analyzed using just the percentage calculations.

Observations and Discussion

It was decided to record observations according to the tools used, under observations on Questionnaire and Observations on achievement test separately. Since questionnaire was common for year ones and year two/three students, it was analyzed considering a sample of 70 as follows.

Observations on questionnaire

General questions

How many SDL hours are prescribed by each Unit /UD?

It was very astonishing and pathetic to have majority- almost all students answering this question differently; only 5 out of 70 that is 7% students said that SDL for UNIT as per UD are 112 hours a term/trimester. Remaining 35 students gave a variety of SDL hours ranging from 2 to 20.

Which of the units do you like the most in the context of SDL?

All students were doing two units in common-Educational Research and Assessment and Evaluation. To answer this question, most of the students wrote the name of the unit in which researchers were their tutors, to indicate their liking.

What do you understand by SDL?

All 70 students answered this question by extending abbreviation-Self-Directed Learning, but none explained it further to say that it is time to identify learning needs and taking initiative to search for further relevant information.

In which of the units did you have more SDL hours?

The expected answer was non-examinable unit such as FIJ 101 or HIN 101. These are the local languages to be learnt by prospective teachers so as to cater for daily classroom interactions. Instead, they gave the answer in the form of hours they invest in studies ranging from 6 - 8 hours.

It could be clearly inferred from students' answers to above 4 general questions indicating that they neither know what SDL means and how to utilize SDL in the context of higher education. Astonishingly these were year two, few year three students. Same was the situation of year one students, observed through tutoring of Unit on Financial Education. They also answered similar to their predecessors.

SDL-related questions

Candy [4] quoted by Abraham., *et al.* 2016 defines four dimensions of SDL: personal autonomy, learner control self-management in learning, independent pursuit of learning, in Problem-based learning-PBL. Personal autonomy refers to freedom of choice of students and the ability to realistically appraise own shortcomings as a learner. He also states that personal autonomy is contextual, that is it varies in different contexts. Learner control of instruction refers to organization of information instruction in formal settings, that is, control over aspects of instructional situation. It is the amount of control, the learner can assume in the learning process in a classroom setting. Self-management is the willingness as well as the ability of students to manage their own learning. Independent pursuit of learning is about learning that happens outside formal educational settings. It is about the learner's decision on how to engage in learning. Candy [4] asserts that learning always occurs in a social context, and therefore the quality of help one can get from others is an important indicator of independent pursuit of learning.

However, looking at FNU- College of Humanities and Education students' way of utilizing SDL, Authors were of the view that learners acquire knowledge on the basis of some innate capabilities and interaction with their environment. In this sense trimester or semester system does not provide sufficient time for learners to learn and evaluate what has been learnt. Considering this, authors tried to conceptualize four factors of SDL to collect information from subjects in sample. Based on these, simple, straight forward questions were prepared. Answers to these questions have been recorded question-wise as follows.

Questions related to personal autonomy

How many hours do you utilize for SDL?

58 out of 70, that is 83% answered this question in the range of 2 hours to 4 hours, weekly.

How do you plan your SDL hours per day?

To answer this question all 70 students considered time-tabled hours of tutorials and workshop periods.

Which of the SDL time do you utilize to clear your concepts?

For this the answer given by all students-100% was afternoon tutorial time, since this was the time when researchers used to explain the concepts to students after they attended lecture of Principal Lecturer.

How do you use technology outside SDL?

68% students answered that the use of technology was mainly for course work completion/assignment completion. 32% students said that they use the time outside SDL for research related to assignment.

Questions related to learner control

Which of the time do you utilize for Course work submissions/compliance?

Nearly 72% students said the off periods in daily time table are used for course work submission/compliance. 20% students said that 2 - 2.5 hours after dinner are utilized for course work submission/compliance. Around 8% students said that they utilize morning time before 7.a.m. for course work submission/compliance.

How do your tutors assist/guide you that benefit you during SDL?

The answer given was varied- about 49% students said they ask and tutor explains difficult concepts/questions; about 45% said tutor asks and they answer. If it is wrong, then tutor corrects and about 6% students said that additional information given by tutor benefits them and this was explained in the context of role play about barter system, in Financial Education Unit.

Which of the activities do you participate in tutorial class/es?

Generally, researchers' tutorial classes have different activities that include group discussion, pair work, debate etc. Most of the students that is 96% students said they like group presentation. Authors have observed that during group discussion very few participate, few carry out other roles and few are lethargic. So, they keep on changing groups, but some students do not want to get confronted at all. Remaining 4% students said that they like debates.

When do you seek assistance from your friend/classmate?

All 38 students that is 100% students answered that they seek assistance from their friends during tutorials and course work/assignment submission. Researchers observed that this assistance was mostly in terms of downloading tutorial questions from Moodle during tutorial classes.

Questions related to managing learning

What do you do in SDL times?

To answer this question, again all the students used tutorial/workshop time as SDL time.

How do you use technology during SDL?

The answer to this question was varied- about 28% students said they do not use technology during SDL, about 27% students said they use technology during discussion, about 35% students said that they use their android phone during SDL and about 10% students said that they use technology when they are in library in downloading information from computers for assignment tasks.

For how many hours are you engaged in lectures/tutorials per day?

According to UD, the students are supposed to have 2 lectures one hour each, two tutorials one hour each and one workshop of two hours as per contact learning hours. Surprisingly, this question also was not answered correctly.

Which technological gadgets do you prefer the most?

The unanimous answer was mobile phone.

Questions related to independent pursuit

How do you recognize that new learning has occurred?

Change in understanding was the answer given by 46% students and change in attitude was the answer preferred by majority that is 54% students.

How do you assist your colleague/classmate during SDL?

Again to answer this, the base of tutorial/workshop time was looked into and majority that is 92% students answered that they assist their classmates in making them understand tutorial task/activity and about 8% answered saying that they assist their classmates in library while searching and downloading information from internet.

In which of the units do you feel comfortable with, in terms of SDL?

The unanimous answer was non-examinable Unit viz. HIN 101 (Hindi language) or FIJ 101 (Fijian Language).

How does SDL benefit you?

This question was answered variedly as follows:

- To score well in course work - said 53% students.
- To score high in final exam - said 41% students.
- To learn new concepts - said 4% students and
- To improve on submission style - said 2% students.

These observations gave authors the impression that teacherdirected learning is to be preferred over selfdirected learning in case of FNU students, in the given scenario of tutorial system, as no one wants to take the ownership of responsibility. Authors are also of the opinion that the students in higher education must know how to plan their learning time-official Time-tabled as well as un-official-their personal time- out of Time-Table. Role of tutor in class room should be that of a facilitator or engager considering individual differences of culture, space, time and place, rather than a transmitter of knowledge. Thus, this will be helping students to explore more about the content learnt. This does not and cannot happen in lecture timings more especially when the lectures are for masses and using technological gadgets. This role of tutor as facilitator will also help higher education learners to go beyond just receiving transmitted knowledge and manage their own learning. However, the students were forcing tutors to be allowed to utilize their tutorial/workshop times in completing/shaping their assignment submissions, once planned tutorial activities of tutors were hastily over. This contributed to less addition of

motivation and value to their education and learning, since this was being practiced right from the time when these students were in year one. This would further percolate at their work place, compelling them to strive hard to sustain their job/employment.

Observations on achievement in final examination

Studies conducted on finding relationship between SDL and academic achievement in science, technology, nursing, in schools etc. suggest that the two are positively correlated. Normally the level of correlation between the two is fairly high and significant. Studies also indicate that many efforts to provide education and schooling focus on preparation of children and youth for their roles as citizens. Williamson (2007) stated that the element of self-directedness is considered essential in order for students to be academically successful to their fullest potential (Kan’an, Osman: 2015).

This piece of work also intended to find out relationship between SDL and academic achievement of the subjects under study. For this the Mid-trimester short test marks, total Course Work marks and Final exam marks of the two groups-viz. year two/three students doing Assessment and Evaluation and Year one students doing Financial Education Unit were considered. The scores on these tests/exam have been considered to calculate, mean, standard deviation and correlation. The contention behind this was –students having used SDL would score better and higher in their test/exam marks. The observations have been indicated in the following table 1.

Group	Sample size (n)	MTT*		CW*		FE*		Correlation MTT:CW	Correlation CW:FE	Correlation MTT:FE
		Mean	S. d.	Mean	S. d.	Mean	S. d.			
Year 2/3 student	38	21.8	7.9	47.03	4.62	64.31	5.9	0.59	0.38	0.26
Year 1 student	32	16.06	2.63	31.58	4.45	62.65	9.4	0.43	0.32	0.11

Table 1: Table showing Mean, s. d. and correlation.

*MTT**: Mid-Trimester test (Short Test), *CW**: Course Work, *FE**: Final Exam.

It is evident from the above table that students from both the groups have scored average 50% marks on MTT. Average of CW mark was higher as major assignment in it was a group work. In final exam, the average score was not high as expected, simply for the reason that majority of students lost marks in Section on simple concepts definition learnt through lectures. As an example- 34 out of 38 students could not define formative assessment and summative assessment and only 1 student out of 32 could define compound interest and 31 could not define it properly, in final exam paper. There was only one concept that was well understood and answered by all in Financial Education Unit. It was about barter system and the reason to remember it correctly was because it was role-played/dramatized in workshop time. This was also in support of the hypothesis that students are not learning basic concepts during SDL; on the contrary they invested more time on assignment completion. But even in situations of Teacher-centered teaching-learning process, Knowles continues to stress more on learner responsibility and critical thought.

Hypotheses-wise findings

Three null hypotheses were focused by authors for this study. Findings related to each of them have been recorded as follows.

Students do not prioritize learning during SDL hours

It was obvious from the student’s responses on questionnaire and their scores in short test and Final exam that they do not prioritize their learning hours.

Students do not have adequate information and understanding about SDL and its benefits

Students' responses on questionnaire also indicated that they do not understand SDL in right perspective as well as its intension. Authors being resident on campus could unofficially observe fresher's vialing away their personal time in long strolls and socializing including chatting on mobile phones.

There is no relationship between SDL and achievement of students

Students' scores on short test and Final exam were not very promising and progressive, as indicated by their correlation being very low or negligible.

Objective-wise findings

Authors focused on three objectives for this study. The objective-wise findings were recorded as follows.

To identify students' priorities in SDL

From the questionnaire mainly it was observed that students cannot prioritize their learning needs and hence fail in proper planning of SDL hours.

To evaluate students' opinion about benefits of SDL

Students' opinions about SDL were not favorable. This was obvious from their answer to question 4 under independent, as it was answered variedly such as scoring well in course work, scoring high in Final exam, learn new concepts and improve on submission style. Here submission again refers to course work assignments, wherein major SDL time is invested

To ascertain relationship between SDL and students' achievement

To ascertain relationship between SDL and achievement, correlation was calculated. Its values as per table 1 above indicate positive relationship, but of insignificant amount.

Summary

It could be summarized from the findings of this piece of work that:

- Students generally do not know what SDL means and how to utilize SDL in the context of higher education.
- Most of the SDL time is spent on completion of assignments that demand too much of their time. This is true of all Units and im-material whether examinable or non-examinable.
- Since major portion of SDL is invested in completion of assignment-which again is mostly copy-paste business, students are not able to rehearse what was taught in lectures. As a result their score on Final Exam is not high. They also do not know exact SDL hours prescribed by UD.
- Most of the students equate SDL with tutorial/workshop times that are Time-tabled. They do not think or consider their personal/private time as SDL time. As a result they lack planning skills and Time Management skills also. This further suggests that they are not able to decide personal autonomy of their learning.

- The scenario about learner control, managing learning and personal pursuit also was not very different.
- Overall findings directed towards misappropriation of SDL hours by showing lower performance in MTT, CW and FE, together with lower level of motivation.

Conclusion

SDL should be considered by learners for life-long learning. It demands Self-direction in personal autonomy, willingness and ability to manage one's overall learning endeavors, independent pursuit of learning without formal institutional support or affiliation, and learner-control of instruction. As mentioned in the role of lifelong learning and self-directed learning in educational reform in Thailand by Suchinda Muongmee (2007) and suggested by Candy [4], "Personal autonomy is the capacity to decide for oneself and pursue a course of action in one's life, often regardless of any particular moral content. Self-directed learning should lead to lifelong learning with the development of self-directed learning skills".

In the words of Sharron Giddings [5] "If 21st century higher education, faculty, and students do not experience a paradigm shift in teaching/learning approaches and overcome the challenges of implementing self-directed learning skills and attitudes, they risk falling behind and drowning in the sea of rapidly changing currents in knowledge and technology that mark the contemporary global marketplace". As these currents continue to develop and rapidly shift, the skills and attitudes of self-directed lifelong learning become more vital. They offer a life preserver that adapts to contemporary changes and shifts in knowledge, information, and technology. Higher education has significant responsibility to provide learning environments, paradigms, and communities (Barr and Tagg, 2005; Fischer and Sugimoto, 2006) that facilitate the growth and maintenance of self-directed learning. As Hatcher showed, self-directed learning has become the: "Wave of the future" where "by 2020, all learning...through postgraduate education will be based on the principles of self-directed learning" (as cited in Kerka, 1999, p. 4).

As Dewey [6] states: "The inclination to learn from life itself and to make the conditions of life such that all will learn in the process of living is the finest product of schooling" (p. 51).

Learning is one of the important aspects of education. It is a goal in itself as well as a process. SDL is becoming a dominant philosophy in higher education. The study and research on SDL needs to continue in relation to formal, non-formal and informal education also, enabling better teaching and learning experiences.

The present study also revealed that although majority of students were found to have aspects related to all four components of SDL mentioned in Candy's model, behaviors related to all four components were found to be below the expected level. This finding indicated that tutorial group functioning in the present context, and case design with reference to tool modification and enlargement in number of questions are the areas that need further refinement. Information processing also has to be promoted by executing students the freedom to choose what they learn with respect to the Unit descriptors having an element of self-reflection in tutorial and workshop activities.

Students' evaluation is eventually a teacher's evaluation. One has the reflection and comporment on other, as the two are inextricable. In this sense the teacher as a facilitator will ensure standards of quality met rigorously through teaching-learning process. The product of teaching-learning process is an evaluation of teacher and then evaluation of a taught.

Suggestions for student teachers

All learners involved in higher education and specifically student teachers should utilize their SDL time in learning for consolidation of what has been learnt, comprehending in appropriate perspective what has been learnt and understanding new concepts so as to apply

in ever changing world of work. This would be possible when they plan their timings, utilize SDL in proper way and evaluate what has been learnt and become test-wise. As stated by Sajna Jaleel and Anuroofa O.M (2017) "According to Saxena, (2013) technology supports all kinds of learning and teaching, and there is nothing today, which cannot be attained or aided by technology".

Learning through self-direction can be refined and enhanced with the use of technology. Technology can support lifelong, self-directed learning beyond the regular classroom, but of course when prudently used. This can lead Students begin to feel ownership of their learning, begin to self-evaluate, reflect on their progress, and set goals for further learning.

The context of SDL has been changed with online learning, greater access to technology, personalized learning experiences, and access to information sources that were not available earlier. Use of ICT has been on rise in education resulting in spread of education among masses across the world. SDL can further be enhanced with the availability of ICT enabled tools. Learners will not need to be prompted or guided by parents, professionals or peers.

Suggestions for teachers/educators

As facilitators, teachers/educators should see that they train students to exhibit initiative, independence and importance in their learning. According to Elsa Menz (2017), "We must train students who exhibit initiative, independence and persistence in their learning process, who accept responsibility for their own learning and view problems as challenges and not obstacles. People, who can apply self-discipline, remain curious and have a need to always learn more, who enjoy their learning and above all, who are goal-oriented and determined to attain learning outcomes. This is a self-directed learner".

Authors perceive that SDL touches the sphere of metacognition-thinking about thinking- which includes knowledge of cognition and regulation of cognition. Knowledge about self as a learner, about learning strategies and why and when to use given strategy is a purview of knowledge of cognition whereas, regulation of cognition will include planning, monitoring, regulating and evaluating abilities which could be raised by teacher facilitators while guiding them about the content, to think like a professional, to approach problems as a professional and to resolve it as a professional. Allowing learners to approach task in a different way/style would also stimulate creativity of learners.

Teachers/facilitators can make their learners test wise by:

- Telling the students about test/exam format so that learners would know what is expected of them. This will lead learners to summarize what has been learnt and how to present it in answer.
- Giving practice questions and quizzes followed by assessment and feedback in terms of time spent and description provided that will include explanation and exemplification.
- Analyzing quiz questions with reference to Bloom's taxonomy of objectives (1956) so that learners would know what exactly is to be presented and how it is to be presented.
- Wrap after the exam by asking learners how did they prepare, which questions were difficult or challenging, what they would do/avoid in the preparation for next exam. With these experiences, learners will know to make use of prior knowledge in planning for future exam.
- Encouraging learning activities leading to the development of SDL skills so that it may help students to succeed in their present and future learning and last but not the least-Tutorial system should be stopped for a while and replaced by independent assignment of groups for the responsibility of lectures, tutorials and workshops so that more and proper time investment will help learners identify and prioritize their learning needs and then enabling them to move forwards as independent learners [7-16].

Bibliography

1. http://learn.org/articles/What_is_Tertiary_Education.html
2. Deshpande S and Prajapati R. "Test-anxiety and Achievement of B.Ed. student Teachers". *International Journal of Research in Social Sciences* 7.10 (2017).
3. Popham WJ. *Classroom assessment*, (6th edition); Boston, Allyn and Bacon (2011).
4. Candy Philip C. "Self-Direction for Lifelong Learning: A Comprehensive Guide to Theory and Practice (1991).
5. Giddings Sharon. "Self-Directed Learning (SDL) in Higher Education: A Necessity for 21st Century Teaching and Learning". Faculty of Education, Brock University St. Catharines, Ontario (2014).
6. *Experiencing Dewey. Insights for today's classrooms* (2nd Edition) (1916).
7. Ashraf Fouad Kan and Kamisah Osman. "The Relationship between Self-Directed Learning Skills and Science Achievement among Qatari Students". *Creative Education* 6.8 (2015): 790-797.
8. Reem Rachel Abraham., *et al.* "Exploring Students' Self-Directed Learning in Problem-Based Learning 8.1 (2016).
9. Fiji National University: University Academic and Students Regulations.
10. <https://www.bpastudies.org/bpastudies/article/view/38/78>
11. www.dictionary.com/browse/higher-education
12. <https://www.psychologicalscience.org/news/releases/what-makes-self-directed-learning-effective.html>
13. https://books.google.com.fj/books?id=O_glAgAAQBAJ&pg=PA11&lpg=PA11&dq
14. <http://news.nwu.ac.za/self-directed-learning-focus-new-research>
15. <http://news.nwu.ac.za>
16. https://www.researchgate.net/publication/261473819_Validity_and_Reliability_in_Social_Science_Research

Volume 3 Issue 9 September 2020

©All rights reserved by Sarita Deshpande and Ravindra Kumar Prajapati.