

Exploring Self-Directed Learning among Undergraduate Education Students

Angelina Popyeni Amushigamo,¹ Martha Nankelo Amutenya,² Otilie Mwaalele Iileka³

(Curriculum Instruction and Assessment Studies, University of Namibia, Namibia)¹

(Educational Foundation and Management Department, University of Namibia, Namibia)²

(Early Childhood and Lower Primary Education Department, University of Namibia, Namibia)³

Abstract: *The teaching and learning approach at the University of Namibia call for students to take initiative, responsibility, ownership of own learning and become independent learners. At the time of this research the observation made was that students are dependent on lecturers and do not take responsibility for own learning. Therefore, it is important to explore self-directed learning among students. In this paper, we used an exploratory case study design to explore self-directed learning among students at one of the University of Namibia education campuses. The objectives of the research were: 1) to explore the readiness of first year student teachers to learn independently, 2) to understand student teachers' experiences and challenges they face and that hamper their self-directed learning and 3) to identify various ways of facilitating independent learning, enhancing self-directed learning and fostering opportunities for self-directed learning among student teachers. By exploring self-directed learning among students, this paper provided insights for bridging the gaps between lecturers' teaching strategies and students' self-directed learning. Literature was reviewed to understand the concept of self-directed learning. Data were gathered through focus group discussions with student. Narrative analysis was used to analyse the data. The findings of this research revealed that students depend too much on lecturers. They expect lecturers to give them handouts, notes and slides used during lectures. The findings of this research have implications on the teaching strategies lecturers use during the teaching and learning process and ways to enhance self-directed learning among students.*

Keywords: self-directed learning; undergraduate; student teachers, tertiary education, independent learning

Research Area: Humanities

Paper Type: Research Paper

1. INTRODUCTION

The demand for higher education has increased since Namibia's independence in 1990. Many students enter university immediately after completion of Grade 12. These are students who come from an environment where teachers provided them with summaries, handouts and notes that they had to study for their tests and examinations. The students also expect an everyday face-to-face lecture from the lecturer. Some of these students lack information literacy skills, while others do not have the culture of reading on their own; i.e., they stop where the lecturer ended with them that specific day and wait for the lecturer to continue with them the next day. To them, the lecturer is somebody they must always have in the lecture hall and no learning can take place without the lecturer.

2. LITERATURE REVIEW

2.1. Self-directed learning

Hewitt-Taylor (2001) points out that literature surrounding self-directed learning (SDL) may have different definitions, views and experiences of SDL. For example, the research findings by this author on views of teachers and students revealed that both teachers and students who participated in that research pointed out that they saw self-directed learning as one teaching and learning method to be used alongside others. Participants in the abovementioned research also considered SDL to be of some value, but only when used in conjunction with teacher-led methods (p. 496). However, Hewitt-Taylor argues that self-directed learning should not be narrowed down to teaching methods only. Issues of control and autonomy within the learning environment and the precise aims and outcomes of education courses should also be considered (p. 502).

In another research, Imants and Van de Ven (2011) point out that “past experience and research show that giving form to instructions aimed at the stimulation of active and independent student learning is anything easy, [however] misconceptions often exist among those directly involved with regard to what precisely constitutes self-directed student learning ...” (p.333). To explain self-directed learning, Imants and Van de Ven (2011) further state that “the development of the potential for self-directed learning is called learning to learn.” This definition implies that students “develop an interrelated mix of cognitive skills, metacognitive skills, and affective-emotional skills while executing their learning tasks, for example structuring, criticizing, reviewing, generalizing, etc. (p. 334). Dynan, Cate and Rhee (2008) regard self-directed learning as “the basis of lifelong learning” (p.96). This means that it is essential for students to develop self-directed learning skills for them to “be equipped for educational opportunities and challenges beyond their formal education” (p.100). For one to be a self-directed student, one should have potential to learn and develop reasoning skills which are essential to engage in self-directed learning.

Dynan, Cate and Rhee (2008) state some of the crucial higher order thinking skills of students as follows:

- Application – this refers to the student’s ability to apply basic concepts to real-world problems or situations.
- Analysis – the student’s ability to recognize and explain major underlying assumptions.
- Synthesis – the student should also develop the ability to build simple models based on principles.
- Evaluation – the student should further develop the ability to compare and contrast information (p.97).

At university level students are required to engage in reflective learning, construct meaning; learning in a co-operative way, inquiry based learning, problem based learning as well as innovative learning (UNAM Teaching and Learning Policy, 2013, p. 6). These aforementioned concepts are synonyms to self-directed learning. In the context of this research self-directed learning refers to students taking initiative and responsibility of own learning, being active and independent learners.

From Lee, Tsai, Chai and Koh’s (2014) point of view, a self-directed student “plays an active role in his or her learning (p.426) and that “understanding responsibility is [both] a necessary component and outcome of self-directed learning” (Rezaee & Nabeiei, 2015, p.129).

On this point, the Ministry of Education and Culture (1993) in Namibia believes that learning is also an active and interactive process whereby individuals are encouraged to construct meaning for themselves and create knowledge by sharing experiences with others through collaborative interaction. This belief is based on social constructivist principles. The learners' previous knowledge constructions, beliefs and attitudes are considered in the knowledge construction process. During the teaching and learning processes teachers serve as guides, monitors, coaches and act as facilitators during the learning process, who scaffolds, give feedback and promote reflection on what could be improved (Hammarlund, Nordmark & Gummesson, 2013, p. 226).

Knowles (1975, p.18) describes self-directed learning as a process where one has to take initiative of his or her own learning, setting own goals, requesting for feedback from the lecturers and doing self-evaluation of her/his learning as well as researching for information extensively. Self-directed learning is recognized world-wide and advocated by great thinkers such as Knowles (1975) as indicated above. Guglielmino (1978) as cited in Guglielmino (2013) also believes in what Knowles advocated, and observed that "a highly self-directed learner is one who exhibits initiative, persistence in learning, one who accepts responsibility for his or her own learning, one who has a high degree of curiosity; one who has a strong desire to learn or change and is self-confident" (p. 3), one who is creative, not dependent. Relating this to Seng (2014) in self-directed learning there "is an intrinsic motivation for learning, with the emphasis being on cooperation, rather than competition, between students. The student is encouraged to ask questions and be inquisitive and the academic is seen as a facilitator and guide, rather than as the main source of knowledge (p. 143).

Pink (2009) look at self-directed learning in terms of performance that "the secret to high performance and satisfaction –at work, at school, and at home-is the deep human need to direct our own lives, to learn and create new things, and to do better by ourselves and our worlds" (p. 10). Based on the above information, it is reasoned that self-directed learning students need to develop self-directed skills not only for the sake of learning at University level, but also to prepare them to learn for life (McCauley & McClelland, 2004).

2.2 Ways to facilitate self-directed learning of students

Namibia is coming from the dispensation where the (teacher) educator is the expert and transmitter of content in the process of teaching and learning. This traditional view and role of the educator might hamper the educators' understanding of his or her new role as that of a facilitator of the teaching and learning process. As such, the passive acquisition of knowledge persists. This is in line with Guglielmino (2013, p. 6) who point out that difficulties in assisting students to become self-directed is because they have not been prepared for the transition in their previous educational experiences" (p. 6).

In this regard Khodabandehlou, Jahandar, Seyedi and Abidi (2012) argue that when we help students to be aware of "their own thinking and learning processes, we are helping them think about the effectiveness of the strategies they use in reaching the goals they have set" (p.1). As educators "we teach and engage students in specific strategies that offer them opportunities to make decisions and solve problems on their own without being told what to do at all times" (p.1). This means that students should develop abilities to process information effectively and be self-confident, and their abilities can help them to succeed. Khodabandehlou et al. (2012) further point out that as educators we can also "help students become more reflective about their thinking and learning process". According to Grow (1991, p.127) readiness is an important aspect in self-directed learning. Grow explains readiness as a

“combination of ability and motivation”, ranging from “not able” and “not willing” in the task at hand (p. 126). The strategies educators use in their teaching should allow students to move to autonomy and take responsibility of their own learning. However, it should be noted that the willingness of students to take responsibility of their learning depends on their abilities, attitudes and personal characters (Fisher, King & Tague, 2001, p.516). Self-directed learning skills are individualized, therefore, it is important for the educator to help students as individuals to be self-directed in their learning. Educators are cautioned that students are different and they learn in different ways. That is, one-teaching-method-fits-all is absurd.

Literature further shows ways to facilitate self-directed learning among students.

- Educators should motivate students during lectures and guided discussions. That is, the educator should facilitate the discussion through seminars, group projects, study and support groups, online platforms and networking, computer-assisted learning, where students learn in a collaborative way with both the educator and their fellow students.
- In self-directed learning students should be involved in the teaching and learning process, and be given opportunities to “develop domain-specific knowledge as well as the ability to transfer conceptual knowledge to new situations” (Khodabandehlou et al., 2012, p.2).
- Tasks: In SDL students are expected to be engaged in various meaningful tasks and activities. Among others such activities can include guided reading, online dialogues, reflective writing and inquiry based learning. It should therefore be understood that the nature of tasks given to students influence the level of self-direction required from and placed on them (Song & Hill, 2007, p.32). Educators should also embed real-life situations, issues and problems in the tasks that students do. This could be a way to harness the natural desire in students to achieve meaningful learning for their future.
- Develop self-monitoring, reflection as well as ask students to clarify, question and summarize what they are learning.
- Students should also be given opportunity to do self-assessment and draw conclusions about their learning and performances. This will help them to identify their strengths as well as their weaknesses and make improvements where needed, i.e., self-efficacy, where students make judgments about their capabilities and believe that they are competent to learn and succeed.

This further means that students become effective social beings.

- Capitalize on students’ abilities rather than focusing on their weaknesses.
- The learning context: The learning context has potential to influence and facilitate how the student becomes motivated to learn, how they use different resources and strategies to accomplish learning (Song & Hill, 2007, p.33). It should therefore be supportive. This support can come from the educator’s constructive and informative feedback as well as from peer collaboration and communication.

The above strategies could be linked to Prabjander’s (2013) statement that “these strategies may be helpful for teacher educators who consider taking a step towards fostering students’ self-directed learning and helping students to survive and thrive in this information age” (p.9).

3. STATEMENT OF THE PROBLEM

Guglielmino (2013) stated that, logical reason that professional schools are having a difficult time assisting their students to become self-directed is that the students have not been prepared for the transition in their previous educational experiences. In fact they have often been trained to be dependent learners (p. 6).

In line with Guglielmino there have been concerns from lecturers at the University of Namibia campus where this research was conducted that students are too much dependent on lecturers. It was against this background that this research was conducted with regard to self-directed learning among undergraduate education students at one of the University of Namibia campuses. The objectives of the research were:

- To explore the readiness of first year student teachers to learn independently.
- To understand student' experiences and challenges they face and that hamper their self-directed learning.
- To identify various ways of facilitating independent learning, enhancing self-directed learning and fostering opportunities for self-directed learning among students.

4. RESEARCH METHODOLOGY

4.1 Research Approach and Design

A qualitative approach, and an exploratory case study research design was used to explore self-directed learning among first year undergraduate Education students, to understand their experiences and challenges they face in learning at university level.

4.2 Sampling Procedures and Participants

The population of this research consisted of all UNAM Hifikepunye Pohamba (HP) campus undergraduate Education student. A purposive sample of 30 first year undergraduate HP education students, that is, 10 students from Early Childhood, Lower Primary, Upper Primary (Languages & Social) and Secondary (Maths & Physical Science) education levels was drawn. Our selection of the sample for this research was based on Gay, Mills and Airasian (2009) who point out that when choosing a sampling technique and sample itself, researchers need to remember to select participants who can best add to the understanding of the phenomenon under study, not participants who necessarily represent some larger population (p. 135).

We also based the selection of the participants in this research on Gay et al (2009) characteristics of a good key informant which include the ability to be reflective and thoughtful, to communicate effectively with the researchers and to be comfortable with the researchers' presence (p. 135).

4.3 Instruments, Data Collection and Analysis Procedures

The data for this research were gathered through focus group discussions. Conducting a focus group discussions provided us an opportunity to discuss, interact and listen to the voices of the students with regard to self-directed learning and challenges they face. Guiding questions were developed to guide the discussions. Follow –up questions were asked for students to clarify their points. Detailed field notes were taken by each of us during the discussions. The discussions were not audiotaped because we did not want to inhibit openness of the participants. The verification of the data was done by asking participants to verify our interpretations of their responses. We sat after the focus group discussions, read

through the data to become familiar with it, and compiled one document of the narratives of the participants from the focus group discussions. By reading and studying the narratives repeatedly and considering the possible meanings of the narratives we developed emerging categories (Marshall, 1999, p. 419). Narrative analysis was used to analyse data.

5. FINDINGS

Self-directed learning in this research paper was understood in terms of various aspects of the teaching and learning process. These include, among others, taking initiative of own learning, responsibility and accountability of students for their own learning and meaningful learning. Factors that prevent student to be self-directed in their learning were evident in the data and were categorized as follows: (1) lack of a sense of responsibility and accountability, (2) poor reading culture, (3) insufficient computer literacy skills, (4) ineffectiveness of orientation program, and limited access to internet. These categories are discussed in the next sections.

5.1 Lack of a sense of responsibility and accountability

Participating students complained that lecturers do not give them notes of their presentations. One student reported on this situation as follows:

Lecturers do not put notes on the Portal and if you have to write a test you have nowhere to study. We need those notes lecturers use during their presentations for studying and doing assignments.

The above statement indicates that students believe that they can only study from notes that lecturers use during presentations.

One student expressed:

Student teachers just wait for the lecturer to project the presentation and copy what is being displayed. If the lecturer did not project the presentation they will not note anything. Some student teachers do not take notes at all. Some students do not even have notebooks or laptops to take notes. The only thing they carry to the lecture hall is their cell phones to listen to music, take pictures during lectures and post them on Facebook. Such students come to the lecture hall for attendance only, just for the lecturer to see that they were present, but not for the sake of learning anything.

One student reflected on the higher school experiences and noted:

At school we were given books, but life here is different. It is a different way of doing things here which we are not accustomed to. We are expected to buy our own books which we normally do not do.

5.2 Lack of reading culture

Students further revealed that there is lack of reading culture among student. They expressed that they only read when there is a test or examination. Students are also of the view that they are forced to look for information when doing assignments and tasks. One student remarked:

You are forced to look for information when doing an assignment or task. You are not given any notes to take information from. That is why sometimes one gets low marks because you do not have information.

Another student said this:

We only sometimes search for information when we do assignments. Sometimes it is just a copy and paste issue. Whether you understand or not, that is not the issue. We really do not read for understanding because we do not have time to do so. I only read for the test or examination a day before.

Another one recalled:

At secondary school there is study time and teachers there make sure that you are in the classroom for study. Here nobody is chasing us for study. There is no study here. You are on your own. Students spend time drinking because nobody is controlling them. Too much dependence causes higher failure at the end. We only study when there is a test or examination.

5.3 Ineffectiveness of orientation program

Participating students further view the orientation program as a means to influence the readiness to take charge of one's own learning process. These sentiments expressed by students demonstrated their experiences of the orientation program at the campus:

One student claimed that:

The orientation program was not well organised. It was done before some of us registered or in the process of registering. We do not know what was said there.

Another student added:

Orientation was done before registration and some of us were not admitted that time.

Another student's experience was that:

The orientation was too general. Nothing was said about how to study and how teaching and learning is taking place. They did not tell us about assignments.

Another student remarked:

Our fellow students sometimes mislead us. In the hostels you are told you are free here. There are not those high school things where you are forced to learn and do things. Some of us misinterpret that information and relax. We even tend to ignore our lecturers' advice as we believe too much and follow what our colleagues told us.

The other student suggested that:

I suggest that maybe it will be better if the orientation program is done when we have all been registered and perhaps in smaller groups rather than in a big group as it is done now.

Students felt they were not well oriented regarding the teaching and learning culture at tertiary level. As a result they found it difficult to adjust to how things are done at tertiary level.

5.4 Insufficient computer literacy skills

During focus group discussion student expressed challenges they faced with the Information and Communication Technologies at hand. Among the challenges they faced was lack of information literacy skills. This was expressed as follows:

Studying at university level is a challenge. Some of us are computer illiterate and sometimes required to type your assignment. You are also required to search for information on the Internet, something that one cannot do, that is also a challenge in our studies. Lack of

computers is also a challenge to us since some of us do not have our personal computers and smart phones.

Another student added:

And for those who have smart phones they do not use them for educational purposes. They only use them for socialisation, listening to music and other not educational related activities. For example, I do not know how to get relevant information for my assignment and how to use this information. You just copy and paste.

Another participating student expressed:

Some of us do not know how to search information the internet. It is the first time for some of us to work with computers. Sometimes you say there is no information about the topic, but is just the way you search information. You do not even know how to do basic things like typing a word document.

5.5 Limited access to internet

Students complained about the Wi-Fi and limited access to internet. One student said:

Access to Internet is also a challenge to us as Wi-Fi connection is a problem here. This makes it difficult for us to do our work.

Another student added:

Even if you want to search for information, sometimes the internet is not working. You end up submitting work of low quality. This is an uncondusive learning environment where we find ourselves. Not only that, computers are also few. Some of us do not have our own laptops. We have to wait for others to finish doing their work because we share computers.

6. DISCUSSION OF FINDINGS

Silen and Uhlin (2008) pointed out that, if the intention is to enhance the students' ability to become self-directed learners, and prepare for lifelong learning in their professions, it is essential to recognise that students becoming responsible and independent are a learning process in its own right (p.462).

The findings revealed that students at university still have the high school mentality whereby they depend too much on lecturers. They demand and expect to be given handouts, summaries, notes, and slides that lecturers use during lectures. Such notes are sometimes just skeleton notes (key words) to guide the presentation of the lecturer, and one would argue that they will learn nothing from them. The teacher-centred approach is of interest to them, whereby they see the lecturer as an expert to provide them information. This further gives the impression that the old style of teaching, where students sit quietly and passively and expect the lecturer to give them a word of wisdom, still clings in the minds of our students. To them the lecturer is a manager of the teaching and learning process. Little is expected from the student as their responsibility in the teaching and learning process is to accept information transmitted from the lecturer.

Furthermore, the findings revealed that students are marks-oriented in their studies. Their goal is to attain marks and such marks are normally not a reflection that they have learned and acquire knowledge and skills. They memorise information to pass tests and or examinations. Thus, learning rarely occurs in such a passive environment where student teachers wait for the lecturer to spoon-feed them in all aspects. They do so since they "are not encouraged to be independent in their learning but rather wait for the teachers' study

materials” (Mbabazi, Dahlgren & Fejes, 2012, p. 8). Thus, the findings indicated a need to prepare students for their academic life and to be oriented in the approaches used in the teaching and learning process at university level and to engage them to make a shift from lecturer dependency to student-centred learning and to learning with understanding. Furthermore, positive interdependence and individual accountability should be inculcated in students, as well as the understanding that a lecturer is a facilitator who is there to scaffold and unfold their learning, not necessarily to transmit knowledge to them, while they are passive recipients of knowledge. This is in line with Mbabazi, Dahlgren and Fejes (2012) that the “aim of the teaching approaches is to encourage independent learning with critical thinking and students taking responsibility for their own learning (p. 5).

The findings revealed that there is lack of reading culture among students. In many instances student regard lecturers as sources of information and knowledge. In the research by Je (2015), reading culture is described as “a regular engagement in the act of reading on a continuous basis”, and that “it is the underlying basis for lifelong learning (p. 67). That is, reading itself “is a tool for acquiring knowledge, languages, communicating, and sharing of information and ideas. Je further points out that “reading is an essential competency required in the 21st century to survive the global systems, be it economic, educational, political and social, and so on” (p. 66). Thus, lecturers, through the activities, tasks, assignments and projects should develop a reading culture in students. The findings further revealed that students are not explorative in their learning. They do not take initiative to search for information. This may be a negative aspect to the teacher education not producing “quality teachers who possess positive attitude(s), abilities, and skills to strive for knowledge and self-development” (Prabjander, 2013, p.2) and “intellectual abilities” to “able to construct own knowledge” (Shepard, 2000, p.4) through independent learning and reading.

Furthermore, the findings show that students seemed not well oriented in their first year academic level at the university. As such the findings revealed that there is a perception that there is too much freedom at university level. Students felt there is nobody behind them when it comes to their studies. It is this freedom that prevents them from taking their learning seriously. They perceived the university as a place for enjoyment and that they are on their own and nobody takes them to task. This is in line with Knowles who pointed out that students find themselves drowning in many unnecessary activities, which are not in favour of moulding them to be responsible for their own learning, not self-initiating, and not be able to understand their learning, an attitude which is not in line with self-directed learning (Knowles, 1975).

The findings revealed that students’ self-directed learning is constrained by ICT related challenges such as lack computer literacy skills that is, searching for information, evaluating, interpreting and analysing as well as using information for deepening their knowledge. There is also a lack of understanding that smart phones can be used for learning rather than for social issues. Therefore, in line with Silen and Uhlin (2008) if ICTs are to be used to develop self-directed learning of students there is a need to provide not only computers, but also opportunities to improve students’ possibilities to “become information literate and self-direct” (p. 473) in order to maximize and advance their learning with technological equipment. Technological equipment not only includes computers, but also refers to devices such as mobile phones. It is further important to take note of the importance of using Information Communication Technology (ICT) as a self-directed strategy as described by Muianga, Klomsri, Tedre and Mutimucuo (n.d.) that the lecturer’s role shifted “from classroom directed-knowledge delivery to knowledge facilitator” (p. 7) who helps

students to collaborate, share information, knowledge and skills. The findings of this research further indicated that students lack understanding that the smart phone in his or her hand is a source of information for learning. As (Isaac, 2012) they “provide access to course materials, enable field research and assignments, and facilitate communication, interaction and knowledge sharing between students” (p.14). For our students a mobile phone is for taking pictures, chat with friends on the Facebook and other social media platforms.

Furthermore, the findings revealed that limited access to internet created an uncondusive learning environment for students and a challenge to their self-directed learning. Students indicated difficulties in producing quality work without access to internet and other relevant facilities. This suggests that there is a need for a conducive and supportive learning environment in order to support self-directed learning among students and for students to produce quality work in their studies. This is in line with Okeke (2013) who pointed out that

“...the quality of students bears a direct relationship with the quality of facilities deployed in the production process. This implies adequate material facilities must be provided to prepare students for life in the larger society [therefore], unavailability of facilities is a disease that must be avoided (p. 102).

7. CONCLUSION

There are multi-faceted issues that affect students to become self-directed learners. Students seem not ready to learn independently from their lecturers. They want to be spoon-fed by the lecturers. The findings of this research have implications on lecturers’ teaching strategies, and on the activities, tasks and assignments they give to students with regard to self-directed learning.

8. ACKNOWLEDGEMENT

The authors acknowledge all the students who participated in this research for their valuable contribution to this research.

REFERENCES

1. Dynan, L., Cate, T., & Rhee, K. (2008). The impact of learning structure on students’ readiness for self-directed learning. *Journal of Education for Business*, 84(2), 96-100.
2. Fisher, M. King, J., & Tague, G. (2001). Development of a self-directed learning readiness scale for nurses. *Nurse Education Today*, 21, 516-525.
3. Gay, L. R., Mills, G. E., & Airasian, P. (2009). *Educational research: Competencies for analysis and applications*. (9th ed.). New Jersey: Pearson Educational International.
4. Grow, G. O. (1991). Teaching learners to be self-directed. *Adult Education Quarterly*, 41(3), 125-149.
5. Hewitt-Taylor, J. (2001). Self-directed learning: Views of teachers and students. *Journal of Advanced Nursing*, 36(4), 496-504.
6. Guglielmino, L. M. (2013). The Case for Promoting Self-Directed Learning in Formal Educational Institutions . *SA-eDUC Journal*, 10(2), 1- 18.
7. Guglielmino, L. M. (1978). In L. M. Guglielmino (2013). The Case for Promoting Self-Directed Learning in Formal Educational Institutions . *SA-eDUC Journal*, 10(2), 1- 18.
8. Hammarlund, C. S., Nordmark, E., Gummesson, C. (2013). Integrating theory and practice by self-directed inquiry-based learning? A pilot study. *European Journal of Physiotherapy*, 15(4), 225-230.
9. Imants, J., & Van De Ven, P-H. (2011). Practice-based research on the development of activating instruction and self-directed student learning: Dutch writing instruction. *Curriculum Studies*, 43(3), 333-355.

9. Isaac, S. (2012). *Turning on mobile learning in Africa and Middle East: Illustrative Initiatives and policy implications*. Paris: UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0021/00216359E.pdf>
10. Je, I. (2015). The role of picture books in promoting reading culture among Nigerian children: Implication for libraries and development of leadership qualities. *International Journal of Academic Library and Information Science*, 3(2), 65-71.
11. Khodabandehlou, M., Jahandar, S., Seyedi, G., & Abidi, R. M. D. (2012). The impact of self-directed learning strategies on reading comprehension. *International Journal of Scientific & Engineering Research*, 3(7).
12. Knowles, M.S. (1975). *Self-directed learning: A guide for learners and teachers*. New York: Associated Press.
13. Lee, K., Tsai, P.-S., Chai, C.S., Koh, J.H.L. (2014). Students' perceptions of self-directed learning and collaborative learning with and without technology. *Journal of Computer Assisted Learning*, 30(5), 425-437.
14. Marshall, M. N. (1999). Improving quality in general practice: qualitative case study of barriers faced by health authorities. *British Medical Journal*, 319(7203), 164-167.
15. Mbabazi, p. B., Dahlgren, L. O., Fejes, A. (2012). Students as learners through the eyes of their teachers in Rwandan higher education. *International Journal of Lifelong education*, 31(4), 503-521.
16. McCauley, V., & McClelland, G. (2004) *Further studies in self-directed learning in physics at the University of Limerick, Ireland*. *International Journal of Self-Directed Learning*, 1(2), 26-37.
17. Muianga, X., Klomsri, T., Tedre, M., & Mutimucuo, I. (n.d). From teacher-centered to student-centered learning: Developing modern ICT supported learning in Eduardo Mondlane University, Mozambique.
18. Namibia. Ministry of Education and Culture (1993). *Toward education for all: A development brief for education, culture, and training*. Windhoek: Gamsberg.
19. Pink, D. (2009). *Drive: The surprising truth about what motivates us*. New York, NY: Riverhead Books.
20. Prabjander, D. (2013). Self-directed learning readiness of college students in Thailand. *Journal of Educational Research and Innovation*, 2(1), 1-11. Shepard, L. A. (2000). The role of assessment in a learning environment. *Educational Research*, 29(7), 4-14.
21. Okeke, P. N. (2013). Management of facilities in the classroom. *Journal of Emerging Trends in education Research and Policy studies*, 4(1), 100-104.
22. Rezaee, R., Nabeiei, P. (2015). Effects of workshop training on self-directed learning skills of students at Shiraz University of medical sciences. *Research & Development in Medical Education*, 4(2), 129-131.
23. Seng, E. L. K. (2014). Investigating teachers' views of student-centered learning approach. *International education Studies*, 7(7), 143 -148.
24. Silen, C., & Uhlin, L. (2008). Self-directed learning – a learning issue for students and faculty! *Teaching in Higher Education*, 13(4), 461-475.
25. Song, L., & Hill, J. R. (2007). A conceptual model for understanding self-directed learning in online environments. *Journal of Interactive Online Learning*, 6(1), 27-42.
26. University of Namibia. (2013). Teaching and learning policy. Teaching and Learning Improvement Unit (TLIU), Windhoek.