Exploring a learner-centred method for the acquisition of 21st-century soft skills among adult education learners

Noah Kenny Sichula, Musonda Luchembe, Moses Changala,
Davies Phiri and Flora Ngoma Moono
The University of Zambia
noah.sichula@unza.zm

Abstract

This article presents the findings of a study that looked at learner-centred teaching methods that inspired adult education students in a higher education context in the acquisition of knowledge and 21st-century soft skills for the job market. The study sample was 130 participants and included 126 learners and 4 lecturers. The study used both quantitative and qualitative research approaches and was framed within andragogy-the adult learning theory. Discovery teaching was found crucial in facilitating the acquisition of 21st century soft skills among the adult education learners. Navigating their way to the solutions of the assigned problems enable the acquisition of soft skills. However, the utilisation of discovery teaching was reported to be hampered by two main broad factors. The diversity and changing landscape of the nature of adult education learners . Several of them were identified and described as young, different from the traditional adult education learners who are often characterised by vast work experience, mature, and focused. This phenomenon had a bearing on the effective utilisation of discovery teaching in class because lecturer dependency was described as quite apparent among the young learners. Secondly, it was observed that the foundational year of study in the programme did not provide a firm grounding for discovery teaching and learning. The learners were introduced to lecturer dependency through responsive academic help rendered to learners and progressed to higher levels of study. While we found discovery teaching to have versatile inroads in several pedagogic practices, essential for the acquisition 21st-century soft skills, there remains a gap in inextricably embedding discovery teaching in the teaching of learners on this programme.

Keywords: Adult learning, higher education, 21st-century skills, discovery teaching

Introduction

The higher education learning context is characterised by knowledge generation and innovation through research. This is expected to bring about curriculum improvement of academic programmes, and methods of teaching and learning to respond to the changing global skill and knowledge environment. However, the 21st-Century higher learning environment including workplaces and communities are considerably impacted by technological changes in many aspects (Germaine, Richards, Koeller, & Schubert-Irastorza, 2016). In this environment, learners are expected to acquire knowledge and skills beyond the core subjects of their academic programmes (Salpeter, 2003; Scott, 2015). They require knowledge to

think critically, and analyse ideas and situations they might be confronted with, apply the knowledge to different aspects of their lives by collaborating with others, engaging in meaningful and worthwhile communication practices, and solving problems creatively (Salpeter, 2003). For this reason, teaching in higher education is seen to be a multidimensional engagement involving a variety of approaches and literacies essential to facilitate the development of higher-order skills and learner abilities in the knowledge-based 21st –Century environment. It demands lecturers to take deliberate efforts to   ensure excellence in research, teaching and other academic areas (Fry, Ketteridge, & Marshall, 1999). Literature shows that for teaching in higher education to be effective and successful, certain fundamentals need considerations. These include an understanding of how learners learn; the organisation of the learning to bring about learning; the knowledge and insight about the needs and aspirations of learners (Fry, Ketteridge, & Marshall, 1999).

The 21st Century has been characterised by rapid adavancemnet in technology leading to the development of knowledge societies (Rotherham & Willingham, (2010). In these societies, the explosion of knowledge functions as a commodity in which new skills and competences are been asked for particularly for the job market, referred to as 21st Century skills. The importance placed on these skills is that the 21st Century societies might not only need to respond to the change in the types of jobs that are needed, but also that young people need to be educated for a job that does not yet exist (Voogt, & Roblin, 2010). The most mentiond and cited skills for the 21st Century knowledge societies include: knowledge construction, adaptability, finding, organizing and retrieving information, information management, critical thinking, team work, collaboration, communication, ICT literacy, and social and/or cultural competencies and citizenship (Geisinger, 2016; Chakanika & Sichula, 2016).

This article engages with the findings of the study that looked at learner-centred method for the acquisition of knowledge and 21st-century soft skills: Communication, Critical thinking, Creativity and Collaboration. The focus was on the higher education adult education programme offered by the University of Zambia. This programme is designed to train professionals who would design, plan, organise and implement adult learning programmes in various contexts. By design, it stimulates innovations towards sustainable solutions to the problems of society as it connects learning to reality and provides learners with the necessary skills to succeed (Kaza, Natkin, & Rowse, 2015; Kazis et al., 2007). Learner-centred teaching is used to refer to learning characterised by learner freedom, active participation, collaboration, dialogue and co-creation of knowledge in the teaching-learning process. Gargallo Lopez, Garfella Esteban, Sahuquillo Mateo, Verde Peleato, and Jimenez Rodriguez (2015) explain that learner-centred teaching has become more important in research in higher education because it has shown evidence of being appropriate for supporting student learning.

In Zambian, higher education has for a long time focused on the general skills and competencies of the various course offerings. For instance, the Ministry of Education (1996) records in a very general sense that the function of higher

education in Zambia is to impart knowledge to learners in various branches and fields of study and develop creative, communicative, problem-solving skills and capacities among the students. Today the labour market is more attractive to individuals who possess up-to-date hard and soft skills. The Higher Education Act No.4 of 2013 in Zambia makes an effort to promote specialisation. One of its functions is to prepare specialists, expert, research and managerial cadres to carry out intellectual and creative work to meet national needs. In implementing this function higher education institutions are expected to exercise relevance to society by providing graduates with the needed specialised skills.

The current labour market skills demand points to both hard and soft skills which are crucial for the relevance of the adult learning graduates to society. In-demand competencies and skills include Collaboration, Communication, Critical thinking and Creativity (Griffin & Care, 2014). These skills are less studied in higher education adult learning and yet essential. Additionally, specific studies on the learner-centred teaching methods that inspire higher education adult learners to learn and how they can be used in the successful acquisition and imparting of 21st-century skills are missing. The absence of these studies creates an information gap to inform theory and practice. This raises a question on the responsiveness of the higher education adult learning programme to the needs of its immediate community and society. Realising the overwhelming importance and relevance of the skills of Collaboration, Communication, Critical thinking and Creativity not only to the demands of the 21st century but also to the professional field of adult education, the rationale for this study could not be overemphasized. A conjecture here is that higher education adult learning responsiveness to societal needs can help improve productivity in many specific domains of life including reducing the prevailing socio-economic and gender disparities and increase political, social and economic inclusion.

Theoretical and contextual perspectives

(i) Andragogy

Andragogy is a concept that refers to adult learning and helps us to understand how adults learn, thereby informing and shaping the design and implementation of adult learning programmes in different contexts (McCall, Padron and Bronx, 2018). It approaches learning content delivery in a learner-centred manner as can be seen from the rendering assumptions. It generally considers adults as mature individuals whose: (1) self-concept is that of self-directed learning; (2) that accumulated life experiences become a resource for new learning; (3) the readiness to learn becomes oriented towards developmental tasks of one's social roles; (4) learning becomes problem-centred; and (5) the motivation to learn is internally stimulated (Knowles, 1980). The value of these assumptions is that adult educators are required to create a cooperative environment for effective learning to occur. That it is their responsibility to identify the needs and interests of their learners. Additionally, it implies that collaboration with the adult learner regarding how the teaching-learning process could be managed including designing learning

activities and evaluating the performance of learners is crucial. We, therefore, consider these assumptions as crucial for informing and shaping our understanding of the learner-centred methods that inspire our higher education adult learners to acquire knowledge and 21st-century skills which are communication; creativity; critical thinking; and collaboration.

(ii) Adult learner's inspiration to learn

It is well known that adult learners are mature people whose learning is inspired by the need to acquire knowledge for immediate application (Rogers & Horrocks, 2010). For this reason, their inspiration to learn new skills as well as acquiring new information is driven by the need to solve their problems. This makes their learning deliberate, purposeful and focused on meeting their immediate learning needs. A study by Rogers (1999) established that the value of teaching adults is not so much in that pass rate but in the ability to transfer the skills acquire into real-life practices of the learners. Similarly, adult learning research and practices by Rogers and Street (2012) revealed that often adult learners are not a category of learners who necessarily require to be motivated to learn. They are self-motivated and usually request specific learning programmes to be packaged to meet their needs (Sichula, 2016). The only aspect that is probably worth considering, is helping them develop their courage and confidence by constantly encouraging them through the efforts they might be making to improve themselves (Sichula, 2016, 2018).

(iii) Learner-centred teaching in higher education adult learning

The learner-centred approach originated from changes that occurred in the thinking about curriculum planning and pedagogy in the 1970s and 1980s (Nunan, 1988 in Benson, 2003). There was a great desire among educationists that the approach to teaching adults especially in higher education should be different from the one used at both primary and secondary schools. The idea was to allow adult learners to learn using their preferred teaching methods as well as content that would eventually help them fit in society on completion of their studies. Agommuoh (2016) describes learner-centred learning as "a process whereby students engage in activities such as reading, writing, discussion, or problem-solving that promote analysis, synthesis, and evaluation of class content". This is in line with the andragogy approach which assumes that adults are self-directed and that they know exactly what they want to gain from engaging themselves in learning. Examples of leaner-centred learning may involve practical tasks centred on problem solving, group or individual activities with minimal or no teacher involvement.

The 21st-century education trajectory has continued to witness an increased demand for a change in the teaching methods from teacher-centred methods of instruction to learner-centred pedagogy (Schweisfurth, 2015; Crick & McCombs, 2006; Harris & Cullen, 2008). A reference to the last decade does not imply that the learner-centred teaching methods have not been in existence beyond this period. According to Dewey (1956), learner-centred approaches have been in existence for

a long time. Similarly, the learner-centred pedagogy is not new to adult learning in higher education as the learner-centred literature appears to be prevalent within the domain of higher education (Moate & Cox, 2015). Underlining the value of the learner-centred pedagogy in higher education, Schweisfurth (2014) explains that "learner-centred pedagogy as a policy discourse has been a globally-travelling prescription for improvements to learning". To the extent that it is considered to be a solution (Sriprikash, 2010). For example, in Sub-Saharan Africa in the 1990s, the widespread of the learner-centred pedagogy came to light "as the driving pedagogical ideal for contemporary curriculum" at the national level (Chisholm & Leyendecker, 2009:692; Darsih, 2018). According to Schweisfurth (2014), in terms of quality, "learner-centred education is one vision of best practice". Despite its highly acclaimed achievements in higher education adult learning, the learner-centred pedagogy is faced with implementation challenges (Schweisfurth, 2014; Langu & Lekule, 2017).

Schweisfurth (2014) has identified five obstacles that impede the successful implementation of learner-centred education. First, the reform process is highly ambitious as far as the goals are concerned. Second, the learning and physical resources in most cases do not provide a conducive learning environment. Another obstacle to the implementation of learner-centred education is that more often than not adult educators are ill-equipped and inexperienced to effectively execute the required practices. Further, it has also been observed that national, institutional and professional cultures render little support to such new initiatives. Finally, even amidst the change in teaching methods, the examination format remains the same and do not, therefore, match the new examination requirements.

A learner-centred approach largely embodies teaching methods that provide more opportunities to students to participate in the teaching-learning process (Jones, 2007), while adult educators become facilitators in student learning (Darsih, 2018; Moate & Cox, 2015). In other words, the approach increases students' participation in learning. This is probably why an increase in the use of learner-centred approaches is considered as an antidote to the teacher-centred approaches (O'Sullivan, 2004). The learner-centred approaches are to a greater extent considered to be a panacea due to the inability of the often predominant teacher-centred approaches in higher education to equip adult learners with adequate skills that can help them fit into a modern industry. In line with this reasoning, the increase in adult learners' participation in their learning through learner-centred approaches has been described by Namibia's Ministry of Education and Culture as follows:

> Our teaching methods must allow for the active involvement and participation of learners in the learning process. Teachers should structure their classes to facilitate this active learner role. … It will mean as well using teaching techniques that fit the purpose and content of the lesson and at the same time encourage active learner participation,

for example, explaining, demonstrating, posing questions, checking for understanding, helping, providing for active practice, and problem-solving (O'Sullivan, 2003:587).

Though the above extract applies to secondary schools, it has elements that can also be applied to higher education as far as learner-centred teaching methods are concerned. Learner-centred teaching methods are being implemented in many countries because they are considered to be effective. In a study conducted by Langu and Lekule (2017) in Tanzania to establish the effectiveness of the learner-centred approach in teaching and learning geography in secondary schools, several benefits were highlighted. For example, forty-seven per cent of the respondents said that the use of learner-centred teaching methods fostered understanding while thirty per cent of the respondents felt that they helped them to remember. Besides, while thirteen percent were of the view that the learner-centred teaching methods ensured their participation, ten percent of the respondents claimed that the methods enhanced their creativity. In short, the learner-centred teaching methods allow students to learn the material in which they have had an input, their needs and interests are seemingly addressed while their ability and learning styles are also taken into account (Darsih, 2018).

We provide a brief description of the roles of adult educators and adult learners where learner-centred approaches are employed. The adult learners become more active in their learning while the adult educator changes his or her role from being a "transmitter" of knowledge to a "facilitator" (Palis & Quiros, 2014; Sichula & Genis, 2019). For example, adult learners participate in deciding what to learn and how different topics and/or subject should be taught. To enhance the learning process, the adult educator is expected to provide an enabling environment (Moate & Cox, 2015) such as supportive relationships and providing a safe environment and trust to adult learners (Chakanika & Sichula, 2019). Further, adult learners are engaged in studying other areas of "intellectual interest" (Moate & Cox, 2015). The learner-centred approach has many instructional methods at its disposal. However, the use of such methods in a class by an adult educator requires that he or she has the knowledge and skills of how to execute them. As one renowned teacher and writer observed,

> If teachers are to prepare an ever more diverse group of students for much more challenging work – for framing problems; finding, integrating and synthesizing information; creating new solutions; learning on their own; and working cooperatively – they will need substantially more knowledge and radically different skills than most now have and most schools of education now develop" (Darling-Hammond, 1997:154 as cited in Doyle, 2008:63).

The question is: have adult educators in higher education acquired knowledge to impart to adult learners to meet the labour market skills of the 21st century? To

appreciate what is and what is not happening, this study seeks to investigate this question from the perspectives of both adult educators and adult learners.

As alluded to, many learner-centred teaching methods are available except that there is a tendency to use only a few of them. For example, in a study conducted on methods of teaching adult learners in Ghana and South Africa by Addae (2016), it was found that most of the time two methods, namely demonstration and discussion were used to promote learning among learners in both countries. In both countries, both learners and adult educators or facilitators confirmed that both discussion and demonstration as methods of teaching were effective in promoting subject-matter comprehension. However, it was noted with concern that the lecture method was predominantly used.

Methodology

The study deals with the subject of teaching adults in higher education which is fundamentally embedded in the experiences of both the learners and the teaching staff. This entails that the participant's actions in the teaching-learning interaction cannot be separated from their past teaching and learning experiences because experience shapes the practice (Yardley, Teunissen, & Dornan, 2012). Therefore, the research questions that guided the study were: (1) What learner-centred teaching methods are used to to teach adult education students in a higher learning education context? (2) How can the learner-centred teaching methods in a higher education context be used to teach 21st-century skills? ((3) What are the mismatches between the teaching methods used and the learner's expectations? And (4) What competencies are expected of the higher education adult learners by the adult learning programme? It was further considered that given the nature of the research questions which comprised both qualitative and quantitative elements, the best way to comprehensively answer these questions, a pragmatic orientation was essential to facilitate a mixed-method approach. Qualitative and quantitative methods are complementary and enhance the objectivity, credibility and validity of a study (Kumar, 2014). This combination was envisaged to help in analysing and understanding all the aspects of the study including the nature of teaching and processes involved, decisions and actions are taken, the methods used and frequency of use to determine the meaning, and the expectations of the learners in terms of the teaching methods that inspire them including the skills and competencies from the programme.

The study was conducted among the adult ducation students at the Univversity of Zambia. The focus of the study was on the undergraduate degree programme. The participants were academic staff (lecturers) and the enrolled adult learners in the adult education programme. The sample was 130 including 126 adult learners and 4 lecturers. The learners were sampled through probability sampling while the lecturers were selected purposefully. The leaners were from year 1 to year 4 of study. The participants were simple random sampled at each level of study, and this created the affordance for a representative sample at each level as guided by (Maree, 2015; Maree & Westhuizen, 2015).

Data collection involved the use of semi-structured interviews and a questionnaire. The individual face-to-face interview method was employed to collect the data from the teaching staff, while a semi-structured self-administered google form questionnaire method was used to collect data from the students. The interview method involved the audio recording of the interviews. This was important for clarifications and soliciting detailed explanations and generating insight into the learner-centred teaching methods that inspired the learners. The questionnaire method provided an advantage of collecting both qualitative and quantitative data within a single tool thereby serving on time (Mayers, 2013). We analysed qualitative data through iterative inductive content analysis. We first transcribed the audio recordings, read through the transcripts several times to make sense of the data in line with our research purpose and questions. We aimed to identify important aspects in the text that could help to understand and interpret the data accurately. Whereas quantitative data was analysed quantitatively through descriptive statistics and presented in frequency tables 1, and 2.

Ethical consideration

The study upheld ethical considerations including informed consent of the participants and voluntary participation, the safety of the participants, privacy, confidentiality and anonymity. Considering that the study was conducted on our students who potentially could have been the captive audience, we ensured that we observed and exercised at most research ethical code avoid comprising the study. Therefore, we employed the necessary ethical measures beginning from sampling and selection of the participants to data collection. We sampled the learners and selected the academic staff individually and separately. Thereafter, but before data collection we provided detailed information to all our participants on the purpose of the study and their role in the study. We also quickly indicated to them that, despite being sampled, their participation was voluntary. For those who consented to participate in the study we emphasized that they were at liberty to withdraw whenever they felt like doing so. The names of the participants are pseudonyms in conformity with the ethical consideration of confidentiality and anonymity.

Findings

The first set of findings are based on findings from the adult learners and were obtained through a semi-structured questionnaire. The second set of findings are from the academic staff obtained through interviews.

Table 1 below presents consolidated results regarding the year of study, the students knowledge of the purpose of the degree they were pursuing and their expectations.

Table 1: *Adult education student's responses to the questionnaire*

Question		First	Second	Third		Fourth
Q.1 Year of study	Freq		17	18	27	64
	%		13.4	14.2	21.4	50.7
Q.2 Degree programme prepares students for		**Freq**	**%**			
(a) Obtain a degree		54	42.9			
(b) Job market		43	34.1			
(c) Entrepreneurship		29	23			
Q.3 Learners expectations of the programme						
(a) equipped with the knowledge and skills in adult education		49	38.9			
(b) equipped with 21st centuries skill needed for the labour market		77	61.1			

It is a well-known reality that any learning situation is characterised by myriad expectations both by the learners and the teachers. Learning expectations are known to enable the desired learning outcomes. The study inquired about the learner's expectations from the degree programme. The finding shows that 61.1% were expecting the programme to equip them with 21st-century skills needed on the job market. These are soft skills which include critical thinking skills, communication, creativity and collaboration. A follow-up on whether the programme met the learner's expectations reveals that the programme had little connection to their expectations. One of the participants said:

> …"*I have information on the skills needed by employers in many organisations. Which I gathered when I was doing my filed attachment. Skills like problem-solving and innovation. But so far, I am in my fourth year, and I have not seen anything closer to the skills. This makes it very difficult for us to compete for jobs with our colleagues from other private universities who may have these skills.*

responsiveness of private universities in the country to the market has been seen to be swift compared to government higher education institutions. Thus, this student and others expressed fears about the innovations and curriculum improvements that are slow in government higher education institutions in response to the job skills been sought by the labour market. For this reason, this student felt that he and the colleagues on the same programme might not be marketable upon graduating because the content of their degree programme was rather too traditional and not aligned to the needs of would-be employers.

Table 2 below shows the findings of the teaching methods used in the higher education adult education degree programme and their frequency of use. It needs mentioning that the teaching methods were predetermined before data collection based on the literature review that was conducted on the active participatory teaching methods used in adult learning. Therefore, rather than reinventing the wheel, we decided to adopt these methods based on their relevance to the study. Table 2

Teaching methods used in the programme

Questions		Active learning	Cooperative learning	Inductive learning
[Q.4 Learner-centred methods used]		51	47	28
	Freq	40.5%	37.3%	22.2%
	%			
		Relevant	**Not Relevant**	
[Q.5 Relevance of learner-centred methods		80	46	
used in meeting learner expectations]	Freq	63.5%	36.5%	
	%	**Every class session**	**Frequent but not every session**	**Not used at all**
[Q.6 Frequency of use of learner-centred methods]				
(a) Focus group discussions		10 (7.9%)	19 (15.1%)	2(1.6%)
(b) Debate		10 (7.9%)	3 (2.4%)	28 (22.2%)
(c) Brainstorming		75 (59.5%)	6(4.8%)	0 (0%)
(d) Problem-based teaching		0 (0%)	5 (4%)	49 (38.8%)
(e) Working in teams/groups		12 (9.5%)	9 (7%)	0 (0%)
(f) Peer-to-peer teaching		8 (6.4%)	4 (3.2%)	19 (15.1%)
(g) Dialogue		0 (0%)	0 (0%)	14(11.1%)
(h) Roleplays		0 (0%)	0 (0%)	0(0%)
(i) Discovery learning		11(8.7%)	76(60.3%)	0 (0%)
(j) Case-based teaching		0 (0%)	4 (3.2%)	14(11.1%)
(k) Project-based teaching		0 (0%)	0 (0%)	0 (0%)
		Agree	**Disagree**	
[Q.7 Learner support for independent learning]		29	97	
[Q.8 Learner-centred methods used to meet learner expectations]		42	81	

Qualities of a learner-centred lecturer

The research participants were asked to indicate what they thought were the ideal qualities of a learner-centred lecturer and their responses bordered on two broad areas: professional/pedagogical and character/persona of a lecturer. The details are presented in table 3 below.

Table 3: *Adult education students views on the ideal qualities of a learner-centred lecturer*

Professional/pedagogical

(a) Content should be centred on the needs of learners to avoid irrelevant topics. Involve learners in selecting and deciding the learning content.
(b) Encourage learner active participation
(c) Flexible in selecting the teaching methods and time for class
(d) Learning should be problem-solving oriented. It should real-learning on problems happening in the learners' environment.
(e) Provide clear explanations before giving learners work to do independently
(f) Innovative and creative
(g) Embrace the prior experience of the learners in the learning process
(h) Encourage critical thinking
(i) Open communication and learner expression
(j) Allow for face-to-face interaction with learners by being available for help
(k) Open-minded and allow learners to be creative and discover new things
(l) The learning process should facilitate learners efforts to acquire knowledge and skills
(m) Knowledgeable and use real examples to help learners
(n) Support discussions, brainstorming, peer-to-peer teaching, and discovery learning

Character/persona

(o) Consultative qualities
(p) Patient and not rude to learners
(q) Understanding, accommodating and care for learners
(r) Approachable and ready to help learners
(s) Role model
(t) Inspirational and motivating

Findings from lecturing staff

The lecturing staff said, in different ways, that they had learned a great deal from the experiences on teaching adult education in higher education, and that it had helped promote their practice, either directly or indirectly. Their views are categorised in terms of their characterisation of the adult learners, identification of learning needs, learner-centred methods, how the learner-centred methods could be used to teach the 21st-century skills, and the competencies expected of the adult educators in higher learning.

1. *Learning characteristics of the learners*

We asked the lecturing staff to describe the learning characteristics of the learners in the courses they teach. The responses were varied. For example, they described some of their learners as independent learners, which they said are few compared to learners who largely dependent on their lecturers for much of the learning in the courses they teach. For example, Sipola a Gender subject expert indicated that most of her learners depend on her to teach the content systematically. She said, very few of her adult learners can explore and discover knowledge about the course on their own independently because they even remind her of the topics covered and those she has not covered from the course outline. She said, "*I teach a course on the subject of gender and the students expect me to provide detailed notes on the course which they can study. I have referred them to prescribed text-books in the course and other relevant reading materials, but all these do not seem to work because they insist on being given notes. Because of this, I find them too dependent on me…they say that is how other lecturers treat them, so I guess it is something that they have been used to since the first year because I only meet them in the fourth year*".

In another interview, Mbila a female lecturer and participatory development specialist described her learners as young adults who are not fully mature and unfocused on what they want in life. This lack of personal clarity of focus had a bearing on the learning in class. She said… "*it is evident that they are willing to learn and they want to pass the course, but they lack the focus*". She indicated that the lack of focus is attributed to the dynamics in the adult education participants. The participants in higher education adult learning have shifted from adults to young adults and the youth. This has brought its new challenges of learning to work with this category of learners, totally different from the recent past where the adult learning classes were characterised by adults full of myriad life experiences, professional and business. *"The current category of students pursuing adult education studies are direct from secondary schools. They have never worked and they are still in their teens by the time they are entering university. They become mature students during the period we are with them. So for me, this particular category of learners, are most of the times not clear about what they want to do in terms of their lives and they are more open to suggestions that come from academic counsellors*". She deduced against this backdrop that these learners are dependent on what she chooses to teach and how she chooses to deliver the learning content. It was further, discovered devoid of focus, this category of learners often became difficult to satisfy in terms of teaching and learning.

The interview with Mwongo who teaches both first-year and third-year students revealed a similar pattern of lecturer dependence for much of their academic activities. He said *"the students are too dependent on the lecturer; they want to be provided with all the necessary information regarding tasks and assignments given. They are lacking a spirit of independent investigations and search for information.*

A follow-up question with <u>Mwongo</u> to detail the reasons for this situation and whether there was any difference in this regard among students based on the year of study. He indicated that he did not observe much of the difference, although the problem was typical among the first years than the senior students. He said, "*this phenomenon maybe is expected among the first years because their academic background of secondary education seems to have created and supported this kind of learning. Thus, university education appears to be a huge shock to them. Where they have to start learning new ways of learning such as independent discovery learning. For the senior students there are visible elements of independent learning, however, they too still lack a great deal of such independent discovery learning skills. I know this is a lot of homework to rethink our teaching practices so that we avoid producing graduates who cannot innovate*".

2. Learning needs of learners: identifying and influence on teaching methods used

We also wanted to know how the teaching staff identify the learning needs and how they shape the teaching. Almost all of them paid little attention to finding out the learning needs of their learners. They relied on the course content because it contained everything the students needed to learn from the course. There was also a feeling that the context of adult learning in higher education is predominantly formal and does not allow for much flexibility to accommodate the specific learning needs of the learners. This makes it difficult to orient the teaching towards addressing the needs of learners. She said, "*there is no need for me to start assessing what my students would want to learn when the course outline is already in place. The course outline contains everything I should teach. The nature of a topic will dictate the teaching methods and not what the learners want…outside the formal structured teaching it is possible to structure the teaching and learning based on the needs of learners*". <u>Mbila</u> reported that she once assessed the learning needs in her four years of teaching. "*I did it once by simply asking them what would help them to learn better. So they suggested that after I teach a topic, I should give them a chance to discuss within my lecture hours because they cannot find any other time to do so*". But this approach may not wholly reflect learner-centred teaching used by Mbila, rather an initiative by the learners to engage with the content or topic taught during the lecture. This is not different from common group discussions that some learners choose to organise.

Mbila acknowledged the divergent academic backgrounds and realities of her students: privileged and less privileged. This reality influenced her assessment of learner needs and teaching in a sense of trying to accommodate every learner's learning needs. She said… "*I think one of the things I discovered on the learning needs is that not all learners come from the same educational background. As such they have different learning abilities. So when I am explaining to them I do it as though they have never met the concepts and idea before. This has helped them to grasp what I teach them. Previously I would expect them to understand what I am*

teaching. I would get to a class session with that attitude that this is a university and every student should personally realise it. Then I realized that their understanding was not like mine and so I had to get down to their level when I am explaining. Sometimes I teach them as if I am at secondary school. I go step by step, including asking if at all there is anything they wish I could add. For Mwongo teaching in higher education adult learning is about character building and that whatever content and methods used should bring about character formation beyond the walls of a university. "*Higher education adult education aims at training educators for different adult education leadership roles in society. For this reason, I do believe that we need a common voice to approach our students for a common objective of producing a whole rounded adult educator. Andragogical principles are a good guide, thus, objectivity should be employed at every stage of teaching because this what is going to help us to produce independent learners and thinkers in our graduates".*

3. *Leaner-centred methods used and how they meet the needs and aspiration of learners*

Our interaction with the lecturing staff during the study revealed that the use of learner-centred pedagogies in meeting the aspirations of the learners where hampered by two broad factors. The characterisation of the learners overall seems to suggest not fit for the adult education profession. The description of the learners did not quite match what is known as adult learners. Especially that a lot of learners in this study were unsure of what they wanted from the programme they enrolled for. Secondly, the lecturer's limited use of learner-centred methods during their course delivery in class, influenced by the nature of the students and also for some who understood their role as to teach. Through the face to face interviews, we established that the teaching by all lecturing staff was confined to the learners' comprehension of the learning content in a particular course. There was no indication of lecturing staff determining the aspiration and needs of their learners and later on prepare lessons based on the identified learning needs. During the interviews, the responses from the lecturers were more of assumptions than facts of physically conducting learning needs assessments and determining the learning aspirations of their learners. Despite this, all four lecturing staff indicated that they made efforts to use active learning (focus group discussions, dialogue) and Cooperative learning (working in teams) during their teaching. Sipola said, "focus groups discussions, and group presentations helped her to supplement the lectures. These methods are used in her tutorial sessions where she feels that it is easy to interact with the learners and through this, she thinks that the learning needs and aspirations in the course are met".

Mbila said, *"I endeavour to engage my students in learning using different methods including work teams and focus group discussions. But I have noticed that their interest to participate is low unless you include that activity part of*

the assessment". Similarly, Mwongo indicated that, *"there are always efforts to engage students in independent discovery learning, but the challenge is that our current category of students have not had a good orientation to learning partly because the majority are teenagers who are secondary school leavers with no work experience. This leaves us with a difficult question and decision to make whether we should continue accepting young adults to enrol for this programme and train them as adult educators*".

4. *How the learner-centred methods could be used to teach collaboration, critical thinking, creativity and communication skills*

Considering that collaboration, critical thinking, creativity and communication skills are important skills needed for the 21st-century labour market, we endeavoured to explore how these skills could be taught through learner-centred methods. We note from the learners themselves in Table 1 of the findings that 51% indicated that they desired to be equipped with 21st-century skills needed by the labour market. Mwongo provided the following with the details: "*Collaboration is an important skill capable of improving a student's self-esteem, confidence and courage. Facilitating the acquisition and development of these skills requires the deployment of discovery learning and problem-posing methods. This applies to critical thinking skills, problem-posing will compel students to think and discover solutions to the problems*". The impression given in this case was that the content of education transitions from theory-based to real-life problem-based education. That the acquisition of the two skill sets is crucial for the subsequent acquisition of communication skills and creativity. Sipola indicated that her role in teaching communication skills set is mainly confined to tutoring the students on the rules and principles governing communication. The idea behind this is that students are capable of learning the skills by discovery learning and the role of the lecturer involves facilitating the learning process and correcting the students in cases where they go wrong.

For Mbila patience and guidance are important virtues in achieving success in teaching these skills. She said, *"collaboration, critical thinking, creativity and communication skills are challenging skills to impart to the learners. It requires a lot of patience and practice for all learners to adequately acquire these skills because experience tells me that discovery teaching is the best method for teaching these skills. In the past, I practically attempted to teach collaborative skills for community engagement where I tasked the learners to engage the community on a particular matter. I observed how they arrived at decisions and implemented them. I was impressed because it worked better than I anticipated. This is something difficult to achieve with the category of our current learners"*. Similarly, Mbila says "there is no better method for imparting these skills than discovery teaching. She says "*when learners are posed with a problem they are principally compelled to use their inert abilities to think and find answers. However, I do think that they still need some assistance in terms of training them how they can fully develop problem- solving skills by teaching them how to identify a problem and distinguish*

a problem from what is not a problem, and this requires the use of different strategies to go around the problem. The success of all this requires me to stick to discovery teaching".

5. *Competencies expected of the higher education adult educators in implementing learner-centred teaching*

We asked the lecturing staff if at all there could be specific and unique competencies that would be required in the effective implementation of learner-centred teaching to learners in the adult education programme. Almost everyone responded with specific reference to discovery teaching as a learner-centred method. That all competencies including experiences required for effective use of learner-centred teaching are essential for discovery teaching. This means that this study did not come up with unique findings from what is known regarding the competencies required for implementing learner-centred pedagogy. The finding on this aspect is rather confirmatory of previous researches. The participants pointed to the relevance and importance of the profile of the lecturer as a learner-centred person and this is likely to follow his or her pedagogic choices. Mwongo said, "*the competencies for learner-centred teaching in this case discovery teaching are centred on the philosophical orientation of a lecturer to teaching and learning which shapes his or her pedagogic practices*". Mbila says, "*competencies for discovery teaching are the same as those required for learner-centred teaching, so if one can effectively observe and apply the principles of learner-centred teaching including understanding the learning needs and aspirations, success in teaching through this method might be guaranteed*". Sipola indicated specific skills and competencies for discovery teaching and included, "*the ability to engage learners in a learner-centred learning, collaborative skills, and creativity in setting up a learning task such as problems assigned to learners*". These skills and competencies are fundamentally and generally expected of any person facilitating learning through learner-centred teaching.

In consolidating the views of the participants in this study we see that the successful application of learner-centred pedagogy among the learners in this programme depended on the early orientation of learners to learner-centred teaching and learning. This deduction arises from the sentiments by the learners that their initial orientation to higher learning in this programme was to depend on their lecturers for learning resources and teaching. The follow-up with the lecturing staff revealed that the staff were not aware of this development but indicated that they will be more careful whenever orienting first-year learners to the programme. They say the "first cut is the deepest" therefore, a rich and effective early orientation to learner-centred teaching is crucial in particular at the first year of study. If the orientation is well done, it is expected to be sustained through subsequent years of study. However, may require a synchronised common approach by all staff as variances may lead to distortions and failure in utilising learner-centred teaching.

We also noticed the changing landscape of adult education students in the

programme. The less privileged and privileged, focused and unfocused, and the levels of interest and a varied moral maturity among the learners had a bearing on the choice and application of teaching methods. These learner differences were quite considerable to an extent that they influenced the dynamics in the application of different pedagogical practices to achieve the desired learning. From the findings, we see that the pedagogical methods included learner-centred teaching participatory methods and also expository teaching as preferred by the learners themselves, which essentially turned out to be learner-centred.

While higher learning adult education might be associated with limited flexibility for being offered in the formal context, the willingness of the academic staff to accommodate the specific needs of the learners is crucial for teaching 21st-century skills. In this study, we observed that curriculum reviews do not happen regularly, therefore, the wisdom of academic experts was crucial in enhancing the relevance of the programme to the needs of the labour market. We found that academic staff were willing to incorporate new components of the course that might be crucial to the marketability of the graduates. These components may not necessarily be an overhaul review of the course content but rather updating the information on a topic and so forth. This goes in line with the purpose of higher learning adult education at the University of Zambia: developing character for different transformational leadership roles in organisations, society and community social change.

Besides, adult learning in higher education is often influenced and shaped by many macro and micro factors. At a macro level, the global environment is characterised by rapid changes in which the social and economic needs of the people are equally constantly changing. These changes affect other aspects of human life including education. By nature, adult education is designed to respond to such emerging societal changes. However, the complexity and magnitude of these changes require higher-level adult learning skills to respond effectively. For this reason, the need to prepare higher education adult learners for their immediate and future careers has become more imperative than before. Higher education is at the core of the needed change in society. It is essential for improving and maintaining the countries well-being and economic prosperity (Hernández-March, Del Peso, & Leguey, 2009).

The 21st-century plea for in-demand skills suggests that higher education adult learning should do more than what it has done so far. It demands innovation in both course offering and delivery to meet the education demands of the century for its learners. Becker, Hubbard, and Murphy (2010) observe a boom in higher education that is necessitated by the skills required by the labour market. Similarly, Reddy, Bhorat, Powell, Visser, and Arends (2016) observe a positive correlation between higher education skills supply and demand by employers. This means providing skills not only for learners to seek employment for economic benefits alone but also for their survival after graduating (Kivunja, 2014). While field and discipline

specialised hard skills remain crucial, the work and business environments are looking for soft skills. The soft skills are complementary to the hard skills which are significantly missing in most higher education graduates (Abdullah-Al-Mamun, 2012; Schulz, 2008).

We have noted from this study that the successful acquisition and imparting of these skills are fundamentally depended on the nature of teaching. Considering that every teaching method has its strengths and weaknesses, discovery teaching is crucial in inspiring higher education adult learners to learn and comprehend how they can facilitate a further acquisition of the needed skills by the labour market. Many scholars in the field of adult education (Knowles, 1970; Radovan & Makovec, 2015; Rogers, 2006; Rogers & Horrocks, 2010; Rogers & Street, 2012) have examined the characteristics of adult learners and how they influence learning. The consensus has been that adult learners are autonomous and self-directed, self-motivated, problem-centred, task-oriented and possess a lot of knowledge and experience which are a resource for further learning. These characteristics have a considerable bearing on the nature of teaching and learning (Bélanger, 2011). They speak to how they shape and influence the procedure and the entire teaching-learning process that situates the learner at the centre. Also, they provide flexibility and lay a firm foundation for learner-centred pedagogy.

Although higher education has been known to be excessively formal and highly structured, the nature of higher education adult learning is that it is characterised by a high degree of flexibility specifically in course delivery (Kazis et al., 2007). Teaching and learning are often driven and expected to be learner-centred, dialogical and collaborative (Beavers, 2009). This practice is reinforced by the global education discourse that has been encouraging and supporting learner-centred practices at all levels of education (Moate & Cox, 2015; Schweisfurth, 2011, 2015; Sichula & Genis, 2019).

However, the literature on pedagogy and practice display a difference in opinion, teacher-centred verses learner-centred inclinations (Akdeniz et al., 2016). Those who advocate for teacher-centred teaching argue that it is the most convenient way of delivering course material to the learners and helps them to be in control of the teaching-learning process to produce the desired behaviour in the learners. However, those who believe in learner-centred teaching argue that it is essential for discovery learning and the fulfilment of the individual learner needs and aspirations (Rogers, 2009; Westbrook et al., 2013; Westwood, 2008). These opinions illustrate how actors are significantly influenced by their pedagogical orientations, thereby, shaping teaching and learning. But the professional desire of adult educators, in general, is to help learners succeed in their endeavours by providing the necessary and relevant skills and competencies through teaching methods preferred and suitable to the learners (Merriam, Caffarella, & Baumgartner, 2012; Mikulecky, Smith-Burke, & Beatty, 2009; Quan-Baffour & Romm, 2015). Thus, in higher education adult learning, focusing on learner-centred teaching is at the core of teaching and learning because the learners are the ultimate beneficiaries.

Thus, 21st Century in-demand skills are critically important to adult learners if they have to meet the demands of modern industry. For example, Reddy et al (2016) observe that there is an irrefutable association between higher education skills supply and demand by employers. For this reason, training adults in higher education institutions should take cognizant of the need to meet the requirements of the modern industry. One way in which this can be achieved is through a transition from traditional to dynamic flexible approaches including adopting emerging learner-centred teaching technologies in the teaching-learning process. This is in respect of the "dynamism in society as manifested in rapid technological and socio-economic developments" (Addae, 2016:51) which requires the acquisition of new knowledge and skills. In short, adult learners are more inspired and motivated to learn when they believe that such learning will help them achieve or solve problems that they are currently faced with (Palis & Quiros, 2014).

Conclusion

The study found that early orientation of learners to learner-centred pedagogy in the first year of the study programme is crucial for sustaining learner-centred teaching and potentially reduce teacher dependence. It was found that discovery teaching is a versatile learner-centred teaching method because it has inroads in almost all learner-centred pedagogies. The method was also reported to be relevant and important in teaching 21st-century skills to higher learning adult education students. Therefore, the discovery teaching method was considered essential for the acquisition of specific 21st Century skills by the learners in this study. It was suggested that the actual application and utilisation of the teaching method would involve problem-posing techniques of different real-life problems related to the topic at hand. The study concludes that teaching and learning through this method is substantially meaningful when the learning situation[s] relates to the real-life experiences of the learners. It is also essential for fostering the enhancement and development of skills including creativity, innovation, critical thinking, problem-solving, courage, confidence, and collaboration including open communication. However, it should be indicated that discovery teaching is not yet fully grounded in teaching and learning in this academic programme. Therefore, the study did not produce considerable mismatches between the teaching methods used and the learner's expectations because most of the learners were fundamentally dependent on their lecturers. The study also concludes that the key competencies for discovery teaching involve everything that makes learner-centred pedagogy effective and successful. These include problem-posing related competencies, the ability to assess learner abilities and assign manageable problems and tasks at their level, impart and facilitate collaborative skills, and exercise learner-lecturer engagement in problem-solving.

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