

LIS 4014 RESEARCH PROJECT REPORT

INVESTIGATING THE USE OF LEARNING OBJECT REPOSITORIES
IN THE CO-CREATION OF OPEN EDUCATIONAL RESOURCES BY
EDUCATORS

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ABSTRACT

This study was aimed at investigating the use of learning object repositories in co-creation of Open Educational Resources by educators, to determine the factors that can positively influence educators to be co-creators of OERs using LORs, to ascertain the learning objects commonly used by educators and to identify the appropriate theory to use in identifying the factors that can positively influence educators to be co-creators of OERs. Since OERs allow any user to create or post information materials some resources tend to be irrelevant. To some extent it discourages most educators from being co-creators of these learning resources. Though many educators are willing to share their work, they are often cautious as how to do this without losing all their right. In solving this problem several open content licenses have been developed, like the creative commons and GNU free documentation license to accommodate this problem, this provides a way of controlled sharing with some rights reserved to the author. The findings of this study will rebound to the benefit of the education system in Zambia, in that the OER movement will empower educators to become more innovative in their teaching through openness and flexibility. In order to ascertain the relevance of OERs its vital for them to be stored in relevant tools which are learning objects repositories. The research was quantitative in nature and it employed a case study design. This study targeted a sample size of 36 participants from the University of Zambia (UNZA) which consisted of lectures, student teachers, and teachers. Online questionnaires were used to collect data through the use of Google forms concerning the factors that positively influence them to be creators of OERs and the learning object which are commonly used, and the quantitative data was analyzed using the Statistical Package for Social Sciences(SPSS). Furthermore, from the results sharing knowledge, contributing to other people and intellectual challenge were highly ranked as the factors that can motivate educators to be creators of OERs. The assessment of the factors was based on the Uses and Gratification theory. According to the results, the learning objects which are commonly used by the educators are the Modules and Power point slide. In conclusion, in order for educators to be creators of OERs they need to be intrinsically motivated or at least sharing and able to collaborate with others for non-selfish reasons.

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Dedication

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ACRONYMS

UNESCO- United Nations Educational, Scientific and Cultural Organisation

SPSS- Statistical Package for the Social Sciences

OER- Open Educational Resource

LOR-Learning Object Repository

LO- Learning Object

HEL-Higher Educational Links Scheme

OEP - Open Educational Practice

ICT- Information Communication Technology

NMELICT- National Mission on Educational through Information Communication Technology

MIT- Massachusetts Institute of Technology

Table of Contents

1 INTRODUCTION	1
1.1 BACKGROUND	2
1.2 PROBLEM STATEMENT	3
1.3 OBJECTIVES	4
1.3.1 GENERAL OBJECTIVES	4
1.3.2 SPECIFIC OBJECTIVES	4
1.3.3 RESEARCH QUESTIONS	4
1.4 SIGNIFICANCE OF THE STUDY.....	4
1.5 RATIONALE OF THE STUDY	5
1.6 ETHICAL CONSIDERATION.....	5
1.7 DEFINITION OF KEY TERMS	5
2 LITERATURE REVIEW	7
2.1 OPEN EDUCATIONAL RESOURCES.....	7
2.2 THEORIES THAT CAN POSTIVELY INFLUENCE EDUCATORS TO BE CREATORS OF OERs.....	8
2.3 LEARNING OBJECTS COMMONLY USED BY EDUCATORS.....	10
2.4 FACTORS THAT POSITIVELY INFLUENCE EDUCATORS TO BE CREATORS OF OERS .	11
2.5 SUMMARY	13
3 METHODOLOGY	14
3.1 RESEARCH DESIGN	14
3.2 THEORY FOR IDENFYING FACTORS	14
3.3FACTORS INFLUENCING EDUCATORS AND LEARNING OBJECTS COMMONLY USED BY EDUCATORS.....	15
3.4 SAMPLING METHOD	15
3.5 MEASUREMENT INSTRUMENTS	15
3.6 DATA ANALYSIS.....	16
4 RESULTS	17
4.1 DEMOGRAPHIC DETAILS	17
4.2 RESULTS FOR STUDENT TEACHERS	18
4.2.1FACTORS THAT CAN MOTIVATE EDUCATORS TO BE CREATORS OF OERs	18
4.2.2 LEARNING OBJECT COMMONLY USED	20

4.2.3 TYPES OF RESOURCES MOST WILLING TO BE CREATED	21
4.2.4 WHAT INSPIRES EDUCATORS TO BE CREATORS OF OERs.....	22
4.2 RESULTS FROM THE TEACHERS	22
4.2.1 FACTORS THAT CAN MOTIVATE EDUCATORS TO BE CREATORS OF OERs	22
4.3.2 LEARNING OBJECT COMMONLY USED	24
4.3.3 TYPES OF RESOURCES MOST WILLING TO BE CREATED	25
4.3.4 WHAT INSPIRES EDUCATORS TO BE CREATORS OF OERs.....	26
4.4 RESULTS FOR LECTURERS	26
4.4.1 FACTORS THAT CAN INFLUENCE EDUCATORS TO BE CREATORS OF OERs	26
4.4.2 LEARNING OBJECTS.....	28
4.4.3 RESOURCES WILLING TO BE CREATED	29
4.4.4 WHAT INSPIRE EDUCATORS PARTICIPATE IN CREATION OF OERs	30
5 DISCUSSION	31
5.1 FACTORS THAT CAN MOTIVATE EDUCATORS TO BE CREATORS OF OERs	31
5.2 LEARNING OBJECT.....	31
6 CONCLUSION.....	33
6.1 CONCLUDING REMARKS	33
6.2 RECOMMENDATION	33
REFERENCES.....	34
APPENDICES.....	37
APPENDIX 1: QUESTIONNAIRE FOR STUDENT TEACHERS	37
APPENDIX 2: QUESTIONNAIRE FOR LECTURERS	41
APPENDIX 3: QUESTIONNAIRE FOR TEACHERS	45

LIST OF FIGURES

Figure 1: Motivators.....	18
Figure 2: Learning Objects.....	20
Figure 3: Resources.....	21
Figure 4: Inspirations.....	22

Figure 5: Motivators.....	23
Figure 6: Learning Objects.....	24
Figure 7: Resources.....	25
Figure 8: Inspirations.....	26
Figure 9: Motivators.....	26
Figure 10: Learning Objects.....	28
Figure 11: Resources.....	29
Figure 12: Inspirations.....	30

LIST OF TABLES

Table 1: Demographic details for Student Teachers.....	17
Table 2: Demographic details for Lecturers.....	17
Table 3: Demographic details for Teachers.....	18

1 INTRODUCTION

Technology has always been at the forefront of human education. From the days of carving figures on rock walls to today, when most students are equipped with several portable technological devices at any given time, technology continues to push educational capabilities to new levels. Emergent in the 1970s, Open Educational Resources (OERs) initiatives sought to take advantage of evolving technologies to increase access and enhance transfer of knowledge from tertiary institutions to a wide range of users (UNESCO, 2000). Alongside the development of OERs has been the need to ensure that education content remains relevant and not static. This entails both learner and educator collaborating to ensure that the learner's feedback, opinions, and intellectual capabilities are integrated alongside institutional resources. This process has been referred to as value co-creation.

According to Butcher (2015), the UNESCO forum convened to review the impact of open Courseware for higher education in developing countries, OERs have been defined as freely-accessible teaching, educational and research materials that either exist in the public domain or are available to users via an intellectual property license that permits their free use and re-purposing. They include complete online courses, course materials, modules, textbooks, streaming videos, tests, assessment tools and software. These provide people worldwide with access to quality education and the opportunity to share, use and reuse knowledge. OERs are typically considered part of a large movement within scholarly publishing to encourage the adoption of open content standard.

There are a variety of top-notch educational resources that help to reach a learning goal or support students. MIT OpenCourseware is one of the top-notch educational resources which was a major driver in the open education movement. The other exclusive educational resources include Lumen Learning, Khan Academy, Merlot, OER Commons, OpenStax, Academic Earth, Open culture and Open Learning Initiative¹. As OERs are published using an open license, such as creative commons, they allow the reuse, revision, remix, redistribution and retention of materials, making use of OERs easy and flexible. For those creating OERs, it allows a creator to easily specify permission while still sharing the work with them.

¹ <https://www.opencolleges.edu.au/informed/features/10-open-educational-resources-know/>

The purpose of this research is to investigate the use of learning object repositories in co-creation of OERs by educators. Further, this research will identify the factors that will contribute to the creation of OERs by the educators, to find out if educators have been provided with the adequate information on the creation of OERs and to investigate how the creation of OERs can be of help to the Zambian education system.

1.1 BACKGROUND

OERs and the open movement have recently evolved and in many ways, they challenge age-old educational traditions and conventions. The catalyst has been the pervasiveness of the internet and the ability to copy and distribute digital content. In 1999, both the university of Tubingen (Germany) and The Open University (UK) released some educational resources for free. However, the most commonly known OER initiative came from the Massachusetts Institute of Technology (USA) in 2001, by 2002 it had released 32 courses with open licenses and set a precedent in terms of openness of University courseware. Taking note of this development, the term open educational resources was adopted at UNESCO's 2002 forum on the impact of open courseware for higher education in developing countries, which was funded by the William and Flora Hewlett Foundation. Since then, many other education service providers around the world have used open licenses and the internet to share teaching and learning resources (Butcher, 2015).

Furthermore, the Cape Town Education Declaration (2008) and the Paris OER Declaration 2012 (Butcher, 2015). provided guidelines and encouragement for government to release educational resources especially those created using public funding with open licenses. The integration of OERs into national policy is an ongoing and slow process, but there have been successes in countries such as the USA, South Africa, Kenya, Ghana, Poland, the Netherland and the United Kingdom. Antigua and Barbuda adopted an OER policy within the framework of its national policy on information and communication technology (ICT) in education. In 2014, the National Mission on Education through ICT(NMEITCT) in India adopted an open license policy for all of its outputs, releasing as OER all content generated with its funding (Butcher, 2015).

The adoption of OERs represent a significant and desirable cultural shift for many educators, there is at the same time fundamental requirement for appropriate tools to enable and support such practices. The rapid growing number of learning materials and repositories makes the issue of how to find resources that are most relevant and best quality a pressing one. The success of the OER

movement hinges on both the ability and possibility of educators to effectively create, share, discover and reuse quality resources. Repositories have come to be regarded as the key link for educators to be co-creators of OERs. Therefore, repositories of OERs are platforms that host and facilitate access to these resources. repositories should not just be designed to store this content in keeping with the aims of the OERs movement, they support educators in embracing open educational practices(OEP) such as the creation of OERs, searching for and retrieving content that they will reuse, adapt or modify as needed, without economic barriers or copyright restriction (McGreal, 2011).

1.2 PROBLEM STATEMENT

OERs are key elements of policies aimed at improving education and learning in the knowledge society. Well known examples of initiatives based on OERs are the connections repository managed by the Rice university. OERs are freely available, openly licensed media, text or other digital assets that are used for teaching assessing and learning including research purposes. Different from copyrighted resources, open educational resources are authored or created by individuals or organizations that chooses to hold few ownership rights. Since open educational resources allow any user to create or post information materials some resources tend to be irrelevant. Though many educators are willing to share their work, they are often cautious as how to do this without losing all their rights. To some extent it discourages most educators from being co-creators of these learning resources. In solving this problem several open content licenses have been developed, like the creative commons and GNU free documentation license to accommodate this problem, this provides a way of controlled sharing with some rights reserved to the author (Downes, 2006). In order to ascertain the relevance of OERs its vital for them to be stored in relevant tools which are learning objects repositories. The benefits of working with learning objects repositories is reusability as they cover a single learning objective in every way, that is information, activities for practice and assessment. In conclusion there is a growing number of OERs initiatives at the moment as a lot of questions will still remain unanswered (Downes, 2006).

This study aimed at investigating the use of learning object repositories in co-creation of OERs by educators, to determine the factors that can positively influence educators to be co-creators of OERs using LORs, to ascertain the learning objects commonly used by educators and to identify

the appropriate theory to use in identifying factors that can positively influence educators to be co-creators of OERs.

1.3 OBJECTIVES

1.3.1 GENERAL OBJECTIVES

To investigate the use of learning object repositories in co-creation of OERs by educators.

1.3.2 SPECIFIC OBJECTIVES

1. To identify the appropriate theory to use in identifying factors that can positively influence educators to be co-creators of OERs.
2. To ascertain the learning objects commonly used by educators.
3. To determine the factors that can positively influence educators to be co-creators of OERs using LORs.

1.3.3 RESEARCH QUESTIONS

1. What theory is appropriate for identifying factors that can positively influence educators to be co-creators of OERs?
2. What types of learning objects are commonly used by educators?
3. What factors can positively influence educators to be co-creators of OERs?

1.4 SIGNIFICANCE OF THE STUDY

The findings of this study will rebound to the benefit of the education system in Zambia, in that the OER movement will empower educators to become more innovative in their teaching through openness and flexibility. Therefore, if educators become co-creators the adaptation of OER learning objects will be recommended because it is a cost-effective investment in quality teaching-learning.

However, this is important because the conventional teaching practices, educators mostly spend time developing learning materials, reviewing lecture notes, anticipating questions and formulating answers, preparing for questions, this method is no longer appropriate with the learner's current association with the technology. This research aims at investigating the use of learning object repositories in the co-creation of OERs by educators this will be of benefit because once the learning objects are created it will be seen as an opportunity for educators and students. To facilitate the search for educational materials which could be used by different students and

will also enable users to edit content that is stored in the LOR and will be readily available 24/7 for everyone to use.

1.5 RATIONALE OF THE STUDY

In the past decade OERs have gained ground and expanded globally. They have become a convenient online resource to where people actively refer during a research or learning program. With their reach across demographics and its access globally, it quickly provides access and retrieval of different kind of educational information for learning purposes. Nevertheless, this study takes into account a series of educational objectives that determine the use of LOR in co-creation of OERs, which is to investigate the use of LOR of OERs by educators. However, evidence from the European commission 2013 shows that the greater the use of OERs would increase the access of education and development in educational standards, thus LOR help the proper management of OERs and easily accessed by educators. Since it has been emphasized that educators' value educational resources, the study will ascertain the learning objects commonly used and investigate the requirements for designing a LOR in order to for educators to implement its use. Conclusively regarding the use of LOR using specific factors can positively influence educators to be co-creators of OERs (Santos-Hermosa, 2017).

1.6 ETHICAL CONSIDERATION

During this research, the study will endeavor to observe the participant's privacy and secrecy to avoid exposing them to mental stress. The participants will be made to understand that there will be no physical, psychological, social or professional risks associated with their participating in the study. further the respondents will be assured that their right to privacy will be respected. Consequently, this study will stick to uphold strict confidentiality throughout the research process. The information from the respondents will obtained using English, this is important because the records for the research would be kept for reference purposes. The study included free participation and the right to withdraw where the respondents feels uncomfortable (Conelly, 2005).

1.7 DEFINITION OF KEY TERMS

- OERs stand for open educational resources and refers to educational resources such as textbooks, readings, multi-median files such as videos and audio clips, assessment tools like exams and test banks, online courses, syllabi and lesson plans and even software that are openly licensed. OERs are learning and teaching materials available for free online for

anyone to use examples include full courses modules, lectures, games or teaching materials.

- Learning object repository abbreviated as LOR is an online library for storing, managing and sharing your learning resources or learning objects. Learning objects are defined as an entity, digital or non-digital which can be used or re used during technology-supported learning (LOM, 2000).

2 LITERATURE REVIEW

This section provides an overview of previous findings in relation to the objectives. It comprises the main focus of the research which is to investigate the use of learning object repositories in co-creation of OERs by educators. This section is going to discuss relevant literature in order to identify gaps.

2.1 OPEN EDUCATIONAL RESOURCES

The rapid development in technology and widespread of the internet led to the emergence of several open practices in education including, online learning, e-learning and distance education. The open education movement improved access to high-quality learning and resources to global masses at a lower cost than tradition, face to face education and contributes to empowering instructor's capabilities, through sharing and building upon their pedagogical innovations. The open education movement led to the free software movement, which precludes the emergence of OER. Since the establishment of the OER movement, the adoption of this movement has spread to many organizations and foundations such as UNESCO and the Hewlett Foundation (Conole, 2012). At the beginning of the OER movement, researchers such as Khanna and Basak (2013) perceived OER as similar to the idea of learning objects due to the reusable nature of the resources. The Hewlett Foundation and UNESCO asserted that the concepts and intention behind the OER movement were to provide free education for all, highlighting that making educational resources freely available to all is a fundamental right. As a result, educators and learners have become interested in using OERs and disseminating best practices among themselves (Caswell et al, 2008).

The adoption of OERs in teaching and learning must add value to different educational disciplines. The William and Hewlett Foundation has committed to support OERs since the beginning of the movement and in the last 15 years has tried to introduce the benefits of OERs to the education sector. They believe that OERs can promote equal access to high-quality education everywhere by making a variety of learning materials, lectures, books, curricula, and online courses available on the internet for little or no cost. To move on, OERs are there to offer access to knowledge for all, to reduce the cost of education, to deliver greater learning efficiency, to promote continuous improvement of instructions and personalized learning and to encourage translation and localization of content. However, the awareness of OERs among educators is limited, they refer to OERs as merely information and learning and teaching materials. Tracking the awareness and acceptance of OERs among faculty in higher education institutions is important in order to determine weaknesses and strengths in the OER movement. According to the study carried out by

Allen and Seamen (2014), in successive periods to track the awareness and perception of OER among faculty in higher education institution. The findings showed that the faculty used such resources without realizing they were OERs content and they often selected the most cited resources without recognizing the copyright permission. This indicates that the OER movement has not expanded fully into educational sectors and the level of faculty and student's awareness is quite low (Davis, 2016).

2.2 THEORIES THAT CAN POSITIVELY INFLUENCE EDUCATORS TO BE CREATORS OF OERs

The Dependency Theory is an extension or addition to the Uses and Gratification Approach brought about a few years earlier. The theory is in essence an explanation of the correlating relationship between the media content, the nature of society and the behaviour of the audiences. It states that people in an urban society have become dependent on mass communication to assist them in receiving the information that they need, in order to make a variety of decisions concerning their everyday lives. First you will become more dependent on media that meets a number of your needs than on media that provide just a few (Rokeach, 2010). Since each person's needs are different, what they depend on is clearly going to fluctuate. Therefore, if a person finds a medium that provides them with several function that are central to their desires, they will be more inclined to continue to use that particular medium in the future. The dependency theory brings forth many unique propositions and functions. The potential for mass media messages to achieve a broad range of cognitive affective and behavioural effects will be increased when media systems serve many unique and central information functions. The cognitive changes that the dependency theory brings forth are multi-fold. The media brings forth attitude formation and an impact on agenda setting. Since the theory complies with the idea that people rely on it for information determining their decisions, it clearly can help individuals develop certain attitudes regarding give subjects. In addition, it encourages them to converse about certain things. The affective nature of the media is quite distinctive, it ca create many different feelings such as fear, anxiety and happiness. The media also can promote behaviour changes; this can result in an audience member doing something that they would not ordinarily do. The mass media possess these abilities and because of that the society has become dependent on the media for virtually all its outside resources in order to make decision (Littlejohn, 2002).

Furthermore, Uses and Gratification theory is one of the established theoretical frameworks for examining media users. Media uses and Gratifications research investigate how people use the media to gratify their needs. This theory is based on the assumption that users are active and goal oriented in their interaction with the media. The uses Gratification theory established originally in the mid-20th century. In recent years, following the rapid growth of internet users related studies, many researchers continue to utilize the uses and gratification perspective. Perhaps one of the reason for its continuing popularity is its compatibility with new media affordances, which enable more flexibility in performing interactions among users. Tradition studies of users and gratification tend to emphasize five generic clusters of needs the media could fulfill: cognitive needs-represents the intrinsic desire for information acquisition for knowledge and understanding, Affective needs-are related to emotional experience and intrinsic desire for pleasure, entertainment and aesthetic, Integrative (personal) needs-are affiliation needs where the individual want to be part of a group and to have a sense of belonging, Integrative (social)needs-derive from individuals desire to appear credible, be perceived as confident and have high self-esteem and Diversion needs-relate to the needs for escape and diversion from problems and routine (Gallion, 2010).

Therefore, the uses gratification is appropriate for this study as we attempt to identify the factors that can motivate educators to be creators of OERs. The uses and gratification will help in identifying the cognitive and social integrative motivators for the creation of OERs. The motivators represent various mixture of needs, but essentially relate more to knowledge acquisition than to pleasure motives. According to McQuail (2010), the theory emerged in response to the needs of explanation to why people use certain media and benefit they get from them. The basic assumption for this theory is that people use mass media for various reasons and seek to drive various gratification. Considering creation as a basic construct might limit our ability to seize the motivational factors leading to the creation of OERs. The uses and gratification theory stresses the power of the individual over the power of the media. The importance of this theory in this research is that it will help in the identification of the key motivators that can lead educators to be creators of OERs. The theory provided concepts to name what we observed and it explained the relationship between the motivators.

2.3 LEARNING OBJECTS COMMONLY USED BY EDUCATORS

The foundation concepts behind the LOs have been outlined and the guidelines as to what makes them reusable have been highlighted. However, creating the LO itself requires some attention to detail content that is only viable for one specific purpose can become and is normally invalid. The reusable LOs is a relatively new idea driving the content creation and its instructional use. Principles of teaching should support the development of the LO however, it should not be developed with any specific methodology. Since so much emphasis is needed on sharing resources inter-professional collaboration can be evolved which will further benefit educators. If these resources can be stored for reuse, future generations will have easy access to vast volumes of information that can help them prepare for their own lessons. Granularity or size has been highlighted as a critical factor which impacts on the reusability of LOs as a learning object should be as small as possible whilst maintaining internal consistency. Without guidance on what might be a suitable size or level of granularity for any chunk of online learning being created, teachers developing learning objects for the first time, may produce ones of very variable size depending on the complexity of the topic or learning point encapsulated. The selection of too large learning point topic coupled with a desire to deliver this in completeness can result in very large LOs where focus and structure may be lost due to the amount of information provided. A complex point may be better spread over several LOs. At a later date, variably sized LOs brought together for re-use in new course iteration are likely to require considerable work in their repurposing to produce a coherent and unified set. Maintaining general consistency of style and granularity therefore, facilitates repurposing and reuse from the course builder's perspective, and, LOs which share a broadly similar set of design features within an online course, help to deliver an organized and balanced learning framework for the student. Much of the discussion around the reusability of learning objects has centered on the technical requirements to achieve this rather than on pedagogic aspects. The technical standardization of LOs has been a predominant concern, with the storing, searching and sharing of LOs through repositories as the driving force for this. However, reusability needs to be considered in the context of LO pedagogy too (Watson, 2010).

Kay & Knack (2000) carried out a research on the impact of learning objects in secondary school. The study examined the impact of learning objects from the perspective of 850 students and 27 teachers of science, mathematics or social sciences. According to the findings of the study, teachers typically spend one to two hours finding and preparing for learning objects based lessons plans that focused on the review of previous concepts. Both teachers and students are positive about the learning benefits, quality and engagement value of learning objects, although teachers are more positive than students. Student's performance increased significantly when learning objects were used in conjunction with a variety of teaching strategies. It is reasonable to conclude that learning objects are a viable teaching tool in a secondary school environment.

Wiley (2006), the idea of open educational resources sounds like pie- in -the sky- idealism. Over 2500 university courses which are composed of individually addressable learning objectives are currently available as open educational resources, including over 1700 courses from the US universities ,450 from Chinese universities ,350 from Japanese and 175 courses from French universities. They are freely available over the web or the internet. Their principal use is by teachers and educational institutions the support course development, but they can also be used directly by students. Open educational resources include learning objects such as lecture material, references and readings, simulations, experiments and demonstrations, as well as syllabi, curricula and teachers guide. (UNESCO, 2002). Each of these millions of learning objects, everything from Moodle to textbooks courses are licensed in such a way that users can both aggregate and adapt the materials, license or transaction costs. The conclusion of this review learning objectives makes known a disconnected group of researchers united by an interest in reusing educational materials.

2.4 FACTORS THAT POSITIVELY INFLUENCE EDUCATORS TO BE CREATORS OF OERS

The Open Educational Resource initiative has been underway for over a decade now and higher education institutions are slowly adopting OERs. The use and creation of OERs are important aspects of adoption and both are needed for the benefit of OERs to be fully realized. Based on the results of a survey developed to measure the readiness of faculty and staff to adopt OERs, the study focused on the measurements of OERs use and creation, and it identified factors to increase both (Ross et al ,2013). A quantitative survey was developed to measure the use of, creation of and attitudes towards OERs. The sample of the study composed of academic, professional and administrative staff at Athabasca University. According to the findings of the study, evidence of intrinsic motivation aligns with Pawlowski's emotional ownership model of OERs creation and use (Pawlowski's, 2012). Academic quality is the highest factor for both use and creation this has to do with emotional investments and the factors identified are as follows: Academic quality, time to find, review, select, knowledge about OERs, desire to reduce cost of student's hardware/software to facilitate use, environmental concerns, support from administration and course team support recognition. The participants were all involved in designing learning and they want their students to succeed. Knowledge of OERs is also high on the list for both creation and use. This could be because in the higher education environment, there is an intrinsic component to acquiring new knowledge. Possible limitations to the study include self-selection: Faculty and staff at Athabasca University could naturally be interested in OERs and feel confident in their knowledge in this area and may be early adopters of educational innovation. The creators of OERs need to make their creation successful as an essential part of managing the course development process (McGreal, 2011). The finding shows that Zambia stands unique because of which the

results and implications may not apply to all the countries therefore, this study will focus on identifying factors that will influence educators to be creators of OERs in Zambia.

The primary motivation for the OERs movement is the “powerful idea that the World’s knowledge is a public good.” The Web provides unprecedented opportunities to share that knowledge (Smith & Casserly, 2006) and reduces the costs of reproducing and distributing content to almost zero. This altruistic driver is continually in the minds of those involved in the growing numbers of OERs projects; educators already generally believe that learning is beneficial for their students and can easily get caught up with the idea that these benefits should be extended as widely as possible (Ferran, 2011).

Creation of local OERs is the second most frequently reported activity in the Research on Open Education Resources for Development (ROER4D) studies. An enabling policy environment is key in OER creation, as most school teachers and university lecturers do not have the legal permission to share the materials they produce in the course of their employment. Creation of OERs by educators is enhanced with technical support and access to OERs platforms, repositories, portals or websites. Educators are otherwise inclined to share created materials informally (e.g. via email), increasing the risk that these materials will not become part of locally relevant resources that others could draw upon. Support from government, institutions and NGOs is pivotal within this context, as the ROER4D studies show that quality assurance and ongoing development are more likely if OERs creation is part of an institutional or project initiative. Further, OER adoption in the regions lacks necessary technical infrastructure, including internet connectivity. This is more of a drawback for schools than for Higher Education Institutions (HEIs), and it is a notable constraint in rural environments.

Full participation in the OER movement in the Global South requires that certain structural factors be put in place, including a minimum level of infrastructural support, permission to share materials and OER platforms to curate curriculum-aligned OERs in local languages. However, these structural adjustments alone are insufficient for the full value proposition of OERs to be realized and for social change to occur. While individual educators and some institutions are sharing OERs, this willingness needs to be bolstered by a more profound cultural change where communities of educators and students are given governmental and institutional support to enable OER uptake – especially the creation and adaptation of OER produced in the Global South. The findings show that, OERs enable the educators especially those from schools to share the materials they produce in their course, which will help educators make materials they produce became part of their local resources as it will only be shared on the OER platform unlike via emails which will make their materials accessed by everyone.

OERs makes it possible for far more people to study in countries where they are not places currently in universities and reach disadvantaged sectors such as rural communities and women who have not had adequate access to higher education. They could also demonstrate new forms of course structures and pedagogy. OERs are claimed to be able to potentially bridge and divide universities, the public as well as free learners from formalities such as admission, criteria, prerequisites, tuition fees and examinations (Stacey, 2007). Course4s built around OERs certainly saves students money by not having to buy books, and dramatically increase the variety of resources available to them, assuming they have access to appropriate technology. They may also develop habits of independent self-regulated learning, autonomy and self-reliance (Stacey, 2007).

2.5 SUMMARY

This section provides an overview of previous research on the following objectives; what factors can positively influence educators to be co-creators of OERs, what types of learning objects are commonly used by educators, the essence of using the uses and gratification theory in this study. It comprises the main focus of the research which is to investigate the use of learning object repositories in co-creation of OERs by educators. The section discussed relevant literatures which enabled to identify the gaps.

3 METHODOLOGY

This section describes the chosen research methods, and it evaluates the studies overall validity and reliability. It specifies procedures or techniques used to identify, select, process, and analyses information about a topic. This section states how the data was collected and how it is going to be analyzed in response to the research questions. This section will indicate the research design, study site, sample size, measurement instruments, data analysis tools, sampling technique, as well as the limitations encountered during the study.

3.1 RESEARCH DESIGN

This research is quantitative in nature and it employed a case study design. A case study design was employed because of the nature of the study which is trying to provide an in-depth investigation of the phenomenon under study. A non-experimental research design approach is suitable because it does not change a phenomenon under study but simply examines and provide possible suggestions to improve the situations (William & Wayne, 2012). It uses a systematic collection and presentation of data in order to have a clear picture of a given situation or problem. This design was suitable for the research because it applies a variety of methodologies and relies on a variety of sources to investigate a problem and in this case methods such as online questionnaires were used. Furthermore, this research design requires a greater degree of accuracy and precision in the manner in which events are reported. Using this design, it enabled us to investigate the use of LOR in co-creation of OERs by educators.

3.2 THEORY FOR IDENTIFYING FACTORS

A meta-analysis was conducted in order to identify an appropriate theory to use in the study. The uses and gratification theory stresses the power of individuals over the power of the media. The importance of this theory in this research is that it will help in the identification of the key motivators that can lead educators to be creators of OERs. The theory provided concepts to name what we observed and it explained the relationship between the motivators. Therefore, this study used the Uses and Gratification theory to identify the factors that can positively influence educators to be creators of OERs.

3.3FACTORS INFLUENCING EDUCATORS AND LEARNING OBJECTS COMMONLY USED BY EDUCATORS

Factors that influence educators to be creators of OERs and the learning object that are commonly used were identified by using the data collected from the online questionnaires. The online questionnaire was created using Google Forms. The reason why the online questionnaire was preferred to the paper based was because of the COVID-19 outbreak. The researchers collected data by using three online questionnaires. This study targeted a sample size of 36 participants from the University of Zambia (UNZA) which consisted of lectures, student teachers, and teachers. The researchers selected 36 participants because the central limit theory states that a random sample equal or greater than 36 is able to provide a normal distribution of the characteristics of the population under consideration, the participants were random sampled so this enabled them to have a chance of been included in the sample. The factors and commonly used Learning Objects also identified the behavior and attitude the educators have towards OERs.

3.4 SAMPLING METHOD

A random Sampling technique was used in carrying out this research, as it involved identifying key informants who gave us vital information concerning the study (Connaway & Powell, 2010). Since it was a Non probability sampling technique, 36 individuals were selected because the central limit theory states that a random sample equal or greater than 36 is able to provide a normal distribution of the characteristics of the population under consideration of the participants.

3.5 MEASUREMENT INSTRUMENTS

Since this is a quantitative research, online questionnaires were used to collect data through the use of Google Forms concerning the factors that positively influence them to be creators of OERs and the learning object which are commonly used. This research used three questionnaires; questionnaire for student teachers, lecturers and teachers. A questionnaire was used to collect primary data among lectures, student teachers and teachers. Closed, Likert scale and open ended questions were used because they generated a limited set of responses that were coded easily in a database. These questionnaires were self-administered. This tool was very appropriate because a large number of respondents were reached and relatively easily and economically. The questionnaires are attached in appendix 1(questionnaire for student teachers), appendix 2 (questionnaire for lecturers) and appendix 3 (questionnaire for teachers).

3.6 DATA ANALYSIS

This research consisted of only quantitative data. The quantitative data was analyzed using a descriptive statistic because it deals with the presentation of numeric facts or data in either tables or graphical form. This was achieved by using the statistical Package for social sciences (SPSS). This is because SPSS has a number of advantage over others in that it was easy to access and possible to design the questionnaires on the computer. The data entered was then exported to excel software where and it was produced into frequency tables and cross tabulations. The contingency tables were used to facilitate the findings.

4 RESULTS

This section presents the results that were obtained from all respondents using online questionnaires. Further the data analysis was done using statistical packaging for social science (SPSS) and Microsoft Excel and the data is presented in quantitative form.

4.1 DEMOGRAPHIC DETAILS

ITEM	CATEGORY	COUNT
Gender	Male	18
	Female	9
Age Range	18-20	
	20-25	22
	25-30	3
	30-35	2
	Above 35	

Table 1: Demographic details for student teachers

ITEM	CATEGORY	COUNT
Gender	Male	3
	Female	4
Years in service	1-5 years	1
	5-10 years	1
	10-15 years	5
	15-20 years	
	20-25 years	
	25-30 years	
	Less than 1 year	
	Above 30 years	
Level of lecturing	Post graduate	
	Undergraduate	5
	All of the above	2

Table 2: Demographic details for lecturers

ITEM	CATEGORY	COUNT
Gender	Male	7
	Female	2
Years in service	1-5 years	6
	5-10 years	1
	10-15 years	
	15-20 years	1
	20-25 years	
	25-30 years	
	Less than 1 year	1
	Above 30 years	
Level of teaching	Primary	
	Junior	1
	Secondary	7
	All of the above	1

Table 3: Demographic details for teachers

4.2 RESULTS FOR STUDENT TEACHERS

4.2.1 FACTORS THAT CAN MOTIVATE EDUCATORS TO BE CREATORS OF OERs

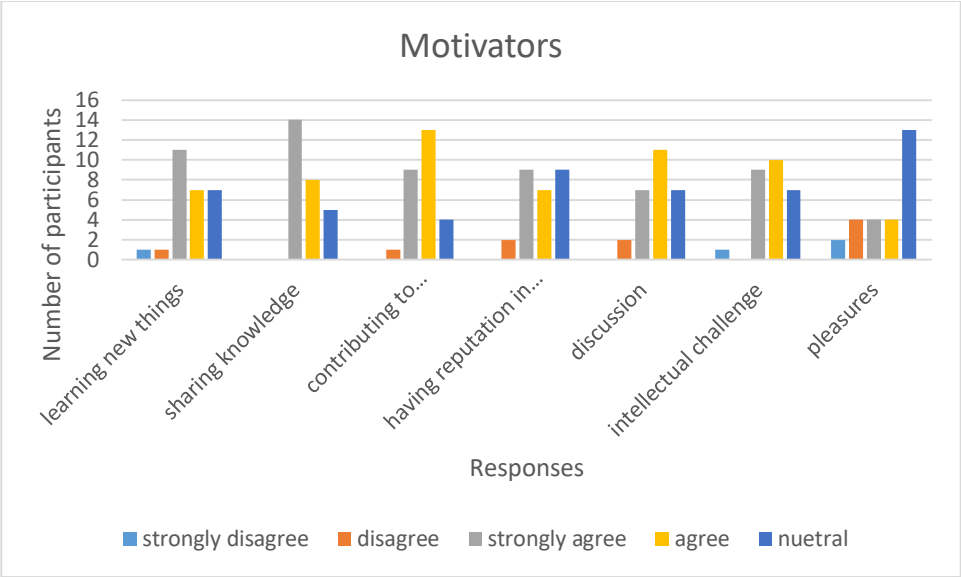


Figure 1: Motivators of OERs

Figure 1 indicates that the study consists of a series of factors regarding what would motivate student teachers to be co-creators of OERs which ranged from strongly agree to strongly disagree on a scale of 1-5. The study indicates that out of the 27 respondents of the study, 11 strongly agreed and 7 agreed that learning new things can actually motivate the student teachers to create OERs. On the other hand, 1 respondent strongly disagreed to learning new things as a motivating factor

for creating OERs, 1 disagreed while 7 were neutral about learning new things as a motivator to create OERs.

Further, the findings indicate that 14 strongly agreed and 8 agreed that sharing knowledge can motivate them to be creators of OERs. 5 were neutral about the sharing of knowledge. Another factor which can motivate student teachers to be creators of OERs is contributing to other people. From the findings 11 strongly agreed and 7 agreed that contributing to other people can motivate them to create OERs. 1 participant strongly disagreed and 1 disagreed contributing to other people as a motivator to create OERs. While 7 were neutral about contributing to other people can motivate them to create OERs.

In addition, having reputation in a specific field motivate the student teachers to create OERs, however, the findings show that 9 strongly agreed and 7 agreed while 2 disagreed and 7 were neutral. Intellectual challenge is also a motivator and according to the finding it indicates that out of 27 respondents of the study, 10 agreed and 7 strongly agreed while 1 strongly disagreed and 9 were neutral.

Furthermore, from the findings of the study it showed that 11 agreed and 7 strongly agreed that discussion can motivate them to create OERs. 2 disagreed that discussion cannot motivate the respondents to create OERs while a portion of 7 were neutral. Finally, from the findings of the study 13 were neutral that pleasure could motivate them to create OERs. while 4 agreed and a portion of 4 strongly agreed and 2 strongly disagreed that pleasure cannot motivate them to create OERs.

4.2.2 LEARNING OBJECT COMMONLY USED

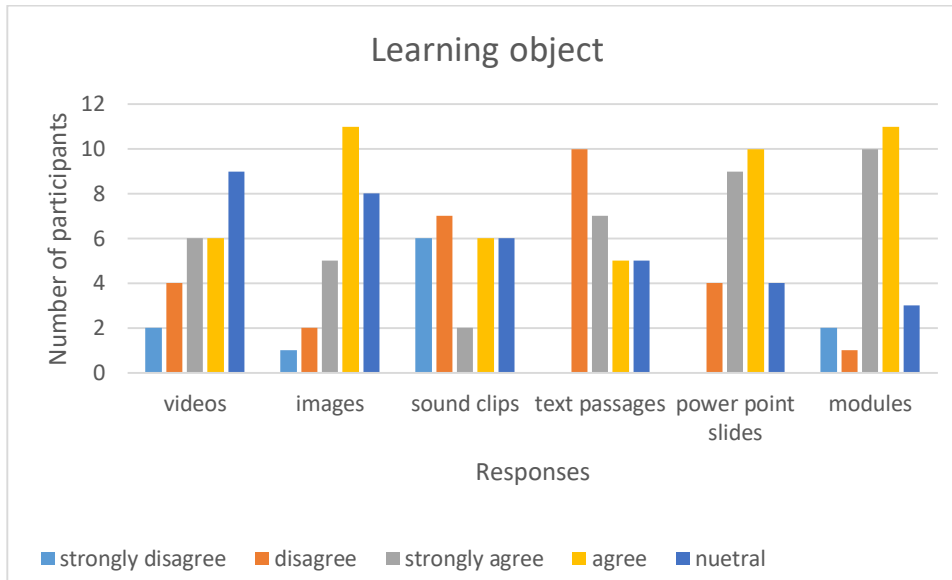


Figure 2: Learning object

Figure 2 indicates the findings based on the series of learning objects that are commonly used by the student teachers to create OERs. The findings indicate that 9 was neutral while 6 strongly agreed and 6 agreed about using videos to create OERs. 4 disagreed and 2 strongly disagreed of not using videos to create OERs. Additionally, according to the study on images the finding shows, 11 agreed and 5 strongly agreed while 8 were neutral to using images to create OERs. 2 disagreed and 1 strongly disagreed not using images to create OERs.

Further, the findings show that on sound clip, 7 disagreed and 6 strongly disagreed with sound clips being the most used learning object while 6 agreed and a portion of 2 strongly agreed and 6 were neutral about using images. Also, the study indicates that from the findings of the study it showed that using text passages as learning objects 10 disagreed, 7 strongly agreed and 5 agreed while 5 were neutral to using text passages. Addition, shows that 10 agreed and 9 strongly agreed and 4 were neutral to using power point as a learning object while 4 disagreed to using power points. furthermore, it indicates that out of the 27 respondents from the study, 11 agreed and the other portion of 10 strongly agreed and 3 were neutral to using modules as a learning object while 2 strongly disagreed and 1 disagreed.

4.2.3 TYPES OF RESOURCES MOST WILLING TO BE CREATED

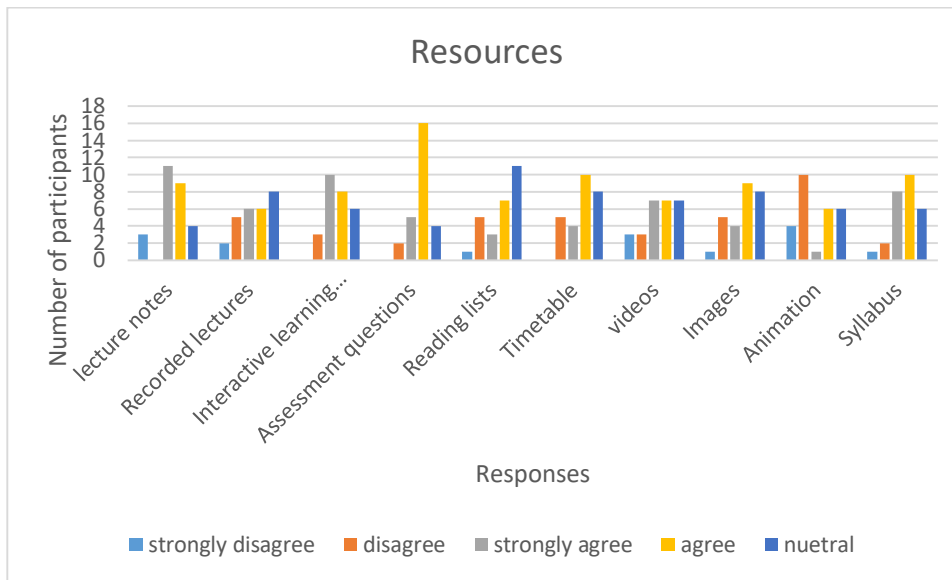


Figure 3: Resources

Figure 3 indicates that out of the 27 respondents 11 strongly agreed and 9 agreed while 4 were neutral to using lecture notes to create OERs and 3 strongly disagreed to using lecturer notes to create OERs. However, this indicates that out of 27 respondents of the study 8 were neutral, 6 agreed and 6 strongly agreed to using recorded lectures to create OERs. While 2 strongly disagreed to using recorded lectures to create OERs. Further, the study shows that from the findings of the study 10 strongly agreed and 8 agreed while 6 were neutral to using interactive learning object and 3 disagreed to using interactive learning object.

From the finding it indicates that 16 agreed and the portion of 5 strongly agreed. while 4 were neutral and 2 strongly disagreed to using assessment questions to create OERs. In addition, the findings show that out of the 27 respondents of the study 11 were neutral while 7 agreed and 3 strongly agreed and 5 disagreed and 1 strongly disagreed to using reading list. Furthermore, the study above shows that from the findings of the study, 10 agreed and a portion of 4 strongly agreed while 8 were neutral to using time tables as a resource of creating OERs. And 5 disagreed to using time tables as a resource of creating OERs.

The study indicates that from the findings 7 agreed and the other portion of 7 strongly agreed. While 7 were neutral and 3 strongly disagreed to using to using videos to create OERs. The study shows that from the findings 9 agreed while a portion of 4 strongly agreed to using images. While

8 were neutral and 5 disagreed and 1 strongly disagree to using images. Hence, the study shows that out of the 27 respondents of the study 10 disagreed and 4 strongly disagreed to using animation and 6 were neutral while 4 agreed and 1 strongly agreed to using animation. Lastly the study indicates that 10 agreed and the other portion of 8 strongly agreed and 6 were neutral to using a syllabus while 2 disagreed and 1 strongly disagreed to using syllabus.

4.2.4 WHAT INSPIRES EDUCATORS TO BE CREATORS OF OERs

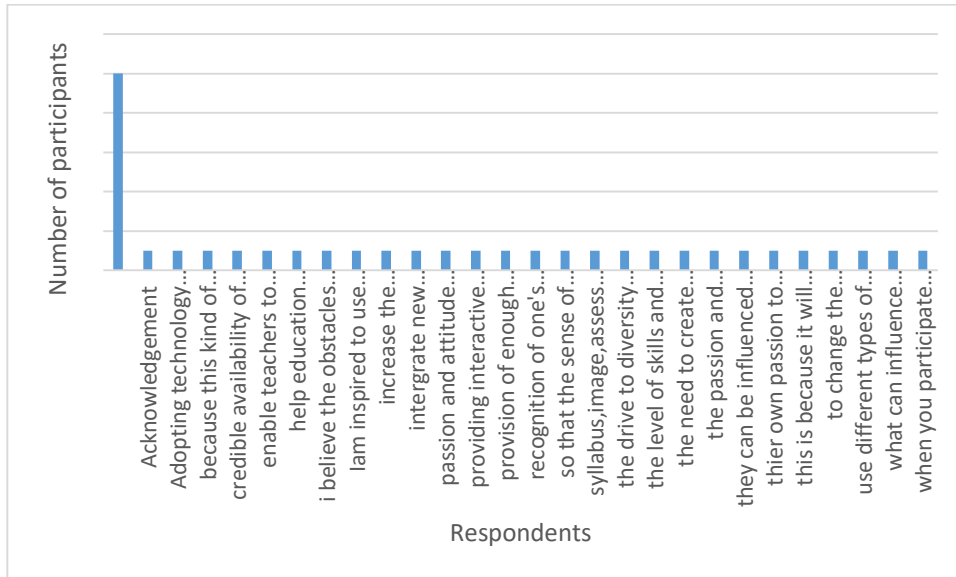


Figure 4: Inspirations

Figure 4 indicates that from the series of factors the respondents were given a chance to give their own opinion on what can inspire them to participate in the creation of OERs. Various responses were given and each response represented a proportion of 1 about what inspired the respondents.

4.2 RESULTS FROM THE TEACHERS

4.2.1 FACTORS THAT CAN MOTIVATE EDUCATORS TO BE CREATORS OF OERS

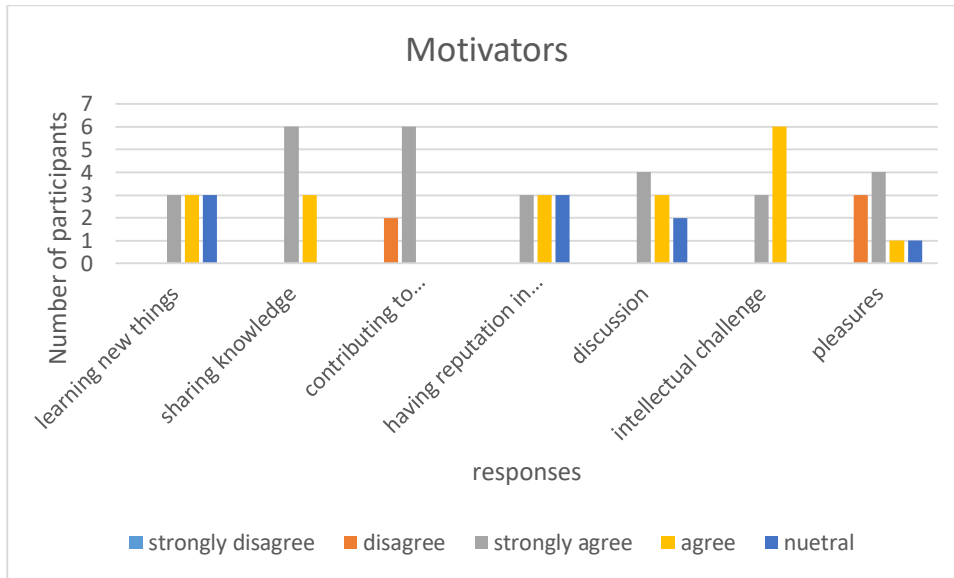


Figure 5: Motivators of OERs

The figure 1 above shows that 3 of the respondents were neutral about learning new things being a factor that can motivate educators to be creators of OERs, 3 agreed and 3 strongly agreed with learning new things as a motivator in creating OERs. On the other hand, From the findings above it indicates that 6 strongly agreed and 3 agreed with sharing knowledge being a motivator in creating OERs.

Further, from the findings, 7 strongly agreed with contributing to other people as a motivator and 2 disagreed that contributing to other people cannot motivate educators to be creators of OERs. The finding indicates that 3 were neutral and 3 agreed. Whereas the other 3 strongly agreed that having reputation motivate them to create OERs.

In addition, indicates that from the findings 4 strongly agreed and 3 agreed that discussions could motivate them to create OERs. 2 were neutral. Furthermore, the finding indicates that 6 agreed to intellectual challenge being a motivating factor whereas 3 strongly agreed. The finding indicates that 3 disagreed to pleasure being a motivator to create OERs and 1 were neutral. On the other hand, 1 agreed and 4 strongly agreed.

4.3.2 LEARNING OBJECT COMMONLY USED

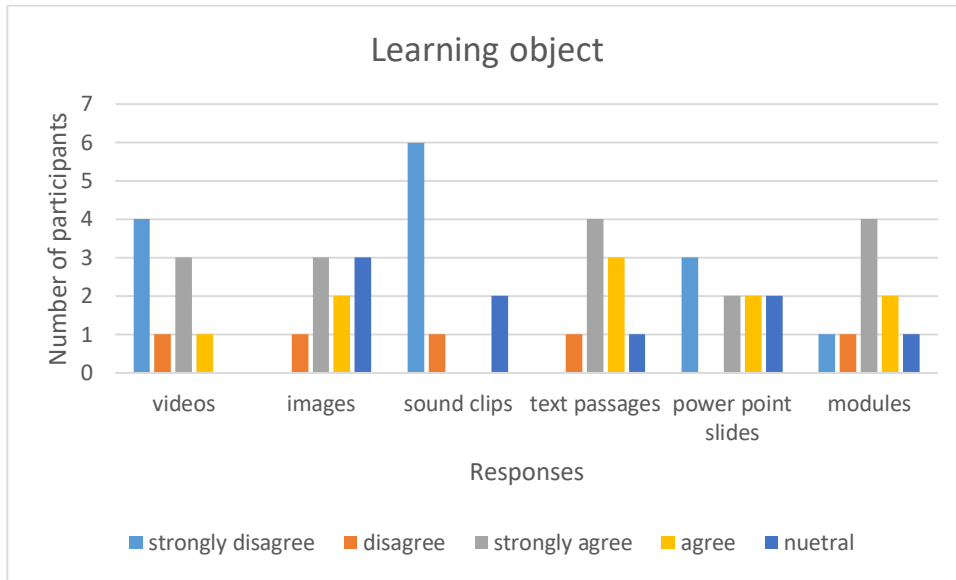


Figure 6: Learning Objects

From the findings it indicates that 4 strongly disagreed and 1 disagreed with videos being the most common used learning object, while 3 strongly agreed and 1 agreed with videos being the most commonly used learning objects. However, the figure above shows that 3 were neutral, 2 agreed and 3 strongly agreed with images as the commonly used learning object. 1 strongly disagreed, with images as the commonly used learning object.

Further, the study shows that, 3 were neutral, 2 agreed and 3 strongly agreed to commonly using text passages. 1 disagreed. The above shows that 6 strongly disagreed, 1 disagreed and 2 were neutral to using sound clips. Furthermore, the study shows that 3 strongly disagreed to using power points, 2 were neutral, 2 agreed and 2 strongly agreed. Lastly from the above findings, 4 strongly agreed and 2 agreed while 1 was neutral. Never the less, 1 strongly disagreed and 1 disagreed to using modules as a learning object.

4.3.3 TYPES OF RESOURCES MOST WILLING TO BE CREATED

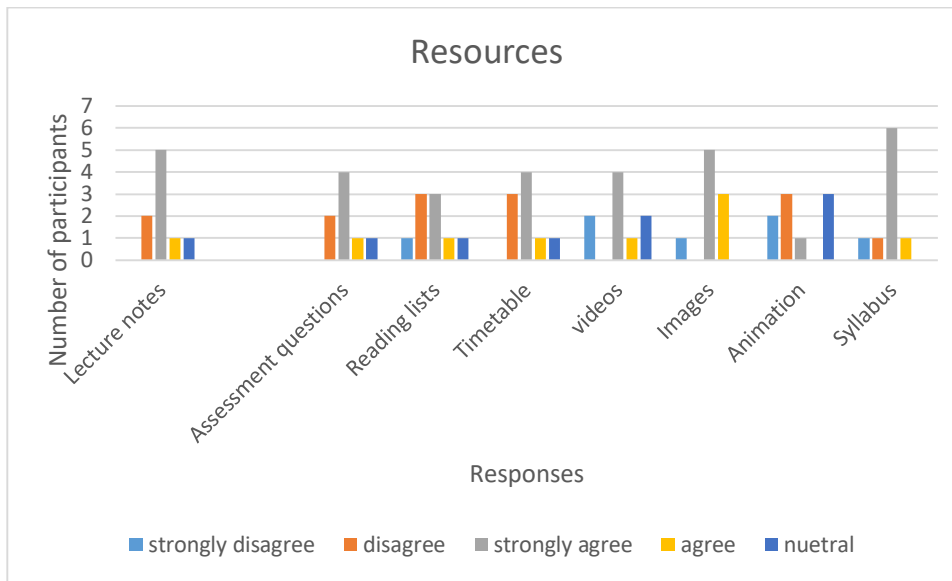


Figure 7: Resources

From the study it indicates that out of the 9 respondents 5 strongly agreed and 2 strongly disagreed to create lecture notes, 1 was neutral, 1 agreed to create lecture notes. However, the finding shows that 5 strongly agreed and 1 agreed 2 disagreed while 1 was neutral to create assessment questions. Further, the findings show that 3 strongly agreed and 1 agreed while 3 disagreed and 1 strongly disagreed to reading lists.

The study above shows that from the findings 3 disagreed, 1 was neutral, 1 agreed and 4 strongly agreed to using the timetable. In addition, the figure above shows that 3 of the respondents disagreed, 1 was neutral, 1 agreed and 4 strongly agreed to using videos. The study shows that from the findings 1 strongly disagreed to creating images, 3 agreed and 5 strongly agreed.

The study shows that out of the 9 respondents 2 strongly disagreed with creating animations, 3 disagreed, 3 were neutral and 1 strongly agreed. Furthermore, indicates that 1 strongly disagree, 1 disagree, 1 agree, 6 strongly agree to willingly create syllabus.

4.3.4 WHAT INSPIRES EDUCATORS TO BE CREATORS OF OERs

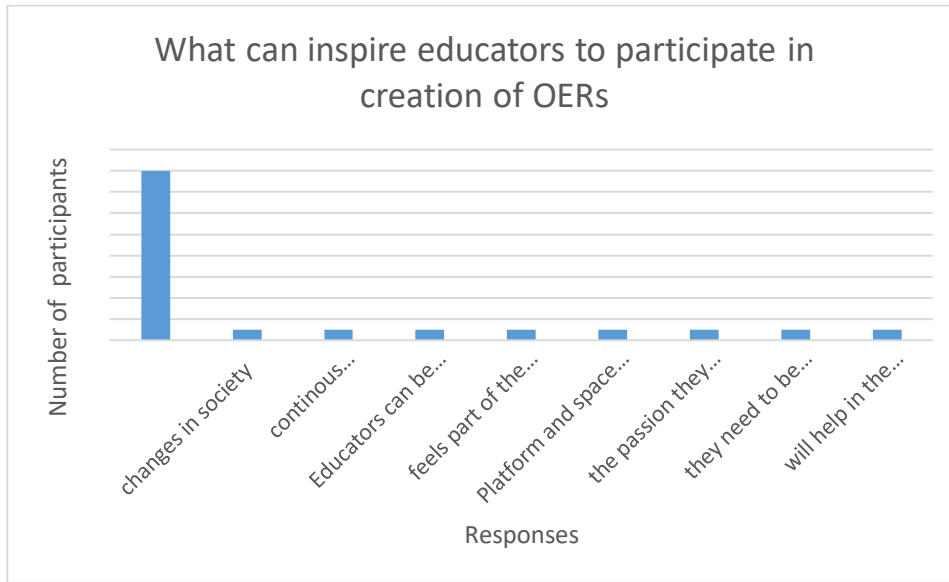


Figure 8: Inspirations

The study indicates how the respondents were given a chance to give their own opinion on what can inspire them to participate in the creation of OERs. Various responses were given and each response represented a proportion of 1 about what inspired the respondents.

4.4 RESULTS FOR LECTURERS

4.4.1 FACTORS THAT CAN INFLUENCE EDUCATORS TO BE CREATORS OF OERs

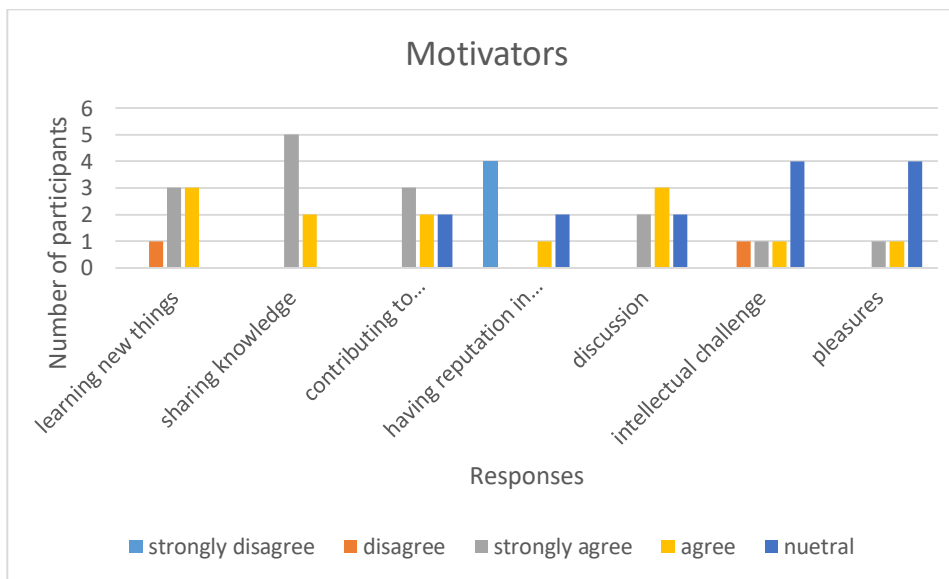


Figure 9: Motivators

the study asked a series of factors regarding what motivates lectures to create content which ranged from a scale of 1-5. The findings indicated that a series of the respondents strongly agreed to learning new things with 3 while others agreed with a portion of 3 and the smaller portion disagreed with a proportion of 1. Sharing knowledge is another factor which motivates lecturers to be creators of OERs, the findings indicated that from the portion of the respondents strongly agreed to sharing knowledge with a proportion of 5 and the proportion agreed with 2. Further, the study indicates another factor which motivates lecturers to be creators of OERs from the findings a proportion of the respondents strongly agreed to the contributing to other people with a portion of 3 while the other proportion agreed with a portion of 2 and the other proportion from the scale of 1-5 was neutral with a proportion of 2.

In addition, the study indicates a factor which can motivate lectures to be creators of OERs in relation to having a reputation in a specific field from the respondents a portion strongly disagreed with a proportion of 4 while the other portion agreed with a proportion of 1 and the other portion was neutral with a proportion of 2. Furthermore, the funding indicates that a portion of the respondents strongly agreed to discussions with a proportion of 2 while the other portion agreed with a proportion of 3 and the portion was neutral with a proportion of 2. However, the findings show that a portion strongly agreed with a proportion of 1 while the other portion agreed with 1 and the other portion was neutral with a proportion of 4 and a smaller portion disagreed with 1. From the findings a portion strongly agreed to pleasure with a proportion of 1 while the other portion agreed with a proportion of 1 and the other portion was neutral with proportion of 4 while others disagreed to pleasure as a factor that can motivate lecturers to be co-creators of OERs with a proportion of 1.

4.4.2 LEARNING OBJECTS

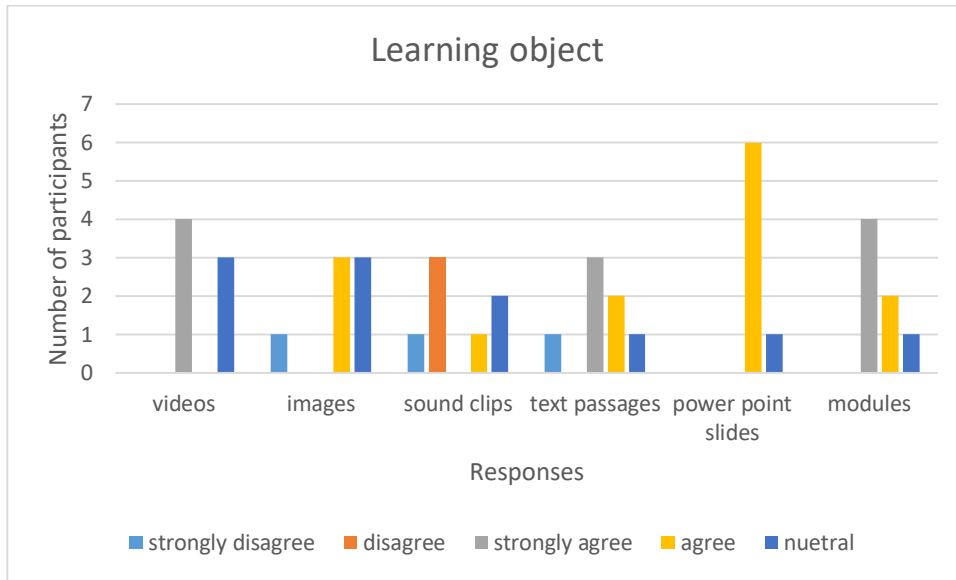


Figure 10: Learning Objects

The study indicates that the series of learning objects that are commonly used by the respondents to create content which ranged from a scale of 1-5. The findings indicate that from the series of learning objects strongly agreed with using videos with a proportion of 4 while the other portion was neutral to using videos with a proportion of 3. Further, it shows that from the findings another learning object used to create content are images and from the 7 respondents of the study, 3 agreed while 3 were neutral and 1 strongly disagree to using images. In addition, from the findings the respondents of the study showed that 3 strongly agree while 2 agree to using text passages and 1 were neutral and 1 strongly disagree to using text passages. From the study the respondents that used sound clips to create content showed that 1 agreed and 2 were neutral while a portion of 3 disagree to the use of sound clips and a proportion of 1 strongly disagree. The study further indicates that out of the 7 respondents of the study, 6 strongly agree to using power point slides as a learning object while 1 was neutral about using power point slides to create content. Lastly, the study indicates that 4 strongly agree to using modules as a learning object to create content and agree while 1 is neutral about using modules as a learning object used by the respondents in the co-creation of OERs.

4.4.3 RESOURCES WILLING TO BE CREATED

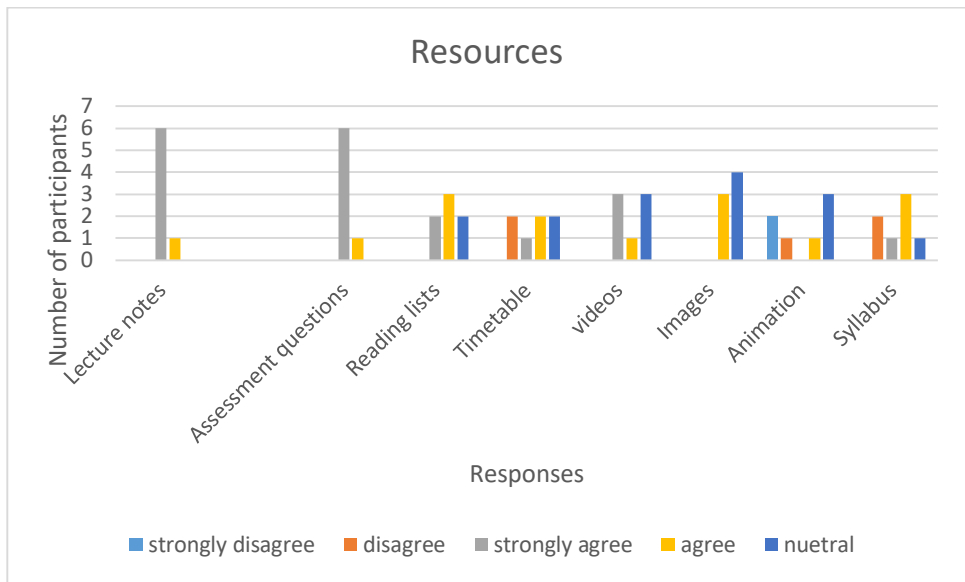


Figure 11: Resources

The study indicates that out of 7 respondents of the study 6 strongly agree to using lecture notes to create OERs while 1 agree. Further, the findings of the study show that 6 strongly agree to using assessment questions to create content while 1 agree. However, the study shows that out of the 7 respondents of the study 2 strongly agreed to using reading lists to create content while 3 agreed while 2 were neutral about using reading list as a resource to create content. from the findings of the study the respondents from the proportion of 1 strongly agreed to using time tables as a resource to create content while 2 agreed while 2 were neutral about using time tables and 2 disagree to using time tables.

The study indicates that 3 strongly agree to using videos as a resource to create content while 1 agree while 3 are neutral about using videos. Further, the study shows that from the findings 3 agreed to using images as a resource to create content while 4 was neutral. In addition, the study shows that out of the 7 respondents of the study 1 agreed to using animations as a resource to create content while 3 were neutral while 1 disagreed and 2 strongly disagreed to having animations as a resource. Lastly, the study indicates that from the findings of the study showed 1 strongly agreed to using a syllabus as a resource to create content while 3 agreed were 1 was neutral and 2 disagreed to having a syllabus.

4.4.4 WHAT INSPIRE EDUCATORS PARTICIPATE IN CREATION OF OERs

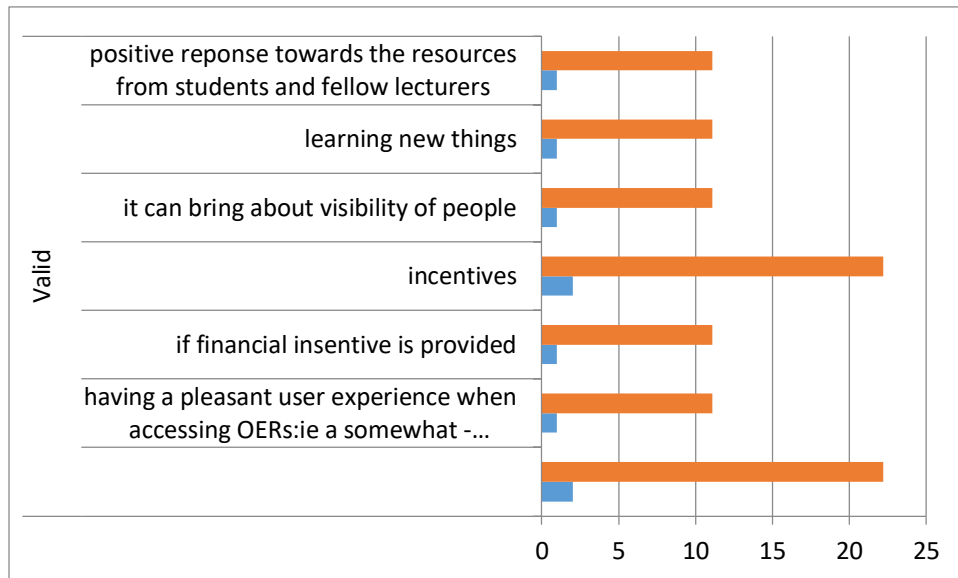


Figure12:Inspirations

The findings above show a series of factors that enables the respondents to give their own opinion on what can inspire them to participate in the creation of OERs various responses were given and each response represented a proportion of 1 about what inspired them.

5 DISCUSSION

5.1 FACTORS THAT CAN MOTIVATE EDUCATORS TO BE CREATORS OF OERs

The study reviewed in the questionnaires conducted with the student teachers, lectures and teachers that educators can have different motivators in order for them to be creators of OERs. The findings explored in this study are from three questionnaires (student teachers, lectures and teachers). The assessment of the factors that can motivate educators to be creators of OERs was based on the uses and Gratification theory. The uses and gratification tend to emphasize on the five generic clusters of needs, which are cognitive, affective, integrative personal, integrative social and diversion needs. Hence the results show that motivators were mainly cognitive, diversion, integrative and affective. Furthermore, sharing knowledge, contributing to other people and intellectual challenge were highly ranked in the three questionnaires compared to the other motivators this was because most educators seem to be motivated through themselves actually taking part in the creation of the content. In addition, this indicates that in order for educators to be creators of OERs they need to be intrinsically motivated or at least sharing and able to collaborate with others for non-selfish reasons, in that from the results most educators did not see pleasure as one of the factors that could motivate educators to create OERs. Hence this indicated that most factors that could actually motivate educators to be creators of OERs are usually the ones that enable them ensure that knowledge is shared among different people apart from there students and is being made use of by people. However, this shows that for educators to create OERs the motivation is derived from factors that are driven from one's own internal rewards so as to create a suitable environment for educators to create OERs.

5.2 LEARNING OBJECT

The result showed that, there are a lot of learning objects that commonly be used by educators such as videos, images, sound clips, text passages, power point slides and modules. However, the teachers and student teachers preferred modules because a module structure is important in online learning environment, as it provides an aid in the presentation and application of the online teaching and learning process. When students are aware of the structure of the course, they spend less time guessing about what is expected of them and have more time focusing on the right contents and activities. Furthermore, it also allows better evaluation and more focused revision and improvement. On the other hand, lecturers preferred the use of power point slides in that it

provides encouragement and support to staff by facilitating the structuring of a presentation in a professional manner and it also enhances the teaching and learning experience for both staff and the learners, and it would also enable students to full participate in the interaction through the use of power point slides and students will follow through the lecture. In addition, according to the study it was found that educators did not use some learning objects to create OERS this is because some are difficult to create like sound clips and most students find it difficult to follow through. Hence educators do not make use of it, however other reasons were that some learning objects were dependent on either one being a lecturer, student teacher or a teacher. Learning objects like a timetable is mainly used by teachers while Lectures will make use of a learning object like images.

6 CONCLUSION

6.1 CONCLUDING REMARKS

In order for educators to be creators of OERs they need to be intrinsically motivated or at least sharing and able to collaborate with others for non-selfish reasons. In this research the respondents were asked to state what can personally motivate them to be creators of OERs. Each item was a proposed motivator, which the respondent ranked using a five-point scale measure, ranging from strongly disagree to strongly agree. The assessment of the factors that can motivate educators to be creators of OERs was based on the uses and Gratification theory. Furthermore, the research also looked at the learning objects commonly used by the educators. However, the teachers and student teachers commonly use modules, while on the other hand the lecturers commonly use power point slides. Furthermore, the creation of OERs will encourage educators.

6.2 RECOMMENDATION

The education sector should consider the creation of OERs because it will help in the effective teaching. The educators will able to share different materials with their fellow educators from different places and this can be a good way to promote global interaction. This will also enable them in sharing and acquiring of knowledge.

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APPENDICES
APPENDIX 1: QUESTIONNAIRE FOR STUDENT TEACHERS
THE UNIVERSITY OF ZAMBIA
SCHOOL OF EDUCATION
DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

RESEARCHERS: Chanda Mulenga

Chirwa Elizabeth

Kamanga Mirriam

Kayula Mwenya

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EMAIL: 2016136036@student.unza.zm

The aim of this questionnaire is to obtain information on investigating the use of learning object repositories in co-creation of OERs by Educators. For this reason, we wish to inform you that you have been purposely sampled to help us with information which will successfully make our research findings representative. We therefore wish to inform you that the information you will give us will be purely used for academic purposes. Furthermore, this questionnaire consists of four types of questions.

Open Educational Resources (OERs) are learning materials freely available for use, repurposed or redistribution. No formal assessment is undertaken and no credits are awarded. It is essentially a process of sharing knowledge and expertise, making aspects of an institution's approach to teaching available to other academics and making the content of that teaching available to anyone with an interest in learning. With this in mind please answer the following questions.

Learning Object is any entity, digital or non-digital, that can be used, re-used or referenced during technology-supported learning. Examples of learning objects include multimedia content, instructional content, instructional software and software tools that are referenced during technology-supported learning.

Risks: There are no potentially harmful risks related to your participation in this study.

Feedback: feedback concerning about the results of this research will be received via email, once the results have been analyzed.

Withdrawal: Your participation is completely voluntary; you have the right to refuse to participate, and withdraw at any time without having to state a reason and without any prejudice or penalty against you. Should you choose to withdraw, the researchers commit not to use any of the information you have provided without your signed consent. Note that the researcher may also withdraw you from the study at any time.

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When signing this form, it means that you have agreed to participate in this research.

BACKGROUND INFORMATION

1. I agree to participate in this research

- No
- Yes

2. Signature (initials are fine)

.....

3. Date

.....

4. What is your gender?

- Male
- Female

5. What is your age range?

- 18-20
- 20-25
- 25-30
- 30-35
- Above 35

SECTION ONE

6. What factors can motivate you to be a creator of OERs?

To what extent do you agree with the following:

- i. Sharing knowledge: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - ii. Learning new things: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - iii. Contributing to other people: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - iv. Having reputation in specific field: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - v. Intellectual challenge: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - vi. Discussion: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - vii. Pleasure: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
7. What learning objects do you commonly use?

To what extent do you agree with the following learning objects:

- I. Videos: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- II. Images: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- III. Sound clips: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- IV. Text passages: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- V. Power point slides: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- VI. Modules: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree

8. Which type of resources are you most willing to create?

To what extent do you agree with the following:

- I. Lecture notes: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- II. Recorded lectures: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree

- III. Interactive learning object: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - IV. Assessment questions: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - V. Reading lists: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - VI. Timetables: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - VII. Videos: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - VIII. Images: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - IX. Animations: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
 - X. Syllabus: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
9. In your own understanding what can inspire or influence educators to participate in the creation of OERs?

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APPENDIX 2: QUESTIONNAIRE FOR LECTURERS

THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

RESEARCHERS: Chanda Mulenga

Chirwa Elizabeth

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BACKGROUND INFORMATION

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- No
- Yes

2. Signature (initials are fine)

.....

3. Date

.....

4. What is your gender?

- Male
- Female

5. How long have you been working?

- 1-5 years
- 5-10 years
- 10-15 years
- 15-20 years
- 20-25 years
- 25-30 years
- Less than 1 year
- Above 30 years

6. At what level do you lecture?

- Post graduates
- Undergraduate

- All of the above

SECTION ONE

7. What factors can motivate you to be a creator of OERs?

To what extent do you agree with the following:

- Sharing knowledge: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Learning new things: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Contributing to other people: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Having reputation in specific field: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
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- Discussion: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Pleasure: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree

8. What learning objects do you commonly use?

To what extent do you agree with the following learning objects:

- Videos: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Images: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Sound clips: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Text passages: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- Power point slides: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree

- vi. Modules: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree

9. Which type of resources are you most willing to create?

To what extent do you agree with the following:

- i. Lecture notes: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- ii. Recorded lectures: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- iii. Interactive learning object: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
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- vi. Timetables: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- vii. Videos: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- viii. Images: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- ix. Animations: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree
- x. Syllabus: 1. strongly disagree 2. disagree 3. Neutral 4. agree 5. Strongly agree

10. In your own understanding what can inspire or influence educators to participate in the creation of OERs?

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APPENDIX 3: QUESTIONNAIRE FOR TEACHERS

THE UNIVERSITY OF ZAMBIA

SCHOOL OF EDUCATION

DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE

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3. Date

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4. What is your gender?

- Male
- Female

5. How long have you been working?

- 1-5years
- 5-10 years
- 10-15 years
- 15-20 years
- 20-25 years
- 25-30 years
- Less than 1 year
- Above 30 years

6. At what level do you teach?

- Primary
- Junior

- Secondary
- All of the above

SECTION ONE

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