Developing Assessment Specifications on the Basis of European Profiling Grid (Epg) Digital Media Enabling Competences for Undergraduate English Education Program

Neni Nurkhamidah
(neninurkhamidah@gmail.com)

Sekolah Tinggi Keguruan
dan Ilmu Pendidikan
Media Nusantara Citra
Indonesia

This research aims at developing assessment specifications on the basis of European Profiling Grid (EPG) digital media enabling competences for undergraduate English education program. The data used in this research are digital media enabling competence in the syllabi of five universities in Indonesia and digital media enabling competence in EPG document. This research applies Design and Development following the procedures adapted from Nunamakers (1991). To develop assessment specifications, two sub-questions are applied. Finding of the first question is three universities have independent course that equip students with digital media enabling competences. They also insert this competence in other courses. Two universities do not have this competence at all in their courses. Finding of the second sub-question shows that the level of similarity of digital media enabling competences in the existing syllabi and in EPG perspective is very low. The data of level the similarity of digital media enabling competences in the existing syllabi and in EPG perspective then used by researcher to develop assessment specifications. There are 15 item and 9 topics covered in this assessment specification. The assessment is in the form of performance assessment.

Keywords: EGP, digital media enabling competences, test specification

Penelitian ini bertujuan untuk mengembangkan spesifikasi penilaian kompetensi media digital berdasarkan European Profiling Grid (EPG) untuk program sarjana pendidikan bahasa Inggris. Data yang digunakan dalam penelitian ini adalah kompetensi media digital di dalam silabus dari lima universitas di Indonesia dan kompetensi media digital di dalam dokumen EPG. Penelitian ini menggunakan metode Desain dan Pengembangan mengikuti adaptasi metode Nunamakers. Tahapan pelaksanaan metode Desain dan Pengembangan adalah mengidentifikasi masalah, menggambarkan tujuan, desain dan mengembangkan artefak, fokus diskusi

kelompok, dan revisi desain. Untuk mengembangkan spesifikasi penilaian, peneliti menggunakan dua sub-pertanyaan. Dari pertanyaan tersebut ditemukan fakta bahwa hanya 3 universitas yang memiliki mata kuliah khusus yang yang bertema digital media. Ketiga universitas tersebut juga memasukkan beberapa kompetensi media digital di mata kuliah lain. Dua dari 5 universitas tidak memasukan kompetensi media digital sama sekali pada mata kuliah mereka. Temuan sub-pertanyaan kedua menunjukkan bahwa tingkat kesamaan kompetensi media digital di silabus yang ada dan dalam EPG sangat rendah. Data tingkat kemiripan kompetensi media digital kemudian digunakan oleh peneliti untuk mengembangkan spesifikasi penilaian. Ada 15 kompetensi dan 9 topik yang tercakup dalam spesifikasi penilaian yang dikembangkan peneliti. Topik tersebut adalah Ms. Words, mesin pencari aplikasi, file dan folder, Photoshop, PowerPoint, Excel, Instagram/ Facebook/ Twitter, Google drive dan Edmodo. Kompetensi yang dinilai dalam spesifikasi penilaian sebagian besar berada di level menciptakan dan menerapkan.

INTRODUCTION

Digital media have become an essential part for most people in the world. From the vital functions like financial, banking, social networking and recreational activities, the existence of digital media rapidly transforms many aspects of our lives. In the education field, digital media is considered as a potential tool that promise educational opportunities in both formal and non-formal ways. Indonesian Ministry of Education in the regulation No 16 Year 2007 about Qualification Academic Standard and Teachers' Competences even emphasizes technology literacy as important skill to develop teacher's pedagogic and professional competence. In the pedagogic competence standard it is mentioned that teacher should utilize information and communication technology to conduct and develop teaching activities. Moreover in professional competence standard, teacher are required possess the ability to use information and communication technology for their professional development.

Indonesia also have Indonesia Qualification Framework (IQF) or is usually called as Kerangka Kualifikasi National Indonesia (KKNI) to determine what minimum qualification must be achieve by the graduates of every level of education. In the level of undergraduate or bachelor degree of English education program, it is stated that the graduates should be able to use relevant information and communication technology to develop education quality.

Although digital media skill is a complementary competence for teachers, it does not mean that this competence is not important (North: 2009). Evidence shows that students of education institutions and programs are likely not prepared to integrate digital competence in their learning subject. Digital competence is often neglected even reduced (Ottestad, et all, 2014). To be relevant and adaptable to future changes, teacher candidate and teacher in service must be equipped to meet the opportunities in the use of digital media in planning a course, conducting a lesson, assessment of learning and administration. In this regard it is need to train the students of educational program to acquire greater competency in the use of digital media because teachers' pedagogical concept will influence them in the use digital media, teachers' digital media use will significantly impacts student achievement (Ministry of Education and Vocational training of United Republic of Tanzania , 2016)

Since teachers have vital role in digital media integration in education, some organizations and countries have established comprehensive teacher competences framework in digital media literacy. In 2008 UNESCO published ICT to help countries to develop their national ICT competency policies and standards for teachers. Technology Standard for Teachers with ICT issued in China in 2014. Australia also established Australian Professional Standards for Teachers (APST) to determine teachers' position regard to their technology competences. .

Hammond (2009, p. 276) mentioned that to achieve good quality of teachers in education programs, there should be an integration of courses that create a coherent experience throughout the program, well defined standards of practices and performance , well defined standards of teachers' professional knowledge and practice, a core curriculum by emphasizing on student learning, assessment and content pedagogy, an inquiry approach that connects theory and practice, strong institution partnerships, use of problem-based teaching methods and assessment based on international standards.

There are various reason for people to assess teachers' competences. Rossner (2009, p.6) proposed two main important reason to assess teachers' competences. The first reason is for supporting professional development and the second is as an assurance of the standard quality , that is mean checking whether the teachers being assessed is up to the particular standard agreed or not.

Developing digital media competence as an integral part of the overall English teacher competence standards is a comprehensive, for it allows digital media competencies to be trained, assessed and monitored as part of the overall performance of teachers. On the other hand in Indonesian context, English teacher education program focuses in developing four competencies. That is why it is necessary to provide a clear concept of what digital competence for English teachers to be assessed.

European Profiling Grid (EPG), is an evaluation form for prospective language teachers as the result of a project by the European Commission. It is commonly used in Europe for teacher education program. This instrument describes the current competences of language teachers. Six tabular are presented to indicate teachers' development (Bergil and Saricoban , 2016). Mainly EPG aim at supporting language teachers in their own professional development. This grid is also an applicable tool for managers and coordinators of teaching institution who are responsible for assuring the quality of language education, and for trainers and mentors who provide support and in-service development opportunities for language teachers, ten countries in Europe, the British Council, the Goethe Institut, a French research agency, CIEP, and Instituto Cervantes. This project was developed in 9 languages, was tested with over 2000 teachers, over 60 managers and 100 trainers. This project also attached the used guide to make easy the user using the grid.

RESEARCH QUESTION AND OBJECTIVE

Research question of this research is how are EPG-based digital media enabling competences for undergraduate English education program in Indonesia

The main research question are divided into following sub questions:

1. How are the digital media enabling competences in the existing syllabi of undergraduate English education program in Indonesia?

2. How do the standard of digital media enabling competences in the existing syllabi and in EPG share similarities and differences?

Based on the research questions presented above, the main purpose of the study is:

To develop EPG based digital media enabling competences assessment specifications for undergraduate English education program in Indonesia

The sub purposes of the study are:

1. To identify digital media enabling competences in the existing syllabi of undergraduate English education program in Indonesia

2. To analyze the standard of digital media enabling competences in the existing syllabi and in EPG share similarities and differences.

THEORETICAL FRAMEWORK
Digital Media in Education

Any kind of media that are digitally pressed or encoded in a machine readable format is called digital media (Microsoft: 2011). Text audio, video, and photo is form of digital media. Digital media can not only be created and presented on digital electronics devices, it is also can be transmitted over the internet or computer networks. Some example of digital media may be used by teachers are computer programs and software, digital imagery, digital video, websites, data and databases; digital audio such mp3, and e-books.

Sometimes people misunderstand that digital media is hardware technology. Some people might judge that the computer or mobile phone they use belongs to digital media. In fact they are digital electronic devices. Digital media is the media that has been digitally pressed in the digital electronic devices like games, social media, video animation, mobile application and website.

Many studies of the use of digital media in Education have been carried out. Wikan and Molster (2011) in Kolbakova (2014) on their research found that many school in Scandinavian countries tried to implement digital media in the curriculum by providing digital media enabling competences for teachers. There are significant increasing amount of computer, laptops, tablet, interactive white board in many school in Europe, However, teachers have lack of confidence on the use of digital media.

Kolbakova (2014) stated that in Asia context, school are still on the effort of integrating digital media in education field. The members of Asian Ministry of education (SEAMEO) have committed financial support for this case. Ministry Education of turkey has invested for improving teacher ability in the use of educational software. Malaysia and Singapore conducted workshops and training to provide teachers for having greater competence in utilizing digital media. Taiwan conducted a program to improve teachers' ability in digital media skill such as word processing, multimedia and website editing, digital media design and evaluation. Indonesia with some countries such as Philippines, Thailand and Vietnam have developed ICT plans and policies in education.

Based on their study, Craig and Patten (2007) summarized that digital media in the form of digital learning resources could support learners' verbal interaction skills, increasing vocabularies, and improving their reading comprehension. Moreover, Warschauer and Healey (1998 in Brown, 2001) stated that accessing internet and social media can develops students' intercultural skills and promotes global awareness

Brinkley et al (1999) explained that the use of digital media can help teachers to cover their job in the case of routine administration, finding teaching resources or material, discussion and presentation. Typing and copying of the syllabus, copying assignment it can be more efficiently to use online discussion groups, and e-mail lists. Teacher can use audio or video sources and let the student's access the page related to the topic. A presentation software can provide a media with interesting outlines, slides, statistical charts, tables, images, animation, audio, and even video clips. Online discussion media such as e-mail, conferencing software, and on-line chat services can provide teachers' discussion with students, collage and parents.

Wikan & Molster (2011 in Kolbakova : 2014) applied that most teachers use digital media to prepare their lesson. They use a learning platform to get information from internet. In a line with the pervious statement, Chien, Wu and Hsu (2011) added that the teacher utilize digital media to create an assessment, find out lesson plans and resources in the internet, create teaching and presentations. The further explanation also show that teachers often use digital media for more indirect reasons such as stimulate motivation or improve presentations.

Bhattacharjee and Dep (2016) stated that teacher use ICT as an assisting tool. For example for making assignments, communicating with students, collage, parents, and teacher communities, and conducting researches. Typically, ICT is used independently from the subject matter. Digital media usage also appears in many different forms of English teaching learning such as drill and exercise.

Enabling Digital Media Competences

The concept of enabling digital media competence for teachers is central in this review. Enabling digital media competence can be broadly defined as "skills, knowledge, creativity, and attitudes that everybody needs in order to use digital media" (Kumvrik and Rokenes: 2014). Digital media competences is more than just the ability to use digital media but it involves cognitive, and motoric skill. To use it effectively. Several different terms and definitions of enabling digital media competence in this review such as "digital literacy (Buckingham, 2006; Lankshear & Knobel, 2006 in Krumsvik, 2008), computer literacy (Nawaz & Kundi, 2010 in Kumvrik and Rokenes: 2014), and media literacy (Hobbs & Jensen, 2009; Potter, 2014), and that these concepts have different meanings in different academic, cultural, historical, social, and educational contexts. Moreover, based on the vast number of studies on teachers' use of ICT in the classroom (e.g, Almås & Krumsvik, 2007; Blikstad-Balas, 2012; Cox et al., 2004; Karaseva, Pruulmann-Vengerfeldt, & Siibak, 2013)" in Kumvrik and Rokenes: 2014)

Krumsvik (2007:68) defines digital media competence as teacher's ability to use ICT with a good pedagogical-didactic ICT understanding. This means that the teacher must make decisions about what kind of digital tools should be used, how they should be used and why they use it.

Tømte, Kårstein and Olsen (2013) in Ottestad (2014) stated that there are only a few explicit written literature and accounts related to teachers' digital media competence in the courses and curricula of educational institution, although there have been many examples of ICT use in teacher education. At the same time, the report suggested that it is necessary to develop definitions of digital competence associated in different types of academic or occupational areas (e.g. sailor, nurse, receptionist, and teacher). For teachers, they put the definition of digital media competences or

digital literacy as the ability of the use of ICT in preparing educational programs, the use of ICT in their teaching, administrative work, evaluation and research.

Enabling Digital Media Competences for Teachers

This existing enabling competence digital media standard from various projects are : UNESCO ICT Competency Standards for Teachers (ICT-CST), Standard Technology for Teacher in National Educational Technology Standards (NETS), Digital Media Competences in the Evaluation and Accreditation of Quality Language Services (EAQUALS) Profiling Grid for Language Teachers, ICT-Capacity Standards for Teachers in China, ICT Competences in Australian Professional Standard for Teacher and Technology Competences in Japanese Portfolio for Teachers of Languages (J-POSTL).

Enabling Digital Media Competences in EPG Perspective

Competence is the ability to apply and combine relevant knowledge, skill and the ability for practicing an appropriate manner (Belisle and Rosado: 2007). Therefore to be called having digital media competences, teachers have to able to use digital media appropriately based on the purpose and needs. Enabling digital media competences based on the EPG perspective are divided into three phase of development.

Digital Media					
Development Phase 1		Development Phase 2		Development Phase 3	
1.1	1.2	2.1	2.2	3.1	3.2
1. Can use word-processing software to write a worksheet, following standard conventions 2. Can search for potential teaching material on the internet 3. Can download resources from websites	1. Can create lessons with downloaded texts, pictures, graphics, etc. 2. Can organize computer files in logically ordered folders	1. Can use software for handling images, DVDs, and sound files 2. Can use any standard Windows/Mac software, including media players 3. Can recommend appropriate online materials to students and colleagues 4. Can use a data projector for lessons involving the internet, a DVD etc	1. Can set and supervise on-line work for learners 2. Can use software for handling images, DVDs, and sound files	1. Can train students to select and use on-line exercises appropriate to their individual needs 2. Can edit and adapt sound and video files 3. Can show colleagues how to use new software and hardware 4. Can coordinate project work with digital media (using, for example, a camera, the internet, social networks) 5. Can troubleshoot most problems with classroom	1. Can train students to use any available classroom digital equipment (IWB incl.), their mobiles, tablets etc. profitably for language learning 2. Can show colleagues how to exploit the teaching potential of available digital equipment and internet-based resources 3. Can design blended learning modules by using a learning management

				digital equipment	system (LMS) like Moodle

Assessment Specifications

Assessment specification or table of specification or in some literatures referred as test blue print is a table that helps teachers to align objectives, instruction and assessment (Zuelk, Wilson and Yunker) 2004. Akem (2006) described that the table of specification is a guide that assist a teacher or an examiner in the evaluation system. The table of specification shows the total number of items to be planned and allocated to each instructional objectives, suggest what might be covered in each item, and help to decide on what kind of items to be used.

The main purpose of a TOS is to improve the validity of a teacher's evaluation in relation to a particular assessment (Fives & DiDonato-Barnes, 2013). It is a fundamental to construct test which ensures a fair, complete, valid, reliable, and objective set of test questions (Cruz & Singun, 2014). TOS can be used as toll to help teachers related this issue. Variety of assessment methods can be developed by using TOS but it is commonly used in summative tests. When teachers constructs a test, they have to concern that the test measures an adequate sampling of the class content at the cognitive level that the material was taught. TOS can also be used to conjunct lesson and unit planning to help teachers making clear connection between planning, instruction, activity and assessment.

METHOD

The method that is applied in this research is Design and Development Research (DDR). As mentioned by Cresswell (2009: 167) qualitative research "a form of interpretive inquiry in which researchers make an interpretation of what they see, hear and understand". The content analysis will be used in this research where the researchers are seen as the main instrument that collect the data. DDR is systematic study of designing, developing and evaluating instructional program, process and product that must meet the criteria of consistency and effectiveness (Seels and Richey, 1994 p.127).

Nunamaker et al. (1991) and Hevner et al. (2004) in Ellis and Levy (2010) proposed the model of conducting DDR including: (a) identify the problem motivating the research; (b) describe the objectives; c) design and develop the artifact; d) subject the artifact to testing; e) evaluate the results of testing; and f) communicate those results. This following figure shows the major steps in Design and Development Research.

Research Procedure

This study applies the procedure of DDR proposed by Nunamaker et al. (1991) and Hevner et al. (2004) in Ellis and Levy (2010).

In this research the researcher modify research procedure proposed by Nunamaker et al. (1991) into five phase. This following figure show the modification steps were taken by the researcher.

Identify the Problem → Describe the Objectives → Design and Develop the Artifact → Focus Group Discussion → Design Revision

Figure 1 The Step of DDR Modified by Researcher

Data and data sources

This part is going to discuss the data and data source in this research. The data and data sources are shown in the following table:

Table 1
Data and Data Sources

Sub-question no	Data	Data Sources
1	Digital media enabling competences in the courses	Existing syllabi of five undergraduate English education programs in Indonesia
2	Digital media enabling competences in EPG perspective	EPG document
3	Digital media enabling competences in the courses and in EPG document share similarities and differences	The result of analysis existing syllabi of five undergraduate English education programs in Indonesia and EPG document

FINDINGS AND DISCUSSION

There are five existing syllabi are from different universities in Indonesia are analyzed. The writer analyzes the six development phases of EPG document with the learning outcomes in every course. The development phases are divided into some items. The result of the analysis of enabling digital media competence of every university will be present in this part.

Table 2
Analysis Result of EPG Development Phase of Syllabi from Five University

UNIVERSITY	RANGE OF EPG LEVEL
A	1.1, 2.1, 2.2, 3.1, 3.2
B	-
C	-
D	2.1, 2.2, 3.1, 3.2
E	1.1, 2.1, 3.2

The table shows that University A covers development phase 1.1, 2.1, 2.2, 3.1 and 3.2. Both University B and University C do not cover all development phase of EPG. University D cover development phase 2.1, 2.2, 3.1 and 3.2. And the last University E covers development phase 1.2, 2.1 and 3.2.

The percentage of digital media enabling competences development phase for every course is shown in this following table.

Table 3
The Percentage of Digital Media Enabling Competences Development Phase of Every University

UNIVERSITY	DEVELOPMENT PHASE					
	1.1	**1.2**	**2.1**	**2.2**	**3.1**	**3.2**
A	5,3%	0%	21,1%	5,3%	5,3%	15,8%
B	0,0%	0%	0%	0%	0%	0%
C	0%	0%	0%	0%	0%	0%
D	0%	0%	0%	5,3%	5,3%	10,5%
E	5,3%	0%	5,3%	0%	0%	5,3%

After finding the percentage of digital media enabling competences in every university then the researcher found out the percentage of development of EPG for every development phase of five university. The result can be seen in the following table.

Table 4
The Percentage of Digital Media Enabling Competence for Every Development Phase

Development Phase	Percentage
1.1	**2,1%**
1.2	**0%**
2.1	**5.3%**
2.2	**2,1%**
3.1	**2,1%**
3.2	**6,3%**

The average percentage of digital media enabling competence of EPG for every development phase of five universities is the basic for the writer to develop digital media assessment specification based on EPG perspective.

The table format of digital media assessment specifications used by the researcher were taken from Regional Language Centre (RELC) Singapore. This specification was chosen because it is simple and easy to adapt. The table of specification consists of: digital media enabling competence, development phase, materials, question level (which measured by Bloom"s Taxonomy), question types, number of items, and time allocation.

Since the percentage of every development phase in the syllabi is extremely low, researcher decided to develop the digital media enabling competence assessment specification by including all development phases except development phase. After determining the development phase, the researcher determined the skill and topics that are going to be assessed. There are 15 item and 9 topics covered in this assessment specification.

The next is matching the skill with cognitive level of Bloom Taxonomy. This assessment specification item mostly are in the level creating and applying. The assessment specification of digital media enabling competence on the basis of EPG perspective can be seen in this following table.

Table. 4.9 Digital Media Enabling Competence Assessment Specification on the Basis of EPG Perspective

Assessment Specification   : Digital Media Enabling Competence

No	Digital Media Enabling Competence	Development Phase	Materials	Question Level						Type of Assessment	Number Of Items	Time Allocation (in minutes)
				Remeber	Understand	Apply	Analyse	Evaluate	Create			
1	Students are able to use Ms Word to create documents with determined format	1.1	Ms. Words						v	Performance	1	5
2	Students are able to insert the pictures they downloaded in the words document		Ms. Words			v				Performance	2	5
3	Students are able to download suitable material from internet based on the given clues		Search Engine Application			v				Performance	3	5
4	Students are able to create and organize files by naming the files based on number, word, or date	1.2	File and Folder			v			v	Performance	4	5
5	Students are able to use Photoshop to add word in image	2.1	Photoshop						v	Performance	5	15
6	Students are able to design PowerPoint presentation with determined style		PowerPoint						v	Performance	6	5
7	Students are able to create hyperlink in PowerPoint		PowerPoint						v	Performance	7	5

8	Students finish projects use Excell with certain formula		Excell						v	Performance	8	5
9	Students are able to create graphic in Excell with determined data		Excel						v	Performance	9	5
10	Students are able to set an online learning by using social media (based on the provided clues and materials)	2.2	Istagram / Facebook/ Twitter						v	Performance	10	5
11	Students are able to share documents with Google Drive	3.1	Google Drive				v			Performance	11	5
12	Students are able to download the document in Google Drive	3.1	Google Drive				v			Performance	12	5
13	Students are able to download and install Edmodo		Edmodo						v	Performance	13	5
14	Students are able to create Edmodo account		Edmodo						v	Performance	14	5
15	Students are able to give score and feedback in Edmodo	3.2	Edmodo						v	Performance	15	5
											Total of time	85 minutes

Note : The teacher prepare text and documents that will be used by students in the assessment

Table. 4.10 Scoring Rubric for Performance Assessment Adapted from Jones and Vicker (2011)

Explanation	Score
0	Can not demonstrate understanding
0-10	Demonstrates minimal understanding
10-20	Demonstrates adequate understanding
20-30	Demonstrates complete and clear understanding

The scoring of this assessment is adapted from from Jones and Vicker (2011). The minimum score for each item is 0 and the maximum score is 30. The maximum score for this assessment is 100. This score is gotten from (15 x 30) / 45.

CONCLUSIONS

Result of the analysis shows that two universities do not include digital media enabling competence in their courses. Three universities have independent courses that the purpose is to equip students with digital media skill. They also inserted digital media in some courses.

Some low development phases were put in the high semester. The result also shows that the similarity percentage of every development phase and the digital media competences in the syllabi was very small

There are 15 item and 9 topics covered in this assessment specification created by researcher. The test assessment is in the form of performance assessment. The topics are covered are Ms. Words, search engine application, file and folder, Photoshop, PowerPoint, Excel, Instagram / Facebook/ Twitter, Google drive and Edmodo. The assessment items in the assessment specification are mostly in the level creating and applying.

In this part the researcher is going to propose some suggestion upon conducting this research. Digital media enabling competences is important skill for teachers. That is why universities in Indonesia should not ignored this competences to be taught to the students. This competence can be given to the students in independent course related to digital media or inserted in other courses.

REFERENCES

Bergil, A. and Saricoban, A. (2016). Milestone in English language teacher education: how to use European profiling grid in the assessment of prospective EFL teachers' qualifications. Journal of Language and Linguistic Studies, 12(2), 206-220

Bhattacharjee, Baishakhi. & Deb, Kamal. (2016). Role of ICT in 21st Century's Teacher Education. International Journal of Education and Information Studies, Vol. 6, No. 1, pp. 1-6

Brown,H. D. (2001). Teaching by principles: An interactive approach to language pedagogy (2nd ed.). New York, NY: Addison Wesley Longman.

Brinkley et al. (1996).Using Electronic Resources for Teaching an excerpt. The Chicago Handbook for Teachers: A Practical Guide to the College Classroom.

Craig, D. V., & Patten, K. B. (2007). E-literacy and literacy iPods, popular culture and language learning. International Journal of the Book, 4(1), 69-74.

Creswell, J. W. (2012). Education research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.). Boston: Pearson Education

Cruz, M., & Singun, A. (2014). Assessment design and development: the Oman experience. International Journal of Humanities and Social Sciences, Conference Edition, 35-44.

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession. Washington, DC: National Staff Development Council.

Ellis, Ryann K. (2009), Field Guide to Learning Management, ASTD Learning Circuits

Fives, H., & DiDonato-Barnes, N. (2013). Classroom Test Construction: The Power of a Table of Specifications. Practical Assessment, Research & Evaluation, 18(3), 1-7. Retrieved April 27, 2017, from http://pareonline.net/pdf/v18n3.pdf

Hobbs, Renee and Jensen, Amy (2009) "The Past, Present, and Future of Media Literacy Education," Journal of Media Literacy Education, 1(1). Available at: https://digitalcommons.uri.edu/jmle/vol1/iss1/1

Kolbakova. (2014). The Use of ICT among the Teachers of English in Estonia by

Comparison with Europe and Asia. MA Thesis UNIVERSITY OF TARTU DEPARTMENT OF ENGLISH

Krumsvik, R. (2008). Situated learning and teachers' digital competence. Education & Information Technologies, 13(4), 279-290.

Mateva, G., Vitanova, A. & Tashevska, S. (2013). European profiling grid user guide. Lifelong Learning Programme. European Union.

North, B. (2009). A Profiling Grid for Language Teachers. International Meeting on Training, Quality and Certification in Foreign Language Teaching, Siena, 9-10 February 2009.

Ottestad, G. (2014). Professional Digital Competence in Teacher Education. Universitetsforlaget. Nordic Journal of Digital Literacy, vol. 9, Nr. 4-2014 s. 243–249 ISSN Online: 1891-943X

Rossner, R. (2009). Developing common criteria for comparison and assessment in language teacher education' in Cambridge Research Notes 38. Retrieved from http://www.cambridgeesol.org/rs_notes/rs_nts38.pdf

The United Republic of Tanzania Ministry of Education and Vocational Training Adult Aad Non-Formal Education Development Plan (Anfedp), 2012/13 – 2016/17 Final Draft. Retrieved From http://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/tanzania_ur_adult_nonformal_education_2013-2017.pdf

What is Digital Media. Retrieved in 5 May 2017 from https://technet.microsoft.com/en-us/library/what-is-digital-media-2(v=ws.11).aspx