

Internet Usage by Selected High School Learners in Limpopo Province

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Abstract

The purpose of this paper is to report on the results of a study investigating internet usage by Grade 11 learners in seven schools in the Makhuduthamaga Local Municipality in Limpopo Province, South Africa. A quantitative, non-experimental, descriptive design was used for this study. The population of the study was 861, and the sample size of 264 high school learners was determined by using the sample table devised by Krejcie and Morgan (1970). The sample was stratified according to the percentages of the population of the learners per school. All 264 learners who agreed to participate in this study did so, and the response rate was therefore 100%. Data were collected through the use of questionnaires and analysed using the Statistical Package for the Social Sciences, version 19. Most of the respondents indicated that the greatest benefit gained from using the internet was the reliability of information: 34% (139). The accuracy of information was indicated to be the main benefit by 33% (134) of respondents; time saved was selected by 19% (76); and for 14% (55), user-friendliness was the greatest advantage of using the internet. It was also revealed that although the majority of learners expressed confidence in their ability to use the internet, some of them did not possess sufficient skills for optimal online information and knowledge seeking. Moreover, they experienced a number of obstacles to using the internet, including network connection problems, slow internet speed and a lack of suitable power supply.

Keywords: internet use; high school learners; Makhuduthamaga Local Municipality; pedagogical activities

Introduction and Background

The importance in the 21st century of mastering basic skills and concepts concerning Information and Communication Technologies (ICTs) is widely recognised and these skills have been adopted by many schools in their teaching curricula (Barakabitze et al. 2019, 1). The advancement of ICTs has led to the development of various fixed and mobile broadband networks to allow for the use of digital services, facilitating the integration of technological devices in people's lives (Pagan, Maiquez, and Martinez 2018, 2), as well as bringing about a revolutionary change in the provision of services in the education sector (Matlala and Kheswa 2019, 1). The growth of ICT tools—such as the internet, computer hardware and software—and their integration in education assist in improving teaching and learning activities (Livingstone 2012, 11). These tools have changed the methodology of delivering education, making the internet a powerful tool within education institutions (Jain 2016, 769). Thus, the burgeoning of ICT tools and increasing internet connectivity play a crucial role both in building inclusive and participatory knowledge societies as well as in providing access to quality education (Kankam 2017, 59).

The internet can be defined as an international network or an information superhighway which connects computers from different geographic locations to share information and resources using hypertext (Alio and Aneke 2015, 31). According to Denvir (2016, 204), the internet offers a platform for information exchange for education purposes, much of which is freely provided by stakeholders globally. The internet is an extremely valuable tool that has developed over the last several decades, bringing a hitherto unheard-of quantity and quality of information to learners, at the mere click of a button. Kwaah (2019, 5) notes that the educational applications of the internet have resulted in opportunities for both participative and independent e-learning, allowing all parties to become involved, including the principals, the teachers, the parents and the students.

Tarimo and Kavishe (2017) indicate that access and effective use of internet services in secondary schools give added reading opportunities for learners, which improves their understanding as well as their reading skills, in turn supporting learners' academic performance. In support, Matlala and Kheswa (2019, 6) note that internet use in education benefits the learning processes, by providing quality and accessible learning materials, which increase student performance. It assists learners in conducting effective research as well as aiding the process of learning (McCamey, Wilson, and Shaw 2013, 131). This can be seen by the degree to which learners consult the internet for assignments, presentations, research and personal growth (Ugwulebo and Okoro 2016, 1018).

The development of digital technologies and the advancement of the internet have played positive roles globally in improving access to education as well as in enhancing education equity, quality, and relevance (United Nations Educational, Scientific and

Cultural Organisation [UNESCO] 2014, 56). Educators and learners are employing an increasing number of learning tools accessed via the internet for teaching and learning. Governments across the world are consequently integrating ICT tools into their education sectors in order to improve teaching and learning by empowering teachers and learners with technology that can deliver instant, up-to-date local and global content. For instance, the Broadband for All Initiative in South Africa is designed to help address technological inclusion by minimising the digital divide between the connected and unconnected (Kankam 2017, 59).

UNESCO (2015, 56) notes that the World Education Forum (WEF) meeting in 2015 in Dakar was a historic opportunity to reframe the global education agenda, as the international community worked to define the global Sustainable Development Goals (SDGs) for 2030. The various countries adopted a strategy termed “Education for All: Meeting our Collective Commitment through ICTs.” This strategy stresses the link between education and ICT tools (such as the internet) as key enablers for bringing to fruition the sustainable development goals in the education sector (UNESCO 2015, 56).

Ngulube (2010, 46) points out that the use of the internet acts as a powerful supplement to the traditional way of accessing information by allowing learning to become more flexible than in the traditional academic system. This is possible because the internet is not spatially or temporally restricted and moreover, learning materials can be accessed cheaply without needing to purchase expensive books. Mwalongo (2011, 38) notes that the use of the internet for education purposes is likely to motivate teachers and learners and help them to clarify difficult concepts. It saves time and enables learners to become actively involved in their own learning, transforming them from traditional passive recipients to learning initiators, while meeting many of the criteria in the teaching and learning process using a learner-centred approach (Xavier et al. 2018, 114).

However, besides general indications that high school learners are increasingly turning to the internet for education purposes, the degree to which this is occurring varies from region to region. In South Africa, the digital divide between scholars with high levels of internet access and those with low or no access necessitates localised study to bring to light the specifics of the situation. Therefore, this study aimed to assess the extent of internet usage by Grade 11 learners in the Makhuduthamaga Local Municipality in Limpopo Province. This information will contribute to an awareness of the need to enable the effective utilisation of the internet within all schools. The point of departure is the recognition of the internet as a core tool for ensuring improvement in learners’ learning performances—if utilised correctly.

Statement of the Problem

It is widely acknowledged that ICT tools can be used to improve the quality of teaching and learning in high schools. Galbreath (2000) notes that the rapid growth of ICTs has moved human society from the information technology age to the knowledge-based age in which the technology is subservient to its knowledge-creating outcomes. Notably,

Galbreath (2000) claims that ICT has helped people to acquire knowledge for their needs. Buabeng-Andoh and Yidana (2015, 104) concur that the internet has led to the development of a knowledge-driven society which can make continual progress by utilising this knowledge. Ndwiki and Thinguri (2017, 314) maintain that ICT offers several benefits in teaching and learning. It makes pupils participate fully in lessons and helps to keep teaching interesting.

Owing to the advancement of ICTs, devices such as cell phones have become ubiquitous in modern society. Cell phone profusion is radically transforming internet access for learners across the globe (Porter et al. 2012, 23). Accessing the internet through cell phones has become a norm in people's lives and it has been noted that the use of cell phones for internet access in a learning environment is very "effective and efficient for learners in high schools and post-secondary schools" (Hasan et al. 2016, 52). Notably, the use of cell phones by high school learners to access the internet has increased significantly across sub-Saharan Africa over the past decades (Porter et al. 2012). The Pew Research Centre Study (2017) found that 91% of South Africans own mobile phones and 51% of adults own smart phones. Mossberger, Tolbert, and Anderson (2017, 1587) note that this access to cell phones, especially among the younger generation, has enabled widespread usage of the internet, which has in the school context led to a dramatic increase in the use of the internet by learners.

However, as indicated above, more information is required on the localised specifics of internet access and use within various contexts in South Africa. Understanding the level of internet usage by high school learners in the Makhuduthamaga Local Municipality in Limpopo Province can possibly provide a microcosm of the situation on the ground in areas that fall on the wrong side of the digital divide. As has been pointed out, a vast amount of research points to the benefits that internet usage can offer in terms of quality of education (Al-Ansari 2006). The internet has the potential to transform, modernise, revolutionise, enrich and deepen the skills of learners. It also has the potential to motivate and engage learners, as well as to strengthen learning and to help lagging schools to transform into learning nodes (Yusuf 2005). Bearing this evidence in mind, the current study aimed at investigating the extent and value of internet use by high school learners in the Makhuduthamaga Local Municipality.

Objectives of the Study

The general objective of the study was to explore the use of the internet by high school learners in selected schools within the Makhuduthamaga Municipality in Limpopo Province. More specifically the study was conducted in order to:

- 1) Determine the usage of the internet by Grade 11 learners in selected high schools in the Makhuduthamaga Local Municipality.
- 2) Determine if the learners have acquired the necessary skills to use the internet.
- 3) Identify the challenges facing the learners in accessing the internet.

Literature Review

In this section, the researchers reviewed related empirical studies on the use of the internet in education. The review was conducted in line with the following themes: access and use of internet services by learners; and skills required to use the internet.

Access and Use of Internet Services by Learners

The literature on the use of ICT facilities for education outside the developed world and outside well-connected communities, generally explores how these technologies can expand access to, and ensure continuity of, education, particularly in remote areas and for transient or nomadic learners (Kabir and Kadage 2017, 66). Jere-Folotiya et al. (2014) note that mobile technologies improve pedagogy and have been found to promote literacy skills and aid English-language instruction in schools. Babarinde, Babarinde, and Dike (2018), as well as Rabaud, Mamode-Khan, and Rampat (2018) state that research on ICTs and mobile phones has concluded that they support access to reading materials and digital readings.

Maurice, Charles, and Ofori-Darko (2014, 189) note that the internet can facilitate learners' search for information and instructional materials. Kafylilo, Fisser and Voogt (2016, 1536) say that the application and use of the internet in education delivery enhance learning environments, providing teachers and learners with opportunities to practise, analyse, thoroughly understand and effectively apply the curriculum content. Chai, Koh, and Tsai (2010, 66) add that learners can develop new understanding in their areas of learning, while their creativity can be optimised and they may discover new ways of thinking. This also offers opportunities for the enrichment of education activities, enabling improved achievement across all subjects (Antonijević 2018).

The literature thus generally suggests that the internet has beneficial effects on learners with regard to increasing their knowledge and cognitive skills (Mahumbwe 2012), including exposure to an extensive information pool, which is what compels learners to frequently go online to search for information (Sugihartati and Harisanty 2014, 25). Young people are technologically knowledgeable and often access the internet for their specific personal as well as general information needs (Oeldorf-Hirsch and Sundar 2015; Utz 2015)—making learners among the most frequent users of the internet. If they have the required skills, they can easily process new education materials due to their familiarity with the online world, filling information gaps, and thereby further enhancing their skills.

According to Sridevi and Indrani (2015), many high school learners in developing countries use the internet primarily for education activities as well as for entertainment purposes. Sarfo and Gyimah (2011) conducted a study into the access and use of ICTs by Ghanaian high school learners, the results of which indicated that, although most high school learners did not have access to the internet at home, they used cell phones outside the school to access the internet. Using the internet provides opportunities for

online interaction whereby the learners and teachers can exchange ideas and views with their peers.

Also in Ghana, Kwaah's (2019, 72) study indicated that 98% of learners reported that the internet has a desirable influence on their school activities. The results further outlined that 37% of respondents used the internet to access current information, while 24% sought information from the internet to improve their studies. For 22% of the respondents, the internet was useful in searching for information on a subject area, and 14% found it helped them to augment their notes.

In Tanzania, Tarimo and Kavishe (2017) found that among high school learners a majority of 97.8% used smartphones, while 62.9% used computers and 49.4% used iPad to access the internet. The reason for the high usage of smartphones is that they are economical, portable and accessible to a majority of people in Tanzania. In Turkey, Gorkemli (2017) similarly notes that rural secondary school learners access the internet with smartphones with a 67.3% response rate, while 56.1% access it with computers and 39% use tablets. Mtega et al. (2014) explain that the wide-scale use of mobile phones is due to their affordability and accessibility.

In South Africa, a study conducted by Czerniewicz and Brown (2013, 38) found that most learners from disadvantaged backgrounds and areas without the basic infrastructure, such as electricity, were unable to afford technological tools such as laptops or personal computers due to financial constraints. It was further revealed that such poor learners in South Africa generally access the internet at community centres, work places, schools and libraries. Access to the internet depends on factors such as the presence and stability of internet connections and power supply in schools and homes, the adequate number of ICT facilities, the level of information literacy of learners and teachers, the speed of access, the cost, and the satisfaction levels with information accessed.

Skills Required to Use the Internet

With the advent of ICTs in the education sector, high school learners now require critical thinking skills, searching skills, as well as assessment and evaluation skills to enable them to access the correct information in an efficient way (Barakabitze et al. 2019, 4). Barakabitze et al. (2019, 7) note that South Africa's internet-based e-education vision is to provide ICT tools and skills for learning so that learners and teachers can fully participate in a knowledge-based society.

The ability of learners to source and retrieve information efficiently and easily is a key skill in the current environment (Tella et al. 2007). The internet's wealth of available information is also its main disadvantage and makes it difficult for users to locate and select quality information that is relevant to their needs. To do this requires proficient internet skills (Okello-Obura and Magara 2008). Tella et al. (2007) note that a learner's

ability to find and retrieve information efficiently is a transferable skill that will also be useful in their future lives.

Various empirical studies indicate that many learners have poor internet skills. Even in the developed world, O'Hanlon's (2002) study on the internet skills proficiency of learners found them lacking, both in terms of searching for and evaluating websites. This is despite the availability of resources to assist students with searching strategies and other related internet skills. Bond (2004) corroborates these findings: the learners in his study said that, when they search for information, they end up retrieving a lot of information which they are unable to summarise properly.

Ruxwana, Herselman, and Conradie (2010) note that a large number of studies have pointed out that the shortage of technology-related skills amongst high school learners is the key challenge to maximising the educational benefits of using ICTs in the current digital environment. Wood (2004) argues that, once learners have obtained information on the internet, they lack the skills for analysing it critically. Learners assume that all the information found is authentic and truthful and that it all has the same value. Furthermore, Wood (2004) asserts that learners do not understand the value of accurately crediting the information source found. Thus, learners need to acquire the necessary capabilities to explore digital tools through practising the internet usage skills needed to fully exploit the tools.

As noted previously, the global and national digital divide paints a divergent picture, not only in terms of internet access and use but also as regards internet skills. In a study on students' skills in internet use in Malaysia, Muniandy (2010) found that their level of internet usage skills was fair for 70% of the participants, while 27% indicated a very high level of internet usage skills. Conversely, Hinson and Amidu (2005), in their study conducted in Ghana, reported that 48% of their respondents indicated that they lacked the necessary skills to navigate the internet.

In another Ghanaian study into internet usage among secondary school students, Akin-Adaramola (2014) found that the highest percentage of the learners (40% of the respondents) used the internet for chatting and for their social activities, while only 14.4% of the respondents used the internet daily for academic purposes. The skills and an awareness of how to apply these skills to optimise internet usage were lacking.

Research Methodology

A post-positivist paradigm perspective was used, which is typically associated with quantitative research methods. For this study, a largely quantitative research approach was underpinned by the survey approach in the form of questionnaire instruments to gather information, with occurrences counted across a large population. Statistics, formulae and replicability were employed in order to validate generalisations stemming from survey samples (Holliday 2002, 5).

Bryan and Bell (2011, 167) note that quantitative research “uses a systematic process where numerical data and measurement are utilised to obtain information on the phenomenon under investigation.” For instance, the quantitative approach was adopted to obtain numerical data on the usage of the internet, determining how many learners knew the web service and how many were utilising it.

The population of the study consisted of the registered Grade 11 learners (825 in total) from seven selected schools in the Makhuduthamaga Municipality. It is often not feasible to survey the entire target population and in that case a sample that is representative of the population may be selected, as was the case in this study. The sample size in the present study was based on the sample table devised by Krejcie and Morgan (1970). The table is applicable to any population of a defined size. According to Krejcie and Morgan’s table, a population of 825 has an acceptable sample size of 264 participants.

The data were obtained quantitatively via a survey questionnaire and analysed using the Statistical Package for Social Sciences (SPSS). Thus, the data from the questionnaire were coded as a data file for analysis, using the SPSS programme. A coding key was therefore drawn up in which numerical values were assigned to all closed answer options in the questionnaire. The data were entered on a data matrix design, using SPSS, and presented in the form of percentages.

Presentation and Discussion of the Research Findings

Table 1: Use of the internet

Learners using the internet	Frequency	Percentage
Yes	243	92%
No	21	8%
Total	264	100%

In order to determine the extent of internet usage, the respondents were asked to indicate if they used the internet or not. Table 1 shows that 243 respondents representing 92% said they had used the web before. Twenty-one respondents representing 8% said they had not used the internet before.

Table 2: Benefits of using the internet for academic purposes

Benefits	Frequency	Percentage
Reliability of information	139	53%
Accuracy of information	134	51%
Time-saving	76	29%
User-friendly	55	21%
Other	0	0%

In order to determine the perceived benefits of using the internet for academic purposes, the respondents were asked multiple pertinent response questions. Because the participants generally selected more than one response, no total figure or percentage is provided in this table. For example, table 2 shows that most learners indicated that the greatest benefit from using the internet was the reliability of information (139, or 34%); accuracy of information (134, or 33%); time-saving (76, or 19%); and user-friendliness (55, or 14%).

Table 3: Sufficient skills to use the internet

Skills	Frequency	Percentage
Yes	206	78%
No	58	22%
Total	264	100%

The respondents were asked to indicate if they considered their skills to be sufficient for browsing the internet. For example, table 3 shows that 206 (78%) of respondents saw themselves as being competent to browse the internet and 58 (22%) reported that they lacked the necessary skills.

Table 4: Problems encountered when surfing the internet

Problems	Frequency	Percentage
Cost of internet expenses	150	56.8%
Slow access speed/slow network	126	47.7%
Network signals	93	35.2%
Viruses	60	22.7%
Difficulty in locating info	24	9.1%
Inaccurate information	18	6.8%
Unreliability of sources	17	6.4%
Logging in	16	6.1%

Respondents were asked in a multiple response question to indicate which problems they faced in accessing the internet. As in table 2, because participants generally

selected more than one response, no total figure or percentage is provided for table 4. The findings showed that all 264 learners reported having encountered various problems. For example, table 4 shows that a majority of 150 (56.8%) had problems with the cost of internet usage; 126 (47.7%) learners experienced slow access speed; 93 (35.2%) respondents had problems with network signals; 60 (22.7%) had encountered virus problems; 24 (9.1%) had difficulties in locating information; 18 (6.8%) had problems with inaccurate information; 17 (6.4%) was confronted with unreliable sources; and 16 (6.1%) had problems with logging in.

Discussion of the Results

As previously mentioned, the internet has grown into a powerful means of unlimited access to information. As such, it has become an inseparable part of current education structures. Learners are depending more and more on the internet and its services for various education activities. The internet's services have enabled learners to enrich their academic performance by offering them access to current local and global information.

The results of this study show that the high school learners in the Makhuduthamaga Local Municipality are making extensive use of the internet, with 92% regularly going online. Previous studies, many of them discussed above, concur with the indications in the current study that the youth are becoming increasingly aware of ICTs and their uses. The study by Mayayise (2008, 66) at two different high schools in Gauteng Province found that out of 50 respondents who completed the questionnaires, 46% reported that they used the internet and spent 11 hours and longer per week using its services.

In a more recent study undertaken in Limpopo Province, Maphoto (2016) looked into the information needs and information-seeking behaviour of grade 10 and 11 learners at a rural secondary school. The study demonstrated that almost a third of the respondents (31.4%) preferred to use the internet as their source of information, followed by 25.8% of respondents who used the library. Respondents who preferred to use their teachers' notes and hand-outs made up 22.0% of the total, while subject textbooks were selected as their information source of choice by 17.6%. Only a small number, 3.1% of the respondents, preferred to use their friends or classmates as sources of information.

Mingaine (2013, 227) corroborates the above-mentioned results, noting the widespread awareness in Kenya that the use of the internet enhances learning in the classroom, improves the management of schools, and increases efficiency, accountability and effectiveness of activities. Learners who use the internet for their school activities perceive it as useful for personal growth and for learning. Not surprising then, that the participants in this study indicated strongly that they use the internet due to its reliability, accuracy, efficiency and user-friendliness

The study revealed that the majority, 206 (78%) of respondents, considered themselves to have the necessary skills to browse the internet, while 58 (22%) of the respondents

reported that they did not have sufficient skills. It should be noted here that self-evaluation of a skills level is not necessarily a precise indicator of the actual abilities of an individual, especially in a context where respondents may not be aware that their internet usage is not optimal. Spisak (2018, 27) cites a number of studies done in the United States and elsewhere, strongly suggesting that students frequently have an over-inflated conception of their own skills, especially in the field of ICTs, where society expects the younger generation to be all-knowing.

Nwokedi (2007) states that, while a lack of skills hinders the successful use of the internet, the acquisition of internet skills can lead to the discovery of valuable research and teaching resources which, in turn, can enhance research and learning capabilities. In other words, the ability and skills acquisition to access the internet optimally would stimulate a more productive use of the internet. As noted by Spisak (2018, 35), ICT skills need to be developed beyond being able to “work” a device, a computer or the internet. Rather, users need to be equipped with skills to locate, evaluate and make use of information as a knowledge source.

Problems Affecting the Use of the Internet

The current study reveals that the majority of respondents, at 150 (56.8%), had problems with the cost of the internet; 126 (4.7%) struggled with the slow access speed; 93 (35.2%) had problems with network signals; 60 (22.7%) encountered virus problems; 24 (9.1%) experienced difficulties in locating information; 18 (6.8%) were challenged by inaccurate information; 17 (6.4%) had come across unreliable sources; and 16 (6.1%) had difficulties logging onto the internet.

The current study mirrors the situations described in the study by Oyadonghan and Eke (2011) on students’ use of the internet in Nigeria. The findings of their study resemble those of the current study with regard to the problems encountered by respondents. For example, (80%) indicated that they had difficulties finding relevant information and mentioned the slow connection of their network to the internet. Other studies on internet use in Tanzania by Okello-Obura and Magara (2008), and by Luambano and Nawe (2004) indicated that they experienced similar problems.

In rural areas of South Africa, Hlalele (2014, 463) observed that many schools have little or no access to ICT tools for education and school management purposes. Even in cases where rural and marginalised high schools have received access to ICT facilities through donor agencies, these schools continue to struggle with integrating the ICTs into their pedagogical practices (Mathevula and Uwizeyimana 2014). Despite the fact that ICT facilities are incorporated into pedagogical practices and are critical for 21st century learning, many learners in South Africa still have no access to such facilities. Maringe, Masinire, and Nkambule (2015) note that these facilities are lacking or dysfunctional in many rural schools. Some schools have a shortage of infrastructure, while others struggle with basic services like electricity (Hlalele 2014, 464).

Elsewhere in the developing world, namely in India, Parameshwar and Patil (2009) found that learners experienced the same difficulties, for example, problems with downloading, accessing irrelevant information, and information overload. In the same vein, Thanuskodi and Ravi (2011) found, also in India, that the majority of internet users experienced the slow speed of downloading (66.4%); slow access speed (64.9%); lack of skills (46.2%) in using the internet; and the problematic sourcing of relevant information (44%).

Despite the rapid increase and implementation of internet services in basic, secondary and higher institutions in South Africa, Maphoto's (2016, 69) study located in Limpopo Province recorded continued challenges in knowledge-seeking. The findings indicated that 71.1% of the respondents encountered challenges in finding information on the internet; 23% respondents had no access to computers and the internet; 12.4% respondents' encountered problems in comprehending the English language; and 8.8% respondents indicated insufficient knowledge in using library resources. These problems occurred because both the high school and the community area have limited information resources as well as poor information-searching skills.

Conclusion and Recommendations

Based on the analysis conducted in the present study, it can be concluded that the Grade 11 selected high school learners make use of internet services because it is time saving and user friendly. The study has made clear the benefits of using the internet in education. Conversely, the learners indicated that they have sufficient skills to use the internet. This is evidently due to many of the learners having access to the internet in their homes via their smart phones. This is an indication that the use of the internet provides variety in the presentation of content, which assists learners in their concentration, as well as in developing a better understanding, and in enabling longer retention of information.

The article outlines the usage of internet by the selected high school learners. The gaps identified include: learners had insufficient abilities required to retrieve web information from the internet; not having well-grounded services for searching relevant information; the cost of internet usage; slow internet speed; inadequate network signals; virus problems; and information overload. These were noted as the major problems that were facing learners on internet use.

The study revealed that the various challenges encountered among the surveyed learners were an indication that the majority of the learners had only informally been exposed to internet use. It is, therefore, suggested that a study be conducted to identify the information and knowledge gaps of high school learners in regard to ICTs, culminating in a proposal of the necessary content to be covered in information literacy programmes designed for learners. Based on the results of this study the following recommendations are offered:

- It is recommended that the selected schools should constitute capacitation programmes and training on the use of the internet, in order to enable learners to search accurate learning resources on the internet.
- There is a need to create responsiveness amongst the high school learners on the significance of using the internet in sourcing learning resources.
- The government ought to encourage the use of the internet (given the current environmental conditions) particularly in schools, and teachers should give the learners projects and tasks that will force them to use web resources for explanations instead of depending on hard copy materials—to the detriment of the environment.
- Web information should complement classroom learning and widen the learners' knowledge content through browsing websites in advance preparations for their lessons.

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