

COMPUTER AND THE ENGLISH LANGUAGE PEDAGOGY IN NIGERIA: A DYSGRAPHIC THERAPY

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Abstract

This study examines the role of the *Word Processor*, *Blog* and the Automated Writing Evaluation (AWE) in the teaching of writing in English language. It also investigates methods and usages of blog and automated evaluation models for the establishment of the targeted goals of effective pedagogical framework in English Linguistics in Secondary Education in Nigeria. The study sample comprises fifty senior secondary School 2 and 3 (SSS 2 & SSS 3) students drawn from two private secondary schools and one government-owned secondary school, as well as ten English language senior secondary school teachers from Lagos State Metropolis. Two research instruments namely the Focused Learner's Evaluation Questionnaire (FLEQ) and Focused Teacher's Evaluation Questionnaire (FTEQ) were employed in the data collection. The study reveals that computer-mediated writing is as yet integrated into our school curricula. It further shows that while the students are willing to explore the mechanisms of interactivity the new media offers in their quest for literacy, the teachers might not be favourably disposed to these alternative technological models. The study recommends that computer literacy be made compulsory in the Nigerian school curricula in both primary and secondary schools, the socio-economic challenges notwithstanding.

Introduction

Perhaps, the most singular advancement of human beings in revolutionizing the world today is the introduction of the computer and its interfaces. It is scarce to find any sphere of human endeavour – avionics, astronomy, education, commerce, agriculture, communication, medicine, entertainment, and so on – that the device is not proving invaluable. Good computer appreciation is today regarded as a very significant element in literacy acquisition. Pedagogically and linguistically, the computer has emerged as an efficient and trustworthy collaborator in teaching language, especially English, either as a first language or as a second language. When properly used, the computer can play an important role in the teaching of writing, particularly in English. This has been so since the cognitive era that started in the 1980s which placed much prominence on word processing (Pennington, 1993), through the

1990s, the so-called socio-cognitive era, when the computer-mediated communication was accentuated as a vital tool of social composition of meaning (Kern and Warschauer, 2000). Much more than ever, new tools of computer, its accessories and interfaces, have come into being for the teaching and learning of writing.

The effect of modern technology is manifest in all spheres of our educational levels. Users and learners are continually recognizing that a computer-bugged learning environment is more result-oriented than the traditional learning scene (Soneye, 2010). However, how far the nail can be driven into the wood depends on the handler. Thus the use of the computer can be beneficial and at the same time detrimental to teaching and learning of writing (Chen and Cheng, 2008).

In recognition of the rising importance of information technology in the world, the Federal Government of Nigeria, in 1988 launched the National Policy on Computer literacy for secondary and tertiary institutions. The policy aimed at making the rising generation of learners in various academic levels to be aware of the multi-faceted usefulness of the computer in different human engagements (Bankole, 2003). In addition, a pilot study was undertaken between 1989 and 1990 in which about forty-five federal government colleges and fifteen secondary schools (Bankole, 2003) belonging to the Armed Forces Secondary Schools joined in the computer race programme. Many private secondary schools in Nigeria claim to be computer-learning compliant and some states boast of having converged or to have been at the final stage of integrating computer into their secondary school curricula (Fakeye, 2010). In this regard, Nigeria cannot be said to be totally behind in computer literacy. Recently, Professor Dibu Ojerinde, the Registrar of the Joint Admissions and Matriculation Board (JAMB) declared that candidates are to answer questions by e-testing in the 2013 Unified Tertiary and Matriculation Examination (UTME) (Vanguard online, 19 June, 2012). In the implementation, candidates are expected to answer questions on computers and instantly have their scripts automatically graded. This, he acknowledged, will happen because it is the ethos everywhere in the world.

Another aspect of the computer that has remained invaluable in the teaching of English, particularly writing, is the internet. This technology has revolutionized the way we interact and communicate with one another since the end of the last millennium. Its status as an independent emporium where information and knowledge is widely shared is ever increasing. Nigeria, like any other country on earth, is not totally lagging behind in this cyber space.

With the relative affordable cost of the personal computer (PC), a number of Nigerians in their homes and/or at their places of work are in possession of the

device; and many of these PCs are connected to the internet. As such, these 'net generation' (Oblinger and Oblinger, 2005) Nigerian children (and even the less preppy ones) are fast becoming 'digital natives' (Prensky, 2001), characterised by indelibly preposterous cyber-ethics. They are digital-cultured, associated and goal oriented, on the one hand, visual and experiential, on the other. While they are impatient and often cherish interactivity. They constitute what Baron and Maier (2005) aptly describe as 'kinaesthetic learners'. When one keenly observes pupils in the higher primary school and those in secondary school, one quickly notices how they take recourse to the net as a veritable source of the solution to their assignments and entertainment quest. They are always on the net via devices such as cellular phones, I-pads, I-phones, laptops, and so on. This engrossing interest in the internet really shape the way they learn. The digital world has a lot to offer to these cyber-indigenes in learning English language, especially writing, in primary and secondary schools.

Good writing skills are important in our world today, just as speech is. This is so, given that the written word has dominated the communication terrain, and efforts by the learners of English – either as adults or children – to evaluate how responsive their compositions are to their needs and aspirations, no doubt, can be very daunting. Therefore, anything that can remove the obstacle in writing, thereby making writing simple and interesting for them is welcome and should be encouraged. Thus, disparate or concerted use of the word processor, automatic writing evaluation and the weblog in teaching writing in our senior secondary schools will, indeed, assist the students in being in tune with the realities of writing.

The Word Processor (WP) and Learners' Composition

Even among expert writers, composition is a daunting task that requires full deployment of the cognitive elements and experience of the writer to successfully engage in proper evaluation and revision. These, evaluation and revision, according to studies, are essential components of the writing process, making writers focus on global aspects (contents) of the text, while the experienced ones concentrate on local problems (expression), such as grammar, syntax, and word choice (Hilyard, 1994). Purposeful revision and evaluation of the written words facilitate the interplay between content and expression in writing. Therefore, with its facilities for assessment and revision, the WP eliminates the limitations caused by excessive dedication and manual effort to write and rewrite. There is, in the findings of Hartley (1991), a correlation between good writing and meaningful levels of revision. Similarly, Cochrane-

Smith (1991) finds out that students make more revision when using the WP in writing.

Other compelling usefulness of the word processor often overlooked are spelling check, vocabulary prompting and sentence well-formedness. When using the WP, the onerous recourse to the dictionary every now and then to confirm the spelling of certain words is removed. The software will automatically underline (in corrugated red) concepts, terms or ideas that do not agree with the English spelling pattern. And further clicking/tapping will display to the writer possible a set of words (antonyms or synonyms) from which to choose to better convey the expression the writer wishes to make. Further, a clumsy or incoherent or ungrammatical sentence is underlined (in corrugated green), and a tap could provide suggestions to improve it. Writing is made simple in this regard to stir up the learner's latent cognitive capacity. When writing, or learning in general is onerous the learner is not motivated. Research has proven that:

...lack of knowledge of spelling and vocabulary reduces the amount of writing that is done, especially when mistakes are penalized. *Therefore*, a comfortable facility for ... writing ... makes the 'basics' both continual and effortless. (Smith, 1986: 172, emphasis added).

In other words, anything that "makes the act of writing easier makes learning to write easier" (Smith, 1986: 171).

It is important, however, to note that WP alone is not an open sesame to creative writing, because writing is a creative enterprise involving ideas, scheming, putting ideas down in writing and rewriting them. Some research findings have shown that the integration of the WP into instructional programmes positively influences the attribute of writing layout (Aumack, 1985 and Fisher, 1983). It also allows the teacher to better appreciate the learners' cognitive capacity and thinking process and thus manipulates his/her instruction functionally (Leeves, 2002).

The Weblog

Even though weblogs are not originally introduced for language education they could form a very useful tool in the teaching of writing in especially English as a Foreign Language (EFL) and English as Second Language (ESL) (Richardson, 2004a and Knobel, 2003). The blog is an enviable user-friendly tool for even the non-techie fellows to create their own websites. In addition to ease of use, it proffers numerous advantages to writing class. For example, Campbell

(2004) opines that blogs can facilitate exploration of English websites. This, the author argues further, will enable students have more avenues to read and comment via writing related articles/postings linked to their source weblogs. Again, since weblogs can be accessed from any computer linked to the internet, teachers can at anytime create or edit their teaching notes and homework for their students (Johnson, 2004). Further, with the automatic date-stamping function that enables the blog to display the month, day and year of postings, teachers and their students can know almost with precision when the latter turns in their finished works. Experts also point out that the weblogs can “empower students to become more analytical and critical” (Oravec, 2002:618). Though the author does not post statistical evidence to this claim, we are of the belief that learners will tend to post what in their understanding is a well edited work when they know that other people will view and publicly comment on their writing. Dieu (2004), Mitchell (2003) and Warschauer (2010) state in different contexts that the blog can be employed by teachers in organizing a collaborative learning landscape where learner peer-edit others’ postings. Students will be motivated to comment constructively on their colleagues’ postings. The submission of Richardson (2004) on the uses of blog in writing further enunciates the importance of blogging in facilitating critical thinking skills as well as writing skills in such a way that traditional education cannot.

4.0. AUTOMATIC WRITING EVALUATION (AWE)

The work of Page (1966) on grading essays by computers no doubt forms the pioneering study that gives birth to *automated essay grading systems*. With English as a global language, the need to write well in the language becomes more inevitable now than ever. In developing nations like Nigeria where it is common for an English teacher to be in control of more than 100 students at a time, evaluating repeated drafts upon drafts of their writings needs a great amount of time and skill. Online Automated Writing Evaluation (AWE) is created to mitigate this challenge. Also referred to as Automated Essay Scoring (AES), AWE’s acceptance among instructors is as increasing as the role of English across wider social, economic, cultural and political context increases (Warschauer, 2000), thus, intrinsically changing the paradigm that focused on reading prior to the second world war (Brown, 2001).

Two major components of AWE (Intellimetric and e-rater) evaluate students writings submitted online by comparing them semantically to online template known as *latent semantic analysis* in which a posting is compared to a corpus of textual information (Landauer et al., 2000 and Steinhardt, 2001). AWE programmes³ are equipped with a range of resources comprising “model essays,

scoring rubrics, graphic organizers, dictionaries, thesauri" (Warschauer and Ware, 2006:6) and "... spelling/grammar/usage checkers" (Warschauer, 2010:3). Progress reports for both teachers and students are also generated by AWE programmes highlighting areas in individual student's writing that may require further instructions.

However, care should be exercised when using AWE in correcting students' writing, as they can be easily inhibited in their writing spree if the programme primarily makes them focus on constructing correct sentences rather than expressing themselves. When properly managed, AWE can motivate students to write both guided and free essays. Since all the AWE programmes are not originally designed for use in EFL and ESL environment (Warschauer and Ware, 2006), the authors of this paper are of the opinion that AWE be used as a text editor with the aim of encouraging students compose draft to be graded by teachers. In other words, teachers' remarks should supersede that of AWE. This technique has two advantages: (1) instead of lending itself to free composition, AWE serves as a powerful tool for editing students' work for onward passage to their teachers for scoring, and (2) the burden of correcting students' mechanics by the teachers is reduced on the one hand and contextualization of students' writing in accordance to their background and experience is encouraged on the other hand.

5.0. RESEARCH QUESTIONS

This study addresses the following questions:

1. Will learners prefer to be taught writing via computer-based programme than the traditional class method?
2. Do teachers teach writing in English with computer?
3. To what extent do teachers of English language know that writing can be taught and made easier using the computer interface?
4. Will there be an improvement in the writing skills of senior secondary school students in Nigeria if computer-based programmes are employed in the classrooms?

5.1. THE AIM AND SCOPE OF THE RESEARCH

The development of the computer and new media has influenced almost every aspect of the educational system in Nigeria. Teachers, as well as students, are in computer illiteracy eradication race, with government and school authorities providing the necessary tracts. Thus computer and internet savvy among teachers and students is exponentially increasing. Therefore, how to harness this wealth of

computer knowledge (especially the knowledge of the word processor and the internet) in the teaching of writing in English is the problem this study seeks to address.

This study focuses on the teaching and learning of writing in English among Senior Secondary School 2 & 3 (SSII & SSIII) students in Lagos metropolis using word processor, weblog and automated writing evaluation.

6.0. FINDINGS

Table 1: Cumulative percentage response of Focused Learner Evaluation Question (FLEQ)

Q-Type	S/N	Focused question	Percentage response (%)			
YES/N Questions	1	Do you own a computer?	20%	70.2%	9.8%	
	2	Can you operate the computer?	60%	40%	Nil	
	3	Do you use computer to type your work?	0.3%	97%	2.7	
	4	Do you browse the internet?	68.7%	20%	11.3%	
	5	Do you go online for solution to your assignments?	29.6	70.2	0.2	
	6	Do you comment on postings linked to you?	0.7	96.7	1.5	
	7	Will you want to own a website?	89.3	10.6	0.1	
	8	Will you like to publish your writing on the internet?	78.2	20.4	0.4	
	9	Will you like your work to be viewed by others?	50.6	39.5	0.9	
Regularity Question	How often do you operate the computer?		Daily	*SDW	Weekend	
			9.7	30.5	59.8	
Question on Social Networks	A	Respondents on <i>e-mail</i> and <i>Facebook</i>	<i>E-mail</i>	<i>Facebook</i>	NL	Others
			20%	56%	nil	nil
Question on	B	Who would you want to comment on your work online?	Teachers	Colleagues		Anybody
			30%	69%	01%	

*SDW- Some Days in the Week

NL- Net Log

Fig.1

Cumulative Percentage Response to FLEQ

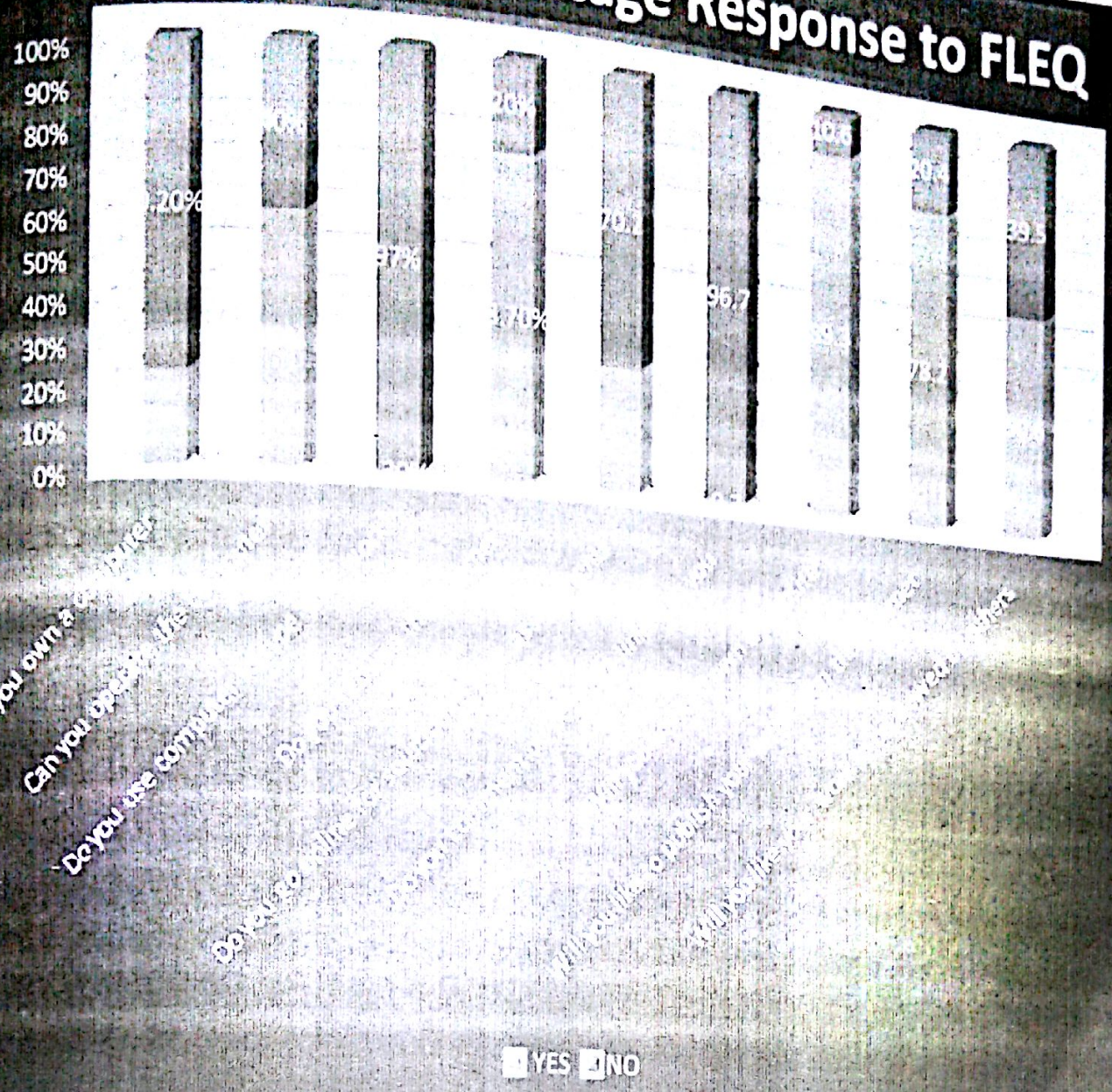


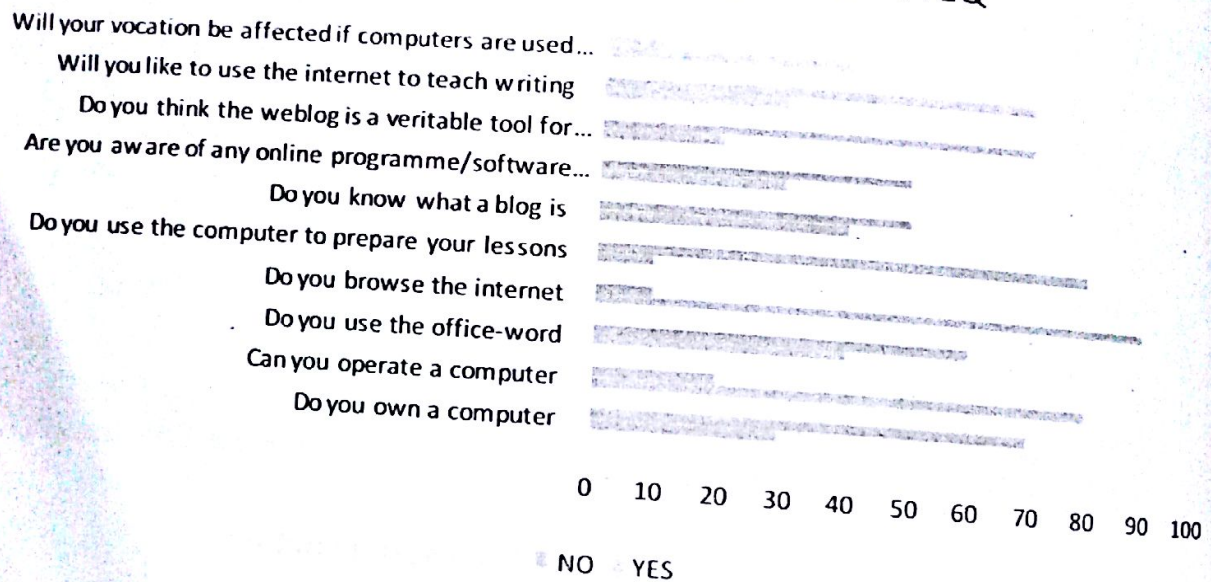
Table 2: cumulative percentage response of Focused Teacher Evaluation Question (FTEQ)

	Focused question	Percentage response (%)		
		YES	NO	Neutral
1	Do you own a computer	30	70	-
2	Can you operate a computer	80	20	-
3	Do you use the office-word	40	60	-
4	Do you browse the internet	90	10	-
5	Do you use the computer to prepare your lessons	10	80	10

6	Do you know what a blog is	40	50	10
7	Are you aware of any online programme/software that evaluates essays	30	50	20
8	Do you think the weblog is a veritable tool for teaching writing	20	70	10
9	Will you like to use the internet to teach writing	30	70	-
10	Will your vocation be affected if computers are used in classrooms for teaching English language	40	10	50

Fig. 2

Cumulative Percentage Response of FTEQ



6.1. DISCUSSION OF FINDINGS

Will learners prefer to be taught writing via computer-based programmes than the traditional class-media?

This question was designed to measure students' affect toward the use of computer in learning to write. Table 1 reveals students' preference for learning writing skills using the computer. About 89.3% of the students expressed desire to

own personal websites and 78.2% would want what they have written to be placed on the internet. Again, while 69% preferred their colleagues to comment on their works online than anyone else – including their teachers – 50% agreed their works be viewed by others online.

Do teachers teach writing in English with computers?

Responses in the FTEQ (Table 2; Fig 2) provide the answer to this question. Only 1 (10%) of the teachers prepared lessons via the computer. While 30% did not have the idea of the existence of any online programme that can evaluate or edit essays, 20% did not believe that the weblog is a veritable tool for the teaching of writing. Again, 30% would not like to use internet-based computer interface in teaching writing.

To what extent do teachers of English language know that writing can be taught and made easier using the computer interface?

Again, the responses in table 2 provide the answers to this question. Less than half (40%) of the teachers either did not use or did not know how to use the office-word. Eighty per cent did not prepare their lesson for teaching using the computer. While 50% did not know what a weblog is, the same figure was not aware of the existence of any programme that could evaluate essays online.

Will there be an improvement in the writing skills of senior secondary school students in Nigeria if computer-based programmes are employed in the classroom?

A simple illustration will answer the above question. Contained in Fig.1 below is a scanned copy of an essay given to one of the student subjects in the classroom. The student wrote without revision and proper editing, as such produced the script at the right hand side in fig.1.

My most remembered Journey.

I traveled from Akure to Lagos on August 29, 2011 to comeerate with my friend over the death of his father who died of a brief ailment. the journey was very rough and memorable. Everybody in the bus were not happy. It began with a flat tyre just ~~by~~

I traveled from Akure to Lagos on August 29, 2011 to comeerate with my friend over the death of his father who died of a brief ailment. the journey was very rough and memorable. Everybody in the bus were not happy. It began with a flat tyre just ...

After subjecting the content on a Word-processor, the image at the left hand side in fig. 1 was produced. When appropriate attention is paid to the underlined words, a better draft is bound to come out. This will not only assist the learner in the art of writing with speed and fluency, but it will also make the teacher's supervision easier.

7.0. CONCLUSION/RECOMMENDATION

There is currently an emergence of a form of socially composed multi-media communication in Nigeria. This should not be viewed as debasing writing, discriminating the essay, and playing vital role in devaluing the education standard of the country but should be exploited and channelled into developing the writing skills of secondary school students as an early remedy to dysgraphia. The following conclusions are, therefore, derivable from the study:

- a. The computer can indeed make secondary school students attain fluency in writing;
- b. Teachers are not comfortable with teaching writing with the computer and no matter how much they turn their back on computer, its expansion will remain exponential;
- c. Secondary school students are internet savvy, as such welcome any activity that launches them to the web;
- d. Teachers should be given orientation on computer and web-based collaborative writing.

Writing, especially in the English language is widely adjudged a gatekeeper for successful transition from secondary education to tertiary education. And computer literacy is beginning to serve as a battering ram in Nigeria (as it is elsewhere in the world) against economic and social barriers. Therefore, students in Nigerian secondary schools should be exposed to a lot of computer-mediated learning activities to improve their literacy skills and this would only happen if teachers themselves develop in this direction. To achieve this, computer education should be made compulsory and computer learning environment made conducive.

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