

Scientific Progress, Technology and the Population Explosion

Yousef O. Almarshad¹ and I.O. Hassan²

¹AlJouf University,
Faculty of Education,
Department of Curriculum and Teaching Methods,
Saudi Arabia

²University of Hail,
Faculty of Education,
Department of Curriculum and Teaching Methods,
Saudi Arabia

Copyright © 2014 ISSR Journals. This is an open access article distributed under the *Creative Commons Attribution License*, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT: Scientific progress, technology and the population explosion have led to the knowledge, accumulation, fast transferee of it and the increase of individual educational ambitions. This formed many pressures on the educational institutions to provide education with high efficiency for the increasing numbers of students with low possible costs. It has become for the educational process new prospects and fields that are because of the stunning challenges derived from the needs of the epoch and the development necessities, which target the education and its style. All these are for meeting its excessive increase in preparing the students and education demanders, which require educational institutions with specification that receives these huge numbers of students. Furthermore, the knowledge is in excessive increase where the available time in classes will not be able to absorb that increase. This increase requires using the technology in the educational process, especially in the English language.

KEYWORDS: Scientific Progress, Technology, Population Explosion.

1 INTRODUCTION

The educational technology is considered as one of the important pillars of developing the education because it supports and increases its efficiency. The perfect usage of educational technology requires a special kind of teachers who have the sufficient knowledge, skill and the capacity of the effective functional utilization of these technologies in the context of modern teaching systems, as well as using technology in teaching the English language. It makes this subject take a distinguished place among other subjects. The English language is considered to be an international language, and consequently the learning of it has become a necessity in the modern era wherein it interests are interlinking with each other. Moreover, the communication of people is increasing so that the learning of national language alone is not enough to address the development challenges at all levels.

The importance of learning the English language at secondary schools stage stems as it is from one of the subjects that qualify for admittance of university education. The question of the extent and the provision of educational technology and its role in teaching the English language in the secondary schools stage in Saudi Arabia, and about the extent of effectiveness and harmony with other elements which combine the educational functions was at the concern of the researcher, which made the feeling this problem went deep on him. So he gave it his concern and adopted it with research so as this study must reach to results for those who are concerned with the technology, may find it helpful to them in understanding the education and developing evaluation and development of educational technology, as well as the media used in teaching the English

language in the context of the work on and efforts exerted to enable the students to understand this subject which may help achieve the educational objectives.

The world pays great attention to the trends of teachers which is very essential in the educational process since it has great effects on the motivations of students towards the subject and consequently, on their performance. The preparation and training of the teacher is an ever-continuing process concerning the entire world, learning organizations and international institutions. There is increasing attention to improve the trends of teachers toward the process of education and its technology. This improvement is an essential target for those who work in this field. In addition, to the technical, economic, cultural and political education technology and different media or improving the output of education process, the world has become a small village. Due to the technology in the recent time that a normal person can move easily from one place to another virtually the English language is the medium of communication of people all over the world. It is the language of sciences, media, economy, and policy that is to say it is the dominant language and internationally agreed upon as a complimentary element of development of different fields. This unique position of the English language has drawn attention to acquire it, and students have been encouraged to acquire it so as to know what is going on all over the world.

To follow up this situation in Saudi Arabia, notice the decline of the standard of the English language and the obvious retardations of the students' standards at all stages. Many factors have critical contributions to these problems, which leads to the situation. Insufficient attention to using educational technology is one of those factors. Since the trends of teachers towards using educational technology is a central point to improve the ways of technology of the English language, the researcher has bound himself to work on this issue and that is through research and study as an essential step on the way to improving the situation of the English language as the secondary stage in the AlJouf Province.

As a matter of fact, we can say that the technology of learning is mainly connected to:

1. Human resources,
2. Teaching and technology, and
3. Materials as a whole printed.

2 METHODS AND MATERIALS

The suitable methodology for this study is the descriptive methodology. Sample One (1) includes 60 teachers of governmental secondary schools of English of the AlJouf Province who participated in the English language. This sample represented 60 of the total number of AlJouf Province teachers. Sample Two (2) includes thirty directors of the English language of the governmental secondary schools of the AlJouf Province.

The data of this study has been directed from the respondents of the two samples to a questionnaire and an interview.

2.1 THE QUESTIONNAIRE

The researcher has derived the questionnaire and consulted with the supervisor to change some topics according to his feedback. After that step, the questionnaire has been evaluated by the scholar specialized in education and curriculum development. According to their feedback, the researcher has changed the questionnaire by adding some topics and deleting some others. This leads to the validity of the questionnaire.

The reliability of the questionnaire has been calculated by a small sample of the questionnaire, and by using SPSS we find Alfa Cronbach according to the equation

$$a = \frac{K}{K - 1} \left(1 - \frac{\sum s^2}{S^2} \right) \text{ were } 5$$

is standard deviation (Lyle F. Bachman, 2004, p. 64), which reached 0.80 in higher percentage. According to the educational opinions, 60 copies of the questionnaire were distributed to the teachers who have been teaching the English language at AlJouf Province.

2.2 DISCUSSIONS

The first issue is the role of educational technology in teaching the English language at the secondary school level.

Table 1. This table shows the result to identify the opinions of the sample on the issue.

No	Clause	Mean	S.D.
1	It includes performance in the educational process in the secondary schools.	4.34	0.741
2	It assists in communicating information through a pleasing way to the students.	4.66	0.591
3	It provides solutions for class crowds.	4.06	1.056
4	It observes the individual differences among the students.	3.83	1.317
5	It provides live expertise for the students.	4.54	0.852
6	It induces the concern of students and renews their activities, contributions and satisfies their desires in education.	4.83	0.568
7	It contributes to reduction of failure rates of the students.	4.03	1.043
8	It reduces the time used in transferring information, skills, and expertise to the students.	4.71	0.458
9	It reduces explaining the naked terms by live media, which enables visual images in the learners' brains.	4.74	0.561
10	It assists in simplifying and explaining the information and thoughts.	4.69	0.530
11	It assists the students in performing the required skills with activity and desire.	4.46	0.886

This table indicates that the study community individuals agreed with a very high degree, on all clauses of this issue, which proves the significance of the educational technology in teaching the English language in the secondary schools because it:

1. Improves performance in the educational process in the secondary schools,
2. Assists in communicating information through an attractive way to the students,
3. Assists in providing live expertise to the students,
4. Stimulates actively the concerns and renews their activities and participation,
5. Minimizes the time used in transferring the information, skills and attractiveness to the students, and
6. Assists in simplifying and explaining the information and thought.

The second issue is the role of the educational technology in the academic learning of the English language at secondary schools.

Table 2. This table explains the results to identify the opinions of the sample on the issue.

No.	Clause	Mean	S.D.
1	Enhancing the relationship between the teacher and students, if it is used effectively and efficiently, may contribute to the increase of academic learning.	4.66	0.684
2	The teacher uses keenness in communicating in English with students during display of educational means will contribute to increasing students' academic learning.	4.63	0.547
3	Training of the teachers of the English language on operating and maintaining the educational technology will increase academic learning of the students.	4.60	0.604
4	It avails the teacher and students a chance to know the immediate results their work through feedback, which may contribute to the academic learning of the students.	4.69	0.530

Table 2 shows that of the study sample individuals agreed on all clauses of the issue with a very high degree that media in educational technology has a very big role in the increase of the academic learning of the English language. This comes through:

1. Enhancing the relationship between the teacher and the student if it is used efficiently, which may contribute to the increase of the academic learning,
2. The teacher's keenness in communicating in English with students while displaying the educational means which contribute to increasing their academic learning,
3. Training of the teachers of the English language on operating and increasing the educational technology will increase in academic learning of the students, and

4. It avails to the teacher and the student a chance to know the immediate results of his or her work through feedback, which may contribute to the academic learning for the students.

The third issue is the characteristics and conditions of the educational technology used in English language teaching at the secondary schools.

Table 3. This table represents the result to identify the opinions of the sample on the issue.

No.	Clause	Mean	S.D.
1	Of concern and attention for students.	4.69	0.867
2	In its preparation, designing and production psychological basis and general principles should be observed.	4.60	0.847
3	It should be in connection with the syllabus and checking its objectives.	4.83	0.453
4	Proportional with the time and effort required for its usage.	4.51	0.658
5	Proportional with the environment in which it is displayed from its tradition and its industrial resources.	4.26	1.010
6	It complies with the number of students in the class.	4.57	0.655
7	It is well designed for the sequence of thought, implements and transfers from one educational objective to another.	4.69	0.583
8	Within its design and production, the right content from the aspects of academic, technical and structure should be observed.	4.66	0.591
9	It must contain the elements of the motivation, attraction and stimulation of attention.	4.66	0.802
10	It must be creative and distant, away as much as possible from the traditional production.	4.57	
11	It must be made from the raw materials found in the local environment to minimize the cost.	4.46	

Table 3 confirms that the study sample individuals agreed on all clauses of this issue with a very high degree, where these individuals asserted that these characteristics and conditions, which the educational technology used, must enjoy English language teaching:

1. It may be of concern and attention for the students,
2. It should observe in its preparation, designing and production, physiological basis and general principles in connection with the syllabus and checking its objectives,
3. It should be proportional with the time and effort required for its usage,
4. It should be proportional with the environment in which it is displayed, in terms of its traditions and its industrial natural aspects,
5. It complies with the number of students in the class,
6. It should be well designed as for the sequence of thoughts, elements and transfer from one educational objective to another,
7. It should be observed within its design and production, the right content from the academic, technical and structural aspects,
8. It must contain the elements of the motivation, attraction and stimulation of attention,
9. It must be creative and distant away as much as possible from the traditional production, and
10. It must be made from the raw materials found in the local environment to minimize the cost.

The fourth issue is the role and contribution of the teacher in the academic learning of the students at the secondary schools using educational technology.

Table 4. This table introduces the result to identify the opinions of the sample on the issue.

No.	Clause	Mean	S.D.
1	The English language teacher using educational technology shall contribute in the increase of the academic learning of the students.	4.54	0.74
2	The English language teacher's keenness in monthly tests upgrades the academic learning levels.	4.54	0.70
3	The understanding of the English language teacher may assist in the performance of the students.	4.66	0.684
4	The teach burden weight may affect directly on the performance of the teacher and hence on the academic learning level of the students.	4.63	0.770

The above table confirms that the study sample individuals agreed on all clauses of this issue with a very high degree, which media that the role and contribution of the teacher in the students academic learning of the English language at the secondary schools through using educational technology. This role is represented in:

1. English language teacher using educational technology shall contribute to the increase of the academic learning of the students,
2. The English language teacher's keenness in monthly testing upgrades the academic learning levels of the students,
3. The accurate follow-up and correction of the English language teacher may rise in the performance of the students,
4. Appreciation of the teacher of the English language may improve the performance of the students, and
5. The heavy teaching burden may directly affect the performance of the teacher and hence the academic learning level of the students.

The fifth issue is the difficulties and problems, which face the teacher of the English language at the secondary schools in the AlJouf Province by using educational technology in teaching the material.

Table 5. This table expresses the result in identifying the opinions of the sample on the issue.

No.	Clause	Mean	S.D.
1	Discouragement of the school management to the teachers of the English language in using educational technology.	4.20	1.08
2	Non-existence of the material used in producing educational technology.	4.20	1.02
3	Carelessness of the school management in the participation of the teachers in the training courses in the field of using educational technology.	4.26	1.172
4	Non-existence of the specialized technical staff in producing operating and maintaining educational technology.	4.06	1.282
5	The increase of teaching burden in the timetable of the teacher may constitute constraint in using educational technology.	4.34	1.027

Table 5 explains that the study sample individuals agreed on all clauses of this issue with a high degree on all the problems indicated in this issue, with which media that these problems can be represented in:

1. Discouragement of the school management to the teachers of the English language to use educational technology,
2. Carelessness of the school management in the participation of teachers in the training courses in the field of using educational technology,
3. Non-existence of the material used in producing educational technology,
4. Non-existence of specialized technical staff in producing, operating and maintaining educational technology, and
5. The increase of the teaching burden in the timetable of the teacher may constitute constraint in using educational technology.

3 CONCLUSION AND RECOMMENDATIONS

In light of the objectives of this study, as well as the issues presented in this study and discussion and through the analysis of the information stated in the previous chapter, it is obvious that there was a severe lack of concern about the educational technology and their use in the teaching process, as one of the assisting elements that makes the educational process a

success. Therefore, to avoid these shortcomings, it would be better to reconsider and intensify the educational effort to investigate the importance and necessity of the use of the educational technology by the teachers, as they were considered to be active factors in increasing the academic learning of the student.

3.1 CONCLUSIONS

1. The secondary schools in the AlJouf Province are lacking in educational technology and consequently there was no physical training for the teachers of the English language in using the educational technology in these schools.
2. The Ministry of Education was not keen enough to direct the teachers of the English language at the secondary schools to use the educational technology in teaching this subject.
3. In spite of the directives stipulated in the National Comprehensive Strategy of Education to use the educational technology, lack of funds, however, constituted a major obstacle in implementing these directives and, at the same time, transforming them into a tangible reality.
4. Heavy teaching burdens related to the teachers besides the critical economic situation they are experiencing left its negative impact on their concerns of the educational technology in the teaching process.
5. No appropriate school environment was established, e.g. provision of instrument and teaching aids, as well as building spacious theaters.

3.2 RECOMMENDATIONS

From the previous chapters of this study and the results that have been reached, the researcher is recommending the following:

1. The competent bodies should give more concern to the importance and necessity of using the educational technology,
2. The study also recommends the establishment of specialized theaters in English language at the secondary schools in the province, and
3. The researcher recommends the importance of recruiting specialized technical cadres in the field of producing, operating and maintaining the educational technology at the secondary schools.

REFERENCES

- [1] Arthur, G. (1972). Kennedy: A history of English language.
- [2] Bachman, L. F. (2004). Statistical analyses for language assessment. Cambridge: University Press.
- [3] Helmut, G., & Schwartz, H. (1972). A history of English syntax (New York).
- [4] Weliver, P. W. (1968). Television instruction and the attainment of objective for ninth grade physical science course. *Journal of Research in Science Teaching*.
- [5] Wood-David, J. (1999). Aspects of video moved English teaching. Japan.