

## **Exploiting ICT to Improve Professional Development for Secondary School Teachers in Algeria via e-Learning**

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### **Abstract**

The real potential of Information and Communication Technology (ICT) changes learners to become autonomous in their learning process. Its importance lies in the fact that people are finding that e-learning makes a remarkable change in teaching or learning: quick mastery of a skill, easy studying and enjoyable learning. Besides, it can contribute to policy-making in education: to raising standards, improving quality, removing barriers to learning and participation in learning, preparing for employment and ultimately ensuring that every learner achieves their full potentials. Since teacher's development is critical, this article explains why e-learning is a crucial factor in teacher's development and outlines how both ICT and e-learning can help English secondary school teachers' professional development in Algeria through the creation of an effective e-learning web-site.

Keywords: ICT, e-learning, teacher development

### **Abstrak**

Potensi sebenar Teknologi Maklumat dan Komunikasi (ICT) menjadikan pelajar berautonomi dalam proses pembelajaran mereka. Kepentingannya berdasarkan hakikat bahawa ramai yang mendapati e-pembelajaran memberi perubahan luar biasa dalam pengajaran atau pembelajaran: penguasaan cepat terhadap sesuatu kemahiran, mudah dipelajari dan pembelajaran yang menyeronokkan. Selain itu, ia boleh menyumbang kepada penggubalan dasar dalam pendidikan: menaikkan piawaian, memperbaiki mutu, menyingkirkan halangan terhadap pembelajaran dan penyertaan dalam pembelajaran, menyediakan pekerjaan dan akhirnya memastikan setiap pelajar mencapai potensi mereka sepenuhnya. Memandangkan kemajuan guru adalah kritikal, artikel ini menerangkan mengapa e-pembelajaran menjadi faktor penting dalam kemajuan guru dan turut menggariskan bagaimana ICT dan e-pembelajaran dapat membantu memajukan kerjaya guru bahasa Inggeris sekolah menengah di Algeria melalui penciptaan laman web e-pembelajaran yang berkesan.

Kata kunci: ICT, e-pembelajaran, kemajuan guru

## **Introduction**

Today's world is knowledge-based; it totally depends on exchanging information rapidly. Countries equipped with the technology and knowledge to participate in the new electronic world is major players in its socio-cultural and economic developments.

Within our society, which has now become known as the knowledge society, education is changing too. With the advent of new technologies and the internet, it is now possible to reach people who would otherwise have no access to certain courses or educational opportunities.

Nowadays, technology's ability and relevance can support the teaching of languages. ICT can play a major part in face-to-face language teaching, offering new ways of solving old problems. They bring also benefits on learner interaction and motivation. This is a type of technology supported education/learning where the medium of instruction is through computer technology, and particularly involving digital technologies.

In its World Education Forum, convened in Dakar, Senegal, the UNESCO emphasised that teachers should essentially achieve the goals of "Education for All". Nowadays, the world's education is confronted by:

1. The potential growth in knowledge and technology that is changing all aspects of global society and economy.
2. The increasing shortage of teachers in both developing and developed nations.

Since many nations are challenging to update knowledge and skills of the existing teaching force, teachers are asked to learn new content, pedagogies, and technology tools for learning. However, the lack of resources and the limited time to attend workshops because of their classroom responsibilities do not help to meet the career-long professional needs of teachers.

The World Education Forum held in Dakar, Senegal (UNESCO, 2002) stressed the important role that distance learning and information and communication technologies may play in teacher development. E-learning thus, represents an important resource for teacher development. E-learning

can provide teachers with access to resources, courses, tools, training programmes, online communities, and opportunities to collaborate with other educators around the world (Kante, 2002). The e-learning has recently become one of the fastest growing components of the high technology sector, and had a significant impact on higher education (Shoniregun and Gray, 2003). Currently, most developed nation schools have developed Web access inside classrooms. That is why it is important for policy makers to consider the potential value of e-learning in preparing and updating teachers' skills to help prepare students with the skills needed to be successfully integrated in the 21st century information society.

Recently in most institutions of higher learning, e-learning has been used to define a specific mode to attend courses or programmes of study where the students attend the traditional face-to-face classes and for on-campus access to educational facilities. Different curriculums and syllabi are also transmitted in this way.

Second-language acquisition and intercultural learning can be greatly facilitated through e-learning. Elementary, high school and university class partnerships can be encouraged, and language learners can tap into linguistic and cultural resources that cannot be found locally, over the information network.

At present, e-learning itself is becoming an important global business not only in the commercial sector, but also in the support that national governments are giving to educational institutions to increase their export income (Lea and Kathy, 2002). There is a drive for change brought on by technological innovation to which governments and institutions of higher learning are responding at a rapid pace.

In addition, information technology has enabled global communication in even the most remote locations, and much of this communication takes place in English. The use of a common language creates a sense of community amongst people who use it. Those who are learning English as a second or foreign language form a learning community because they have a common goal.

As far as Algeria is concerned, English is regarded as a foreign language in Algeria. The teaching of English (as a foreign language) in Algeria is

inspired by the national policy that sees its interests in the language that enjoys the importance of being:

1. A language that enjoys a great instrumentality nowadays.
2. A window on the other cultures and civilisations.
3. A language that widens the learners' horizons and teaches many great values.

Whatever the cause may be, English is actually taught in Algerian middle and secondary schools, and most Algerian universities. The main objective of the work is the development of an e-learning web-site for English language teachers in secondary schools in Algeria in order to provide opportunities for secondary school teachers for better professional development.

### ***The Globalisation of English***

Estimates show that between 800,000,000 and 1,500,000,000 people world-wide understand English. Approximately 350,000,000 people use English as their mother tongue. About 400 million use English as a second language. Another 150 million people use English with some degree of competence. Furthermore, it is an official language in more than 60 countries (Crystal, 1992). With such a large number of people using English, it is not surprising that English has become the lingua franca of the modern world.

Nowadays, English is being recognised as both international and world language. It is widely spoken either as a second or foreign language. The importance of English is stated by Kitao as follows:

*English is the major language of news and information in the world. It is the language of business and government even in some countries where it is a minority language. It is the language of maritime communication and international air traffic control, and it is used even for internal air traffic control in countries where it is not a native language. American popular culture primarily movies and music carries the English language throughout the world (1996: 1).*

In the current state of affairs, the global dominance of English in commerce, science, and technology has created the need for an ever

increasing number of people to learn to communicate in the English language. There is a market demand for English courses on a global scale, and the English language teaching industry is thriving.

At this time of globalisation, everyone is supposed to know how to use English. The dominance of English serves to facilitate globalisation, which as a concept, refers to the “crystallisation” of the entire world (Arnason, 1990). In situations where English dominates, non-English speaking people are inevitably disadvantaged. They become in a sense, deaf and mute and cannot fully participate in communication. In contrast, speakers of English are in a position to control communication to their own advantage, while those who cannot speak English fluently may be seen as incompetent or even inferior. Although this linguistic discrimination and social inequality cannot be ignored, reality dictates the use of one language over another in international communications.

In addition, the global spread of the English language is further facilitated by American media products of mass communication such as videos, music, news, magazines, TV programmes and others. The dominance of English on the internet reinforces the flow of international information in English, and affirms the structure of global communication. English is the most widely used and taught language in the world, and it is accepted easily almost anywhere. Thus, English has secured its position as the international language of communication. As such, the teaching of English as a second or foreign language is incorporated in a country's primary and secondary school curricula.

### ***Information and Communication Technology (ICT)***

ICT is often associated with high-tech devices such as computers and softwares, but in fact ICT also encompasses more conventional technologies such as radio, television and telephone. The term ICT refers to a form of technology that is used to transmit, store, create, share or exchange information. This broad definition of ICT comprises technologies such as radio, television, DVD, telephone (both fixed and mobile), satellite system, computer and network hardware and software; as well as the equipment and services associated with these technologies, such as video conferencing and electronic mail (Tinio, 2002).

ICT is defined, for the purpose of this primer, as a “diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information.” This technology includes computers, the internet, broadcasting technologies (radio and television), and telephony.

### ***Why e-Learning for Teacher Development?***

E-learning can be defined as the delivery of a learning, training or education program by electronic means involving the use of a computer or electronic device (e.g. a mobile phone) in some ways to provide training, educational or learning material (Stockley, 2003).

E-learning is emerging as a solution for delivering online, hybrid and synchronous learning regardless of physical location, time of day or choice of digital reception/distribution device. It involves a greater variety of equipments than only online training or education, for as the name implies, “online” involves using the internet or an intranet. CD-ROM and DVD can also be used to provide learning materials.

E-learning gives everyone who needs to learn a new skill, prepare for a new job or pursue a new career, the opportunity to complete training, get a certificate, or earn a degree without moving or leaving current employment. E-learning extends the reach of campuses and corporate learning centers, and it provides learners with more ways in which to participate in education, training, and professional development, on terms increasingly defined by learners themselves, than ever before.

E-learning has many qualities that make it beneficial for teacher development including:

**Anytime:** Future or in-service teachers can access learning resources, courses, online communities, or training programmes at any time that is convenient for them, whether early morning, late night or on weekends.

**Anyplace:** Learners can communicate with others and access resources, instructions and expertise anywhere as long as there is a computer with internet access.

**Collaboration and Networked Communities:** E-learning provides new opportunities for educators to work and conduct research together, or to share problems, innovations and lesson plans.

**Pedagogical Approaches:** E-learning may act as a catalyst to transform the traditional paradigm of teaching and learning. Blending e-learning with face-to-face instruction may create a richer and more interactive learning environment (Resta et al., 2005).

The e-learning comprises two dimensions that can be shown in the following table.

**Table 1** The two dimensions of e-learning

Content	
Non organised	Resources found on the web
Co-constructed	Creating new resources
Communication	
Enriched	Using the web for communication
Professional	Using the internet beyond communication

Within these aforementioned dimensions, there emerge four categories of e-learning which can be described as (Paul, 2005):

1. **Getting access to information:** Various resources are available on the Web. Lots of educational resources and millions of books are digitized and made available online.
2. **Taking part in courses online:** There has been exponential growth in the offering of online courses and degree programmes by higher education institutions. Nowadays, there are 60,000 courses listed on Web. There is increased global exchange of virtual courses and programmes amongst universities.

There has also been rapid growth in online teacher education courses and degree programmes to address educational development needs of rural, isolated communities. The Web has the potential to provide

professional development opportunities for existing teachers and to be an important resource in the preparation of new teachers.

3. **Using blended learning:** This basically means using the Web with regular classroom-based learning. In a blended learning environment, participants use online resources and tools and also meet face-to-face on campus as members. Types of blended learning activities include:
  - (a) Integration of web-based resources and tools in one's teaching
  - (b) Production of web pages for one's classroom
  - (c) Use of online follow-on forums, discussions and collaborative activities
4. **Creating network communities:** This involves the development of virtual communities of practice and knowledge-building communities amongst teacher educators and pre-service and in-service teachers. The new online environments and tools for collaboration enable teachers to work together to solve problems and share knowledge, expertise, and materials. They may also work online to co-construct knowledge, content, learning materials and resources. It often serves as an effective means of supporting teachers and other experts in developing local culturally and linguistically relevant content (Resta, 2005).

Some countries in the world have been successful in using ICT and integrating e-learning as a part of professional teacher development. History shows us some successful experiences in integrating e-learning for teacher PD.

The first example to be cited in this context is Namibia. The country appears to be ahead of its African counterparts in terms of its ICT use in instruction and teacher education. In June 2005, Namibia launched its official "ICT in Education Policy." This policy plan represents an attempt to create a formal vision and framework for ICT in education and teacher professional development (Burns, 2006).

With the foundation for ICT in education, Namibia has recognised the need to help primary and secondary school teachers. Much of ICT – related professional developments have been carried out through NIED; SchoolNet, which provides computer training to its users; two USAID-



funded and AED administered projects – “LearnLink” and its successor the “Initiative for Namibian Educational Technology (iNET)”, and perhaps most successfully – though ICT was not at all the focus of TPD efforts – the USAID-funded Basic Education Support 2 programme (Burns, 2006).

As a consequence to this strategy, ICT integration into schools and education in Namibia has helped teachers to rely on new technologies as:

1. **A delivery system:** Since the 1990s, NIED has provided ongoing professional development in content, curriculum and learner-centred instruction, employing a standardised training model and cascade approach. Some of these have been delivered through online and distance learning.
2. **An information management and analysis tool:** From 1995–2005, the Basic Education Support II program helped to increase teacher, teacher educator and school leader capacity in Namibia’s poorest northern regions. Inspectors observed teachers’ classrooms, recording their observations in spreadsheets. Spreadsheets were automated so that numeric data could be displayed in a visual format for teachers to help them assess their instructional practice. In some instances inspectors videotaped teachers’ lessons and teachers and inspectors together analysed teachers’ instructional practice (Burns, 2006).

Accordingly, the Namibian ICT’s strategy has given the following results:

- (a) Sixty five percent of the teachers participating in project interventions showed improved performance in the use of learner-centered teaching strategies.
- (b) Fifty three percent of the teachers demonstrated more effective use of continuous assessment techniques.
- (c) Eighty three percent of the participating schools are implementing activities from their collaboratively developed School Development Plans.
- (d) One hundred percent of the Circuit Support Teams in the target regions demonstrated improved capacity to support teachers, principals and parents in school improvement.

- (e) Eighty two percent of the participating schools regularly hold site based teacher workgroup sessions to improve instructional practice (Burns, 2006).

Teacher development is clearly required to prepare teachers with e-learning skills to equip students with the kinds of critical skills necessary if they, as members of the work force, are to contribute meaningfully in their country's future development. All teachers need to be familiar with e-learning and competent in the use of ICT to assist in this development, and in order to be comfortable in these roles, teachers need to experience online learning as part of their ongoing professional development (White, 2003).

Whatever stage of development in the use of learning technologies that teachers around the world have reached, there are new ways of storing and manipulating data and information that will influence individual intellectual development. White (2003) explained that teachers and lecturers used data and information as basic building blocks to assist learners to develop conceptual knowledge. As a result, engaging with technology can enable teachers and lecturers to store, view, manipulate and present information in many new ways.

Therefore, e-learning for teacher development nowadays plays a key role if national education goals for education are to be achieved, thereby changing schools from predominantly teaching institutions to learning institutions. Many educators describe these changes as nothing less than a transformation of education (Semenov, 2005).

### ***Can Algeria Implement an e-Learning Strategy for English Teachers' Professional Development?***

#### *ICT policies in Algeria*

The Algerian government has mandated the Ministry of Post and IT to implement and manage the national ICT policy (Hamdy, 2007). At the same time the government has also initiated collaboration with a number of international agencies to enhance the ICT status in the country. In 2002, the World Bank also co-operated with the ministry to develop and implement projects for the creation of the enabling environment and improving access

to ICT while making it affordable for all. The following table provides a snapshot of the national ICT infrastructure in Algeria.

**Table 2** The national ICT infrastructure in Algeria

Indicator	
Telephone – main lines in use	2.572 million (2005)
Telephones – mobile cellular	13.661 million (2005)
Radio broadcast stations	AM 25; FM 1; shortwave 8 (1999)
Television broadcast stations	46 (plus 216 repeaters) (1995)
Internet users	1.92 million (2005)

The level of ICT integration is still ongoing and at an early stage. The programme aiming at providing access to ICT through the Computer for Every Home initiative was launched in 2003. Some forms of media, such as radio and television, have achieved high penetration rates. Mobile phones are commonplace and the number of internet users is increasing rapidly due to the number of internet cafés, shops, and access centres that are available – particularly in urban areas. In 2000, a regulatory law was passed where the old public institution in charge of national telecommunication was split into two commercial organisations and two operators emerged: Algeria Poste and Algeria Telecom.

The law also created an independent regulatory authority of posts and telecommunication. Currently, there are three operators:

1. Algerie Telecom (mobile and fixed lines).
2. Orascom (Djzzy and Lacom for fixed lines).
3. Alwatanya (Nedjma and internet access with mobile phones).

To facilitate the entry of Algeria into the information society, the following national ICT initiatives have been designed:

1. Project of the Ministry of Education to equip all schools with computers by 2005.
2. Distance education project.
3. Virtual university project.
4. Research network to be put in place by the Ministry of Higher Education and Scientific Research.

5. Health network developed and maintained by the National Health Development Agency (ANDS).
6. Djaweb internet platform (Hamdy, 2007).

Through their use of internet, Algerians discovered the fragility of the systems which hinder them from keeping pace with the developments of the digital age. This is exactly what made the “distance educational system” remain confined to its traditional scope (printed lessons sent to the participants by regular mail). Unfortunately, the possibility of online registration in this type of education was not announced until 2009.

This proves that the ambition to achieve a practical step in the field of e-learning remains unreachable, even though many categories of Algerian society desperately need to benefit from learning opportunities that may be offered by virtual schools, if any, especially housewives, workers, employees, residents of remote areas and those who could not pursue their education, due to social, political or economic reasons.

The e-learning space that Algerians can benefit from online is a reflection of the “the general educational scene” in our country, which is described as being miserable. This strongly affects our internal, political, economic and cultural situation, and further deepens our negative cultural stand and our isolation in terms of knowledge and history. Algeria has already launched an e-learning system in 2006 in collaboration with both Thomson and Microsoft corporations. This section service provides 4.000 courses and lectures basically designed to teach ICTs and communication skills.

Designing and implementing successful teacher professional development programmes in the application of technology is neither easy nor inexpensive. There are more cases of inadequate and ineffective training programmes than there are success stories. Moreover, success stories are not automatically transferable to other situations, and the total body of experience and knowledge in this field is in its infancy.

Experience around the world in developing, industrialised and information-based countries has shown that teacher training in the use and application of technology is the key determining factor for improved student performance. Educational technology is not, and never will be, transformative on its own – it requires teachers who can integrate

technology into the curriculum and use it to improve student learning. In other words, computers cannot replace teachers – teachers are the key to whether technology is used appropriately and effectively.

Key to successful teacher professional development programmes is a modular structure, corresponding to different levels of teacher experience and expertise using technology. Adapting materials to teachers' comfort level and starting points is essential. In this way, teachers new to technology can be exposed to the full series of professional development modules, whilst those further along on the learning curve can enter where their knowledge and skills stop, and help their less technology-savvy colleagues along.

For the aforementioned reasons, exploiting e-learning is a necessity for better teacher professional development in Algeria. The e-learning strategy should be basically developed by Algerian universities and financed by the ministry of higher education.

Algeria has become aware of the importance of English language in the world. Teaching English in Algeria has improved, but it still requires efforts. It is not efficient and teachers generally have no academic background. EFL teachers in Algeria suffer from the problem of guidance: no one can guide them. They need effective training so as to learn EFL methods and approaches. So, ongoing professional teacher training together with advanced language learning can be the key solution to better EFL teaching. Although some training schools specialising in preparing EFL teachers were opened, there is a lack of authentic material that help teachers which help them transmit English culture to those who are supposed to teach English.

In this context, we believe that EFL teachers in secondary schools in Algeria lack feedback from various institutions and academy. To help English teachers in Algerian secondary schools, an e-learning web-based project is needed to give them the necessary feedback and help in their professional development.

### ***Towards an English Teachers' Professional Development Through e-Learning?***

When designing or implementing any teacher professional development program for technology, it is important to situate that program within the context of a theoretical framework for adult learning. As mentioned above, an e-learning strategy or web-site for secondary school English teachers for their professional development is needed nowadays. It should be a web portal or a gateway that provides different services as part of the e-learning strategy assisting the delivery of university teaching and learning strategy by promoting e-learning as a pedagogically driven initiative to enhance professional development of teachers.

The web-based professional development should have a simple interface and not be overloaded by too many information. It should be of easy access to subscribers. For e-learning to be an effective teacher development tool, it is essential that teacher trainers, teacher educators, and faculty who teach general education courses are themselves skilled in and model the use of e-learning in their own teaching practices. They must be able to integrate online resources into their courses, demonstrate ways the internet may be used to provide or enrich learning opportunities, and help build online communities of practice. Teacher educators and trainers must also model culturally relevant pedagogical strategies that are based on the growing body of knowledge about how people learn. Mentor and supervising teachers must also be skilled in the use of e-learning so that they can model its use to enhance the learning of their students. The contents should focus on the following items:

1. **Scheduled courses:** The courses should be currently issued and listed according to different subjects which, in return, should be listed alphabetically. The courses should also be daily updated.
2. **Content standards and curriculum resources:** The Web can be a powerful tool for teacher educators, teachers and others to develop and share content that meets the cultural, linguistic and educational needs of their nation's educational system. Much of the educational content currently on the Web is in English and reflects a Western European cultural perspective. An essential condition for the effective use of e-learning is that there must be access to high quality,

culturally relevant content. Effective internet resources must be identified and strategic matches made with the prescribed curricula. There are many examples of online collaboration to develop and share culturally relevant content and learning resources. "SchoolNet Africa", for example, provides space for teachers to post their artifacts. The "Four Directions Project" in North America used Web-based technologies in the schools of indigenous communities to develop curriculum resources that reflected the language, culture and resident knowledge of the community (Resta, Christal and Roy, 2004). Thus, teacher educators, acting as the board of directing the e-learning web-site, must be knowledgeable in the content and standards of their discipline so that they can help pre-service teachers use e-learning in powerful and meaningful ways in the context of teaching the curriculum.

3. **Oriented tasks:** As with most things in life, the quality of study is more important than the quantity, so that task-oriented study is achieved more than time-oriented study. Task-oriented study means setting clear tasks and prioritising work to accomplish certain selected tasks in the time available. It also means focusing on the completion of particular tasks as a measure of success.
4. **Workshops:** A workshop is a series of educational and work sessions. Small groups of people meet together over a short period of time to concentrate on a defined area of concern. The workshop model of teaching uses curriculum, individually paced work, student constructed meaning, processes, risk taking, portfolio/performance assessment, self assessment, and individualised learning and evaluation. In the web-based professional development, workshops should be related to courses, daily news and topics posted on the website.
5. **Forum:** The simplistic definition of a forum is a place where people have the ability to start communication and reply to other people's threads. A member of the community in the forum posts a message, which is visible to everyone in that community. Once read, there is the option to post a reply, which can also be visible to the community. Thus, a discussion can build up without all users having to be online at the same time.

6. In the web-based portal, this section should be reserved to be a meeting between subscribers, mainly teachers and tutors in the e-learning gateway in which they discuss pedagogical problems and educational issues.
7. **Questions and answers:** In this section, subscribers should be provided with the ability of asking questions related to educational issues. The tutors should answer instantly – advising, orienting and directing teachers online.
8. **White papers:** A white paper is an authoritative report or guide that helps solve a problem. In e-learning project, white papers are used to educate teachers and help them make decisions. Typically, a white paper explains the results, conclusions or construction resulting from some organised committee or research collaboration or design and development effort. In this section, teachers should have access to different articles or reports published differently. These should give more information and details that help teachers with pedagogical issues, methods, approaches or activities to be implemented in class.
9. **Virtual library:** A learning community is viewed in terms of social network rather than spatial location, and the strength of community is in the strength of relationships regardless of the geographic distance between members. According to Wenger:

Viewed as an experience of identity, learning entails both a process and a place. It entails a process of transforming knowledge as well as a context in which to define an identity of participation. As a consequence, to support learning is not only to support the process of acquiring knowledge, but also to offer a place where new ways of knowing can be realised in the form of such an identity... The transformative practice of a learning community offers an ideal context for developing new understandings because the community sustains change as part of an identity of participation (Wenger, 1998).

The Virtual Library contains links to a wealth of worldwide electronic information resources, from many different sources, on topics dealing with education, social and human sciences, culture and communication. This website facilitates virtual access to library resources without being physically present in any library or information resource centre.



The Virtual Library offers over 1,000 web-site links to bibliographic, full-text and statistical databases in specific subjects related to various aspects of education, social and economic issues, gender, population, social, science, culture, health and related areas. It also contains links to libraries and archives; full text electronic journals and periodicals; internet references; and reference materials such as atlases, encyclopedias, dictionaries and maps.

10. **Audio-visual aids:** It is the section in the web-based portal where teachers should have the ability to download audio books, lectures, manuals and instructions. It is possible that teachers should get access to tutorial videos which can help them.
  
11. **Evaluation and assessment:** The successful implementation of e-learning for teacher development requires continual assessment and evaluation of all aspects of the implementation. The ongoing assessment will provide data:
  - (a) on the effects of e-learning on teaching and learning outcomes;
  - (b) needed to enable policy-makers, ministries of education staff, university administrators, teacher training agencies, schools and others to monitor progress towards the achievement of the vision and goals for e-learning in teacher development;
  - (c) to identify problems or difficulties encountered so that they can be quickly addressed to reduce their impact on the implementation process.

The form of assessment used will depend on the criteria selected to determine program success. As far as our based project, the evaluation should be based on multiple choice questions. Multiple choice exams in the web-based project should focus on the courses, workshops and tasks done, discussions, questions and answers, and visual aids. On the other hand, answers should be provided automatically and instantly.

### **Recommendations**

Failure to incorporate the above 10 criterias of interactive learning into teacher professional development programmes in the use and integration of technology, will cripple the potential of technology to improve teaching

and learning. This implies that teacher professional development in the use of technology should embody and model the forms of pedagogy that teachers can use in their classrooms. The proposed web-based e-learning project should accomplish the following:

1. Empower teachers to develop their knowledge and skills actively and experientially, in a variety of learning environments, both individual and collaborative.
2. Include a variety of learning strategies, encompassing direct instruction, deduction, discussion, drill and practice, induction and sharing.
3. Provide an authentic learning environment so that teachers engage in concrete tasks within realistic scenarios.
4. Emphasise ways that technology can facilitate and enhance teachers' professional lives.
5. Encourage teachers to be mentors, tutors and guides for the students' learning process.
6. Develop teachers' skills in learning how to learn.
7. Promote cooperative and collaborative learning.
8. Enable learning independent of time and place.

### **Conclusion**

This article is a presentation of a future web-based project in e-learning to help the professional development of English secondary school teachers in Algeria. Our analysis has revealed that the said web-site can be an innovative way of implementing e-learning strategy for teacher professional development. We hope through the creation and launching of the e-learning web-based project, success will be achieved in getting teachers better integrated in ICTs and e-learning to seek a high professional development. They will also develop a knowledge base around ICT effective use and effective practices through e-learning.

E-learning can address this issue. It can provide materials in a single medium or multiple media and in different formats to meet different learners' preferences in learning styles, needs and abilities. It offers learning opportunities to people anywhere the technology can reach, at any time, and usually at a reasonable cost. E-learning in the 21st century can be a realisable goal for anyone anywhere.

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