

How has pedagogy changed in a digital age?

ICT supported learning: dialogic forums in project work

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Abstracts

English

Education in the twenty-first century is underpinned by theories of inclusion and practices of open and distance learning (Aldrich, 2003; Richards, 2004). New concerns are replacing the traditional views on the impossibility of integrating pedagogy and technology (Barab *et al.*, 2004; Roblyer *et al.*, 2000). Supporting learning in the digital age looks at devising innovative methods to utilize ICT in education for maximalist inclusion of learners accompanied by a reformed pedagogy that frames quality in the learning activity by raising the interest and involvement of the student in dialogic learner centred approaches. (Salmon, 2002; Sandholtz *et al.*, 2002).

The role of ICT in the learning process has been overwhelmingly complementary and limited (Barab *et al.*, 2000; Cope *et al.*, 2000). ICT skills are either taught in vacuum without establishing relevance to learners' contexts or as add-on activities instructed by the teacher in the classroom (Cuban, 2001, Thomas *et al.*, 2002). Laurillard (2002), Loveless *et al.* (2001), Gee (2003) and Kimber (2003) provide skeptical evaluation of the employment of ICT in education and point out that despite its wider aim at inclusion, the pedagogy associated with the practice reflected the transmission model that alienated the learner and did not bring about the desired engagement.

A pilot study was conducted at AOU – Lebanon, experimenting with senior students embarking on project work in two English language courses E300 and E303. Project themes were selected by the students from the macro categories proposed in the curriculum, in relation to the learners' contexts, professions and interests. ICT supported dialogic models of conferencing were utilized where theme based forums required exchanging information and receiving peer feedback. Student groups were involved in developing their specific forums and folders containing project resources, web quests, theory, frameworks, methodology, surveys, workshops, data and glossaries. Forums were accessed for monitoring by the tutor at identified intervals to conform to project calendar of events and tasks. The summary presentations of the groups reflected the commitment of the learners to interactive ICT supported learning in project work and the authentic involvement in research topics of relevance to their contexts. Tutorials reviewing learners' practices and reflection modes revealed holistic tackling of the projects and improved standards of learning brought about by the integration of technology in pedagogy.

Kress (2003) and Jonassen (2000) argue that effective multimodal literacy learning needs to be grounded in everyday practices and contexts of the learners. Instead of instructional pedagogy involving ICT supported learning ICT integration requires new models that ground processes and cycles in the context of the learners and their experiences in a practice-reflection duality in the learning process, committing the learner to a dialogical, applied and enquiry-based project in the pursuit of learning excellence (Richards, 2001 and 2003).

Reformed pedagogy need to promote engaging learners in interesting and authentic contexts framed in project-based ICT supported modules integrating pretexts for learning across the curriculum. Web forums and conferencing as well as internet resources and e-mails are utilized to support integrated applied learning and exploration in realizing active learning in the digital age.

Arabic

طغت على عملية التعلم في القرن الواحد والعشرين نظريات تتعلق بتمركز المتعلم ضمن عملية التعليم خاصة في برامج التعليم المفتوح والتعلم عن بعد (الدرنتيش' 2003، ريتشارد، 2004) كما بدأت بالتبلور إهتمامات جديدة غيرت المفاهيم التقليدية حول استحالة دمج نظريات التعلم مع التقنيات الحديثة (باراب، 2004، روبليز، 2000).

إن دعم التعلم في العصر الرقمي يتطلع إلى استحداث طرق مبتكرة لإستخدام تكنولوجيا المعلومات والاتصالات في مجال التعليم يقوم على نظريات وممارسات جديدة تهدف إلى زيادة الإهتمام والمشاركة من الطلاب من خلال تمركز المتعلم في حوارية النهج ضمن اصلاح تربوي شامل للتعلم والأساليب.

وتشير الدراسات (ساندهولتز، 2002، سالمون 2002) إلى أن دور تكنولوجيا المعلومات والاتصالات في عملية التعلم لا يزال محصوراً إما كمهارة منفصلة مجردة من الصلة لواقع المواضيع المطروحة في التعليم، وإما كمكمل بشكل ثانوي لنشاطات وتعليمات المعلم في الصف.

أما لوريارد (2002) وجي (2003) وكيمير (2003) وآخرون فدراساتهم تشير إلى تشكيلك في إمكانية توظيف تكنولوجيا المعلومات والاتصالات في خدمة عملية التعلم حيث أنه بالرغم من تحديد هدف إدراج أكبر عدد ممكن من المتعلمين في طرق التدريس المرتبطة بالممارسة من خلال دمج لوسائط التعلم المدعومة بالتكنولوجيا الحديثة، عكست النتائج نفور المتعلم وعدم التوصل إلى النتائج المرجوة.

الدراسة الموضوعية راندة حول تجارب مع طلاب منخرطين في مشاريع أبحاث ميدانية ترمز بديم اختيار موضوع المشاريع من قبل E300 و E303 الطلاب بحسب الإهتمامات والمهن والمصالح من مخزون محدد بسياقات المناهج الدراسية. تستعمل تكنولوجيا المعلومات والاتصالات لدعم نماذج حوارية للمؤتمرات وضعت موضع الإستخدام للطلاب المعنيين حيث يتم عرض مواضيع معنية على المحافل تتطلب تبادل المعلومات والملاحظات بين طلاب المحفل الواحد. ويهتم الطلاب بتطوير الملفات في المحفل المعني بموارد ومصادر خاصة بالمشروع من المناهي المنهجية والأطر والنظريات والدراسات الإستقصائية وحلقات العمل والبيانات والمعاجم. وتخضع المحافل للرصد من قبل المشرف الأكاديمي في فترات محددة لمتابعة وتحديد أوجه الأحداث وتماسيها مع الجدول الزمني المحدد للمشاريع

تعمكس النتائج التزام الطلاب بمشاركة حقيقية في المواضيع البحثية بسبب التفاعل الناتج عن استعمال تكنولوجيا المعلومات والاتصال في دعم عملية التعلم. كما تعكس حلقات التعلم الصفي تغيير إيجابي في الممارسات والتفكير ناتج عن تحسن مستويات التعلم الناتجة عن دمج وسائط التكنولوجيا في عملية التعلم.

يدعو كريس (2003) و يوناس (2000) إلى اعتماد وسائط متعددة في عملية التعلم تترجم إلى ممارسات يومية وتحديداً بسياقات تهم المتعلم وتأتي من واقع بيئته. فبدلاً من أنماط التعلم المرتكزة على دور المعلم من خلال التعليمات والإرشادات المباشرة، تعزز التكنولوجيا ممارسات تعتمد الحوار وأشراك المتعلم في سياقات مثيرة للإهتمام وأصيلة في إطار المشاريع القائمة ضمن المناهج الدراسية.

إن اعتماد الوسائط المتعددة في دعم عملية التعلم تستطيع توسيع أهداف الإصلاح التربوي وأشراك المتعلمين في أوجه أكثر، تتيحها الوسائل التكنولوجية الحديثة، إضافة إلى موارد الإنترنت والبريد الإلكتروني واستعمالها، لدعم متكامل يطبق التعلم والإستكشاف لتحقيق التعلم النشط في العصر الرقمي.

Keywords

theories of inclusion, pretexts for learning, transmission model, instructional pedagogy, interactive ICT supported learning, learner centred approaches, multimodal literacy learning, dialogic practice-reflection duality.

Topics

integrating pedagogy and technology, utilizing ICT in education, maximalist inclusion of learners, reformed pedagogy.

Biography

Hayat Al-Khatib is Associate Professor at the Arab Open University – Lebanon. She received the degree of PhD from the University of London in 2002. She is member of the British Association of Applied Linguists (BAAL) and the Association of Professors of English and Translation at Arab Universities (APETAU).

Hayat Al-Khatib is active in regional and international conferences, with an interest in linguistics, sociolinguistics, language teaching and education (Britain, Spain, Belgium, Athens, Cuba and Australia). In addition to teaching and research, Hayat Al-Khatib has published works in a number of national and international refereed journals as well as conference proceedings. She is currently Head of the English programme at Arab Open University – Lebanon, editor at the Linguistics Journal Editorial Board (BAAL) and chair for the UK-based AOU courses U210A and U210B.

Introduction

The role of ICT in the learning process has been overwhelmingly complementary and limited (Barab *et al.*, 2000; Cope *et al.*, 2000). ICT skills are either taught in vacuum without establishing relevance to learners' contexts or as add-on activities instructed by the teacher in the classroom (Cuban, 2001, Thomas *et al.*, 2002). ICT resources and tools in the internet, multimedia and related technologies are acknowledged by learners and tutors as offering wider arena of supported learning. Additional resources, explanation and glossary are available at the touch of a button and through various web links. Accessing information is utilized by the students as the celebrated method of integrating ICT in teaching and learning, however it remains constrained by the tutor's instruction.

A more critical evaluation of the application, however, probes deeper into the pedagogy associated with such integration and underlines concerns that ICT supported learning was not able to fulfil wider pedagogic aspirations of transforming the teaching and learning process to an active path charted by the learner. Laurillard (2002), Loveless *et al.* (2001), Gee (2003) and Kimber (2003) provide skeptical evaluation of the employment of ICT in education and point out that despite its wider aim at inclusion and innovation, the pedagogy associated with the practice remain constrained by the transmission model associated with instructional approaches that alienated the learner and did not bring about the desired engagement. ICT supported learning, specifically in third world and developing countries remain at best applied in similar ways to the traditional print resources and bound to the transmission of instruction and guided learning. Cuban (2001) documents that ICT supported programmes and possibilities intimidate rather than encourage educators and that the involved ICT practices are at best complementary utilized as "add-on" exercises in the classroom.

The context of the study

The context of the study is the Arab Open University in Lebanon. The open system is relatively new, pioneered in the west by the United Kingdom Open University (UKOU). It is a totally new experience in the Arab world pioneered by the Arab Open University (AOU).

Traditional methods of education have been greatly influenced by what was known as the transmission model of education (Freire, 1985). The transmission model has as its basic tenet *narration* where teaching takes place through direct instruction. The teacher transmits through narration/instruction concepts and ideas. The teachers' role is to "fill" the minds of the students with the content of their narration. The students' role, in the transmission model, is to accumulate, memorize and reproduce mechanically the narrated content. Education becomes an act of depositing knowledge and learning becomes a passive process where learners receive, memorize and repeat given information instead of getting involved in the learning process (Shor, 1987). In the traditional system there is a dichotomy between the learners and the learning process (Goody, 1968). Learners are receivers of knowledge whose minds await instruction without which they are assumed empty. Such views position the learners outside the learning process; as outsiders with no prior knowledge who need to be integrated into the system. The system is there to assess their ability to reproduce what has been instructed. In such a context there is no place for creativity, analysis or critical thinking. Students are there to be taught and knowledge is transmitted to be acquired and reproduced. There is no active role for the learners. They simply digest what is given and reproduce it when assessed.

In the context of the open system, "open" means having no confining barriers, facilitating, accessible, responsive, and as outlined in the Open University mission, "open as to people, places, methods and ideas" (Atkins *et al.*, 2002). The need for an open system of education in the modern world materialized out of the problems and stresses of modern life, coupled with shortage in facilitative institutions of higher education that can be responsive to the needs of the less privileged sectors of modern societies, e.g. working people, women, etc. To facilitate stretching out to the maximum number of learner the Arab Open University utilizes ICT support in communicating information to separate geographical regions.

Theoretical framework

Education in the twenty-first century is underpinned by theories of inclusion and practices of open and distance learning (Aldrich, 2003; Richards, 2004). New concerns are replacing the traditional views on the impossibility of integrating pedagogy and technology (Barab *et al.*, 2004; Roblyer *et al.*, 2000). Supporting learning in the digital age looks at devising innovative methods to utilize ICT in education for maximalist inclusion of learners accompanied by a reformed pedagogy that frames quality in the learning activity by raising the interest and involvement of the student in dialogic learner centred approaches. (Salmon, 2002; Sandholtz *et al.*, 2002).

New perceptions and queries relate to a reformed approach to teaching and learning that looks at the role and degree of involvement of the learners in the learning process. The aim is to reorient the learners to remain within and not outside learning and look at innovative ways to raise the interest of the learner

through grounding learning in the context of the learner.

The present study traces the outcome of integrating ICT supported learning in the open system through a collaborative model that has the objectives of promoting independent learning. The case study follows forty students majoring in English as they work on research projects in a British-based programme. Participants are senior students embarking on project work in two English language senior courses E300 and E303. Project themes were selected by the students from the macro categories proposed in the curriculum, in relation to the learners' contexts, professions and interests.

Methodology

Forty senior projects were thematically categorized into eight groups of five participants each. Two or more participants in any one group may conform, in project selection, to one of the categorized themes. The themes are as in Table 1:

Table 1. Themes

Group A	Theme : ESL problems and practices
Topics	<ul style="list-style-type: none"> ○ Learning English through songs in the pre-school ○ Communicative methodologies in ESL cycle one (6-8yrs) ○ ESL errors in writing in cycle two Speaking and writing problems in ESL cycle three (12-13yrs) ○ Comparative study of grammar competence in English of Senior students at two Lebanese Universities
Group B	Theme : English for students with special needs
Topics	<ul style="list-style-type: none"> ○ Sociolinguistic perspective on learning difficulties: a case study of a five year old ○ Language problems of a dyslexic learner ○ Language teaching and autistic learners: a case study ○ Problems that face students with special learning needs ○ Difficulties in writing English in deaf and blind learners in cycle two: a case study
Group C	Theme : Language in advertisement
Topics	<ul style="list-style-type: none"> ○ Selling vanity products ○ Language use in telemarketing ○ Buying the "Manager's Choice" ○ Buying death : cigarette advertisement
Group D	Theme : Language in political rhetoric
Topics	<ul style="list-style-type: none"> ○ Comparative analysis of Obama and Luther King's speeches: the Black experience ○ Authenticating realities: selling ideology (Lebanese elections) ○ Comparative analysis of Gondolissa Rice and Magaret Thatcher's rhetoric: gender in stateman's talk ○ Political Slogans: opting for a date in March (Lebanese Elections)
Group E	Theme : Language and identity
Topics	<ul style="list-style-type: none"> ○ Ethnocentrism in Pocahontas: Systemic Functional Perspective ○ Presenting the self in chat rooms ○ Identity issues in youth conversations: a case study at Verdun Dunes (Beirut City Centre)
Group F	Theme : Phatic communion
Topics	<ul style="list-style-type: none"> ○ Ladies' talk in a beauty saloon ○ Gender characteristics of ladies' talk in a gym
Group G	Theme : ESL teaching methods
Topics	<ul style="list-style-type: none"> ○ Getting things done in ESL cycle one : teacher's talk ○ Strategies of using language in class instruction ○ Touching people's lives in a positive way: ethnographic applications in the classroom
Group H	Theme : Language and business

Topics	<ul style="list-style-type: none"> ○ Business English: The role of modal forms in economic forecast ○ A case study of governor Riad Salameh's speech (Central Bank of Lebanon)
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Discussion

E300 and E303 are level 3 courses in the English language and literature programme offered at the Arab Open University. The materials are developed by UKOU. Students access course information and support material from AOU Learning Management System (LMS) through Arab Campus E-learning ACES. The system displays general information related to AOU news, student guide, information on courses, tutorials, enrolment, payment, calendar of events, etc. The system also has menu for free online books, journals and articles.

Course coordinators have editing privileges on their respective courses to upload and update material, including course calendar, assignments and tutorial outline. Students log in using personal accounts to download material, e-mail their tutor or colleagues, or upload assignments. The university offers on-campus facilities in a number of computer labs and Learning Resource Centre (LRC) to access and use LMS.

LMS administrators list routine access averaging one time per week for E300 and E303 students to download tutorial outline before every tutorial. Students use the system also to upload their assignments twice per semester. On all accounts ICT support is utilized on the basis of teacher instruction to execute directives in course management or receive information and not at personal initiative. ICT is utilized in transmitting tutorial context to learners without much engaging them except through the process of uploading their assignment work.

Integrating ICT in project work

ICT supported dialogic models of conferencing were institutionalized where theme based forums were activated for each group. These required exchanging information and receiving peer feedback. Student groups were involved in developing their specific forums and folders containing project resources, web quests, theory, frameworks, methodology, surveys, workshops, data and glossaries. Groups constructed a number of interactive folders on different theoretical background, resource links, methodological frameworks, presentation techniques, etc. The total number of access times for the groups as monitored during the study period is as follows

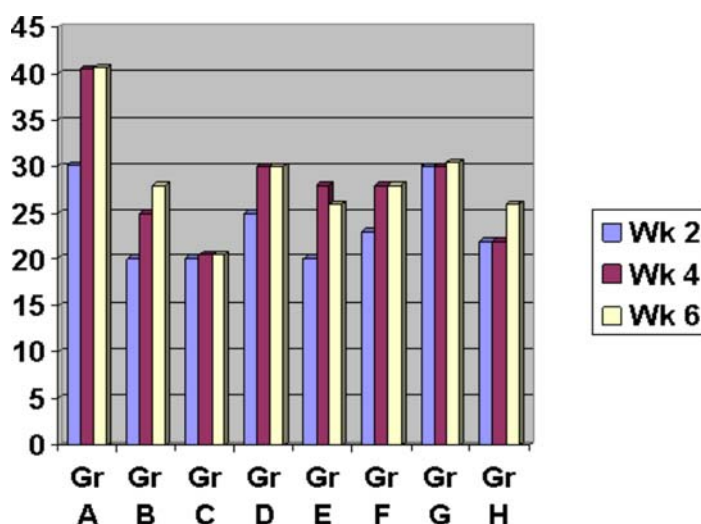


Figure 1. Number of entries in the specified week

Findings

Access has at least increased by four folds at any one interval, as compared with the once per week instructed entry monitored earlier. Any one group, of five participants, has at least scored 20 total entries at any one monitored interval. Moreover, these entries were based on the learner's initiative and not on any tutor based instruction. ICT supported learning in the study promoted personal motivation for active learning. Kress (2003) and Jonassen (2000) argue that effective multimodal literacy learning needs to be grounded in everyday practices and contexts of the learners. Learners were involved in defining their role in the learning process, taking initiative, suggesting and planning the course of their research project, designing its component parts, and ultimately owning their learning. Participants actively engaged in the exchange of information, suggesting web links, resources, analytic frameworks and ways of collecting, categorizing and presenting data. Participants also engaged in reviewing peer's work and providing helping notes, suggestions and comments.

Forums were accessed for monitoring by the tutor at identified intervals to conform to project calendar of events and tasks and trace group progress and involvement. The summary presentations of the groups reflected the commitment of the learners to interactive ICT supported learning in project work and the authentic involvement in research topics of relevance to their contexts.

Instead of instructional pedagogy involving ICT supported learning ICT integration requires new models that ground processes and cycles in the context of the learners and their experiences in a practice-reflection duality in the learning process, committing the learner to a dialogical applied enquiry-based project in the pursuit of learning excellence (Richards, 2001 and 2003).

Tutorials reviewing learners' practices and reflection modes revealed holistic tackling of the projects and improved standards of learning brought about by the integration of technology in pedagogy.

Evaluation and recommendation

Integrating ICT in education does not need to curtail the offered potential and possibilities to limited extension of traditional resources chained to the instruction-based teacher directed application.

The full potential of ICT support should be explored in learner-centred strategies to shift pedagogic orientation to cater more for the role of the learner in the learning process, taking advantage of the resources and tools made available in the digital age.

Reformed pedagogy need to promote engaging learners in interesting and authentic contexts framed in project-based ICT supported modules integrating pretexts for learning across the curriculum. Web forums and conferencing as well as internet resources and e-mails are utilized to support integrated applied learning and exploration in realizing active learning in the digital age.

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