

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

ScienceDirect

Procedia - Social and Behavioral Sciences 200 (2015) 3 – 10

---

---

**Procedia**  
Social and Behavioral Sciences

---

---

THE XXVI ANNUAL INTERNATIONAL ACADEMIC CONFERENCE, LANGUAGE AND  
CULTURE, 27–30 October 2015

## Socio-Cognitive Aspects in Teaching Foreign Language Discourse to University Students

Svetlana K. Gural<sup>a,\*</sup>, Elena M. Shulgina<sup>a</sup>

<sup>a</sup>Tomsk State University, 36, Lenin Ave., Tomsk, 634050, Russia

---

### Abstract

The relevance of searching for effective means to teach foreign language discourse to university students is emphasized. The question of how to organize metacognitive processes during students' independent activity during their work with information in the course of teaching foreign language discourse by means of a WebQuest technology is also considered.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of National Research Tomsk State University.

*Keywords:* metacognition; WebQuest technology; operated independent activity; metacognitive experience; teaching foreign language discourse

---

### 1. Introduction

The educational environment long ago entered the era of globalization and has modernized in the light of changes occurring in the world. The idea of global education becomes an integral attribute today: education for international understanding, education for development, multicultural education, education in the global context, etc. (A. P. Liferov, Ya. M. Kolker, E. S. Ustinova, and others). The new prospects and development of education based on the most important principles of methodology of modern scientific thinking are also reflected in language education, especially in foreign language discourse. At the present stage this idea assumes awareness in such global challenges and threats as environmental problems, intercultural conflicts, transnational terrorism and crime, inequality and poverty, human rights, the economic development of developing countries, and, of course, it is reflected in foreign language discourse. It is possible that analysis and judgment of the content of global language education and its functions as realized in the conditions of real student teaching in the context of a certain culture will promote not

---

\* Corresponding author. Tel.: +7-913-800-5760; fax: +7-382-252-9742.

E-mail address: [gural.svetlana@mail.ru](mailto:gural.svetlana@mail.ru)

only understanding of its future directions, but also provide continuity and preservation of the essence of language as a universal value in the conditions of globalization through foreign language discourse.

It should be noted that both in Russia and abroad a large body of theoretical linguistic research has accumulated, including an inclination toward synergy (V. I. Arshinov, V. N. Bazylev, I. A. Herman, S. K. Gural, J. S. Dobronravova, L. P. Kiyaschenko, E. N. Knyazev A. V. Kravchenko, G. G. Molchanov, A. P. Ogurtsov, V. A. Pishchalnikova, E. V. Ponomarenko, J. Eychison, G. Bamford, T. Lynch, W. R. Maturana, V. H. Varelam, G. Haken, et al.), but without being applied to teaching foreign languages. A major contribution to the study of this problem has been made by both Russian and foreign researchers working in the field of foreign language discourse (V. G. Budanov, L. M. Bondareva, T. G. Dobrosklonskaya, V. I. Karasik, E. N. Knyazev, S. P. Kurdyumov, A. A. Koblekov, A. A. Krushanov, E. S. Kubryakova, R. P. Millrood, G. G. Molchanov, A. P. Ogurtsov, I. Chernikov, J. Eychison, D. Brown, T. A. van Dijk, G. Cook, D. Crystal, M. McCarthy, R. Carter, W. R. Maturana, F. Varela, P. Serio).

## 2. Methodology and analysis

However, despite existing research on the one hand, teaching students foreign discourse, and on the other hand the use of web quest technology in learning different kinds of speech activity and aspects of foreign language discourse, it should be noted that there still have been no attempts to unite these two issues and to develop a technique of teaching foreign language discourse to university students by means of web quest technology.

One of the methods for the successful formation of foreign language discourse in students, allowing them to acquire professional knowledge and develop relevant skills in the field of professional communication, is the project method (E. S. Polat, V. Safonova, W. H. Kilpatrick, M. Knoll, J. Oelken). In recent years, its implementation is increasingly associated with the use of modern information and communication technologies (ICT), including educational Internet resources and, in particular, the technology of WebQuest (P.V. Sysoyev, J. Abbit, J. Ophus, M. Barahona, G. Dudeney, N. Hockly, J.A. Farreny, B. Dodge, T. March).

T. March, one of the founders of this technology, considers WebQuest in the context of cognitive psychology that allows us to understand it not only in terms of the technological side, but also from the perspective of the interaction "student - information." In confirmation of this we shall cite the researcher: "The WebQuest is the educational structure constructed as support which uses references to necessary resources in the World Network and an authentic task for motivation of students to investigate a problem with an ambiguous solution, as well as to develop their abilities in independent activity, which promotes transformation of the received information to more considered understanding" (March, 2000).

With the development of WebQuest, the designers of the technology B. Dodge and T. March gave structure to the resource and included the following obligatory sections: 1) Introduction: a formulation of the subject or name of the project, and a description of its significance and value in the study of current topics; 2) Task: the purpose of the project, conditions of completion, a problem and ways for its optimal solution, the end result (a reporting form); 3) Process: a step-by-step description of the process of work, distribution of duties of each participant or each mini-group with the corresponding list of references; 4) Resources: the list of the references chosen in advance by the teacher to fulfill the purpose of the project; there also may be issues for each link created by the Tutor, depending on the type of WebQuest; 5) Reaching consensus / Evaluation: criteria for the job (the description of criteria and parameters for the assessment of a WebQuest). The evaluation criteria depend on the type of learning tasks that can be solved in a WebQuest. 6) Conclusion: summarizing, presentation and defense of the project.

The "Resources" section is aimed at the students' independent information-finding activities while working with Internet resources, in which they study the problem thoroughly before attempting to solve it. One advantage of the technology is that working with WebQuest allows you to shift the emphasis to independent activities of students, which are comprehensively controlled thanks to the technology's format. Therefore, one of the main objectives of the organization of the learning process in teaching foreign language discourse using WebQuest is the formation, development and improvement of metacognitive skills among students.

Most scholars describe the lack of direct involvement of the teacher as the main feature in the independent work of students. For example, Ros and Martens suggest ways of organizing the independent work of students as a part of classroom work (van Loon, Ros, and Martens, 2012). However, according to Pidkastyi the main sign of

independent work is that the goal of activity developed at the same time contains in itself the function of management of this activity (Gural, 2009). We share the point of view according to which the independent educational activities should focus on the development of skills in leading this effort on the part of the learner. Development of foreign language discourse presupposes diverse independent student activities, including work on both the cognitive and communicative personality, as any communication process involves an individual approach to the process of individual communication, subject matter, etc. Consequently, a large role in the success of these activities is assigned to processes of metacognition.

In order to define the role of metacognitive processes in independent learning we shall consider the term “metacognition” since independent learning is based on metacognitive processes when working with information. Researchers are unanimous in their definitions of “metacognition”. All authors argue that metacognitive processes mainly serve to regulate and control cognitive activity. Of great importance is the fact that metacognition is associated with solving problems rather than with the result. First of all, it is associated with cognition in its ability to perform a certain task and select means for achieving a goal.

It should be noted that metacognition is high order thinking that involves the function of control over self-cognitive processes that determine its high level. It can be defined as thinking about thinking (Pidkasisty, 1998). The term “metacognition” – the ability to analyze your own thinking strategies and *manage your cognitive activity* – was introduced by John Flavell, a historian of genetic epistemology, in 1976. He strengthened the role of metacognition for observing and regulating cognitive processes, achieving goals and distinguishing such cognitive processes as checking, planning, selecting, and inferring, and so on (Flavell, 1976). J. Wilson identifies three components of metacognition: metacognitive awareness – knowledge of a subject of individual learning strategies; metacognitive evaluation – a judgment made regarding one’s thinking capacities and limitations, their demand in a particular situation; metacognitive regulation is manifested in an individual’s ability to modify his/her thinking (Wilson, 1999). Kluwe identifies two types of metacognitive processes: control and regulation. The former helps to identify the task which a person works on, and check and evaluate the progress and predict the result of the progress. The latter helps to distribute resources for problem solving, define the steps to be taken to solve a problem and determine work intensity required for problem solving (Kluwe, 1987).

Thus, a metacognitive experience is a conscious observation of mental experience accompanying any successful or unsuccessful situations in learning or other cognitive activities. Metacognitive experience requires of a person significant conscious activity, reflection, for example, in situations requiring preliminary planning and risk and responsibility. In such a case, reflection is a synonym for introspection. Ann L. Brown divided metacognition into two broad categories: knowledge about cognition: a set of activities involving conscious reflection on cognitive actions and abilities; regulation of cognition: a set of activities requiring self-regulation mechanisms for learning and problem solving. According to Brown, these two forms of metacognition are closely related and recursively feed each other; however, they can be divided within the analysis. Knowledge of cognition corresponds to stable, determined, often false and recently acquired information about what people think about their cognitive processes. The information presupposes the ability to reflect on one’s own cognitive processes, considering them as an object of reflection; the information is described as “I know that...” (Brown, 1987).

The structure of metacognition considered by different authors allows us to see that regulation of cognition consists in control over our own activity and observation of our own learning process. These processes encompass planning of activity (prediction of a result, strategy plan, different forms of the trial-and-error method, etc.) before problem solving; monitoring of activity (observation, testing, review and planning of learning strategies) during learning; verification of results (evaluation of results of each strategy according to the criterion of efficiency/inefficiency). It means that such activities are relatively unstable (although they are used to solve easy problems), not necessarily determined (the ability to do something is not always equal to the ability to realize the way in which an action was done and convey it to people) and relatively independent of age, but dependent on a situation of the task itself (Brown, 1987).

Among Russian researchers in the field, M. A. Kholodnaya proposes a more complete description of the metacognition structure which includes: a) involuntary intellectual control supported by cognitive styles; b) voluntary intellectual control: abilities to set goals, to select the means for their achievement, to determine a sequence of actions and to control the results; c) metacognitive awareness is the “level and type of a human’s

introspection of his/her individual intellectual resources"; d) open to knowledge position: a variety of subjective means of perception and interpretation of events (Kholodnaya, 2002). According to the structure of metacognition proposed by M. A. Kholodnaya, we believe that independent activity is also based on the other component of metacognitive experience – voluntary intellectual control. It is the ability to determine subjectively the quality of individual "steps" of one's own intellectual activity, its results, and individual knowledge in this or that field, to stop and impede intellectual activity at any stage of its performance. In terms of communicative competence, it allows us to control the course and development of communication and turn it in the right direction (Kholodnaya, 2002). Thus, we can conclude that self-regulation of personality is one of the components of the metacognition process.

In Russia, Professor O. A. Konopkin has been studying the problems of self-regulation for a long time. He writes: "The main, the very regulatory sense of mental self-regulation consists in a subject achieving the level of informative uncertainty that is necessary to perform purposeful activity" (Konopkin, 2005: 29). Any separate regulatory parts are processes of information acquisition, evaluation and selection by a subject. The volume and complexity of the information must be sufficient to cope with the uncertainty in the part of the regulatory process (definition of a goal, program of actions, etc.) both for system interaction and in accordance with its other structural components. In its structural and functional aspects, self-regulation is primarily "a process of gathering diverse initial informative uncertainty up to a level which enables a subject to perform the activity effectively" (Konopkin, 2005: 29).

In other words, in terms of the educational process, we can say that the level of a student's self-regulation depends on his/her accumulated metacognitive experience in the learning activity, while the efficiency of self-regulation is determined by the accuracy with which a student organizes his/her activity and manages it to reach the result.

### 3. Research and results

Having analyzed a number of classifications of "metacognition" developed by different authors, we come to the conclusion that individual activity is inextricably linked to metacognition, as a result of which metacognitive experience is accumulated. *All the researchers agree that through the process of metacognition a student is able to manage his/her cognitive activity and regulate the learning process.* Students should be able to:

- classify information received (separate the important from the unimportant);
- organize information into a coherent structure;
- analyze a variety of situations;
- check, plan, and correlate information received in the course of cognitive activity;
- predict, forestall and take into account any consequences of decisions taken;
- select and identify strategies to accomplish the task.

The ability to choose his/her own learning strategy and modify it under the influence of new requirements and based on his/her intellectual capabilities determines the student's readiness for self-education and personal development that meets the requirements of new educational standards. On this basis, we determine the actively managed self-educational activity of students as an essential condition for successful foreign language discourse teaching and learning.

This implies an urgent need to identify the ways in which students can develop their metacognitive skills. A good example of one such technique is to modify the reciprocal (mutual) training approach developed by A. S. Palincsar and Ann Brown in 1982, according to which a teacher and a student silently read an excerpt of a text, and then discuss it. They decide together on the topic of the text, clarify their understanding of the emerging issues, discuss the main idea and try to predict its possible continuation (Palincsar, 1984). The method is designed to improve understanding of material (for example, while reading a text or watching a movie) and is associated with the acquisition of four metacognitive skills:

- to ask questions;
- to see and clarify difficult places in the material;

- to summarize the read / seen;
- to predict.

The use of such techniques helps students improve their metacognitive skills, thereby increasing the level of self-regulation, with the understanding of the material in the process of working with it.

Thus, within the framework of individual activity when a student is completing a WebQuest task, the plan and final result of such an activity must be clearly defined, as well as the ways to manage this activity during work with authentic foreign language information, namely:

- to ask a series of questions that need to be answered in the course of work with Internet resources;
- to define clearly the problem to be solved;
- to state the views on the problem, and protect them using a selected strategy;
- to specify the form of the report, after processing the information acquired.

When students are working with Internet resources we also suggest using the well-known technique of training with the elements of metacognition developed by American specialists from St. Thomas University, Minnesota: SQ3R - survey, question, read, recite, review. The first step involves an overview of the material: scanning or inspectional reading in order to get acquainted with the general content. The second step is to formulate one question for each topic (title, semantic fragments). The third step is close observation/reading in order to try to find the answers to these questions. The fourth step is to answer these questions. The fifth and the final step are to review the material (paying particular attention to the difficult places).

In addition to theoretical studies of metacognition, empirical studies were conducted that have shown that metacognition processes develop students' ability to better understand the meaning of the material being studied (Paris and Winograd, 1990; Pressley and Ghatala, 1990; Hartman, 2001), which confirms the importance of metacognitive skills as a path to successful teaching and learning.

In our opinion, one of the necessary steps to achieve the efficiency of students' individual activity is to determine time limits for individual work with the material, and therefore there is the possibility of a lasting assimilation of the information obtained, due to the correct mode of repetition of the material. This "repeatability" can be implemented taking into account Ebbinghaus' forgetting curve. According to the Ebbinghaus forgetting curve the material under study should be repeated at the following intervals: immediately after reception, then after 20 minutes, then 8 hours after the second repetition, and the 24 hours after the third repetition (Ebbinghaus, 1998).

During work with Internet resources to solve the problem set by WebQuest the material occurs repeatedly, firstly, during preparation of the thematic task and, secondly, when returning to the study material during the lesson. From this perspective, WebQuest technology is the most effective way to organize the educational process, not inconsistent with the laws of psycho-physiological perception and the forgetting of information whose application allows us to create **controlled individual activity**. Working on WebQuest, students have autonomy while being under the control of the teacher, they can develop self-regulation and go through the full cycle of motivation from complete absorption of attention and the students' involvement in a foreign-language speech and cognitive activity to the fulfillment of their interests and successful achievement of learning goals. That, according to J. Keller's theory, is expressed by the ARCS formula: Attention – Relevance – Confidence - Satisfaction.

The accuracy of abstract theorems for teaching students foreign language discourse through WebQuest technology was determined from the results of experimental learning. A pilot study was carried out during one cycle of two academic years (2011-2013) at Tomsk State University. Fifty-three second year students from non-language faculties participated in the experimental learning.

The aim of the experimental learning was to check the students' foreign language discourse learning efficiency by means of WebQuest technology in the learning process. In the course of the experimental learning control checks were made at the beginning and at the end of experimental learning in the control and experimental groups. The control checks were aimed at checking the students' level of development of foreign language discourse in both groups at the beginning and at the end of experimental learning, including the knowledge and skills listed below. Thus, the results of the control check at the beginning of the experimental learning showed that the average level of

students in both the control and experimental groups corresponded to the A1 level. The creative tasks based on WebQuest technology were completed only by the students of the experimental group. The evaluation criteria for making such kinds of tasks varied depending on the level of complexity. The evaluation criteria for making WebQuest tasks are presented in Table 1.

Table1. The evaluation criteria for making WebQuest tasks

Criterion	Description
1. The substantial component	Content-richness of the utterance, corresponding to the topic studied and wordage of the utterance adequate to the task; achievement of the objective of the research.
2. Language design	Adequate choice of linguistic-cultural and topic vocabulary; correct use of grammatical structures and their diversity; presence / absence of spelling and stylistic errors.
3. Logical organization	Logical consistency of statements and coherence in the presentation of the material; presence of linking devices between phrases and sentences, such as: on the one hand... as far as I know ... however, etc.
4. Arguments	Presence of convincing arguments which prove that the problem is unresolved, and expression of their attitude to the problem, etc.
5. Degree of teamwork capacity	All team members took part, applying equal efforts in terms of time spent and the amount of material introduced. A friendly atmosphere prevails in the team.
6. Technical view of work	Corresponds to the specified requirements (headings, links, examples, clearness, graphs, etc.)

The results of the experimental learning were coded for statistical processing which was carried out using the program Microsoft EXCEL. The exponents for each component (knowledge and skills) were coded and counted according to a three-point scale: “0” – low level, “0,5” – intermediate level, “1” – upper-intermediate level. If the answer showed a student’s lack of understanding of the investigated aspect or if he/she experienced apparent difficulties when answering and also demonstrated a lack of knowledge and skills on this particular issue, his/her answer was evaluated as “0”. If a student demonstrated certain knowledge and skills on the investigated issue, while experiencing some difficulties, or he/she answered using leading questions, his/her answer was evaluated as “0,5”. Finally, if the answer presented the student’s full understanding of the aspect being studied and he/she showed a stable skill, the answer was evaluated as “1”.

In order to assess the significance of the results obtained, we used the Student t-test. The Student t-test was used in order to assess differences in the indicators regarding the level of foreign language discourse acquisition and its growth in the cases of disconnected (independent) or connected (dependent) samples.

We calculated the overall average score on each skill for each of the students in order to receive the most accurate exponents and after that we calculated the total average score of the initial level of knowledge and skills acquisition in the control and experimental groups. As a result, the overall average score of foreign language discourse acquisition in the control and experimental groups at the beginning of the experimental learning was calculated. The results obtained of *the initial* level of students’ foreign language discourse acquisition in the control and experimental groups at the beginning of the experimental learning are presented in Table 2.

Table 2. Indicators of the initial level of students’ foreign discourse acquisition in the control and experimental groups at the beginning of the experimental learning

	Control group	Experimental group	t-test	p≤0.05	p≤0.01
Knowledge in the professional field	0.351	0.380	0.5	2.18	3.05
Knowledge in the field of language	0.337	0.330	0.3	2.07	2.82

Skills	0.259	0.265	0	2.06	2.78
Level of foreign language discourse	<b>0.316</b>	<b>0.325</b>			

The empirical values obtained t- (0.3; 0; 0.5) at the 5% significance level (disconnected samples) prove the initial hypothesis of *the same exponent* of the initial level of students' foreign language discourse acquisition in the control and experimental groups.

Then the overall average score of *the final* level of students' foreign language discourse acquisition in the control and experimental groups at the end of the experimental learning was added up, and is presented in Table 3.

Table 3. Indicators of the final level of students' foreign language discourse acquisition in the control and experimental groups at the end of the experimental learning

	Control group	Experimental group	t-test	p≤0.05	p≤0.01
Knowledge in the professional field	0.539	0.827	7.3	2.18	3.05
Knowledge in the field of language	0.530	0.694	4	2.07	2.82
Skills	0.487	0.726	4.8	2.06	2.78
Level of foreign language discourse	<b>0.519</b>	<b>0.749</b>			

The empirical values obtained t- (4; 4.8; 7.3) at the 5% significance level (disconnected samples) prove the initial hypothesis of *the growth of the exponents* of the final level of students' foreign language discourse acquisition in the control and experimental groups at the end of the experimental learning.

As a result, the difference between *the initial* level of foreign language discourse acquisition in the control and experimental groups at the beginning of the experimental learning and *the final* level of foreign language discourse acquisition in the control and experimental groups at the end of the experimental learning was calculated. The results are presented in Table 4.

Table 4. Indicator of the difference in the level of foreign discourse acquisition in the control and experimental groups at the beginning and at the end of the experimental learning

	Initial level of foreign discourse	Final level of foreign discourse	t-test (based on tables 2 and 3)	p≤0.05	p≤0.01
Control group	0.316	0.519	<b>10.7</b>	4.30	9.92
Experimental group	0.325	0.749	<b>14.7</b>	4.30	9.92

#### 4. Conclusion

As a result of doing a long term WebQuest the students learned to organize the knowledge acquired and realize the usefulness of the material under study. Due to this, their motivation to do further cognitive work has risen, which demonstrates a successful solution to this educational problem.

Consequently, at the end of the experimental learning the level of English language proficiency of the students in the experimental group corresponded to B1 (Threshold/Intermediate).

The results of the experimental learning allow us to conclude that it is important to build up a methodologically correct strategy to work with WebQuest technology while integrating it into the process of teaching foreign language discourse aimed at students' successful independent activity and the development of their abilities in self-regulation regarding the cognitive process. Our theoretical research has shown that the application of the WebQuest technology

is one of the most effective pedagogical tools for the development of learners' foreign language discourse and also their metacognitive abilities and skills, without which the cognitive process and understanding are impossible. Due to the formation of metacognitive skills, a learner develops an open cognitive position, ability to convert information obtained into deeper knowledge and to communicate with peoples from different cultures without significant effort.

## References

- March, T. (2000). Are We There Yet?: A Parable on the Educational Effectiveness of Technology. *Multimedia Schools Magazine*, 7 (3). URL: <http://www.infoday.com/MMSchools/may00/march.htm>
- Van Loon, A., Ros, A., & Martens, R. (2012). Motivated learning with digital learning tasks: What about autonomy and structure? *Educational Technology Research and Development*, 60 (6), 1015–1032.
- Gural, S. K. (2009). *Yazik kak samorazvivayuschayasya sistema*: diss. ... dok. Ped. Nauk. Tomsk. Izd-vo Tomskogo gos. un-ta.
- Pidkasisty, P. I. (1998). *Pedagogika*. Uchebnoe posobie dlya studentov pedagogicheskikh vuzov i pedagogicheskikh koledzhei. P.I. Pidkasisty (Ed.). Moskva: Pedagogicheskoe soobschestvo Rossii.
- Wellman, H. M. (1985). The Origins of Metacognition. In D.L. Forrest-Presley G.E. MacKinnon T. Gery Waller (Eds.), *Metacognition, Cognition, and Human Performance*. Orlando: Academic Press.
- Flavell, J. H. (1976). Metacognitive aspects of problem solving. In L. B. Resnick (Ed.), *The nature of intelligence* (pp. 231–235). Hillsdale, NJ: Erlbaum.
- Wilson, J. (1999). *Defining Metacognition: A step towards recognizing metacognition as a worthwhile part of the curriculum*. Paper presented at the AARE Conference. Melbourne.
- Kluwe, R. (1987). Executive decisions and regulation of problem solving behavior. *Metacognition, Motivation and Understanding*. F. Weinert & R. Kluwe (Eds.). N. J.: Lawrence Erlbaum Associates.
- Brown, A. L. (1987). Metacognition, executive control, self-regulation and other more mysterious Mechanisms. *Metacognition, Motivation, and Understanding*. Ch. 3 (pp. 65–116). New Jersey.
- Kholodnaya, M. A. (2002). *Psikhologiya intelekta. Paradoksy issledovaniya*. SPb.: Piter.
- Kholodnaya, M. A. (1997). *Psikhologiya intelekta: paradoksy issledovaniya*. Tomsk: Izd-vo Tom. un-ta, Moskva: Bars.
- Konopkin, O. A. (2005). *Psikhologiya. Zhurnal Visshei shkoly ekonomiki*, 2 (1), 27–42.
- Palinscar, A. S., & Brown A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction*, 1, 117–175.
- Ebbinghaus, H., & Bain, A. (1998). *Associativnaya psikhologiya*. Moskva: AST.
- Keller, J. A. Motivating Influence in the Field of Instructional Systems Design [Online]. URL: [http://www.arcsmodel.com/pdf/Biographical Information.pdf](http://www.arcsmodel.com/pdf/Biographical%20Information.pdf).
- Dodge, B. (1995). WebQuests: a technique for Internet-based learning. *Distance Educator*, 1.