THE INTERNET AND ESP

INFORMATION COLLECTION AND ANALYSIS ACTIVITIES:

VIRTUAL FIELDTRIPS (TELE -FIELDTRIPS)

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The Internet enables us to travel to places that would otherwise be unreachable and to visit far away places without leaving the classroom. A challenging and motivating activity for ESP students is taking a trip to a "virtual space" related to their discipline. A tele-fieldtrip is an interactive, media-rich virtual fieldtrip to a particular location. The sites where we can travel virtually are unlimited: museums, exhibits, factories, companies, geographical places. We can even visit the human body, the outer space or the past! Using the fieldtrip in the ESP classroom endows the class activity with a sense of reality: students learn the language "travelling outside" the classroom and getting in touch with "real" people, places and events. Some fieldtrips even enable students to connect face to face with real people through video-conference or to communicate through e-mail with people taking the real trip.

There is a high number of virtual fieldtrips on the Internet, but they do not usually include accompanying activities for students taking them. ESP teachers can use some of these fieldtrips to develop fieldtrip activities which meet their students' needs and interests. Walter McKenzie gives some guidelines for preparing, conducting and evaluating virtual fieldtrips (http://surfaquarium.com/vftguide.htm). A good example of how the fieldtrip format can be used for teaching ESP is the activity created by Philip Benz to guide students on a virtual tour of the Corbin Motors factory (http://www.ardecol.ac-grenoble.fr/english/enquest4.htm).

The first thing to take into account when creating a virtual fieldtrip activity for ESP students is that the trip should be to a virtual place connected with the students' discipline and arousing their interest. For instance, many students of Mechanical Engineering at Zaragoza University intend to work in the automotive industry (the leading industry in the region). Thus, an interesting fieldtrip for them is *The Electronic Field Trip to Toyota* (http://www.ket.org/trips/toyota/). Here students can visit *The Toyota Automobile Museum* in Tokyo, where they can see all car models, or *The Toyota Virtual Factory*, where they can see how cars are manufactured. Business students may be interested in taking a fieldtrip to *The Cameron Balloons Virtual Factory* (http://bized.ac.uk/virtual/cb/), a factory which "looks at all the major business functions, including production, accounts and marketing."

It is also important to integrate the fieldtrip with the course curriculum. This is an interesting activity to be done at the end of a unit concerned with the topic of the fieldtrip, when students

are already familiar with the vocabulary to be found in the site they are visiting. For instance, *The Electronic Fieldtrip to Toyota* could be taken at the end of a unit about cars. To ensure that the fieldtrip is a meaningful learning experience the teacher should try to reduce students' novelty levels regarding the trip: it is necessary to familiarise them with the site and with the concepts and language they will encounter there. It is, thus, desirable that the teacher should give students an overview of the site they are going to visit. Before taking the fieldtrip, students should also prepare for it by means of study questions, e.g. discussion of aspects related to the fieldtrip.

The trip should be question-driven and have a clearly stated objective so that it can be seen as a purposeful and outcome-evaluated activity. Students should be given step-by-step tasks to accomplish during the fieldtrip. A fieldtrip worksheet stating the objective and describing tasks learners are to complete should be distributed among them and discussed before the computer work begins. Students could try to find answers to some questions posed by the teacher to focus the visit, or they could concentrate on an aspect of the field that interests them. Learners could be divided into groups, each group being responsible for researching one aspect. The tasks should focus students' browsing but they should be given enough freedom to choose what they want to see in the visit. For instance, on a visit to the Toyota Automobile Museum they could choose a model and compare it (performance, safety, etc.) with another model chosen by their partner.

The fieldtrip is a suitable activity to practise many of the skills and functions that ESP students are expected to acquire. They could be asked to collect, analyse or synthesise data or to complete tasks which help them develop the ability to compare and contrast. This activity can also be used to focus on the formulation and testing of hypotheses. An example of that is the activity "The Midwest U.S. 16,000 Years Ago" (http://commtechlab.msu.edu/sites/letsnet/). Students visit the Illinois State Museum's exhibition entitled "The Midwest U.S. 16,000 Years Ago" to find data that either support or refute hypotheses they have previously formulated. After the visit they share their findings and discuss the evidence found.

The information collected during the fieldtrip should be exploited in some off-line follow-up exercises. For instance, students can be asked to report on what they observed during the fieldtrip or they can pose questions that arose during the fieldtrip and try to find answers in repeated visits to the site. A good idea is to discuss students' findings, focusing on the differences noted by them. Some of the follow-up exercises proposed for *The Electronic Fieldtrip to Toyota* are the following: "Create a time line for the development of the car," "Brainstorm possible fuel sources for cars," "Discuss metal alloys and materials used in cars."

Sites with fieldtrip activities interesting for ESP students:

- *Fieldtrip to the Student Experimental Farm* (http://score.rims.k12.ca.us/activity/experimentalfarm/start.htm). Biology students can learn about farming (e.g. how to prepare soils, how to plant, or how to harvest). For each part of the trip there are interesting activities to do.
- *World Surfari* (http://www.supersurf.com/). A wonderful site for students of history and geography (and indeed for anybody who likes travelling). They can take a virtual trip to a new country each month. Students can learn history and see major sites. They can even e-mail other travelers.
- *Mysteries of the Nile* (http://www.pbs.org/wgbh/nova/egypt/)

- *CELLS Alive!* (http://www.cellsalive.com). It includes quizzes with questions taken from CELLS alive.
- *NASA Space Shuttle Virtual Tour* (http://science.ksc.nasa.gov/shuttle/missions/sts-90/vrtour/index.html).

Fieldtrips, exhibits and places interesting to visit:

ESP students could visit these sites and complete the tasks created by their teachers:

- *The Virtual Zoo* (http://library.thinkquest.org/11922/)
- *Chrysler Sterling Heights Plant* (http://www.ipl.org/autou/plant/). Students can see how cars are made.
- *Geography and Geology Fieldtrips* (http://www.chelt.ac.uk/el/philg/gdn/hawaii/vfc.htm)
- *Virtual Fieldtrips* (http://www.uen.org/utahlink/tours/fieldtrips2.htm). A great collection of fieldtrips classified by topic, e.g., technology, maths, science, health.
- *Virtual Tours* (http://www.virtualfreesites.com/tours.html). A collection of tours for the world, museums, exhibits and points of special interest.
- *The Virtual Fieldtrip Site* (http://www.field-guides.com/)
- *A Quick Virtual Nuclear Power Plant Tour* (http://www.cannon.net/~gonyeau/nuclear/tour-a.htm)
- *Earth Science explorer* (http://www.cotf.edu/ete/modules/msese/explorer.html)
- *The Tech Museum of Innovation* (http://www.thetech.org/exhibits_events/online/). A highly useful site with many online exhibits of interest for ESP students (e.g. "Robotics," "2001: destination space," "The satellite site," "Earthquakes," "DNA: the instructions manual for life")
- *National Museum of Natural History* (http://www.mnh.si.edu/)
- *Factory/Plant Tours* (http://bradley.bradley.edu/~rf/plantour.htm). A list with over 150 links to various company tours.
- *The Franklin Institute's Online Exhibits hotlist* (http://sln.fi.edu/tfi/virtual/). An amazing collection of online exhibits

Information on virtual fieldtrips:

More information on virtual fieldtrips can be found on the following site:

Electronic fieldtrips online (http://commtechlab.msu.edu/sites/letsnet/noframes/bigideas/b1/)

Related sites:

- *The Quest Channel* (http://quest.classroom.com/). This is a site with online interactive expeditions for schools.
- *Xcursions* (http://www.xcursioncentral.com/). Each Xcursion links to a series of annotated Web sites that are relevant to a specific subject or topic.