ON-LINE READING SKILL DEVELOPMENT IN "IT" ENGLISH TEACHING

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Introduction

The question is what is meant by language acquisition? Does it mean speaking a language as well as the natives do, or it means learning a part of it in order to meet certain demands and perform certain tasks. If we accept the second definition, we can probably defend our quite optimistic standpoint, which shows our conviction that language acquisition can greatly be aided and enhanced by electronic means.

Let's narrow down language learning to learning ESP – I have been teaching IT English for several years now – and try to find out what the demands in this field are, what tasks the language user is required to perform. The first evident answer is *accessing written information on the internet*, the second may be writing emails and messages, and some more but not so frequent tasks like delivering talks at international conferences. Let's stick to the first answer and concentrate on the skill of reading comprehension.

Reading skills – what basic competences does it require from the non-native user?

I have tried to make a list (probably far from complete) and give very concrete definitions for basic starting points. I can evidently consider only the Hungarian situation – as I have had the opportunity to collect information in my long past teaching experience.

As a starting point we can state that the Hungarian labour market (employers) expect the potential employee to possess the following basic skills (minimum): ECDL computer skills and at least basic language skills (Generally English). If we take IT English and reading comprehension, the following competencies can be comprised:

· Basic general reading skills, (weak intermediate level)

· Professional background knowledge (around ECDL or above)

· Professional technical vocabulary

· Logical skills for understanding context.

By professional technical vocabulary we mean not more than around 5-600 technical words and expressions that are the most frequently used and recurring terms of technical reading passages, and the competence to use dictionaries.

By logical skills for understanding context we can mean the following mental competences:

· Global understanding from context,

· Global understanding from professional background knowledge,

· Applying analogue thinking (both in context and language accuracy problems)

· Guessing and anticipating from experience (prior suppositions)

Teaching reading comprehension in a face-to-face lesson – the teacher's role

I have tried to make a list of activities the teacher must be involved in to develop and evaluate reading skills as part of the English class activities.

They are the following (again many more may belong to this category):

· Choosing reading passages (selection according to different criteria like language level, content, motivational force, length etc.)

· Processing reading passages in class (+pre/during/post reading activities)

· Helping lexis acquisition (graded exercises to keep motivation, repetition and testing methods, techniques for memorizing – associations, etymology, similarities with mother tongue etc.)

· Developing logical skills needed for reading comprehension (guessing and expectations, associations and analogues etc.)

· Evaluation (testing knowledge – active vocabulary, and testing competence – reading skill and passive vocabulary)

· Further practice (individual work/home assignment + access/resources both traditional and electronic)

Teaching reading comprehension online – teacher's role in developing e-materials and providing online services

a. Developing e-materials in IT English

This is a demanding and manifold task for the teacher not only because at each stage technology ties their hands (open-ended tasks cannot be included in e-learning materials, exercises should be constructed according to the limited number of templates etc.) but because the reading passages become obsolete so fast that by the time the e-material is finalized and uploaded, it may have become outdated (in some cases directly a laughing matter).

The material should comprise the following units (a longer list is possible, shorter is hardly acceptable):

·   Motivating material (appropriate length and language level, correct and up-to-date content, not very specific – IT but at user level etc.)

·   Exercises and activities (pre/during/post) for helping reading comprehension and lexis acquisition – with the help of templates and internal links, and enhancing logical skills development (e.g. global understanding, scanning for details, sentence analysis, analogue structures etc.).

·   Self- and external evaluation tools

-       Self-evaluation: internal links to key, internal links to glossary or grammar notes etc, internal links to similar tasks. Verbal evaluation: advice on next step (further practice needed, prior unit repetition is needed etc.)

-       External evaluation (the term "teacher's evaluation" is not always appropriate in this case): Tests (extra reading passages with related tasks) to be evaluated centrally "send" – identical to self-evaluation tasks, but usually more complex. As the e-material is not linear, can be taken at any stage.

External links to English sites with IT content (sites which are long-lasting like MS, PC Magazine etc.) and to online dictionaries.

b. Online services

Developing electronic materials without providing help for the user seems rather useless and a waste of energy. Help can be the organic part of the material, either in the form of an introduction, or with icons or other electronic means. Another type of help can be some printed booklet, which constitutes part of the learning package. Although I don't really know from practice how a virtual consultation centre works, for my part a virtual tutor is the answer to the problem.

The virtual tutor can manage hundreds of users at the same time. Their tasks may include emailing, administration and monitoring besides evaluation and counseling.

I'm sure present teachers with their long practice of personal involvement will prefer a closer and more individualized contact keeping, which may even include personal consultations.

Sample reading passage for online learning

So far I have given a theoretical insight into my approach to online language learning. Unfortunately my past experience until now is limited: I have only developed one online IT English Reader and the database for its online practice- and examination system. My other

experience comes from my participation in a Leonardo Project where we developed multimedia learning material for an online medical English course.

For the present paper I have tried to put my theory into practice and develop a short sample material, which I'm going to show you both in the electronic and in the printed form.

This material consists of the following units:

· Short English reading passage related to information technology,

· Comprehension exercises (pre, during, post) to help and check global and detailed understanding + key

· Vocabulary exercises to help technical lexis acquisition + key

· Tasks for developing logical thinking + key

· Related extra exercises for external evaluation

· Ideas for external links (related to the specific reading passage).

I have selected a passage which may be interesting for several reasons:

· it is about robots,

· it is about Japan,

· it is about Linux and not MS, it is new.

Required language level is low intermediate, required time is about 30-45 minutes.

My objectives when dealing with the reading passage have been the following:
1. to increase reading comprehension level
2. to learn new IT vocabulary
3. to do self-evaluation of reading skill development and IT vocabulary
4. to provide extra reading material (links)

The process for the lesson is the following:

1. Pre-reading tasks
Global anticipating questions: (put a tick next to the character you think gives the correct answer)

a. What country do you think of if you hear the name „Wakamaru"?

1. Japan x   2. China   3. US

b. What is a humanoid robot like?

1. It looks like a human just made of metal. x

2. It looks like a computer.

3. It looks like an alien from the Mars.

……..

2. While-reading tasks

Read the following passage without consulting a dictionary. Check un-known vocabulary with the help of the links to the Glossary - see underlined words.

"As reported earlier, Wakamaru, an experimental Linux-powered humanoid robot developed by Japan's Mitsubishi Heavy Industries, is making a guest appearance at the Embedded Systems Conference (ESC) held this week in San Francisco. The 3.3 foot tall, 60 pound robot is described as the first human-size robot capable of providing companionship or functioning as a caretaker and house sitter. The battery-operated robot moves about on wheels and recharges itself when its batteries run low.
Wakamaru was developed by the Robotics Group of the New Products & Space Systems Department at Mitsubishi Heavy Industries and has an internal software platform that was developed using MontaVista Software's embedded Linux distribution and tool suite.
The following description of Wakamaru's capabilities was provided in a statement released by MontaVista . . .

A robot that is friendly to people and useful for your life at home.

Speaks spontaneously in accordance with family member's requirement. Has its own role in a family.

Recognizes approximately 10,000 words required for daily life and provides topics in accordance with life scenes and communicates in a friendly manner using gestures.

The robot has its daily rhythm of life, moves in accordance with time and purpose, automatically charges its batteries and lives with family members.

Connects itself to the Internet to provide various external information and services and reflects the information obtained from the contact with the owner in the succeeding service provision.

Wakamaru is expected to be initially introduced into the Japanese market beginning in 2004, priced at about 1 million yen (approx. US $14,250)."

3. After reading:

After reading the passage once, do the following exercises.

A. Global questions:

Answer the following questions with Yes or No.

   a.)   The passage is about a Japanese robot that looks like a human but it is much smaller. (Y)

   b.)   The robot will be on sale first in San Francisco at the Embedded Systems Conference. (N)

   c.)   The robot will be plugged in while moving around in the house. (N)

       ….

B. Detailed comprehension:

Underline the sentence/s where you find the answer to the following questions:

   ·   Where was the robot developed? (by Japan's Mitsubishi Heavy Industries)

   ·   Where could it be seen? (making a guest appearance at the ESC)

   ·   What roles can it take over? (caretaker and house sitter)

       …..

C. Vocabulary exercises: (only technical vocabulary, it should concentrate on the broadly used professional lexis).

   a.   Build related words from the words given! See the example: provide – provision

       1.   experiment (experimental)

2.   able (ability, capable)

3.   require (requirement)

…

b.   *Read the passage and find words with similar endings:*

(internal-external, capability, statement, daily, approximately)

c.   *Build nouns from the words given and guess their meanings:*

1.   use (usability)

2.   state (-ment)

3.   move (-ment, mobility)

….

d.   *Here you are different verbs which can be made longer by adding a prefix to the beginning and this way changing its meaning. Can you put them into the different columns. Some can go to more than one!* Example: cover – discover.

Load, connect, construct, charge, date, fresh, appear – dis/up/down/re/

DIS   UP   DOWN   RE

(up/down/reload, dis/reconnect, reconstruct, recharge, update, refresh, dis/reappear)

e.   *Fill in the blanks by using the words from the passage. (with the help of this exercise the learner will read the passage once more)*

The robot will make its ..... appearance at a conference in San Francisco. (guest)

It can .... as a caretaker and house sitter, (function)

The internal software platform was .... using embedded Linux distribution. (developed)

….

4. Follow-up tasks

What is meant to prove here is that we can develop language skills without teaching specific structures rather developing logical thinking like drawing conclusions, using analogies, copying best practices etc.

1. How would you give the following data in a much shorter form? See example: 3,3 foot tall robot

A baby weighing 3200 dekagrams? (a 3200 dekagram baby)

A mountain that is 2000 metres high? (a 2000 metre high mountain)

A computer that is worth 5000 thousand dollars? (a 5000 dollar worth computer)

…….

2. Make one sentence from the following two by using the same structure. Example: it provides services. It connects itself to the internet – it provides services by connecting itself to the Internet.

   a. The robot can recharge itself. It can move to the power supply on wheels. (it can recharge itself by moving to the power supply on wheels.)

   b. The robot's capabilities were described in a statement of MontaVista. They provided the information in a conference. (The robot's capabilities were described by providing the information in a conference).

   c. The robot's database is always updated. It can connect itself to the Internet. (Its database is updated by connecting to the Internet).

   d. ……

3. Look at the last sentence and answer my question:

Are we sure Wakamaru will be out at the beginning of year 2004?

Use „to be expected to" in the answer to the following questions. Use the hints in brackets.

Example:. Do you know when you will graduate from this school? (work, September) I'm expected to start work in September.

a. When will this battery run low? (last as long as the Guidebook says) (It is expected to last as long as the Guidebook says).

b. How many words can the robot recognize? (10.000 required for everyday life) (It is expected to recognize 10.000 required for everyday life.)

….

5. Related test for external evaluation

It can be of two different forms. One evaluation type is when we assess the learner's progress in a certain skill (reading in our case). So we can find a similar reading passage using similar vocabulary and test comprehension by questions checking global and detailed understanding.

1. Reading passage downloaded from the Internet – related topic using similar lexis

2. Vocabulary test: Maximum 20 points.

If your score is below 10, go back to the original reading passage and the related exercises.

1. Fill in the blanks by writing in one word from the reading passage about Wakamaru, the robot. You can choose from the list – be careful because there are two more.

Each correct answer is 1 point.

Accordance, battery, capable, developed, expected, experimental, external, functioning, guest, internal, recharges, update,

This (1)………….. (experimental) Japanese robot was (2)……(developed) by Mitsubishi Heavy Industries and made its (3)…….. (guest) appearance at a Conference. This human-size robot is (4)……….(capable) of recognizing thousands of words and of (5) ……(functioning) as a caretaker or house sitter. It has a/n (6)……(internal) software platform and uses Linux OS. …

3. Choose one of the words by underlining the correct one.

Each correct answer is 1 point.

Wakamaru is an experiment/experimental Linux-powered robot. 2. It is capable/able to recharge itself. 3. It can provide/require companionship as a house sitter. …