

materials as feasible. Genuine materials are, as Widdowson pointed out in 1979, language samples not constructed for the purpose of language learning. (cf. Widdowson, 1979:80) Authentic tasks would then be tasks and learning projects as well as activities of knowledge construction which truly enable learners to explore the target language in its structure and functionality when working with such genuine “texts”. David Little describes this approach to authenticity in language learning as creating opportunities for the learner to “psychologically interact” with the target language, “by which we mean the psychological processing of target language input in such a way that it interlocks with and modifies the learner’s existing knowledge.” (Little, 1989: 5) He continues by pointing out that such a process is only possible if the learner regards the learning material as having “personal significance”; it can, therefore, be reasonably assumed that authentic texts, preferably taken from sources which relate to the learners’ real world and everyday life, have such a quality.

A short summary of what DDL is all about was put together by participants at the final workshop of the series. So, if readers are looking for a quick answer to the question [↓What is DDL?](#) as well as pointers towards additional information on the internet they are invited to visit this section of the site. Similar information on [↓Fremdspracherwerb als data driven learning \(DDL\)](#) was compiled by participants at the Graz 2002 workshop.

Finally, those who want something on the didactic and methodological principles underlying data-driven learning in a Slavonic language are invited to check [↓Irina’s input](#) on the part of the GrazVOLL resource created at the Moscow workshop.

Putting theory into Practice

In order to enhance the language learner's role as an experimenter and researcher in the classroom, [↓authoring software](#) for the creation of tutorial and exploratory exercises as well as cognitive tools, such as [↓concordancers](#), are very important. With such materials, teachers can prepare tailor-made exercises for their classes and put together worksheets and create tasks which permit the learners to actively and often consciously explore the target language. Such tasks and learning projects will help to develop learners’ language awareness and understanding of the structure and functionality of the target language. Providing the appropriate data, organized into suitable units of information and supported by relevant processes must be the foremost task of educational design of any kind of language learning and teaching resource in order to contribute to the success of any learning situation.

It must be taken into consideration, though, that a number of language teachers consider the use of authoring tools either too time-consuming or potentially difficult. However, innovative tools for text and data-processing and for the creation of multimedia hypertexts have now reached a level of sophistication and user-friendliness that the didactic manipulation (as Edelhoff, 1989) puts it, and adaptation of authentic

materials for classroom use should soon become daily routine of grassroots teaching, comparable to the use of the use of the blackboard or the photocopier today. In addition, a vast amount of learner relevant materials is now becoming available in digital format, either in the format of local resources or globally accessible data on the worldwide web. In the following we present a few examples of tools and multimedia authoring facilities which we consider as useful to assist teachers in drawing on such resources.

1. Authoring Tools

The first step towards integrating more authentic, real-life-based materials into the language curriculum is the use of authoring tools, such as [↓WIDA Software's authoring suite](#) or [↓Hot Potatoes](#). A number of resources for teacher training on the internet provide an in-depth introduction to authoring tools in addition to the information available on the GrazVOLL resource, most notably the section on [↓authoring tools](#) of the *ICT4LT* project.

Such tools provide teachers with ready-made templates for most of the exercise types and interactions commonly used in self-study packages. These templates can then be filled with content and the authoring tool automatically “creates” an interactive exercise using this input. It is important to note that the creation of self-study exercises specifically geared towards a particular target group can be achieved without any knowledge in programming or script-writing. Basic computing skills are sufficient even to be able to integrate multimedia features into exercises.

Throughout the workshop series, participants created sample exercises and put together a list of resources for those who want to find out more about the potential of these tools. The following links provide a first insight into the kind of examples of Hot Potatoes exercises created by participants of ICT in VOLL workshops at an early stage of the series:

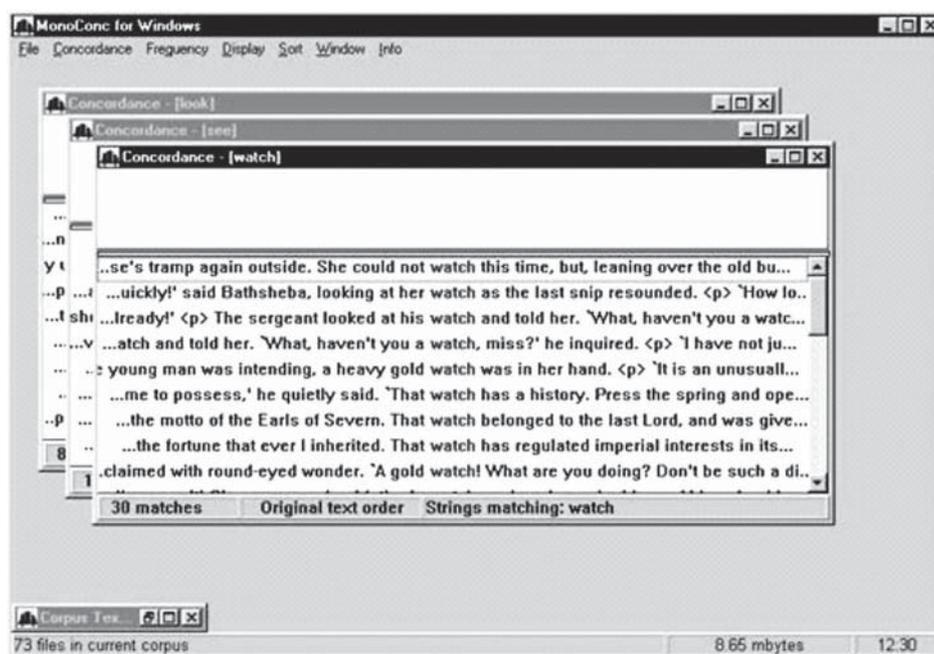
- [Command & Market Economies \(Matching\)](#)
- [Resource Markets \(Gapfill\)](#)
- [Astronauts \(Gapfill\)](#)
- [Control \(Cloze\)](#)
- [Effects \(Matching\)](#)
- [Weather Quiz \(Matching\)](#)
- [Weather Quiz \(Question & Answer\)](#)
- [Zurück in die Zukunft \(Cloze\)](#)

More [↑Sites & Exercises built with Hot Potatoes](#) around the world can be accessed directly on the Hot Potatoes Homepage, which also provides a download feature for this free authoring tool. This list is regularly updated and added to.

The ease of using such tools is probably best reflected by a contribution in German put together by a group of computer novices at the final workshop in Graz 2002, entitled [Ein "Beginners" Report \(mit Infos zu Hot Potatoes\)](#). Further examples are available on the websites created at [Moscow 2001](#) and [Essen 2002](#) workshops.

2. Concordancing

When it comes to finding innovative examples of the use of new technologies in language learning, any tool that allows for the creation of discovery-based and exploratory learning materials must rank very highly within a typology of TELL software. One such tool is concordancing software, originally developed as a device to assist research in corpus linguistics. Such a tool can be used with any textual corpus, i.e. a potentially unlimited number of texts compiled into a database. Its basic function is to extract lists with sample contexts of any word or structure entered into the search option:



Such lists can then be used as a basis for what Tim Johns (1994) refers to as data-driven learning. Considering the example above, a learners' task linked with such a selection of concordances would be for them to deduce themselves the exact difference in meaning, connotation, and grammatical features with regard to the verbs look, see, and watch. Grammatical rules can be acquired in such a discovery-based or exploratory mode, e.g. on the basis of lists with concordances of adverbs, offering learners the opportunity to discover rather than to be taught a rule concerning adverbs and word

order in English sentences. Tim Johns provides a complete website with samples and links on data-driven learning ([↑http://web.bham.ac.uk/johnstf/timconc.htm](http://web.bham.ac.uk/johnstf/timconc.htm)). In addition, Chris Tribble (1997) has published an interesting manual on “Using Concordances in the Classroom”.

A detailed description of concordancing and its principles is available on the GrazVOLL website in the sections on data-driven learning. The latest is the page on [↓CONCORDANCING: information – practice – resources](#) compiled at the final workshop.

A similar resource for [↓KONKORDANZEN](#) and their use in German is also available on the GrazVOLL website.

When looking at the examples quoted in Tribble’s publication or on [↑Tim Johns' website](#), it becomes apparent that the use of concordancing tools in language learning comes very close to putting into practice some of the theoretical principles discussed at the outset of this paper. Grammatical rules and the meanings of words are not simply learned but constructed by the learners themselves, thus enabling learners to develop language awareness in addition to a structural knowledge of sets of meanings.

As far as tools for data and information processing and [↑data-driven learning](#) are concerned, concordancing tools are probably the most widely usable tools if this kind used in language learning. These tools represent a special kind of application as their use does not necessarily require the use of computers with the learners themselves. Rather, it is more feasible to create innovative worksheets to be discussed in class with the use of computers rather than have learners, particularly at lower levels, use the software hands-on. Both uses have been described in great detail in a book on the subject of concordancers in language learning by Chris Tribble [Tribble, Chris (1989): Using concordances in the language classroom. Longman]

To make the use of concordances clearer to the user of the GrazVOLL resource, we have placed a number of sample exercises and concordances on the websites. These were developed at the various workshops by participants and can, for example, be found at the following locations on the site:

- [↓An introductory sample task](#)
- [↓Samples created at the Moscow Workshop](#)

In addition, participants have put together links into the major resources concerning concordancing available on the internet. These include links into online concordancers, access to online corpora and texts as well as links into further sample tasks making use of concordance lists. This information can be accessed in the following sections of the site:

- [↓CONCORDANCING: information – practice – resources](#)
- [↓CONCORDANCING IN LANGUAGE LEARNING](#)

3. Some practical aspects

Participants at the various workshops of our series worked in great detail with concordancing tools and continued to do so in between workshops. It is felt that quoting a few *Comments on the use of concordancing software & data-driven learning from participants at Workshop 8/2000* might provide further motivation to explore the potential of this aspect of using authentic materials in the context of more authentic tasks in the language classroom. Here are some of the comments:

I think it's a great tool!

Just a week ago when I was preparing for my English classes, I was trying to do the same thing that this software can do so much more effectively than me. I was looking up into a number of dictionaries for differences between angry, cross and furious, or security and safety, trip, journey and travel, etc. writing down all the different definitions, then pouring all this information into my students.

And now, with the help of Concordancing, I can prepare lots of examples on vocabulary/grammar, etc. features, so that students themselves can make the difference. I can prepare exercises to check how they learned the material. Of course, there is some technical magic that teacher has to learn to be able to produce her worksheets, but it's not so complicated.

Conclusion: dear colleagues do learn to use Concordancing. Satisfaction guaranteed both for you and your students!

Audra Daubariene (Lithuania)

Concordance is a very powerful tool for the enhancement of language teaching and learning.

The advantages are obvious. It can help teachers make a lot of practice on words that are difficult to be understood, on grammatical meanings that are confused. And most important, it is fast and easy to use. However I can see some disadvantages. The words are out of context and the students may find difficulties in understanding the new words they face. The teacher can't just give the concordance list without careful consideration of what he has in front of him.

Kostas Stylianou (Cyprus)

Concordancers are the tools I have been looking for since I started teaching many years ago.

They take you a lot of time to prepare your own text base, but after that they save a lot of your precious energy.

Metka Kosir (Slovenia)

4. Further Online Resources for Concordancing

Finally, in addition to the materials contained on our own webpage, we would like to draw the readers' attention to a few resources which became available only after the completion of the ICT in VOLL workshop series.

A first resource containing a large number of practical examples for concordance-based activities is a website put together by one of Tim John's post-graduate students. Passapong Sripicharn presents an impressive amount of material on his [↑'Evaluating Data-driven Learning: The use of concordance-based materials by Thai learners of English'](#)

This site contains DDL materials and teaching units designed to draw the learners' attention to certain vocabulary and linguistics features by providing the students with concordance data and guiding them to make a generalisation. All the items presented in his DDL teaching units were taken from a sub-component of the Bank of English Corpus, known as 'CobuildDirect', using its retrieving software 'Lookup'. References into this corpus and the software are available on the GrazVOLL website at [↓CONCORDANCING: information – practice – resources](#)

A second and equally important aspect of data-driven learning is presented on a website dedicated to [↑resource-assisted learning](#). This slight shift in terminology emphasises quite nicely the special focus of the approach described and elaborated in this section of the GrazVOLL website and this accompanying publication. In its own words, the site describes the approach as follows:

“Resource-assisted learning is a strategy and model for virtual learning via the WWW which involves the integration of vocabulary, concordancing, dictionary reference and multimedia to provide on-demand support for the learner. Pronunciation, dictionary explanation and concordancing examples are available as needed, providing a learning environment in which the computer acts as a sort of ‘expert reading partner and linguistic consultant’” (Cobb, Greaves & Horst, 2000)

The research underlying this statement is available on the internet as an online-publication entitled [↑Can the rate of lexical acquisition from reading be increased? An experiment in reading French with a suite of on-line resources](#). (Cobb, Greaves & Horst, 2000).

This is a concept of integrating local as well as online resources into scenarios for language learning with the clear aim of exploiting the potential of ICT to provide a platform or tool for ensuring more flexibility in the content and organisation of learning. A further aspect is the creation of more authenticity in content and task for language learning. This is where data-driven learning and all the other aspects dealt with within the ICT in VOLL workshop series are working towards identical aims. Let us briefly summarise these in conclusion to this section.

Summary

The ultimate aim of teaching and learning in this “knowledge society” is to assist learners in their need to develop strategies of knowledge processing. Therefore, the traditional transmission model of learning must be replaced by models which emphasise information processing and knowledge construction as acts of learning most suited to the acquisition of the kind of skills needed for the knowledge society. Education and teaching in the knowledge society can no longer be reduced to “the act, process, or art of imparting knowledge and skill” as Roget’s Thesaurus proposes, but learning must be recognised as an act in which a learner plays the role of an active constructor of knowledge. Criteria based on such principles need to be considered when evaluating the effectiveness and value of technology enhanced materials for language learning. The question remains, however, as to how the principle of “learning without being taught” as proposed by Piaget (cf. Papert, 1980: 7) can be put into practice and integrated into a technology enhanced learning environment of the future.

This is where data-driven learning, resource-assisted learning as well as the use of the internet as an extension of the classroom and the acquisition of web literacy come together. All this is taking place in a context, where, over the past decade, language learning theory has seen a shift from a highly guided to a more open learning environment, with constructivism as a new and very much learner-centred paradigm for learning. Learning is now perceived as a self-structured and self-motivated process of knowledge construction and the learner is regarded as a self-governed creator of knowledge.

In addition to the undeniable need to achieve instructional goals, the development of cognitive and strategic abilities suitable for the knowledge society is defined as one of the principle aims of a learning process based on knowledge construction and discovery learning. As far as new technologies and their use in language learning are concerned, the ICT in VOLL project and its section dealing with data-driven learning has shown that technology enhanced materials do have a lot of potential to assist the process of innovation which is needed in this fields as much as in any other area of education.

Perhaps one of the most important lessons learnt in the course of our work was *the vital role played by the Web Master* with his competence to implement ideas and make them instantly available. His knowledge and skills were essential not only during the workshops, but also in the crucial stages of post workshop editing and communication. Without the continuity offered by Bernard Moro, the whole undertaking would have collapsed after the first event.

The impact of the new technologies turned out to be much greater than we had anticipated at the outset. The breathtaking speed at which technical developments progressed in the three years of our co-operation demanded constant revision of ideas and rethinking in terms of possibilities. This is partly documented in the workshop reports, and can be seen as you navigate from one sphere to the next. In the course of

our work, we began to realise what an immense responsibility is being placed upon the teachers' shoulders when preparing his/her learners for the "brave new world" of the information/knowledge society.

Despite the complexity of the technology and their attendant applications, we also discovered that *it was possible for even newcomers to find their place*, if they approached the topic with an open mind and received adequate support from empathetic trainers.

We also discovered that it is not enough for teachers to focus on instrumental skills alone. They need to bring a principled and reflective approach to the subject matter at hand and need to harness the full co-operation of their learners in the learning and research process.

In addition, *back-up support is essential* from colleagues, the administration and educational authorities. "Teachers, learners and the new artifacts" form new ecologies, interacting with one another, and producing something new and meaningful in relationship to their subject matter. The roles of teachers and learners have to be redefined, where the learner is as much a researcher and teacher as those appointed to "teach" him/her.

The encounters we experienced with the *new media* opened up completely *new perspectives* and showed us that we are now able to do things which we formerly considered impossible. Our "classrooms" are no longer defined in terms of physical space, but in global categories.

It is also clear that the use of ICT in FL teaching and learning has by no means reached a satisfactory stage of penetration in the VOLL sector. Workshops which bring together colleagues with different levels of skills and experience in activities from which they can gain mutual benefit through exchange are seen as extremely useful and productive. We see samples of good practice, provided by practising teachers rather than by "experts", as motivating reasons for teachers to pursue the possibilities offered in this field.

We see the further *extension of networks* of language teachers working in the field of VOLL as a highly desirable goal, but we would stress that the use of technology alone will not stimulate teachers to co-operate for any sustained period of time without personal contacts. All ICT workshops have maintained the same pattern so far. Initially, a great deal of enthusiasm is generated during the workshop proper, and the various means of communication are used on a regular basis and intensively for a period of some six weeks to two months after the event, but then energy and interest seem to wane. Unless some provision is made for persons to be designated (and remunerated) to animate appropriate websites and contacts during interim periods, then this falling off of interest will be a recurring phenomenon. The tasks to be fulfilled by such a Web animator would be to encourage colleagues to contribute from their everyday teaching experience, to edit and comment on contributions, drawing upon the expertise of the original animating team and other experts in order to maintain the

website as a living organ, supplying the teaching body with updated materials which will hold their interest.

Linguistic challenges: The fact that communications technology is both ‘shrinking’ – becoming portable and seamlessly entering everyday devices as well as becoming all-encompassing and distributed throughout the world – will continue to have a considerable impact on how communities interact. An effect of this will be the emergence of new genres, new communicative modes and a need for teachers to know how to cope with linguistic challenges that transcend standards and norms.