

**A**t many German universities, English for Special Purposes (ESP) courses designed for students majoring in the natural sciences or in engineering tend to emphasise the development of passive skills – in particular, reading skills – in the target language. The purpose, understandably, is to give these students greater access to the vast amount of relevant professional literature written in English.

# Linking up with native speakers

**Jim Drobinske, Paul Heinemann and Vince Walencik** use geometry to teach communication skills.

Most courses of this nature attempt to develop reading comprehension abilities by emphasising various strategies (such as skimming for gist, scanning for specific information, understanding word chains, predicting content, etc). However, many courses, especially those held in what was formerly East Germany, have adhered to the traditional approach of translating subject-specific passages word for word from English into German.

## A new opportunity

We decided to supplement the usual comprehension and translation exercises done in such courses by giving students an opportunity to improve their active skills in English, and to do this, we selected a classroom exercise that has been used in the communicative approach to foreign-language teaching for many years. This activity usually consists of having one group of students use the target language to describe illustrations of landscapes, faces and everyday objects while classmates attempt to reconstruct the illustrations with the help of the student-generated descriptions.

To make our activity more challenging, we decided to use abstract drawings. This was because we felt that illustrations of familiar scenes and objects often allow the students involved in reconstructing to predict the outcome of the drawing by resorting to

their general knowledge of how such objects usually appear. The very nature of abstract compositions, on the other hand, requires sole reliance on the target-language description. This modification also uses an engineering student's skill of working in a technical domain; it employs drafting skills and the ability to visualise things in the 'mind's eye'.

Furthermore, instead of having students describe their illustrations to members of the same class, we made use of contacts in the US to arrange for a group of US students to attempt to reconstruct our students' illustrations using descriptions sent to them. We then reversed roles with the US students generating the illustrations and descriptions and the German students attempting to reproduce them.

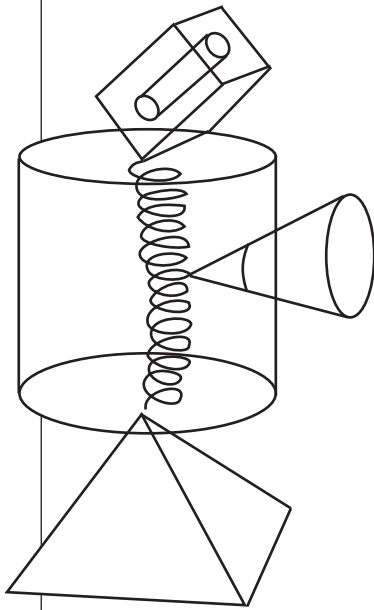
## The two groups

We felt that this activity would most benefit a class of students whose major area of study placed particular emphasis upon creative thinking and problem-solving processes and upon the application of these processes to active communication skills in more than one language. As a result, we used students majoring in graphic, industrial and product design at the University of Applied Sciences in Magdeburg, Germany.

Our project was coordinated through the Technology Teacher Education graduate program at Montclair State University, New Jersey, USA, and students enrolled in a course on drafting technology at Ramapo High School in New Jersey were used as the US counterparts. Their course included mechanical drawing, computer-aided drafting and architectural design.

## Rationale

The purpose of giving the German students the opportunity to perform this activity with students in the US, rather than with classmates in Germany, was to enable the German group to obtain feedback from peers outside of the classroom and, above all, from native speakers of English who live and work in a predominantly English-speaking culture. However, if contacts cannot be made with suitable institutions in an English-speaking country, the activity could be structured so as to be

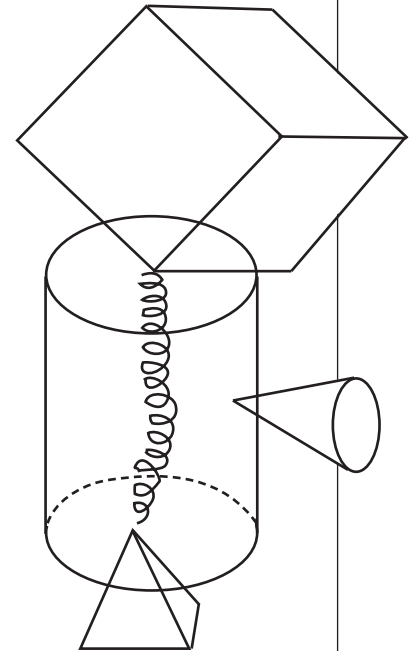


**The description given by the German group**

The base of the drawing is a pyramid. The tip of the pyramid is connected to the bottom (middle) of a cylinder. A helix is in the centre of the cylinder. In the mid-right side of the cylinder, there is a cone with the tip in the cylinder. A cube is located on top of the cylinder. The cube is connected to the top of the cylinder by one of its corners. This means that it is standing on one of its corners. The biggest part of the drawing is the cylinder. The pyramid and the cone are nearly the same size. The cube is bigger than the cone and pyramid but smaller than the cylinder.

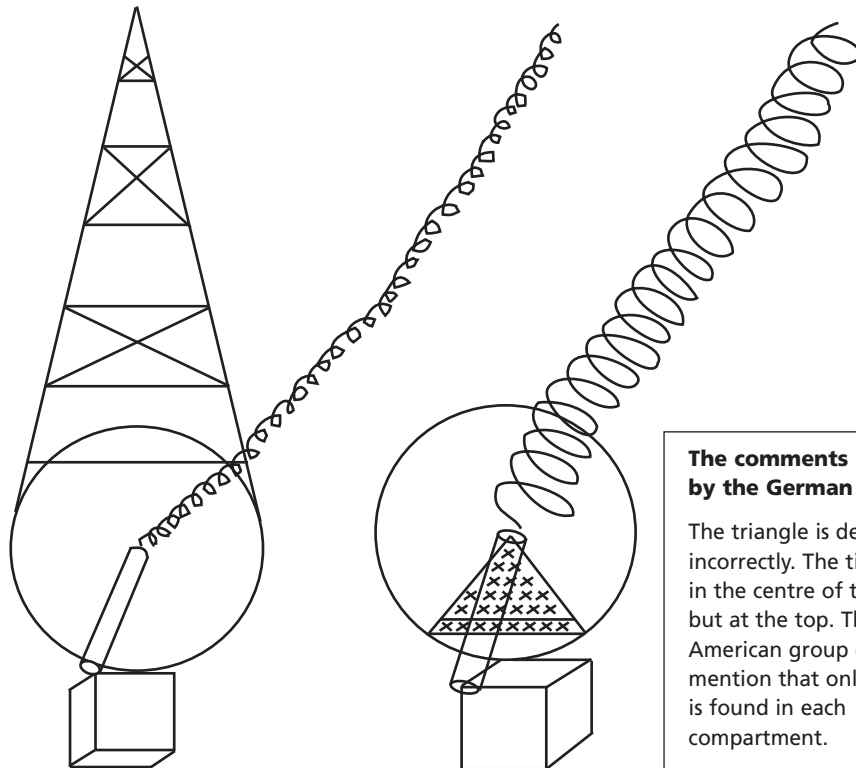
**The comments made by the US group**

In the directions it doesn't say anything about the cylinder inside the cube that's on the final sketch. Also in the directions it has you draw all the shapes first and then says that each shape has to be another size. We had to redraw the whole sketch after we read the final directions.



**The description given by the US group**

Draw a circle with a radius of 3 cm in the centre of the paper. Draw a helix from the centre of the circle to the upper right corner of the paper. Draw a 2 cm cube touching the bottom of the circle. Draw a triangle with its tip at the centre of the paper and the base on the sides of the circle. Draw horizontal lines across the triangle at 2 cm intervals. Draw a cylinder from the bottom of the helix to the top left corner of the cube. Draw Xs in every other compartment in the triangle.



**The comments made by the German group**

The triangle is described incorrectly. The tip is not in the centre of the page but at the top. The American group did not mention that only one X is found in each compartment.



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▶▶▶ performed between groups within the same country, the same school or even within the same class.

The level of linguistic difficulty posed by the activity proved adequate for most of the German students, whose level of English ranged from pre-intermediate to intermediate, but, again, it could easily be modified to suit the needs of students of different ages and levels.

## The first phase

The German class was first introduced to the basic vocabulary and phrases used for describing spatial relationships and the location of objects; to the noun and adjective forms of various geometric shapes; and to ways of describing the location of certain points on, in or along geometric shapes.

*All the participating students saw the project as being relevant to their career aspirations*

Next, the class was divided into four groups (A, B, C and D). Each group was asked to create an abstract, two-dimensional illustration by using the shapes previously studied. After these were finished, each group had to write a description of their illustration in English, employing the terms and structures already learned. They were told that their descriptions would be read by a group of US high school students enrolled in a technology class. These US students would then attempt to reconstruct the illustrations with only the written descriptions provided by the German students. When each group believed its description to be satisfactory, the texts were faxed to the US class.

## The second phase

The US class was also divided into four groups (A to D). Each US group attempted to produce the drawing described by their corresponding German group and, in addition,

compiled a list of comments concerning aspects of the description that they had difficulty interpreting. The completed drawings and comments were then faxed to the students in Germany.

## The third phase

Before giving the four German groups the comments submitted by their US counterparts, the instructor in Germany gave each group its original drawing and description together with the reconstructed illustration faxed back from the US. Immediately, group A was told to exchange its description and pair of illustrations with group B. Groups C and D did the same. Next, group A was asked to explain to the class (in English) how the reconstructed version of B's illustration differed from the original. Group A had to hypothesise what may have caused the partner group in the US to misunderstand (if they did) the description. This same procedure was carried out by group B, using group A's drawings and description, and repeated

by groups C and D. The descriptions and illustrations were then returned to their original groups and the questions and comments of the US partner groups were given out. In most cases, the feedback from the US students matched the problems identified by the other German groups when they exchanged the materials.


## The fourth phase

Finally, the process was reversed. Each of the four groups in the US created a technical illustration and the description (in English) needed to recreate it. The descriptions were sent to the German groups. Upon receiving the instructions from the US, the German students attempted to reconstruct the illustrations. Once this was completed, each group was given the original drawing made by its US counterpart. After some deliberation, the German students discussed possible reasons for any inaccuracies in their reconstructed

versions. Comments made by the German students were then sent to the US students.

## Reactions and benefits

The reaction of all participating students (German and US) to this project, which they saw as being relevant to their career aspirations, was highly favourable. By experiencing the target language as a means of communication with members of another culture, and not merely as a medium for doing grammar and reading-comprehension exercises, and because they appreciated the applied nature of the activity, the German students were able to renew their interest in learning English. For the US class, the project served to reinforce their technical drawing and writing skills. The US students needed to be very focused in using the correct technical terminology. If they had used abbreviations or slang expressions, the German students would have experienced difficulty in understanding their instructions.

In a typical learning situation, be it in a distance project or within the same classroom, there is a student at one end and an instructor at the other. In this project, both ends were in learning mode: the US and German students learned from each other. The instructors simply modelled the teaching concept of 'facilitator'. Furthermore, team building occurred through focused, goal-oriented group activity. Most important of all, however, the reality of 'failure' as a learning tool when attempting something for the first time replaced the perception of 'failure' as inadequacy. 



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