Multiple Intelligences revisited

Rolf Palmberg

About the author

Rolf Palmberg is a senior lecturer at Åbo Akademi University at Vaasa, where he teaches foreign-language methodology in the university teacher-training programmes for class teachers, foreign-language teachers and special-education teachers.

E-mail: rolf.palmberg@abo.fi.
Website: http://www.vasa.abo.fi/users/rpalmber/.
Postal address: P.O. Box 311, FI-65101 Vaasa, Finland.

About this eBook

Title front page photo: Scene from the village of Al Hamra, Ras al Khaimah, United Arab Emirates. © Rolf Palmberg (2008). Small photo in upper right corner: Sign on a house in Kiev, Ukraine. © Rolf Palmberg (2008).

This eBook is a revised and updated version based on two previously published eBooks: **Basic Multiple Intelligences for EFL Teachers** (Palmsoft Publications 2010) and **Activities and Exercises for Logical-Mathematical Learners of English** (Palmsoft Publications 2009). English-language versions of portions of the eBook(s) have been published in various journals and newsletters as indicated in the Acknowledgement section at the end of each chapter.

CONTENTS

1

Learning about MULTIPLE INTELLIGENCES

Background

Learners – and individuals in general – can be described and categorised in a variety of ways. In 1983, Howard Gardner, a well-known psychologist and the creator of the "Multiple Intelligences (MI) Theory", suggested that all individuals have personal intelligence profiles that consist of combinations of seven different intelligence types. These intelligences are (Gardner 1983, 1993):

verbal-linguistic
logical-mathematical
visual-spatial
bodily-kinaesthetic
musical-rhythmic
intrapersonal
interpersonal

Gardner later added an eighth intelligence type to the list, that of naturalist intelligence. At the same time he suggested the existence of a ninth intelligence type, that of existentialist intelligence (Gardner 1999).

Typical learner characteristics

Learners who represent these intelligence types typically display the following characteristics (based on Gardner 1983, 1993, 1999; Berman 2002; Christison 2005):

Linguistic learners enjoy expressing themselves orally and in writing and love wordplay, jokes, riddles and listening to stories. **Logical-mathematical learners** display an aptitude for numbers, reasoning, logic and problem solving, whereas **visual-spatial learners** tend to think in pictures and mental images and enjoy illustrations, charts, tables and maps. **Bodily-kinaesthetic learners** experience learning best through various kinds of movement, including mimicking, dancing and role play, while **musical learners** respond to music and learn best through songs, patterns, rhythms and musical expression. **Intrapersonal learners** are reflective, analytical and intuitive about who they are and how and what they learn, whereas **interpersonal learners** like to interact with others and learn best in groups or with a partner. **Naturalist learners** love the outdoors and enjoy classifying and categorising activities. **Existentialist learners**, finally, are concerned with philosophical issues such as the status of mankind in relation to universal existence. In learning situations, they need to see "the big picture" in order to understand minor learning points and details.

To make it easier to remember the characteristics of each of Gardner's nine intelligence types, Thomas Armstrong introduced the following memory tags (Armstrong 1999):

linguistic intelligence	"word smart"
logical-mathematical intelligence	"number/reasoning smart"
visual-spatial intelligence	"picture smart"
bodily-kinaesthetic intelligence	"body smart"
musical intelligence	"music smart"
intrapersonal intelligence	"self smart"
interpersonal intelligence	"people smart"
naturalist intelligence	"nature smart"
existentialist intelligence	"existence smart"

A selection of classroom exercises

The classroom exercises presented here cater specifically for the nine different learner types. (In real life, of course, all classroom exercises cater for at least three or four learner types at the same time. Language exercises, for example, are – hopefully – always linguistic, and, secondly, either intrapersonal or interpersonal.)

An exercise for linguistic learners

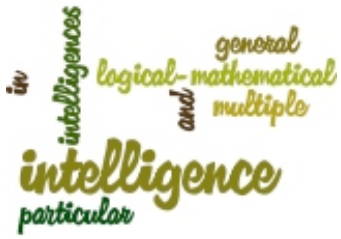
There are eighteen wild animals hiding in the grid below. The words may be written horizontally, vertically, diagonally, forwards, and backwards. Challenge the students to find as many wild animals as possible in three minutes.

S	G	E	W	W	L	W	P	D	A	D	M
O	K	F	U	B	E	A	R	B	E	Z	A
R	R	E	K	A	N	S	G	Q	B	E	G
E	C	D	F	T	D	X	O	F	L	O	N
C	L	E	H	F	K	L	V	U	R	C	Y
O	L	E	O	P	A	R	D	I	N	Y	F
N	R	R	P	F	N	R	L	R	Y	Z	N
I	D	A	F	H	G	L	I	E	W	Q	D
H	Y	U	J	N	A	C	K	G	O	P	Z
R	B	G	C	B	R	N	O	I	L	U	P
B	E	A	S	E	O	R	T	T	F	P	X
O	R	J	H	M	O	C	H	X	Q	D	I

The "wild animals" exercise was first published in Palmberg (2003). It was created using **Word Search**, one of many puzzle-maker options available free of charge on the **Puzzlemaker** website maintained by Discovery Education. For a list of the eighteen animals, see the Solutions section (page 108).

Another exercise for linguistic learners

For those who prefer exercises that concentrate on words rather than letters, the **Wordle** website offers a lovely option that appeals to logical-mathematical and visual learners as well. After you have entered a sentence (or a very short text) into a box and pressed "Go", the program creates a scrambled version of the input for the learners to unscramble or work with according to your instructions. The title of this eBook, for example, could look like this, Wordle style:



(For a full-sized version of the above image, go to http://www.wordle.net/show/wrdl/2736980/Untitled.)

An exercise for logical-mathematical learners

The sentences in the box on page 8 have to be arranged in a (chrono)logical order. Ask the learners to work individually and indicate the correct order by filling in the figures 1-12 in the first column: "1" for the activity that comes first, "2" for the one that comes next, and so on. When they have decided on the correct order, ask them to form pairs. Next, ask them to look at the sentences as they are listed on the handout and, taking turns, tell each other why the first sentence ("Eat the toast") must or cannot come before the second one ("Plug in the toaster"); why the second one must or cannot come before the third one ("Push the lever down"), and so on.

The twelve sentences originate from "A piece of toast", an exercise presented in Romijn and Seely (1981). The "must or cannot" part of the above exercise was inspired by the "Practice" section of a website entitled "Multiple Intelligences for Adult Literacy and Education", maintained by Literacyworks. For a selection of other types of exercises for logical-mathematical learners, see Chapter Seven.

	Eat the toast.
	Plug in the toaster.
	Push the lever down.
	Put some jam on the toast.
	Put the bread in the toaster.
	Put the toast on a plate.
	Spread some butter on the toast.
	Spread the jam around with a knife.
	Take out a slice of bread.
	Take out the toast from the toaster.
	Wait for a little while.
	Watch the butter melt.

An exercise for visual-spatial learners

What rooms are there in the house plan? Divide the students into groups of three and ask each group to agree as to which rooms there are in the following house plan:

This exercise is one of the phases of the lesson plan outlined in Chapter Five.

An exercise for bodily-kinaesthetic learners

Ask the students to move around in the classroom and interview each other about their Christmas habits. More specifically, they have to find out at what time their classmates normally get up, go to bed, have breakfast, have lunch, have dinner, exchange presents, and watch television. The information given by their friends has to be written down on specially-prepared worksheets, such as the one outline below:

name	gets up	goes to bed	has breakfast	has lunch	has dinner	exchanges presents	watches television

This is a modified version of a task entitled "On Christmas Eve"; presented in Christison (2005). It is also one of the phases of the lesson plan outlined in Chapter Six.

An exercise for musical learners

Display the lyrics of a well-known song on an overhead transparency, for example "Rudolph the Red-Nosed Reindeer", and let the students listen to the song while reading the song text. You will find the text on the **Twelve Days of Christmas** website.

Next, switch off the overhead projector and hand out copies of the worksheet on page 10. Ask the students to fill in the missing words (indicated by numbered gaps in the song text).

Rudolph, the [1] reindeer	**[1]**
had a very [2] nose.	**[2]**
And if you ever saw him,	
you would even say it [3].	**[3]**
All of the other [4]	**[4]**
used to laugh and call him [5].	**[5]**
They never let poor Rudolph	
join in any reindeer [6].	**[6]**
Then one [7] Christmas Eve	**[7]**
[8] came to say:	**[8]**
"Rudolph with your nose so [9],	**[9]**
won't you guide my [10] tonight?"	**[10]**
Then all the reindeer loved him	
as they [11] out with glee,	**[11]**
Rudolph the red-nosed reindeer,	
you'll go down in [12]!	**[12]**

This exercise is part of one of the phases of the lesson plan outlined in Chapter Six.

An exercise for intrapersonal learners

Display a limerick on an overhead transparency, for example the one about a man from Beijing. Let the students find out which words on which lines rhyme with which words:

There once was a man from Beijing.
All his life he hoped to be King.
So he put on a crown,
Which quickly fell down.
That small silly man from Beijing.

Next, hand out the templates for creating basic limericks shown below and ask the students to work individually and produce at least two limericks of their own:

Template A

There once was a _____ from _____.
All the while s/he hoped _____.
So s/he _____.
And _____.
That _____ from _____.

Template B

I once met a _____ from _____.
Every day s/he _____.
But whenever s/he _____.
The _____.
That strange _____ from _____.

The limerick and the handout are from Leslie Opp-Beckman's website entitled **P**eople **I**nterested in **Z**ippy and **ZA**ny **Z**cribbling (or simply **P I Z Z A Z !...**).

An exercise for interpersonal learners

Divide the students into pairs and hand out half a dialogue to each student (one student in each pair is "Student A"; the other is "Student B"; see page 12). Ask the students to act out the dialogue in turns by following the instructions. Note that Student A only has (and sees) the left (blue) half of the handout; Student B has (and sees) only the right (red) half.

Student A	Student B
(Call Student B on the phone.)	
	(The phone is ringing.) Answer the phone. Say your name.
Greet your friend and say your name.	
	Return greeting.
Suggest something to do in the afternoon.	
	Disagree and give a reason why not.
Agree and say you are sorry. Suggest something else do the next day.	
	Disagree and give a reason why not.
Agree. Suggest something else do on the day after tomorrow.	
	Agree. Suggest a meeting-place and a time say goodbye.
Accept and say goodbye.	

Exercises of this type are called skeleton dialogues. As opposed to word-for-word dialogues, skeleton dialogues are controlled in their practice of fixed language functions, but uncontrolled in that they allow students to use structures and vocabulary according to their own choice and level of proficiency. The skeleton dialogue presented above is a slightly modified version of one presented in Abbs and Freebairn (1980).

An exercise for naturalist learners

Ask the students (individually, in pairs, or in groups of three) to divide the classroom objects below into (natural) groups. It is up to the students to decide (agree) how many groups there are, what the groups are, and what qualifies individual words to belong to particular groups.

blackboard	**calculator**	**cd-player**
computer	**crayon**	**encyclopaedia**
eraser	**map**	**notebook**
overhead projector	**pen**	**pencil**
poster	**reference book**	**ruler**
(a pair of) scissors	**tape recorder**	**video equipment**

This exercise was first published in Palmberg (2003). Note that all arranging activities are per definition naturalist. Activities aimed at naturalist learners need not as such deal with the theme of nature in order to be naturalist – a misinterpretation which is frequently encountered in the literature on multiple intelligences.

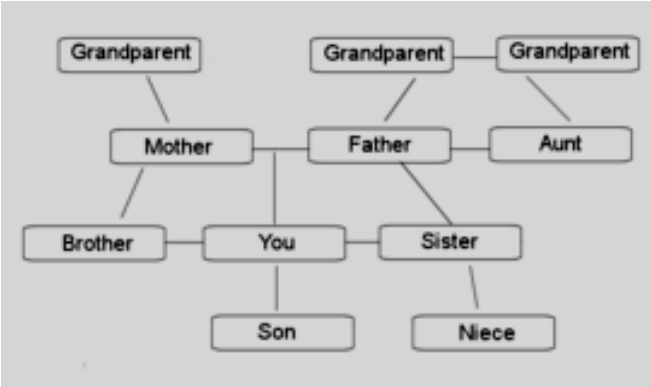
An exercise for existentialist learners

Existentialist learners, as mentioned above, need to see "the big picture" in order to understand minor parts and details. Typical classroom activities for existential learners are therefore more difficult to list. This exercise, however, could in my opinion be categorised as suitable for existential learners:

Ask the students to present their personal family relationships in the form of a family tree, using the vocabulary items in this box:

aunt	**brother**	**cousin**
daughter	**father**	**granddaughter**
grandfather	**grandmother**	**grandson**
great-grandfather	**great-grandmother**	**husband**
mother	**nephew**	**niece**
sibling	**sister**	**son**
uncle	**wife**	

There are several ways in which family trees can be drawn. The one below (taken from a **wikiHow** web page entitled "How to draw a Family Tree") is a basic model for beginners. If you have visual-spatial learners in the class, you could encourage them to elaborate on the model by using boxes for males and circles for females and perhaps a simple colour code to indicate whether somebody is one of the student's blood relations or somebody who has married into his or her family (as suggested on the **About.com.: English as 2nd language** web page entitled "Family relationships").



One of the best ways for foreign-language teachers to cater for this type of intelligence is therefore to start each lesson by introducing the teaching goals and by telling their students where the linguistic input of the present lesson (whether related to themes or grammar points) fits in with the linguistic input of previous taught lessons, i.e. in relation to a larger context.

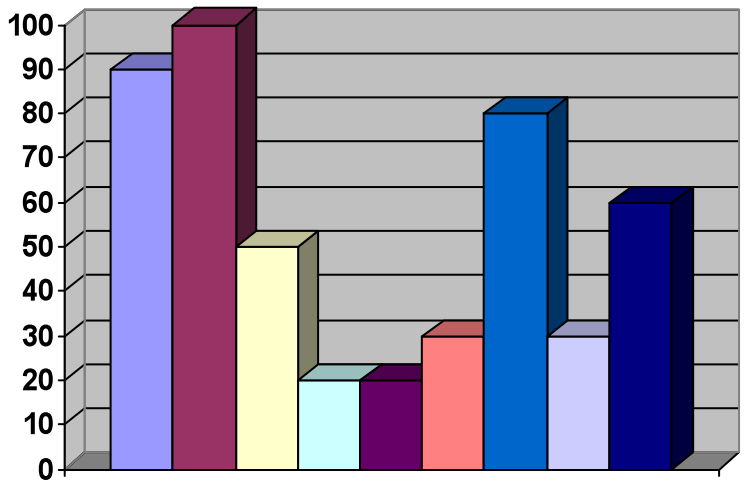
Very suitable reading and discussion exercises for existentialist learners can often be found in books that focus on the use of metaphors in order to stimulate the readers' imagination and feelings – "True Holiness", for example, is a very thought-provoking text from **The Magic of Metaphor: 77 Stories for Teachers, Trainers & Thinkers** (Owens 2001). Two other useful titles written especially for foreign-language teaching purposes are **The Power of Metaphor - Story Telling & Guided Journeys for Teachers, Trainers and Therapists** (Berman & Brown 2000) and **In a Faraway Land** (Berman 2010).

MI profiles

As stated in the introductory paragraph of this chapter, all individuals have personal intelligence profiles – so-called "MI profiles" – that consist of combinations of different intelligence types. It is not, however, so much a matter of either possessing or not possessing specific intelligence types. Even if a specific type of intelligence may in theory be non-existent in some individuals, the large majority of us do have at least a minimal degree of all intelligence types. According to Mary Ann Christison, most people are somewhere in the middle of the scale, with a few intelligences highly developed, most modestly developed, and one or two underdeveloped (Christison 2005).

Note that the nine different intelligence types that form a person's MI profile do not – contrary to what is occasionally claimed in the literature – add up to a total of 100 percent. In fact, each intelligence type has its own value that ranges from (virtually) zero to 100 %. This misunderstanding probably originates from the fact that some books and articles use pie charts to demonstrate what MI profiles look like. In such pie charts, however, the intelligence types are in most cases proportionally represented. Each sector or "slice" can therefore only show the strength of the intelligence type its represents in relation to the other intelligence types, not the strength of each intelligence type in its own right (which is of course much more informative and interesting).

The best way to show a person's MI profile graphically is using a bar chart, where each of the nine bars represents a specific intelligence type, for example like this (presented in Palmberg 2003):



Also note that people's MI profiles are not static. Unlike traditional IQ, intelligence as defined by Gardner in his MI theory, can – and does – change (Gardner 1999). This means that the nine intelligence types can develop, and also be developed. To quote the title of a paper written by Walter McKenzie: "It's not how smart you are – It's how you are smart!" (McKenzie 1999a).

Effects on learning

Depending on their personal MI profiles, people tend to develop their own favourite way (or ways) of learning foreign languages. For vocabulary learning, for example, some prefer traditional rote learning. Others divide the foreign words into parts or components and concentrate on memorising these instead. Some look for similarities between the foreign-language words and grammatical structures and the corresponding words and structures in their mother tongue or other languages they may know. Some people find mnemonic devices helpful, at least occasionally. Others have adopted different types of accelerated learning techniques and use them on a more or less permanent basis. One such technique, to give but one example, was introduced in the 1970's as the "keyword method" (Atkinson 1975). It requires learners to create a mental picture for the foreign word they want to remember, another picture for the meaning of the word, and then to link the two pictures together. Similar techniques can of course be applied to grammatical structures as well.

The keyword method is interesting, considering that most of us know very little about how memory actually works. According to Giorgi Lozanov, the creator of Suggestopedia, we use only six per cent of our memory capacity (Lozanov 1992), whereas Tony Buzan, one of the world's leading experts on accelerated learning techniques and the inventor of the concept of mind maps, claims that we do in fact use less than that, only one per cent (see Buzan & Buzan 1996). In one of his many books on this topic he describes in detail the relationship between memory, lexical networks, and mind maps (Buzan 1991). On his commercial, family-run website, entitled **Buzan world**, there are many tests for measuring the potential ability to increase our personal memory capacity.

Choosing appropriate classroom activities

Another effect of students having unique MI profiles is that they also tend to have their own favourite classroom exercises and activities. Some of these were already mentioned in the section describing typical learners. Other classroom activities include the following (selected from "Activities to Develop the Eight Intelligences"; Berman 2002):

linguistic intelligence	word building games
logical-mathematical intelligence	logical-sequential presentations
visual-spatial intelligence	mind maps
bodily-kinaesthetic intelligence	relaxation exercises
musical intelligence	jazz chants
intrapersonal intelligence	learner diaries
interpersonal intelligence	brainstorming
naturalist intelligence	background music in the form of sounds created in the natural world

For more examples of classroom activities, see the section "Categorise classroom activities according to intelligence types" in Chapter Two.

The MI Theory and EFL

One of the most important messages of Howard Gardner's MI theory is this: if education is to work as effectively as possible, students' MI profiles should be taken into account rather than ignored. As far as the teaching of EFL is concerned, there are three very recommendable books that apply Gardner's MI theory exclusively to EFL teaching. These are Michael Berman's **A Multiple Intelligences Road to an ELT Classroom** (2002), Mary Ann Christison's **Multiple Intelligences and Language Learning** (2005), and **Multiple Intelligences in EFL**, a book written by Herbert Puchta and Mario Rinvolucri (2005). All three books contain a theoretical background and a comprehensive selection of photocopiable worksheets and handouts for all age groups.

Outline of the present eBook

As the title of the present eBook suggests, it comprises basic information about Gardner's MI theory in general and logical-mathematical intelligences in particular. It describes in detail three lesson plans based on the MI theory. Although the aim is, for practical reasons, exclusively on EFL, the lessons, exercises and activities described are in most cases – after some modification – suitable for all language teachers regardless of the foreign language(s) they teach.

This eBook is a revised and updated synthesis of two previously published eBooks. Chapters One through Six are revised and updated versions of the corresponding chapters in **Basic Multiple Intelligences for EFL Teachers** (Palmsoft Publications 2010), whereas Chapter Eight is a revised portion of the first chapter of that eBook. Chapter Seven, finally, is a reorganised and somewhat abridged version of the contents of **Activities and Exercises for Logical-Mathematical Learners of English** (Palmsoft Publications 2009).

2

Starting with MULTIPLE INTELLIGENCES

Although Gardner's MI theory celebrated its 25th anniversary in 2008, many foreign-language teachers are still unfamiliar with the theory. Then there are others who feel that the theory is too general to be directly applicable to their particular field of interest, i.e. foreign-language teaching. Then again, Gardner never intended nor expected his theory to be used and/or applied by educators (Gardner 2006). It is said that he was very surprised when he was once approached by a group of primary-school teachers who wanted to start an MI school (Anonymous 2008). As for foreign-language teaching, he was in fact doubtful whether his thinking could be of much help (Gardner 2006).

This chapter suggests different kinds of activities for language teachers who know (of) Gardner's MI theory but do not exactly how and where to start.

Read a book on Multiple Intelligences

The more one knows, the better. It is therefore always a good idea to start by reading some of the available literature on the topic (other than this eBook). This advice applies to everybody, beginners and false beginners alike. You will find many items to choose among in the References section of this eBook: books, articles and online resources.

Identify your MI profile

To identify your personal MI profile, there are several checklists to choose among. The easiest way to find one is to use Google – a search for the string "multiple intelligences checklist" will result in more than 12 000 hits. One of the most well-known checklists is Walter McKenzie's "Multiple Intelligences Survey" (McKenzie 1999b). It requires potential test-takers to tick those out of a total of 90 statements with which they agree. The statements are grouped into

nine sections (ten statements for each section), each representing one of Gardner's nine intelligence types. Having ticked all relevant statements, the test-taker is asked to add up the number of ticks for each section and to multiply the results of each section by ten.

Although McKenzie's checklist is available on the Web, it is not interactive. This means that the checklist has to be printed out (or read on the screen), and the scores received for each section have to be plotted on a bar chart using pen and paper. Those who want to identify their MI profiles using computers might be interested in McKenzie's book, **Multiple Intelligences and Instructional Technology**. It provides a conceptual framework for integrating technology across the curriculum and comes with a bonus CD ROM that includes an Excel-based MI survey that creates MI profiles (McKenzie 2005).

Another option is to complete the interactive assessment test offered by Literacyworks. Their website is entitled "Multiple Intelligences for Adult Literacy and Education" and has a section where you can identify your preferred intelligences by filling in an assessment form. The form was designed by Terry Armstrong and comprises 56 statements listed in no particular order. Your task is to read the statements and, for each statement, to decide how well it describes you. Your options are: (1) the statement does not describe you at all; (2) the statement describes you very little; (3) the statement describes you somewhat; (4) the statement describes you pretty well; and (5) the statement describes you exactly. (In my opinion this is much better than having to be categorical and choose between 'Yes' and 'No' only.) When you have completed the form and pressed a specific button, the scores received for your top three intelligences (ranging from 5.0 to 0.0) will be displayed on the screen together with strength summaries and suggestions on how to work with these strengths in your lessons. Note that the test includes only eight of the intelligence types (all but existentialist intelligence).

A third option is to try the **Multiple Intelligences Self-Inventory**, an animated test produced by Educational Broadcasting Corporation (2004). This test is interactive too and only takes a few minutes to complete.

There also exists an Emotional Intelligence Test, designed by John Mayer, Peter Salovey and David Caruso. The full name of the test includes the names of its creators: the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). The test attempts to measure the four key branches of the model referred to in the "Background" section in Chapter One, i.e. perceiving emotions, facilitating thought, understanding emotions, and managing emotions. Altogether, the

MSCEIT consists of 141 items and takes at least half an hour to complete (Mayer, Salovey & Caruso 2002).

Identify your students' MI profiles

When setting out to identify students' MI profiles using checklists, foreign-language teachers should preferably use a version that is easier (from a language point of view) and less comprehensive than the checklist designed by McKenzie (1999b). Terry Armstrong's assessment test on the Literacyworks website "Multiple Intelligences for Adult Literacy and Education" could also be difficult for young learners since it was designed specifically with adults in mind.

The checklists presented by Mary Ann Christison are aimed particularly at EFL students and therefore very useful for this purpose. Her checklists contain eight of the intelligence types (all but existentialist intelligence) and require potential test-takers to rank a number of statements according to whether they disagree (0 points), strongly agree (2 points), or are somewhere in between (1 point). By adding up the number of points, students will find out their strongest and their weakest intelligence. The checklists come in four versions: one for beginners, one for intermediate-level learners, one for advanced (or adult) learners, and one for prospective EFL teachers (Christison 2005).

It should be pointed out that with younger students, checklists could also be filled in the form of teacher-student interviews, as suggested by Evangeline Harris Stefanakis. For example, in one of her checklists (called a "Student Profile"; modified from Haggerty 1995), students are required to decide how often they do specific things ("almost never", "sometimes", "often" or "almost always") (Harris Stefanakis 2002).

Kristen Nicholson-Nelson's argues for the use of portfolios for a variety of purposes (Nicholson-Nelson 1998). One of the six portfolio types she describes is called the "Multiple Intelligences Portfolio". All students in the class are asked to collect into their personal portfolios different kinds of material (for example poems, completed worksheets, essays, dialogues, and drawings) that they have produced themselves, either in class or as homework. Since every intelligence type has to be represented in the portfolio, the students have to code the contents of their portfolios according to the intelligence type(s) that each item caters for to ensure that they have correctly identified all intelligence types. Throughout the school semester, students are allowed to exchange earlier

produced material with more recent material, if they think that the latter can better cater for a specific intelligence type. When working with portfolios for several semesters in a row, students will become more and more familiar with the concept of multiple intelligences and – hopefully – at the same time develop (at least) some of their intelligence types (Nicholson-Nelson 1998).

Other ways of identifying students' MI profiles include asking them to demonstrate their strongest intelligences through personal learning journals, autobiographies, art activities, discussion groups, and one-to-one interviews (activities selected from a list published on the homepage of the Simcoe County District School Board; SCBE 1996).

It is clear that the better the teacher knows his or her students, the better he or she can teach them. In her book, **Multiple Intelligences and Portfolios: A Window into the Learner's Mind**, Evangeline Harris Stefanakis takes the concept of portfolios one step further and emphasises the importance of creating all-inclusive students profiles based on their multiple intelligences. Not only should students complete personal checklists, she says, they should also assess themselves and reflect on their learning on a regular basis. Everything should be written down and all documentation be collected in the form of portfolios. If possible, the students' parents should be encouraged to participate in the creation of such student portfolios through regular observation and documentation. In doing so, students would gain valuable insights about themselves. Teachers, on the other hand, would learn to know their students better through their own observation and by regularly studying the student-parent created portfolios (Harris Stefanakis 2002).

Categorise classroom activities according to intelligence types

Study the list of activities in the box presented below (most of the activities originate from Berman 2002 and Christison 2005). Reflect for a minute or so on each activity and try to decide how you would organise it in your classroom:

background music	brain gym
brainstorming	completing worksheets
cooperative learning tasks	group discussions
independent learning stations	listening to lectures
logic puzzles	making collages
memorisation	mime
optical illusions	pair work
peer teaching	personal goal setting
problem solving	project work
reading texts	role plays
singing songs	storytelling
using charts and maps	visualisations
word games	writing short essays

Next, categorise the activities according to the intelligence types that they cater for. Note that many of these activities can be interpreted and organised in a variety of ways, and different teachers will therefore no doubt categorise them somewhat differently. Furthermore, note that most of the activities can be categorised to cater for several intelligence types at the same time. For example, each activity is always either intrapersonal or interpersonal – and sometimes both!

Combine language skills activities and intelligence types

In a skilfully designed chart entitled "Teaching Intelligently: Language Skills Activities Chart" (Tanner 2001), Rosie Tanner suggests one classroom activity in the intersection of each of the four language skills (vertical columns) and each of the eight different intelligences contained in the chart (horizontal rows).

The "Reading" column in Tanner's chart below contains the following activities (but not necessarily in this particular order):

1	Learners answer true/false questions about a text.
2	Learners compare two characters or opinions in a text.
3	Learners discuss answers to questions on a text in groups.
4	Learners listen to music extracts and decide how they relate to a text they have read.
5	Learners predict the contents of a text using an accompanying picture or photo.
6	Learners reflect on characters in a text and how similar or different they are to them.
7	Learners re-order a cut-up jumbled reading text.
8	Learners work with a text on environmental issues.

Write down Gardner's intelligence types (all but existentialist intelligence) on a piece of paper and see if you can combine them with the eight activities in the box above – there is one activity for each intelligence type. Note that most of the activities can in fact cater for several intelligence types at the same time – all of them, for example, are linguistic. You must therefore use your logical-mathematical intelligence and the method of elimination to arrive at the "correct" answers. To check whether your answers match the ones suggested by Tanner, see the Solutions section (page 108).

Suggest language skills activities for different intelligence types

Prepare a chart similar to the one described above, placing the three remaining language skills (speaking, writing and listening) in the vertical columns and each of the eight different intelligences (or nine, if you want to include existentialist intelligence) on the horizontal rows (idea based on Dexter 1999).

Next, fill in the (empty) intersections of at least one of the three language skills and each of the different intelligence types. A friendly piece of advice: do not try to come up with very complicated classroom activities – the ones that come to mind first are usually the best!

When you have finished, show your list of activities to a friend or a colleague in order to find out whether he or she can accept your suggestions. Or even better: if your friend or colleague also wants to get started with multiple intelligences, ask him or her to prepare a similar list of activities. Then you can compare and discuss your suggestions in a much more profitable way.

If you have access to Tanner's original chart (Tanner 2001), you can compare that too with your list of activities. For the benefit of those who do not have Tanner's chart, see the Solutions section for her suggestions as far as "Speaking" is concerned (page 109).

Identify the MI profile of a foreign-language workbook

Another interesting activity is to identify the MI profile of a foreign-language workbook, for example the one that you yourself are using. You will find this activity especially appealing if you are a logical-mathematical person.

Here is what you have to do. Start by counting the number of activities that the workbook contains and then decide for each activity which intelligence types it caters for. Take careful notes and keep in mind that most activities can cater for several intelligence types. For example, you will most probably find that all activities are linguistic – it is, after all, a foreign-language workbook that you are analysing! Another thing to watch out for is that every activity is by definition either intrapersonal or interpersonal – and sometimes both! (For some of the difficulties involved in the identification of MI profiles of foreign-language workbooks, see Palmberg 2001, 2002.)

Creative teachers have always had the enviable ability to look at a given language activity and immediately know how it could be used in the classroom. Creativity, however, should be set aside in this particular context. On the contrary, one should be very strict when interpreting the instructions of each activity. For example, only activities that explicitly state that they are intended for pair or group work should be categorised as interpersonal. Activities such as

"Make a list of what you like and don't like and then compare your lists in pairs."

should be categorised both as intrapersonal and interpersonal. All remaining activities should, by default, be categorised as intrapersonal learners.

When you have analysed all the activities in the workbook it is time for some maths. Let's say that the workbook contains a total of 160 activities and exercises. According to your judgement, 120 of them cater for intrapersonal learners and 18 for naturalist learners (to give but two examples). The values of the two bars that represent intrapersonal intelligence and naturalist intelligence should therefore indicate 75 % (120 out of 160) and 15 % (18 out of 120), respectively, in MI profile of that particular workbook. (See the bar chart in the section entitled "MI profiles" in the previous chapter.)

A follow-up activity

How many activities did you find that cater for five or six different intelligences at the same time? Did any of them appeal to you more than the others? Why? Next, compare your favourite activity with the one described in the introductory paragraphs of Chapter Three. Which one do you prefer? Why?

Another follow-up activity

Did you identify two or three representative, typical activities or exercises for each of the nine intelligence types? If you did, take a closer look at the activities you found. Are there specific intelligence types that are often linked to each other? Or, to put it differently, are there specific intelligence types that can often be catered for through one single type of activity? If this is the case, why is it so?

Identify the MI profile of a foreign-language lesson

Reflect on one of your most recent foreign-language lessons and make a list of the main phases it contained. Then decide for each phase which intelligence types it catered for. Take careful notes and keep in mind that most phases can (and do) cater for several intelligence types. For example, the large majority of them are – hopefully – linguistic. Another thing to bear in mind is that every phase is by definition either intrapersonal or interpersonal – and sometimes both!

Next you have to do some simple maths. For the sake of simplicity, let's say that your lesson contained ten phases. Of these, seven catered for interpersonal

learners and four for logical-mathematical learners (to give but two examples). The values of the two bars that represent interpersonal intelligence and logical-mathematical intelligence should therefore indicate 70 % (seven out of ten) and 40 % (four out of ten), respectively, in MI profile of that particular foreign-language lesson. (For a general MI profile, see the bar chart in the section entitled "MI profiles" in the previous chapter or the end of Chapter Six for an MI profile of a foreign-language lesson based on the number of phases.)

It should be pointed out that operating with phases (which can vary a lot both as far as numbers and length are concerned) when attempting to identify the MI profile of a given lesson can of course only give a very rough idea of how things really are. If you were to do this properly, you would of course have to operate not with the number of phases, but with the amount of time actually spent on each phase. Or, to put it differently: you should calculate (approximately) how many minutes of the total lesson time that you actually catered for each different intelligence type (and take into account that many intelligence types were in fact catered for simultaneously for some of the time). This information should then be translated into an MI profile of the foreign-language lesson in question in the same way as for workbooks: in percentages. For example, the value of the musical-intelligence bar is 55 % if this intelligence type was catered for during 25 minutes out of 45 minutes (or, in this case, the total lesson time).

A follow-up activity

Assume that you had to do the very same lesson again, this time with a class consisting of, say, only bodily-kinaesthetic learners. Give carefully prepared answers to (at least) these five questions:

1	What phases would you do in exactly the same way? Why?
2	What phases would you do differently? Why?
3	How would you change or modify the phases that you listed in the previous question? Why?
4	What classroom activities would you leave out altogether? Why?
5	Are there any specific activities that you would use instead of the ones you listed in the previous question? If so, which ones would you use and why?

Another follow-up activity

Assume that you had to do the very same lesson for a third time, this time having to cater for all the nine intelligence types. Go through the "MI Lesson Plan Checklist" at the end of this chapter and make notes of any adjustments you might want to do.

Prepare an MI-based lesson outline

Assume that you are going to teach a given topic to a group of foreign-language learners. Select the topic to be taught (such as shopping, at the zoo, flowers …) and make sure that you have a specific learner group in mind (for example beginners, intermediate-level learners, or advanced learners). Write down the topic on a large sheet of paper and draw a circle around it. If possible, set up detailed teaching goals. Make notes of all tasks, texts, exercises, visual aids, classroom activities, and songs that relate to the given topic (and teaching goals) that you come to think of. It does not matter at this stage whether some of them appear unrealistic or impractical.

Arrange your ideas according to the intelligence type that, in your opinion, each task, text, exercise, visual aid, classroom activity, song etc. will be most suitable for. (If you are a visual-spatial person, you may want to draw nine new circles around the central circle and draw lines from the central circle to each of the new circles. Label the new circles according to each intelligence, and write down each task, text, exercise, visual aid, classroom activity, and song into the appropriate circles; idea based on Armstrong 1999).

If you feel that you have no more fresh ideas, read through the very practical teaching suggestions listed on the Literacyworks website "Multiple Intelligences for Adult Literacy and Education" for the various intelligences. Make notes of the ones that appeal to you and might fit into your lesson. After a while, take an overall look at your sheet of paper. Are there any activities that can be combined? Are there activities that can be modified to fulfil the teaching goals more efficiently? Are there activities that do not seem at all suitable for the present purpose?

To wrap things up, arrange, and, if needed, rearrange the (remaining) ideas and activities into a lesson outline that is logical and fulfils the teaching goals of the proposed lesson. Make sure that your lesson caters for all of the nine multiple intelligences. Consult the "MI Lesson Plan Checklist" presented on page 29 if you need more ideas.

An MI lesson plan checklist

intelligence	checklist	yes	no
linguistic	Have you included reading, speaking, listening, writing, spelling activities, word games?		
logical-mathematical	Have you included grammar practice, problem-solving tasks, logic puzzles, calculations, critical thinking activities?		
visual-spatial	Have you included visuals, colour, pictures, graphs, video?		
bodily-kinaesthetic	Have you included movement, role play, drama, hands-on activities?		
musical	Have you included music, sounds, intonation practice, rhythm?		
intrapersonal	Have you included private learning time, self-reflexion, learning diaries?		
interpersonal	Have you included pair work, communicative tasks, role play, group work, discussions?		
naturalist	Have you included nature-related topics, classification activities, categorisation tasks?		
existentialist	Have you told your students where the linguistic input of the present lesson fits in with the linguistic input of the previous lesson and why the activities of the present lesson are important for real life?		

This is an elaborated version of a checklist presented in Nicholson-Nelson (1998).

Acknowledgement

This chapter is a revised and updated version of a paper called "Starting with multiple intelligences – activities for foreign-language teachers", published in **Developing Teachers.com Newsletter** 2 (2003).

3

Catering for MULTIPLE INTELLIGENCES

One for all – all for one

The existence of a large number of different MI profiles does not of course mean that foreign-language teachers have to prepare individual lesson plans for every student in the class. Many language exercises can cater for several intelligence types at the same time, as the following example suggested by Stuart Redman and Rod Ellis (1990) illustrates.

In a three-step activity on the topic "Man and Nature", students are first required to identify the eight animals in a picture, using dictionaries if necessary. They are then asked to work in pairs and decide (a) which of the sixteen adjectives shown in a box they normally associate with each of the eight animals and (b) whether there are words in the box that cannot be used when describing animals. Next, the students are required to work in groups and decide which of the animals they would most like to preserve (and why), provided that the animals were all endangered species (Redman & Ellis (1990).

The students thus use their visual-spatial intelligence to identify the animals, their linguistic intelligence to describe the animals and to discuss whether or not they should be preserved, their intrapersonal intelligence to work individually, their interpersonal intelligence to work in pairs and groups, their naturalist intelligence to classify the animals, and – provided that the students are mature enough – their existentialist intelligence to argue for or against the protection of the animals of their choice.

In a similar way, but in so-called phases rather than steps, the three sample lesson plans introduced in chapters Four, Five, and Six will demonstrate how Gardner's MI theory can in practice be applied to foreign-language classroom teaching in order to cater for the nine intelligence types.

The SAFER teaching model

If you did (at least some of) the activities suggested in Chapter Two, you already have a good idea of what lesson plans that cater for all intelligence types must contain. But there are also other factors involved in the planning of a good foreign-language lesson. Some of these have been cleverly incorporated by Michael Berman into his "SAFER Teaching Model" (Berman 2002). According to his model there are five important factors that teachers should take into consideration when planning foreign-language lessons in order to make their students feel SAFER. Note that Berman's model does not necessarily spell out how to do things when teaching – it reminds teachers what to take into account when planning and teaching!

The five factors emphasised in Berman's SAFER Teaching Model are the following (Berman 2002):

The letter "**S**" in the SAFER acronym stands for "scene", or, to use Berman's own words: teachers should "set the scene to create optimal learning conditions". He therefore introduces different kinds of relaxation techniques to be used and also discusses the positive effects of music in the classroom (with the aim of decreasing students' stress and thus increasing their ability to learn).

The letter "**A**" stands for "authentic", or, to quote Berman: teachers should "provide learners with an authentic reason for doing the session: in other words, sell the lesson to the class".

The letter "**F**" stands for "feature": teachers should ensure that the main feature of the lesson caters for Gardner's intelligence types. This, of course, is what this eBook is all about.

The letter "**E**" stands for "error". Teachers should develop their personal policy regarding learner errors: whether to correct, when to correct, and how to correct. The advice given in different methodology books can differ enormously depending on which particular language-teaching method(s) the authors believe in.

The letter "**R**", finally, stands for "review". This is something that the large majority of textbook authors agree on: repetition is important, whether carried out as instant or continuous review.

Additional features

The sample lesson plans introduced in Chapters Four, Five, and Six were originally presented in Palmberg (2003). They are to some extent based on Berman's SAFER model, but they also include additional features that facilitate learning and help teachers create supportive and relaxed learning environments. The following features in particular can promote students' self-esteem (adapted from Palmberg 2003):

- sharing the goals of the lesson with the students

Knowing the main topic and the teaching goals of the lesson at a very early stage makes students more secure. This insight is of course of greatest importance especially when it comes to existentialist learners. Furthermore, knowledge of the teaching goals makes students realise that what they are going to learn is in fact useful also in real life – an insight that will hopefully motivate them to participate actively in the various phases of the lesson.

- exploiting and emphasising the existence of the potential vocabulary in the foreign language

When students realise that not all foreign-language words are necessarily new (and therefore "difficult") when first encountered, their self-confidence increases and learning is facilitated. The importance of incorporating into foreign-language teaching so-called "potential vocabulary" – i.e. foreign-language words that are recognisable (and easily guessable) owing to similarities that exist between these words and their translational equivalents in the students' mother tongue – was first suggested in the late 1960s by Russian linguists (cited in Takala 1984; further discussed in Palmberg 1990).

- providing students with "support frames" containing the vocabulary items and key phrases needed for communicative activities

Good language students can in most cases manage without this kind of teaching aids since they will probably learn the words and key phrases very quickly anyway. Slow students, on the other hand, feel much more secure knowing that they only have to look at the blackboard or the overhead transparency – which should be kept displayed throughout the communicative activity – to revise any wanted language items needed both for communication and comprehension purposes (see chapters Four, Five and Six for examples of support frames).

4

Working with MULTIPLE INTELLIGENCES: an EFL lesson plan focusing on occupations

The purpose of this chapter is twofold: first, to demonstrate how teachers can cater optimally for students with different intelligence profiles during a foreign-language lesson and second, to show that this can be easily achieved using everyday classroom activities and techniques while at the same time creating a learning environment in which students feel secure and relaxed.

As early as in 1976, Earl Stevick pointed out that memory works at its best when the new subject matter appeals to the students and they can organise what they are learning into familiar patterns (Stevick 1976). The ability to remember new vocabulary items is further increased when students are allowed to use their imagination during the learning process (as during the categorisation task during Phase Nine). Conscious effort (referred to by Stevick as "depth") is required from students in order to enable foreign vocabulary items to be properly processed and transferred from the short-term memory into the long-term memory.

Teaching goals of the foreign-language lesson

The goals of this lesson are for participating students to be able, in the foreign language, to say their names, to tell their occupation, to ask for other people's names and occupations, to produce the words for a number of occupations, and to understand the meaning of a number of occupations.

Phase One

Start the lesson by playing a well-known song indicating an occupation or occupations, for example Rod Stewart's "I'm sailing". Invite the students to guess the topic of the lesson.

Phase Two

Share the goals of the lesson with the students. Invite them to suggest different situations in which they might have to introduce themselves and be able to ask for somebody else's name and occupation in a foreign language.

Phase Three

Ask the students to name some occupations that they already know in the foreign language.

Phase Four

Display an overhead transparency showing a list of ordinary occupations, such as doctor, teacher, cook, mechanic, musician, waiter, baker, nurse, farmer, policeman, soldier, artist, worker, butcher, carpenter, and postman.

Go through the meaning of the occupations in two steps:

(1) by asking the students to read through the list and try to figure out how many occupations they can tell the meaning of (either because they already know the word or because they can guess the meaning of the foreign-language word owing to the fact that it is similar to the translational equivalent of the corresponding mother-tongue word);

(2) by explaining to them the meaning of the remaining occupations.

Next, practise the pronunciation of the occupations with the students.

Phase Five

Ask the students to write down the list of occupations on a lined sheet of paper; one occupation on each line. Or, if you want to save lesson time, hand out a (pre-prepared) worksheet to each student.

Phase Six

Write the key phrases "What is your name? My name is ..." and "What is your occupation? I'm a(n) ..." on the blackboard (in the appropriate foreign language to be practised, if not English).

The support frame could look for example like this:

What is your name?
My name is ...
What is your occupation?
I'm a(n) ...

Next, teach the meaning of these phrases and practise their pronunciation with the students.

Phase Seven

Display an overhead transparency showing pictures representing the selected occupations; with the foreign-language word for each occupation written under or next to the picture (there are very nice illustrations to be found for this purpose for example in Wright 1994).

Again, practise the pronunciation of the occupations and revise the phrases written in the support frame.

Phase Eight

Give each student a slip of paper (cut from a photocopied paper version of the overhead transparency) containing a randomly selected picture representation of one of the occupations and the foreign-language word for the occupation. It does not matter if there are fewer students in the class than there are occupations or if several students are assigned the same occupation, so long as there is at least one occupation that is not assigned to anybody.

Ask the students to walk around in the classroom, asking each other about their names and occupations. (To ensure that everybody asks for everybody else's name, not only their occupation, each student could be assigned a new name in the foreign language.) Ask the students to take notes of each other's names and occupations but not to show their slips of paper to anybody. When they are finished, ask them to find out which occupation(s) was/were best represented in the classroom (their own occupation included) and which occupation(s) was/were not represented at all.

Phase Nine

Ask the students to work individually and decide for each occupation whether it is
(a) a predominantly male or female occupation;
(b) a basically safe or risk-filled occupation; or
(c) an occupation which requires basic skills in a foreign language or not.

Phase Ten

Ask the students to compare and discuss their results in pairs or in groups of three, preferably in the foreign language.

Phase Eleven

During the last three or four minutes of the lesson, ask the students to think about today's topic (with the overhead projector switched off). Ask them to jot down on a piece of paper the main phases of the lesson (using just a couple of words). Next, ask them to check how many occupations they can still remember.

Catering for the various intelligence types

The various intelligence types are catered for during the following phases of the foreign-language lesson outlined above:

intelligence	phase(s)
linguistic intelligence	all phases
logical-mathematical intelligence	phase 8
visual-spatial intelligence	phases 4, 6, 7 and 8; possibly 11
bodily-kinaesthetic intelligence	phase 8
musical intelligence	phase 1
intrapersonal intelligence	phases 1, 2, 3, 4, 5, 6, 9 and 11
interpersonal intelligence	phases 4, 7, 8 and 10
naturalist intelligence	phase 9
existentialist intelligence	phases 1 and 9; possibly 11

Acknowledgement

This chapter is a revised and updated version of a paper called "Catering for multiple intelligences – a foreign-language lesson plan involving occupations", published in **ELT Newsletter** (January 2002) and in Ma Luz C. Vilches (ed.): **Learning to Teach. Teaching to Learn. Issues, Options, and Directions in Language and Literature Education. 6th ESEA Conference Papers. Part III**. Manila 2003: **The ACELT Journal** 7:1.

5

Working with MULTIPLE INTELLIGENCES: an EFL lesson plan focusing on houses

The purpose of this chapter is the same as that of the previous one: first, to demonstrate how teachers can cater optimally for students with different intelligence profiles during a foreign-language lesson and second, to show that this can be easily achieved using everyday classroom activities and techniques while at the same time creating a learning environment in which students feel secure and relaxed. Earl Stevick's observations about depth (see Chapter Four) do of course apply here as well (Stevick 1976).

Teaching goals of the foreign-language lesson

The goals of this lesson are for participating students to be able, in the foreign language, to understand the words used for rooms and common words related to houses, to ask specific questions about houses, to produce the words for common rooms found in houses, to describe houses, and to argue in favour of their own as well as against other people's opinions.

Phase One

Share the goals of the lesson with the students. Invite them to suggest real-life situations in which they might have to discuss or describe houses in a foreign language.

Phase Two

Tell the students that they are going to hear a text entitled "Our House" and that their task is to answer the questions in the box below (displayed on an overhead transparency). Go through the questions together and make sure that everybody understands all the words.

1	What is the colour of the house?
2	How many floors are there in the house?
3	Which rooms are on the ground floor?
4	Which rooms are on the first floor?
5	What is kept on the second floor?
6	Where is the fireplace?

Next read out the text in the box below and ask the students to fill their answers.

Our House

I live in a big yellow house near the main road. Our house has eight windows and two balconies that overlook a big garden. On the ground floor there are a kitchen, a hall, a living-room with many paintings on the walls, a dining-room where we have all our meals, a bathroom, a toilet, a computer room with lots of books in a giant bookcase that fills the whole wall, and a garage. In front of the house there are a garden, a swimming-pool, and a large, green fountain with fish.

On the first floor there are three bedrooms, a bathroom, and a small toilet. On the second floor there is an attic which has all kinds of old furniture. Behind the house there is a vegetable garden. We have a large basement too, with a cosy sitting-room and an open fireplace.

Phase Three

If needed, read out the text one more time and ask the students to recheck their answers. Then ask them to discuss their answers in pairs or in groups or three or four.

Phase Four

Ask the students to make individual lists of all the rooms they would like to have in their dream house. (Invite them to consult bilingual dictionaries if necessary.) Also, ask them to specify whether their dream house is new or old, a single-family house or in a block of flats, located in a city or in the countryside, etc.

Play a house-related song (e.g. "Our house", performed by Crosby, Stills and Nash) at a low volume in the background while the students are working.

Phase Five

Divide the students into groups of three and give each group a copy of the house plan shown below. Ask each group to agree as to which rooms there are in the house plan and at the same time try to include as many elements as possible from every group member's dream house.

Phase Six

When the students are finished, invite them to walk around in the classroom, discussing and comparing house plans. Ask them to make notes of the types of houses included in everybody else's individual house plans while walking around, and also of the rooms found in the house plans agreed upon within the groups.

Phase Seven

Divide the students into new groups of three and ask each group (a) to decide among themselves which rooms were the most popular ones and (b) to categorise the existing house types into whatever number and kind of categories that they find appropriate.

Phase Eight

Play the background song one more time (at a higher volume) and ask the students to concentrate specifically on the lyrics. (If you decided to use the Crosby, Stills and Nash song "Our House", you will find the lyrics on **NIEHS Kids' Pages**, a website comprising a collection of sing-along songs that is maintained by the National Institutes of Health, Department of Health & Human Services. You need to hand out the lyrics or display them on an overhead transparency.) If the students are familiar with the song (or if they like singing) you could also ask them to sing along.

Next, ask the students to decide what the text is all about and then share their thoughts with somebody sitting nearby.

Phase Nine

During the last three or four minutes of the lesson, ask the students to think about today's topic (with the overhead projector switched off). Ask them to jot down on a piece of paper the main phases of the lesson (using just a couple of words). Next, ask them to check how many different kinds of rooms they can still remember. Play "Our House" in the background (at a low volume).

An alternative final phase

Another way of finishing the lesson is to hand out an alternative version of the text used for Phase Two, one copy for each student. In the modified version, all nouns have been deleted and replaced with one single word (but totally irrelevant as far as the topic is concerned), for example 'sausage'. For further instructions, see the "Way of the Sausage" exercise presented in Chapter Seven.

Catering for the various intelligence types

The various intelligence types are catered for during the following phases of the foreign-language lesson outlined above:

intelligence	phase(s)
linguistic intelligence	all phases
logical-mathematical intelligence	phases 2 and 7; possibly 6 and 9
visual-spatial intelligence	phase 5; possibly 2, 6 and 8
bodily-kinaesthetic intelligence	phase 6
musical intelligence	phases 4, 8 and 9
intrapersonal intelligence	phases 1, 2, 3, 4, 8 and 9
interpersonal intelligence	phases 3, 5, 6, 7 and 8
naturalist intelligence	phase 7; possibly 4 and 5
existentialist intelligence	phases 1 and 9; possibly 4 and 6

Acknowledgement

This chapter is a revised and updated version of a paper entitled "Catering for multiple intelligences. A foreign-language lesson plan involving houses", published in **TEFL.net Inspire! Magazine** (November 2005).

6

Working with MULTIPLE INTELLIGENCES: an EFL lesson plan focusing on Christmas

The purpose of this chapter is the same as those of the two previous ones: firstly, to demonstrate how teachers can cater optimally for students with different intelligence profiles during a foreign-language lesson and secondly, to show that this can be easily achieved using everyday classroom activities and techniques while at the same time creating a learning environment in which students feel secure and relaxed.

Furthermore, in order to maintain maximal student activity and interest throughout the lesson, it comprises a variety of language activities and teaching techniques that at the same time optimise students' talking time. Special attention has been paid to co-operative learning and peer teaching, because, as pointed out for example by Anita Woolfolk, the best teacher for a student is another student (Woolfolk 2001).

Note that Phase Three involves work at independent learning stations, i.e. pre-designated places in the classroom where each place has been allocated to a specific type of language task.

Teaching goals of the foreign-language lesson

The goals of this lesson are for participating students to be able, in the foreign language, talk about food and objects relating to Christmas. They will also be able to ask their friends about the way(s) they celebrate Christmas and to describe their own Christmas traditions, to make suggestions, and to argue in favour of their own as well as against other people's opinions.

Phase One

Share the goals of the lesson with the students. Invite them to suggest real-life situations in which they might have to discuss Christmas in a foreign language or describe how they celebrate Christmas in their home.

Phase Two

Hand out a worksheet containing two columns of Christmas-related vocabulary items (homework from the previous lesson). One column lists English words and the second column words in the students' mother tongue. The students' task is to match the English words with their mother-tongue equivalents.

For Swedish-speaking students, for example, the worksheet has the following information:

1. bell	a. julsång
2. candle	b. skorsten
3. card	c. spishylla
4. carol	d. strumpa
5. chimney	e. ren
6. decoration	f. ljus
7. fireplace	g. mistel
8. gift	h. julgröt
9. gingerbread	i. kort
10. mantelpiece	j. snögubbe
11. mistletoe	k. julskinka
12. reindeer	l. prydnad
13. sleigh	m. julfrid
14. snowman	n. pepparkaka
15. stocking	o. spis, eldstad
16. tree	p. klocka
	q. träd
	r. gåva, present
	s. släde
	t. julkyrka

After a couple of minutes, display the correct answers on an overhead transparency (e.g. in the form **1-p, 2-f, 3-i, 4-a, 5-b, 6-l, 7-o, 8-r, 9-n, 10-c, 11-g, 12-e, 13-s, 14-j, 15-d, 16-q**) and ask the students to make sure that they have got the correct Swedish equivalent for each English word.

Phase Three – getting organised

Divide the students into five groups and tell them that for the next half an hour or so they are going to work at five independent learning stations (one group per station). Next, provide each student with an individual two-page worksheet. Tell them that although they work as groups, each student must fill in all answers in his or her worksheet. Inform them that there are no correct answers at their disposal and that at five-minute intervals (timed and announced by the teacher) they must stop working and move on to the next learning station, clockwise.

A sample two-page worksheet can be found on pages 52-53.

Phase Three – Station A

At Station A there is a detailed picture of a living-room decorated for Christmas. There are various kinds of mistakes in the picture, such as misspellings (e.g. in Christmas greetings) or logical inconsistencies (e.g. a wall calendar displaying July the 31st or an object placed upside down). The students' task is to spot as many mistakes as possible and list them in their worksheets. Suitable pictures can be found in course books and on the Web. Be warned, however, you will most probably find that you have to modify them for the present purposes or perhaps even create suitable pictures yourself.

Phase Three – Station B

At Station B students have to categorise given objects according to what one can do with them. They have to discuss (and preferably agree on) which of the following things or objects:

> a chimney, a fireplace, a gingerbread, a mantelpiece, a mistletoe,
> a reindeer, a sleigh, a snowman, candles, stockings

they can

(a) find in a forest?
(b) buy in a department store?
(c) make themselves?
(d) eat?
(e) wrap up in a parcel?
(f) put into a pocket?

There are, obviously, no correct answers, and many of the things listed can of course be categorised in different ways, depending on the creativity of the participating students. If, for example, the reindeer was made of chocolate it could well be eaten and if it was a small toy version of a real reindeer it could probably be put in a pocket. It is up to the students to decide whether they are allowed to list individual objects in their worksheets or only objects agreed within the group.

Phase Three – Station C

At Station C there is a computer preset to show a video clip selected from the **Video Nation** website. In the video clip, entitled "Christmas List", a little girl called Sheri is writing her Christmas list to Father Christmas. The students' task is to watch the video clip and answer the following questions in their worksheets:

1	What presents does Sheri want?
2	Where does she send the letter?
3	How will she get her presents?
4	What will she do when she wakes up at Christmas?

There is enough time to watch the video clip twice, should the students wish to do so.

Phase Three – Station D

At Station D students have to match the halves of fifteen words that have been chopped in half and write them down in their worksheets. One of the words is not a Christmas word. Which word is it?

The chopped-up words are:

ation	**ca**	**ca**	**chi**
Chri	**clas**	**decor**	**deer**
fire	**ft**	**gi**	**ginge**
igh	**king**	**letoe**	**lpiece**
mante	**mist**	**mney**	**place**
pre	**rbread**	**rd**	**rein**
rol	**sent**	**sle**	**sroom**
stmas	**stoc**		

Phase Three – Station E

At Station E there is a computer preset to play "Rudolph the Red-Nosed Reindeer", a song selected from the collection of Christmas carols presented on the **Twelve Days of Christmas** website. The students' task is to listen to the song while reading the song text displayed on the computer screen. When the students have listened to the song they have to turn away from the screen and fill in the missing words in their worksheets (the missing words are indicated by numbered gaps in the song text).

Depending on the proficiency level of the students, there may also be words in the song that are totally new to them. In such a case it is a very good idea to have a pre-prepared support frame available at the station for the students to consult before listening to the song, for example like this:

shiny = glänsande
glow = glöda
join = ta del av
foggy = dimmig, disig
bright = lysande
guide = leda, visa vägen
glee = glädje

Phase Four

Divide the students into new groups of three or four when all learning stations have been visited by all groups. Ask them to compare and discuss their worksheet notes within the new groups and agree upon the correct answer for each task.

Phase Five

Introduce a communicative task that requires students to move around in the classroom interviewing their classmates about their Christmas habits (this is a modified version of a task entitled "On Christmas Eve"; presented in Christison 2005). More specifically, ask them to find out at what time their friends normally get up, go to bed, have breakfast, have lunch, have dinner, exchange presents, and watch television. The support frame (displayed on an overhead transparency or written on the blackboard) has the following information:

At what time do you normally ...
on Christmas Eve?

Practise asking this question with the students a couple of times and remind them that the verb (indicated by three dots in the support frame) must be in its basic form:

"At what time do you normally **get up** on Christmas Eve?"

Next, hand out specially-prepared worksheets (one worksheet for each student) and ask them to write down the times told them by their friends.
The worksheet has the following information:

name	gets up	goes to bed	has breakfast	has lunch	has dinner	exchanges presents	watches television

Phase Six

Depending on the number of students in the class, there will probably not be enough time for everybody to interview everybody else. Therefore, after about ten minutes or so, invite the students to compare their notes in order to specify the range of times that people prefer to perform the various activities. Ask them to decide what the biggest time difference is between the earliest time and the latest time at which someone normally performs a certain activity on Christmas Eve.

Phase Seven

Organise the students into new groups consisting of about four of five people in each group. Tell them that their task is to find out which activity has the biggest time difference and to suggest possible reasons for this.

(You will find that the most probable outcome is either ‘exchanging presents’ or ‘watching television’, depending of course largely on the cultural and/or religious background of the individual students.)

Phase Eight

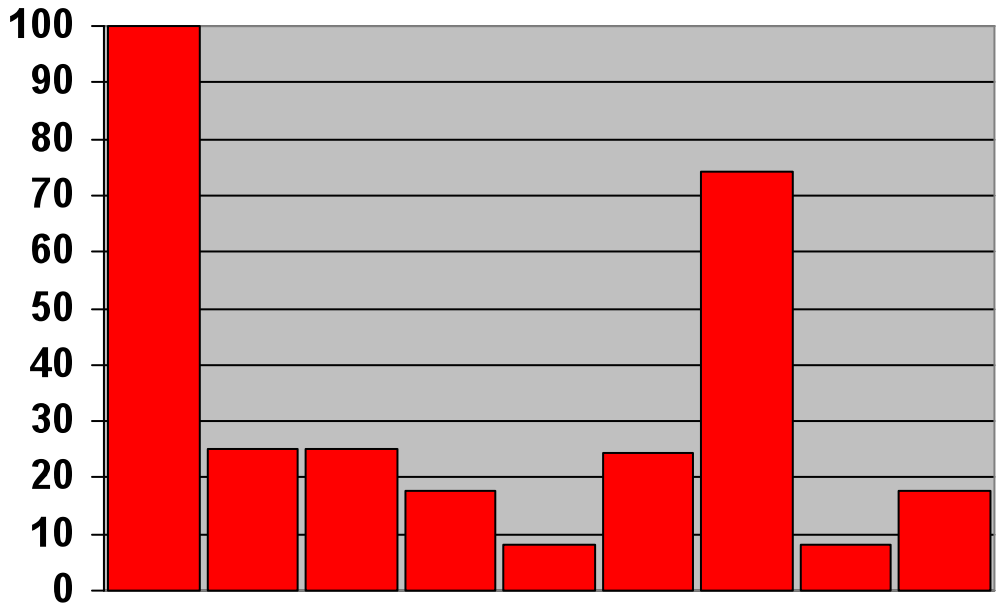
Ask the students to return to their own seats and, for a minute or so, to think about today’s topic. Next, ask them to start working on individual English-language essays entitled “What Christmas means to me”. Tell them to base their arguments on their personal Christmas traditions and on the result of the group discussions. Challenge them to incorporate into their essays as many different Christmas words as possible and to finish the essays at home for the next English lesson.

Catering for the various intelligence types

The various intelligence types are catered for during the following phases of the foreign-language lesson outlined above:

intelligence	phase(s)
linguistic intelligence	all phases
logical-mathematical intelligence	phases 3A, 3D and 6
visual-spatial intelligence	phases 3A and 3C; possibly 3E
bodily-kinaesthetic intelligence	phases 3 [when moving between stations] and 5
musical intelligence	phase 3E
intrapersonal intelligence	phases 1, 2 and 8
interpersonal intelligence	phases 3 [all stations], 4, 5, 6 and 7
naturalist intelligence	phase 3B
existentialist intelligence	phases 1 and 8

If the above information were to be presented in the form of a bar chart (see the section entitled “MI profiles” in Chapter One), the MI profile of the Christmas lesson would look something like this:



Acknowledgement

This chapter is a modified version of a paper called "It's Christmas time – an EFL lesson plan", published on the **Developing Teachers.com** website (2009).

WORKSHEET PAGE 1 [OF 2]

Station A:

Spot the errors in the picture.	

Station B:

Which of the things can you (a) find in a forest? (b) buy in a department store? (c) make yourself? (d) eat? (e) wrap up in a parcel? (f) put into your pocket?	

Station C:

What presents does Sheri want? Where does she send her letter? How will she get her presents? What will she do when she wakes up at Christmas?	

WORKSHEET PAGE 2 [OF 2]

Station D:

What are the Christmas words? **Which is the extra word?**	

Station E:

Fill in the missing words:	
Rudolph, the [1] reindeer **had a very [2] nose.** **And if you ever saw him,** **you would even say it glows.**	**[1]** **[2]**
All of the other [3] **used to laugh and call him [4].** **They never let poor Rudolph** **join in any reindeer [5].**	**[3]** **[4]** **[5]**
Then one [6] Christmas Eve **[7] came to say:** **“Rudolph with your nose so bright,** **won’t you guide my [8] tonight?”**	**[6]** **[7]** **[8]**
Then all the reindeer loved him **as they [9] out with glee,** **Rudolph the red-nosed reindeer,** **you’ll go down in [10]!**	 **[9]** **[10]**

7

Catering for LOGICAL-MATHEMATICAL LEARNERS

Language lessons, obviously, can also be planned for just one intelligence type, whenever needed. As the title of this chapter indicates, the exercises presented are all aimed specifically at logical-mathematical learners of EFL. At the same time, of course, each exercise caters for a varying number of other intelligence types as well. The only difference, compared with other intelligence types, is that exercises aimed at logical-mathematical learners are often very difficult to "translate" into other target languages. In some cases they cannot be used in the teaching of other languages at all owing to the uniqueness of languages.

These exercises all emphasise different aspects of EFL vocabulary knowledge. Some of them concentrate on the finding and identification of existing words or understanding texts and sentences. Others focus on the development of learners' critical thinking skills and their ability to explore and understand multiple-meaning words and riddles. Sometimes the exercises require learners to have access to the Web, and in many cases they come with accompanying worksheets.

The exercises presented in this chapter all derive from the eBook **Activities and Exercises for Logical-Mathematical Learners of English** (Palmsoft Publications 2009). They are (with page numbers indicated within parentheses): "Operation MathLog" (54), "Twenty-one reasons for counting" (58), "Way of the sausage" (59), "Pupils counting pupils" (61), "Colour Street" (62), "Mary's puzzle" (66), "The house of numbered rooms" (69), "Chop Suey" (72), "The Greek t-shirt" (76), "In the kitchen" (79), "Pitch black or snow white?" (81), "A 'Buffet snack' sign" (84), "Lost in the classroom" (87), "Tri-national borders" (89), "Going Dutch" (93), and "Word play" (96). Whenever applicable, the original sources are acknowledged separately for each exercise.

Operation MathLog

Operation MathLog is an internet-based maze designed to develop learners' ability to explore and understand how language works and at the same time increase their knowledge of English vocabulary. It comprises a selection of language tasks of various kinds and different levels of difficulty, for example:

- **anagrams** (learners have to rearrange the letters of given words to form other words),
- **acronym tasks** (learners have to work with words formed from the initial letters of phrases or compound terms),
- **enclosures** (learners have to find words that are hidden in given words or sentences),
- **riddles** (learners have to solve riddles according to given clues),
- **jumbled sequences of letters** (learners have to rearrange sequences of letters that lack spaces and punctuation marks in order to create coherent text),
- **word search grids** (learners have to find words that are hidden in word grids either horizontally, vertically, diagonally, forwards, or backwards,
- **categorisation tasks** (learners have to categorise words according to given criteria),
- **word chop exercises** (learners have to identify words that have been chopped in half),
- **cryptograms** (learners have to decipher messages where letters have been exchanged according to a specific code; see e.g. Singh 1999),
- **problem-solving tasks** (learners have to find out the answer to logical problems based on given facts about people and/or specific circumstances),

and, of course, combinations of these. The tasks sometimes involve follow-up steps that require learners to arrange or rearrange given words in a specific order, to decide what theme or topic given words have in common, to spot the odd man out, etc.

Although Operation MathLog is called a maze, the route is mainly linear. Learners do occasionally face choice situations that appear to be true choices; yet the only purpose of these choices is to make sure that learners at specific stages of the maze have in fact solved all previous tasks. Unlike traditional adventure programs from the early days of CALL (see e.g. Higgins & Johns 1984; Davies & Higgins 1985), there are no help functions available.

The opening web page

The opening web page of Operation MathLog looks like this:

WELCOME TO OPERATION MATHLOG

Do you like wordplay, riddles, numbers and logical puzzles?
Do you like mazes, problem solving and mystery stories?
Then OPERATION MATHLOG could be something for you.

In this maze you will come across a series of mathematical-logical language tasks. You must solve each task correctly; otherwise you won't find your next task. How far can you go? Can you make it till the end?

PS! It's a very good idea to keep a record of the names and types of all tasks and keywords.

For your first task, replace the word mathlog in the address line of this web page with the same word, but with the letters written in reverse order. Then press ENTER.

Procedure

These are the only instructions given to potential players (i.e. learners). Each language task is presented on its own web page, but the only website address available to learners is that of the opening web page. In order to figure out the address of the following task, learners must first solve the (very simple) task presented on the opening web page. The same principle then applies throughout the maze: the word that constitutes the solution to a given task is the new keyword (or one of the possible keywords) that must be entered into the website address instead of the current keyword.

In situations where learners come across tasks that they cannot solve, truly logical-mathematical learners will probably be tempted to take on Operation MathLog as a logical rather than a linguistic challenge in their efforts to "beat the machine" (to quote Higgins & Johns 1984). They may, for example, try to locate any remaining tasks by using their knowledge of computer technology instead. In order to prevent, or at least to make computerised search more

complicated, all web pages have (with the exception of the opening web page) deliberately been left 'orphan'. This means that there are no hyperlinks to take learners from one web page to another; a fact that makes the maze 'internet-based' rather than 'web-based' (cf. Smith & Baber 2005). The website addresses contain no easily recognisable keywords that could help potential hackers, either.

Acknowledgement

The opening web page of **Operation MathLog** has been online since September 2005. Its target group and the target learners referred to in this eBook are, by and large, people sharing the same interest, numbers and logical reasoning. Five of the tasks presented on the **Operation MathLog** web pages have therefore been transformed into suitable exercises for this eBook. The five tasks are "Colour Street", "The house of numbered rooms", "Chop Suey', "In the kitchen", and "Pitch black or snow white?", and they will not be acknowledged separately. For obvious reasons, the website addresses of these tasks will not be revealed here.

Earlier versions of portions of this part of the eBook first appeared in **CALL Review** (Spring 2006) and in **2006 International Conference. Beyond the Horizon: Extending the Paradigm of TEFL** (Seoul 2006: The Korea Association of Teachers of English).

Twenty-one reasons for counting

This exercise provides young learners in particular with a motivating reason for reciting numbers from 1 to 21 in a foreign language.

Procedure

The rules are simple. Learners work in pairs, and each learner must add either one or two numbers to an accumulating list of numbers starting from one. The learner who says 21 has lost. A typical dialogue might go like this:

Learner A: One,
Learner B: two, three,
Learner A: four, five,
Learner B: six, seven,
Learner A: eight,
Learner B: nine, ten,
Learner A: eleven, twelve,
Learner B: thirteen,
Learner A: fourteen, fifteen,
Learner B: sixteen, seventeen,
Learner A: eighteen,
Learner B: nineteen, twenty,

Learner A: twenty-one.

After of couple of tries some of the learners will most probably have figured out how they can (almost) always beat their partner. Can you figure it out?

Acknowledgement

This exercise first appeared in **IATEFL Voices** 194 (2007). The smiley images are used courtesy of **Smiley Central**.

Way of the sausage

Language teachers often spend the first ten or fifteen minutes of a lesson revising texts that were introduced to the learners during a previous lesson. Here is an exercise that provides variety and pupil motivation and, what is more, keeps the learners alert. It is suitable for individual work, pair work, and group work.

Step One

Take a familiar text, for example this one (the first paragraph of the text entitled "Our House"):

Our House

I live in a big yellow house near the main road. Our house has eight windows and two balconies that overlook a big garden. On the ground floor there are a kitchen, a hall, a living-room with many paintings on the walls, a dining-room where we have all our meals, a bathroom, a toilet, a computer room with lots of books in a giant bookcase that fills the whole wall, and a garage. In front of the house there are a garden, a swimming-pool, and a large, green fountain with fish.

Step Two

Prepare a text version where all nouns have been deleted and replaced with one single (but totally irrelevant) word, for example 'sausage'. The text in the box above would thus read:

Our Sausage

I live in a big yellow sausage near the main sausage. Our sausage has eight sausages and two sausages that overlook a big sausage. On the ground sausage there are a sausage, a sausage, a sausage with many sausages on the sausages, a sausage where we have all our sausages, a sausage, a sausage, a sausage with lots of sausages in a giant sausage that fills the whole sausage, and a sausage. In front of the sausage there are a sausage, a sausage, and a large, green sausage with sausages.

Step Three

Hand out copies of the modified text to the learners. Tell them that their task is to recreate the original text individually, in pairs or in groups of three, either orally or in writing (depending on the teaching goals of the lesson and the time available). If the learners like the exercise (and most of them inevitably will), challenge them to prepare similar exercises at home (to be used later in class).

Acknowledgement

This exercise is based on a teaching idea by Neville Britten (1983). In his paper Britten suggested that 25 words in the target text be substituted with 25 (different) words for the learners to find. The 'sausage' version of Britten's idea was first presented in Palmberg and Palmqvist (1988) and, twenty years later, in an abstract on the **TeAchnology** website.

Pupils counting pupils

This very short exercise is an alternative way of finishing a lesson that has introduced and practised the vocabulary needed to talk about the different parts of the face. At the same time it will remind learners of the fact that there exist so many words in English that have multiple meanings.

The Final Step but One

Revise the vocabulary items needed to talk about the different parts of the face. Remember that the word ‘pupil’ must be included and make sure that the pupils understand that it means ‘the opening in the centre of the iris of the eye’.

The Final Step

Finish the lesson by asking the pupils how many pupils there are in the classroom. They will most probably come up with a number of incorrect answers before the correct one, even after they have first discovered that ‘pupil’ also means ‘somebody who is learning in school’. Make sure that you know the answer before asking the question.

Solution

See the Solutions section (page 109).

Acknowledgement

This exercise first appeared in Palmberg (2004) as part of a lesson plan entitled “Hands and arms and legs”.

Colour Street

The purpose of this exercise is to practise learners' logical thinking skills and at the same time provide them with something meaningful to talk about. The exercise is suitable for all proficiency levels.

Step One

Prepare a transparency of the worksheet on page 64 and enough copies for the learners (one copy each). Also, prepare enough copies of the fact sheet on page 65 and cut the copies into pieces (one piece of information on every slip of paper). The fact sheet contains six pieces of information, which means that every sixth learner will have identical slips of paper. Finally, print out a copy of the final task on page 65 (to be kept on the teacher's desk).

Step Two

Display the transparency of the worksheet on an OHP. Explain to the learners that their task is to walk around in the classroom and, by talking to each other and by using logical thinking, find out who lives in which house. Explain to them how to fill in the worksheet and emphasise that they should talk to their classmates, think, rethink, and avoid guessing.

Step Three

Hand out one worksheet and one slip of paper to each learner. Tell the learners to walk around in the classroom and ask each other what they know about the people who live on Colour Street. Advise them to make careful notes on their worksheets of what they learn. Remind them that they should tell the people who ask them questions only what is stated on their own slips of paper (**NOT** what they have already written on their worksheets). Also, remind them that they should **TALK** to each other; **NOT** show anybody their slips of paper or worksheets.

Step Four

Tell learners who have completed their worksheets that there is a final task waiting for them on the teacher's desk.

Solutions

See the Solutions section (page 109).

COLOUR STREET – WORKSHEET

INSTRUCTIONS

There are five houses on Colour Street. As you can see, they all have different colours. The houses come in this order:

Five people live on Colour Street, one person in each house. Their names are, in alphabetical order:

Mr Blue, Mrs Green, Mr Red, Mrs White, and Mr Yellow.

Your task is to find out who lives in which house.

Make notes in this box:

Write down all facts in this box:

the owner of …	the red house	the yellow house	the blue house	the white house	the green house
Mr / Mrs					
first name					
family name					

COLOUR STREET – FACT SHEET

1	Nobody lives in a house with the same colour as his or her name.
2	Elsie White likes Bryan, her neighbour.
3	Frank and Bruce are neighbours.
4	Mr Red has only got one neighbour.
5	Bruce is always cheerful despite his name.
6	Claire lives next to the white-coloured house.

COLOUR STREET – FINAL TASK

**When you have decided who lives in which house,
you must take**

1. **the 1st letter from the name of the person who lives in the first house,**
2. **the 2nd letter from the name of the person who lives in the second house,**
3. **the 3rd letter from the name of the person who lives in the third house,**
4. **the 4th letter from the name of the person who lives in the fourth house,**
5. **the 5th letter from the name of the person who lives in the fifth house.**

What word do the letters spell?

Mary's puzzle

Reading a text in a foreign language is a complex process. It involves a variety of skills, ranging from what Neville Grant (1987) calls "plain sense reading" through "deductive reading" to "projective reading". Plain sense reading, according to Grant, requires nothing more than what the term implies – i.e. the ability to understand what is stated in a text. Deductive reading involves the ability to draw inferences – deductions – from what is stated in a text. Or, in Grant's words, learners should be able to do more than just "read the lines"; they should also be able to "read between the lines". Projective reading, finally, involves the ability to relate a text to one's personal opinions, knowledge, imagination, and experience. To put it differently: learners should be able to "read beyond the lines".

This exercise practises learners' deductive as well as projective reading skills simultaneously. The text consists of just five – albeit cleverly designed – sentences. Yet most of the learners will no doubt have to revise their thinking several times during the exercise. It is suitable for most proficiency levels.

Step One

Prepare an OHP transparency of the text entitled 'Mary's Puzzle'.

MARY'S PUZZLE

1. **Mary was on her way to school.**
2. **She was very worried about the maths lesson.**
3. **Last week she couldn't control the class.**
4. **It wasn't fair of the maths teacher to leave class responsibility to her.**
5. **After all, it's not part of a xxx's duties to teach.**

Hand out a copy of the worksheet on page 68 to the learners (one copy each) and display the first of the five sentences on the OHP transparency. Ask the learners to write down on their worksheets a short answer to the question 'Who is Mary?' and give a reason why they think so. Next, ask them to share their thoughts in pairs or in groups of three or four.

Step Two

Display the second sentence on the OHP transparency. Again, ask the learners to write down an answer to the question 'Who is Mary?' and then share their answers with their classmates. Remind them that they do not have to stick to their original guess – they may change their answers whenever they want.

Steps Three, Four and Five

These steps follow the same procedure as the previous steps: read, think, write and discuss. For the fifth sentence, however, tell the learners that they must now decide who Mary is. Keep prompting for suggestions until someone comes up with the correct (or an acceptable) answer. You may have to help the learners with occupations for which they do not know the English words.

Solution

See the Solutions section (page 110).

Acknowledgement

The text 'Mary's Puzzle' originates from Sanford and Garrod's book **Understanding Written Language** (1981), rendered in its Finnish version as 'Tuulan arvoitus' in Blom, Linnankylä and Takala (1988). The present exercise is a modified version of the procedure described in Blom, Linnankylä and Takala, where learners are asked to give their answers to the question 'Who is Mary?' only in writing.

MARY'S PUZZLE – WORKSHEET

Fill in this box when you have read sentence 1:

Who is Mary?	**What makes you think so?**

Fill in this box when you have read sentence 2:

Who is Mary?	**What makes you think so?**

Fill in this box when you have read sentence 3:

Who is Mary?	**What makes you think so?**

Fill in this box when you have read sentence 4:

Who is Mary?	**What makes you think so?**

Fill in this box when you have read sentence 5:

Who is Mary?	**What makes you think so?**

The house of numbered rooms

This exercise practises learners' text-reconstruction skills. It is suitable for most proficiency levels, provided that the learners are familiar with the vocabulary included in the text.

Step One

Explain to the learners that the text (displayed on an OHP transparency):

> **I live in a red house near the main road. Our house has eight rooms and two balconies that overlook a big garden.**

could also be conveyed like this (displayed on an OHP transparency):

> **ILIVEINAR EDHOUSENE ARTHEMAI NROADOU RHOUSEHA SEIGHTRO OMSANDTW OBALCONI ESTHATOV ERLOOKAB IGGARDEN**

Give the learners enough time to notice that there are no spaces or punctuation marks. Answer their questions, if there are any.

Step Two

Ask the learners to form pairs or groups of three and hand out copies of the worksheet on page 71. Give each learner his or her own worksheet, and emphasise that everyone has to fill in a worksheet of their own even if they work in pairs or in groups. Tell them that their task is to arrange the groups of letters in the box in their correct order and to provide the text with spaces and punctuation marks. Remind them that they must not add or delete any letters. They must not change the order of letters, either.

Step Three

When most of the learners have completed the task, ask them to share and compare their findings with their classmates.

Solution

See the Solutions section (page 110).

THE HOUSE OF NUMBERED ROOMS – WORKSHEET

INSTRUCTIONS

To be able to read the text, you must put the groups of letters in the box below in their correct order and provide the text with spaces and punctuation marks. Do not add or delete letters. Do not change the order of letters.

This is the beginning of a text: ILIVEINAB

NDFLOORTH	TONTHESE	ORTHEREI	ING-ROOMAB
LALIVING-	ALLTOILE	IGHOUSEO	DATOILE
EREAREAKI	REEBEDRO	HEREARETH	OMSABATHR
STFLOORT	NTHEGROU	ROOMADIN	ATHROOMAN
TCHENAHAL	CONDFLO	OOMANDASM	TONTHEFIR

The text ends with this group of words (not included in the box): SANATTIC.

Write your passage in the box below. Use both lowercase and uppercase letters, and don't forget to add spaces and punctuation marks.

Chop Suey

The purpose of this exercise is to increase learners' vocabulary knowledge and their awareness of possible (and impossible) letter combinations in English words. It is suitable for intermediate and advanced learners of EFL. Like many other exercises presented in this eBook, it encourages the use of dictionary work in the classroom. As has been pointed out for example by Julie Moore, it is crucial that EFL teachers keep training their learners in the use of both monolingual and bilingual dictionaries (Moore 2005).

Step One

Hand out the worksheet on page 75 to the learners (one copy each). Tell them that there are twenty English words hiding in the grid, but that each word has been split into two parts (Task One). The topic (and most of the vocabulary) should be familiar to the learners, whose task is to identify which two word parts belong together and then combine the two parts to recreate the original words.

Ask the learners to work individually and write down the identified words in the first box on their worksheets. When they have identified enough words, ask them to fill in the topic that is shared by the words found (to be written into the second box). Finally, when they have identified all the words, ask them to decide which word has nothing to do with the topic (now using the third box).

Step Two

When most of the learners have found most of the words, display the following word list on an OHP transparency:

chin
cheeks
ears
eyes
eyebrows
eyelids
eyelashes
forehead
freckles
hair
jaws
lips
mouth
neck
nose
nostrils
skirt (the odd man out)
teeth
throat
tongue

Go through the word list and make sure that the learners know what the words mean. Leave the transparency displayed on the OHP and ask the learners to continue their work. Invite them to consult the word list whenever needed.

Step Three

After a while, ask the learners to form pairs and discuss the word parts displayed on the worksheet. Invite them to look at the forty word parts and, for each word part, decide whether

(a) it **is** an English word
(b) it **could be** an English word
(c) it **cannot be** an English word.

Each word part should be written down in one of the three boxes on the worksheet (Task Two). Also, ask the learners to discuss and (preferably) agree on their reasons for categorising the word parts the way they did.

Step Four

Hand out bilingual dictionaries to each pair of learners and ask them to check their results.

Step Five

When most of the learners have completed the task, ask them to form new groups of three or four and compare their findings with each other. If differing interpretations arise, be prepared to act as an authority on the subject. Some of the learners might, for example, argue that **IDs**, **PS** and **SE** are in fact words (even if they are technically abbreviations.)

Solution

See the Solutions section (page 110).

Acknowledgement

This word grid was created in 2005 using an authoring program entitled **Word Chop**. Word chop was one of the alternatives offered by Discovery School on their **Worksheet Generator** website (which, unfortunately, has changed its selection of available authoring programs since then).

CHOP SUEY – WORKSHEET

TASK ONE (individual work)

Combine the word parts in the box into words

ch	**che**	**ck**	**ea**	**eks**	**es**	**ey**	**eyeb**
eyel	**eyela**	**fore**	**frec**	**gue**	**ha**	**head**	**ids**
in	**ir**	**ja**	**kles**	**li**	**mou**	**ne**	**no**
nost	**oat**	**ps**	**rils**	**rows**	**rs**	**rt**	**se**
shes	**ski**	**tee**	**th**	**th**	**thr**	**ton**	**ws**

List the twenty words in the box below:

Which is the topic?

Which of the words has nothing to do with the topic?

TASK TWO (pair work)

List the word parts that (you think) are English words in the box below:

List the word parts that (you think) could be English words in the box below:

List the word parts that (you think) cannot be English words in the box below:

The Greek t-shirt

As stated in the introduction to 'Mary's puzzle', reading a text in a foreign language is a complex process. In Neville Grant's words, learners should be able to read "between the lines" – which he calls "deductive reading" – but also "beyond the lines" – which he calls "projective reading". There is, however, always the risk that learners may be tempted to draw too many inferences from their personal experience when reading a text. To balance their eagerness to read far beyond the lines, here is an exercise to remind them of the dangers involved in assuming too much when interpreting a text. The exercise is suitable for intermediate and advanced learners of EFL.

Step One

Hand out the worksheet on page 78 to the learners (one copy each). Ask them to read through the text entitled 'Have you been to Greece?' several times and to use bilingual dictionaries to check any unfamiliar words. Next, ask them write down their first impressions of Michael as a person and to make a list of everything they know about Michael for a fact.

Step Two

Divide the learners into pairs and ask them to discuss Michael and to compare their lists of facts. Encourage them to give reasons for their opinions and assumptions.

Step Three

Display the background information shown on page 77 on an OH transparency. Next, ask the learners to rethink everything that they thought were facts but that proved in fact to be false assumptions. How could these misunderstandings have been avoided from a language point of view?

BACKGROUND INFORMATION

Michael has just returned from a week's holiday in Hawaii. He never drinks alcohol, but in order to cope with the hot sun he had to drink lots of mineral water every day. He has visited Greece only once, when he was a little boy of three. The t-shirt he's wearing is a gift from his sister who visited Greece some time ago.

Acknowledgement

The original version of this paper first appeared as "The Greek T-shirt – facts vs. assumptions" on **TEFL.net's Idea Thinktank** website (2009).

THE GREEK T-SHIRT – WORKSHEET

HAVE YOU BEEN TO GREECE?

It is December. Michael is standing in the arrival hall at Helsinki airport, tanned and relaxed. He is wearing a white T-shirt with a red text saying Kos, Greece. Peter, an old friend from long ago, sees him and walks up to him.

"Hi, Michael. Have you been to Greece?"
"Yes, I have."
"How was it?"
"To be honest, I can hardly remember anything at all."
"You must remember something. What was the weather like?"
"It was raining non-stop every day."
"Then how can you be so tanned?"
"I spent five or six hours in the sun every day last week."
"Have you had a lot to drink lately?"
"Indeed I have. Several litres every day."

Peter shakes his head and walks away.

TASK ONE

Write down your first impressions of Michael as a person:

TASK TWO

List everything you know about Michael for a fact:

In the kitchen

This exercise is an alternative way of finishing a lesson during which the teacher has introduced and the learners have practised the vocabulary needed to talk about objects found in kitchens. There is no reason to tell the learners that the exercise is a continuation of the kitchen trail. Truly logical-mathematical learners will no doubt discover the connection long before everybody else.

The Final Step but Two

Revise the vocabulary items needed to talk about objects found in kitchens. Make sure to include the words needed for this exercise, too.

The Final Step but One

Tell the learners that there is one more exercise to be done before the end of the lesson. Their task is to find so-called 'enclosures' or, to put it differently, words that are hidden in given words or sentences. The hidden word can be enclosed in one single word or it can span several words in the sentence (spaces should be ignored). Examples are 'cat' in 'education' and 'two' in 'he cannot work' respectively:

education
he cannot work

The Final Step

Hand out the worksheet on page 80 to the learners (one copy each). Ask them to work individually or in pairs and follow the instructions given on the worksheet. Encourage them to use bilingual dictionaries if needed.

Solution

See the Solutions section (page 111).

IN THE KITCHEN – WORKSHEET

These seven sentences all contain at least one hidden word per sentence. The word can be enclosed in one single word or it can span several words in the sentence. Fill in all the hidden words that you can find in Box One. When you have found at least one hidden word in every sentence, start looking for the ones that are commonly associated with one specific place. Write the name of that place in Box Two. Here is a clue for you: the words you are looking for are all between three and seven letters long.

1. **They are smuggling drugs.**
2. **She is a member of the national ad league.**
3. **Would you irritate a potential customer?**
4. **These films are not for kids.**
5. **Mary believes in acupuncture.**
6. **He is listening to a stereo performance.**
7. **His love never reads love stories.**

BOX ONE

1.
2.
3.
4.
5.
6.
7.

BOX TWO

Pitch black or snow white?

Playing with letters and words are exercises that appeal to logical-mathematical people. Here is a puzzle that involves a well-known fairytale and anagrams. It is suitable for intermediate and advanced learners and requires online access to the Web.

Step One

Tell the learners that an anagram is a reordering of the letters in a word or a phrase to form another word or phrase. The word **sword**, for example, is an anagram of the English word **words**. An example of a more complex anagram is the rearrangement of the letters in '**Clint Eastwood**' as '**Old West action**'.

Write these examples on the blackboard to illustrate your point. Ask the learners to give examples of funny anagrams they know either in English or in their mother tongue.

Step Two

Divide the learners into pairs and provide each pair with a computer. Hand out the worksheet on page 83 to them (one copy each). Ask them to read the instructions in the worksheet and try to figure out what the missing word is. Give them no clues whatsoever.

Step Three

If none of the learners comes up with any suggestions within the next few minutes, tell them that they have three clues at their disposal:

(1) **the words "once upon a time"**,
(2) **the title of the anagram puzzle**,
(3) **the number of existing (or would-be) anagrams**.

Step Four

When someone comes up with the correct answer (probably in his or her mother tongue), ask the learners to use a search engine of their choice (for example **Alltheweb**, **Alta Vista** or **Google**) to find the English names of Snow White's seven dwarfs (and especially the missing one). Ask them to write down the names in Box One.

Step Five

Ask the learners to go to the **Anagram Genius** website and try to create funny anagram of the words 'fairytale' and/or 'snow white'. Ask them to write down some of their findings in Box Two and to use bilingual dictionaries or an online dictionary (for example **Merriam-Webster Online**) to find out what the anagrams mean (if anything at all). Tell the learners that they should write down the meanings in Box Two.

Step Six

When most of the learners have completed the task, ask them to form new groups of three or four and share and compare their findings with each other.

Solution

See the Solutions section (page 111).

Acknowledgement

The 'Clint Eastwood' anagram was found on the **Anagram Genius** website. It also offers a downloadable anagram creator for your amusement.

PITCH BLACK OR SNOW WHITE? – WORKSHEET

Once upon a time there were six anagrams and a missing word:

1	HALF BUS
2	EEL SPY
3	YES ZEN
4	GYP RUM
5	POD YE
6	COD
7	

Your task is to unscramble the letters of the six anagrams and figure out what the missing word is.

BOX ONE

1.
2.
3.
4.
5.
6.
7.

BOX TWO

A ‘Buffet snack’ sign

As has already been pointed out, projective reading, as described by Grant (1987), involves the ability to “read beyond the lines”, or, to put it differently, the ability to relate a text to one’s personal opinions, knowledge, imagination, and experience. What, if anything, changes when the “lines” to be understood comprise both words and images? The present exercise gives learners of English at most proficiency levels something meaningful to talk about and at the same practises their projective reading skills.

Step One

Display the photo on page 85 on an OHP transparency. Ask the learners to study the photo for half a minute and, individually, try to figure out what it tries to communicate?

Step Two

Hand out the worksheet on page 86 to the learners (one copy each) and ask them to discuss and answer the questions in pairs or in groups of three.

Step Three

When most of the learners have completed the task, ask them to form new groups of three or four and share and compare their findings with each other.

Step Four

Tell the learners that the sign was photographed outside a pool bar at a hotel in Agadir, Morocco. French is Morocco’s unofficial second language and most of the country’s tourists come from France, so it should come as no surprise that French is the first language on the sign. The remaining languages indicate that there are also many tourists coming to Morocco from the United Kingdom, Germany and Spain. The hotel owners obviously do not want their customers to enter the pool bar in (wet) swimwear, since this could mean that the next customers get their clothes wet.

Step Five

Ask the learners to form new groups and discuss how the text and/or the image on the sign could be changed to avoid any misunderstandings.

BUFFET SNACK – WORKSHEET

With your partner or in your group, discuss the questions below and try to agree on your answers. Write down your answers and comments for each question.

QUESTIONS

1. What are the four languages on the sign?	
2. In what country (or countries) would you expect to see a sign like this?	
3. Where (type of place) do you think this sign is posted?	
4. Are all kinds of shirts allowed inside that place?	
5. What about shoes?	
6. And what about trousers?	
7. What is the general purpose of the sign?	
8. Who do you think put it up, and for whom?	

Lost in the classroom

This exercise is an alternative way of finishing a lesson during which the teacher has introduced and the learners have practised the vocabulary needed to talk about objects found in the classroom. It is suitable for young learners in particular. The learners can work individually or in pairs.

Step One

Hand out the worksheet on page 88 to the learners (one copy each). Tell them that there are eleven words hiding in the word grid and that they are all objects that are normally found in the classroom. The words they may be written horizontally, vertically, diagonally, backwards, forwards, upwards or downwards.

Step Two

After a couple of minutes, display an OHP transparency showing the mother-tongue equivalents of the classroom words to help the learners along. Invite them to use bilingual dictionaries whenever needed.

Step Three

When most of the learners have completed the task, ask them to form groups of three or four and share and compare their findings with each other.

Solution

See the Solutions section (pages 111-113).

Acknowledgement

This word grid was created using an authoring program entitled **Word Search**, one of the many alternatives available on **Discovery Education's Puzzlemaker** website.

LOST IN THE CLASSROOM – WORKSHEET

INSTRUCTIONS

There are eleven words hiding in the word grid below. They are the names of things that you can normally find in the classroom. Your task is to identify and circle the words. **NOTE** that the words they may be written horizontally, vertically, diagonally, backwards, forwards, upwards or downwards. Can you find all the words?

K	R	U	L	E	R	J	N
O	E	D	P	Y	X	M	O
O	T	Z	P	R	B	G	Y
B	S	B	A	J	L	L	A
C	O	M	P	U	T	E	R
N	P	A	E	E	Q	A	C
L	M	T	R	P	N	L	S
R	K	S	E	D	F	G	T

Write the words in this box:

Tri-national borders

Geography can provide foreign-language learners with many interesting topics to talk about. The lesson plan outlined below offers many extra spices for logical-mathematical learners and is suitable for most proficiency levels.

Step One

Tell the learners that you have a geography puzzle for them. Next, display the following information on an OHP transparency:

A GEOGRAPHY PUZZLE

You are standing on the Dutch-French border.
What is the name of the nearest international airport?

Depending on the learners' interest in and knowledge of geography, you may get a wide range of comments. Some may claim that the puzzle cannot be solved at all, since it apparently does not contain enough information. Others may say that the correct answer will of course depend on your exact location. Learners who know their European map well will point out that this is a trick question: the Netherlands and France do not share a border!

Or do they?

If you are lucky, the class expert in geography will tell his or her classmates that the answer can only be Princess Juliana Airport on Sint Maarten. Sint Maarten is the Dutch half of the divided Dutch-French island in the Caribbean. The French part of the island is called Saint-Martin, but it has no international airport. Both Sint Maarten and Saint-Martin are integral parts of their respective homelands, so the Dutch-French border does exist. But it is not in Europe, as one might expect. It is in the Americas.

Step Two

Tell the learners that it's time to shift their focus from bi-national to tri-national borders. A tri-national border (often called a tripoint) is the place where the borders of three neighbouring countries meet. Contrary to what one might assume, the number of tripoints on a given continent has little to do with the number of countries on that continent. North and Central America, for example, comprises twenty-three countries. Yet there are only two tripoints. One of them is the one between Belize, Guatemala, and Mexico; the other one is the one between El Salvador, Guatemala, and Honduras.

Next, hand out some atlases and detailed maps of Europe to the learners and invite them to work in pairs. Ask them to study the map(s) for not more than half a minute and then make a guess: How many international tripoints are there in Europe?

Step Three

At this point you must either pre-teach or revise the English names for the European countries and their adjectives. You may also have to remind the learners that some countries have different words for the actual adjective, for a person from that country, and for the country's language.

Step Four

Hand out the worksheet on page 92 to the learners (one copy each). First of all, ask them to fill in the number of presumed tripoints on the worksheet. Next, ask them to answer the remaining questions and write down their answers. Remind them to fill in the names of the tripoints in this form:

The Finnish-Norwegian-Swedish tripoint

not "the tripoint between Finland, Norway and Sweden".

Have a sufficient number of dictionaries available to enable learners to check the correct adjectives for the different countries. If you find that your atlases and maps of Europe are not detailed enough, a good solution is to have a number of computers logged onto **Google Earth**.

Step Five

When most of the learners have completed the task, ask them to form new groups of three or four and share and compare their findings with each other.

Step Six

If there is still time, invite the learners to do one of two things:

either

study the pictures of some of the tripoints and tripoint areas displayed at my **European Tripointing** website and choose their favourite tripoint

or

put their knowledge of European tripoints to the test by doing a multiple-choice geography quiz called the **Tripoint Guru**.

NOTE!
A real tripoint guru needs no map to answer the questions correctly.

Solution

See the Solutions section (page 113). (Answers to the questions in the **Tripoint Guru** quiz are displayed on the **Tripoint Guru** website.)

Acknowledgement

An outline of this lesson plan first appeared on the **Teaching Ideas** website. The smiley image is used courtesy of **Smiley Central**.

TRI-NATIONAL BORDERS – WORKSHEET

Answer this question first:

How many international tripoints are there in Europe? Write down your guess.	**Answer:**

In the right-hand columns, list all the European tripoints that you can find. Remember to indicate whether the tripoints are dry (located on land) or wet (located in a river or in a lake).	**Dry tripoints:**	**Wet tripoints:**

Which country has the largest number of tripoints? How many tripoints has it got?	**Answer:**

Which European countries have no tripoints at all?	**Answer:**

Going Dutch

Some countries have different words for the actual adjective, for a person from that country, and for the country's language. But can we trust adjectives that seemingly indicate nationality? Or are they all Greek to us? This multi-step exercise is suitable for advanced learners and requires bilingual and monolingual English dictionaries.

Step One

Write the following expressions on the blackboard:

Russian roulette
French fries
Turkish bath
German measles

Ask the learners if they know what the expressions mean. Next, ask them which of these expressions (if any) actually have anything to do with the country to which they refer. Finally, invite anyone who has similar examples to share them with you and their classmates.

Step Two

Hand out the worksheet on page 95 to the learners (one copy each). Ask them to work in pairs and fill in the blanks in the ten sentences on the worksheet (all sentences have expressions that include the word 'Dutch'. Ten of the twenty words in the box are the correct ones. Invite the learners to use monolingual dictionaries to check their answers.

Step Three

When most of the learners have completed the task, ask them to form new pairs to share and compare their findings with.

Step Four

Next, ask the learners to stay with their new partner and use bilingual dictionaries and try to find (and agree on) good translations or translational equivalents in their mother tongue for the ‘Dutch’ expressions.

Step Five

Again, when most pairs have completed the task, ask them to form new groups of three or four and share and compare their findings with each other.

Solution

See the Solutions section (page 113).

Acknowledgement

The idea for this exercise originates from Palmberg (1984).

GOING DUTCH – WORKSHEET

TASK ONE. Fill the blanks in the ten sentences below using ten of the twenty words in the box. If needed, use a monolingual dictionary.

auction, beer, brother, cap, coat, comfort, concert, courage, door, double, fight, kissing, made, party, pig, sale, table, treat, uncle, went

1. A **Dutch** _____ is a door that is divided horizontally. You can shut the upper part and lower part separately.

2. He was very angry and talked to me like a **Dutch** _____.

3. I could not understand a word of what he was saying. He must have been talking _____ **Dutch**.

4. I bought this car at a **Dutch** _____. They reduced the price little by little and soon I had enough money to buy it.

5. Let's get drunk. I need a lot of **Dutch** _____ to be able to do this.

6. They don't want to have any babies so she wears a **Dutch** _____.

7. We _____ **Dutch** with each other the other day when we had lunch: we shared the expenses equally.

8. Last week we had a **Dutch** _____ which was quite the opposite: everyone paid his or her own meal.

9. There was a **Dutch** _____ outside our house last night. A lot of drunken men were screaming and quarrelling for over an hour.

10. **Dutch** _____ means that things could have been worse.

TASK TWO. Use a bilingual dictionary to find out how to translate the 'Dutch' expressions into your mother tongue. Number the translations and write them down on the other side of this worksheet.

Word play

The purpose of this exercise is to increase learners' vocabulary awareness and at the same time practise their dictionary skills. It is aimed primarily at intermediate and advanced learners, but its level of difficulty can easily be modified by selecting words that are more suitable to the learner group(s) in question. Note that the shorter the words selected, the easier the task.

Step One

Ask the learners to write down about ten words from a given topic, for example from the one introduced during their previous English lesson (in this case 'objects found in the classroom'). Tell them to concentrate on words that have, preferably, no more than five letters. After a minute or so, ask them to call out words from their lists, one learner and one word at the time.

Step Two

Choose two of the words that were called out, for example "**desk**" and "**board**". (You may have to do a little prompting in order to get the words you want – otherwise you will have a hard time to produce a word sequence like the one below quickly enough). Next, write the word sequence

desk deck beck back bark bard board

on the blackboard and ask the learners, in pairs, to figure out what you do with each word in the list to produce the following word in the list. In other words, what do you do with **desk** to produce **deck**; with **deck** to produce **beck**; with **beck** to produce **back**; with **back** to produce **bark**; with **bark** to produce **bard**; and finally, with **bard** to produce **board**? Ask the learners to come up with as simple and general rules as possible.

Step Three

After a couple of minutes, ask them what rules they have come up with, if any. Somebody will hopefully suggest (either or both of) these two rules:

You may change a letter in the word
You may add a letter to the word

If so, tell the learners that there are two additional rules, and then display the complete set of rules on an OHP:

You may change a letter in the word
You may add a letter to the word
You may delete a letter from the word
You may NOT change the order of letters in any word

Discuss the rules and if needed, give clarifying examples.

Step Four

Choose two other words from the list of classroom words suggested by the learners and write them on the blackboard. Challenge the learners to see how quickly they can produce a similar sequence of words, starting with one of the two words on the blackboard and ending with the other one. Invite them to aim at as short a word sequence as possible, and tell them to follow the four rules displayed on the OHP. Also, encourage the use of monolingual dictionaries to ensure that the words created really are English words.

Step Five

Ask those learners who have finished their word sequences to check what the words used mean in their mother tongue. Next, ask them to prepare short stories that contain the words used in their word sequences, preferably in the same order.

Step Six

Invite all pairs to present their word sequences to their classmates. Ask everyone to make sure that all words used in the word sequences really are English words. One way of doing this is to ask anyone in doubt to ask the presenters what the words mean in their mother tongue.

Step Seven

If there is still time, ask those learners who had time to prepare short stories to read some of them out in class.

Acknowledgement

This is the third version of an exercise first presented in Palmberg (2004) and later in Palmberg (2006).

8

Caught in A TANGLED WEB OF INTELLIGENCES

Confused?

The more you read and learn about multiple intelligences, the more confused you are likely to get. The main reason is that Gardner's initial classification has been refined and expanded over the years, not only by others, but also by Gardner himself.

Thus, in the 1990s, Gardner's intrapersonal and interpersonal intelligence types were further expanded by two other psychologists, Peter Salovey and John Mayer, who introduced the concept of emotional intelligence (Salovey & Mayer 1990). In order to be emotionally intelligent, one must, according to Daniel Goleman (who popularised the concept) have personal competence, i.e. know how to manage oneself, as well as social competence, i.e. know how to manage relationships (Goleman 1995). Goleman later redefined his definition of emotional intelligence to include the abilities of knowing one's emotions, motivating oneself, recognising emotions in others, and handling relationships (Goleman 1998). Peter Salovey, in turn, developed the concept of emotional intelligence together with another colleague of his, David Caruso. In their opinion there are four key branches of emotional intelligence that are crucial for good leadership: perceiving emotions, facilitating thought, understanding emotions, and managing emotions (Caruso & Salovey 2004).

When discussing the existence of a ninth intelligence type, existentialist intelligence, Gardner also used an alternative term, spiritual intelligence (Gardner 1999). As Michael Berman sees it, the ninth intelligence could in fact consist of two entirely different intelligence types, i.e. existentialist intelligence and spiritual intelligence (Berman 2001). In a much debated book entitled **SQ - The Ultimate Intelligence**, Danah Zohar and Ian Marshall do their best to prove scientifically that spiritual intelligence does exist. They also describe various ways in which this type of intelligence can be identified and how it can help facilitate a dialogue between reason and emotion, between mind and body.

According to Zohar and Marshall the indications of a highly developed SQ include a high degree of self-awareness, a capacity to be flexible, and a tendency to see the connections between diverse things (Zohar & Marshall 2000).

The existence of yet another related intelligence type has been suggested, that of metaphoric intelligence. According to Jeanette Littlemore, who defines this intelligence type as the ability to comprehend and produce novel metaphors, metaphoric intelligence should be regarded as an intelligence type in its own right. She defends her case in a paper entitled "Metaphoric intelligence and foreign language learning" by presenting both theoretical and empirical evidence (Littlemore 2001) and claiming that metaphoric intelligence does indeed meet Gardner's criteria for the existence of an intelligence type (these criteria are explained in detail in Gardner 1983). It seems that metaphoric intelligence – if it exists – shares many characteristics with Gardner's ninth intelligence type, whether called existentialist intelligence or spiritual intelligence (discussed e.g. in Berman 2001).

The maybe biggest controversy, however, probably lies in the term "intelligence" itself. In his MI theory, Gardner describes human cognitive competence as "a set of abilities, talents, or mental skills, which I call intelligences". Although the term "intelligence" unavoidably leads many people's thoughts to the traditional intelligence quotient and the specific abilities it represents, this is the term that has been used throughout this eBook. Gardner acknowledges that he could have called these skills anything else but "intelligences", but he also admits that his theory would probably had drawn less public attention if he had (Gardner 2006). Not surprisingly, there are several alternative terms that are used by people who claim that they can understand Gardner's theory much better if they avoid or ignore the term "intelligence" altogether and use terms such as "talents" or "aptitudes" instead (see Weinreich-Haste 1985). Gardner also emphasises that multiple intelligences are not the same as learning styles (the most dominant categories being visual, auditory and tactile/kinaesthetic), although there is, naturally, a great deal of overlapping between these different approaches or ways of learning (see for example the work done by Dunn & Dunn 1999 and Kolb 1984). For a summary of some of Gardner's most important criteria for what constitutes an intelligence type in its own right, see Puchta and Rinvolucri (2005). For some of the credibility problems associated with Gardner's MI theory, including the concept of intelligence itself, see Kerr (2009).

Wrapping things up

One simple but possible way of summarising the state of the art would be to distinguish between three basic groups of intelligence types – **IQ**, **EQ**, and **SQ**. Although – as pointed out by Wayne Rimmer – scientists are in principle not very happy with categories that overlap, teachers are probably more comfortable with loose boundaries (Rimmer 2010). IQ, in such a categorisation, refers to the traditional intelligence quotient that is measured using a test originally designed in the early 1900s by Alfred Binet and his colleagues. IQ tests, however, concentrate almost exclusively on people's logical-mathematical and linguistic intelligence. EQ refers to emotional intelligence, be it the model popularised by Daniel Goleman or the model refined by Peter Salovey and his colleagues. SQ, finally, refers to the controversial area of spiritual-existentialist-metaphoric intelligence.

Acknowledgement

This chapter is a revised and reorganised portion of the end of the first chapter originally published in **Basic Multiple Intelligences for EFL Teachers** (see page 1 of this eBook).

REFERENCES

Abbs, B. & I. Freebairn (1980). **Building Strategies**. London: Longman.

About.com.: English as 2nd language. "Family relationships". http://esl.about.com/library/vocabulary/bl_relatives.htm.

Anagram Genius. www.anagramgenius.com.

Anonymous (2008). "The 25th anniversary of the publication of Howard Gardner's Frames of Mind: The Theory of Multiple Intelligences." **Howard Gardner**. http://pzweb.harvard.edu/PIs/MIat25.pdf.

Armstrong, T. (1999). **7 Kinds of Smart: Identifying and Developing Your Multiple Intelligences**. New York: Plume Books.

Atkinson, R. C. (1975). "Mnemotechniques in second-language learning." **American Psychologist** 30.

Berman, M. (2001). **Intelligence Reframed for ELT**. London: Golem Press.

Berman, M. (2002). **A Multiple Intelligences Road to an ELT Classroom**. Carmarthen: Crown House Publishing. Second Edition.

Berman, M. (2010). **In a Faraway Land**. Ropley, Hampshire: O-Books.

Berman, M. & D. Brown (2000). **The Power of Metaphor - Story Telling & Guided Journeys for Teachers, Trainers and Therapists**. Carmarthen: Crown House Publishing.

Blom, L., P. Linnankylä & S. Takala (1988). **Tekstien avaaminen luokassa. Jyväskylän yliopisto**. Kasvatustieteiden tutkimuslaitoksen julkaisusarja B. Teoriaa ja käytäntöä.

Britten, N. (1983). "Reactive reading." **Practical English Teaching** 3:3.

Buzan, T. (1991). **Use Both Sides of Your Brain**. New York: Plume Books.

Buzan, T. & B. Buzan (1996). **The Mind Map Book: How to Use Radiant Thinking to Maximize Your Brain's Untapped Potential**. New York: Plume Books.

Buzan world. http://www.buzanworld.com.

Caruso, D. R. & P. Salovey (2004). **The Emotionally Intelligent Manager. How to Develop and Use the Four Key Emotional Skills of Leadership**. New York: John Wiley & Sons.

Christison, M. A. (2005). **Multiple Intelligences and Language Learning. A Guidebook of Theory, Activities, Inventories, and Resources**. San Fransisco: Alta Books.

Davies, G. & J. Higgins (1985). **Using Computers in Language Learning: A Teacher's Guide**. London: CILT.

Developing Teachers.com. http://www.developingteachers.com.

Dexter, P. (1999). "Teaching to different learning styles." In Dexter, P. & S. Sheerin (eds): **Learner Independence Worksheets 2**. Whitstable, Kent: IATEFL.

Discovery Education's Puzzlemaker. http://puzzlemaker.discoveryeducation.com/.

Dunn, R. & K. Dunn (1999). **The Complete Guide to the Learning Styles**. Inservice System Boston, Massachusetts: Allyn and Bacon.

Educational Broadcasting Corporation (2004). **Multiple Intelligences Self-Inventory**. http://www.thirteen.org/edonline/concept2class/mi/index.html.

EnglishClub.com. http://www.esldepot.com/.

European tripointing. http://www.vasa.abo.fi/users/rpalmber/borders3.htm.

European tripoint statistics. http://www.vasa.abo.fi/users/rpalmber/tristats.htm.

Gardner, H. (1983). **Frames of Mind. The Theory of Multiple Intelligences**. New York: Basic Books.

Gardner, H. (1993). **Multiple Intelligences. The Theory in Practice**. New York: Basic Books.

Gardner, H. (1999). **Intelligence Reframed. Multiple Intelligences for the 21st Century**. New York: Basic Books.

Gardner, H. (2006). **Multiple Intelligences: New Horizons**. New York: Basic Books.

Goleman, D. (1995). **Emotional Intelligence: Why It Can Matter More Than IQ**. New York: Bantam Books.

Goleman, D. (1998). **Working with Emotional Intelligence**. New York: Bantam Books.

Google Earth. http://earth.google.com/.

Grant, N. (1987). **Making the Most of Your Textbook**. London & New York: Longman.

Haggerty, B. (1995). **Nurturing Intelligences: A Guide to Multiple Intelligences Theory and Teaching**. Menlo Park, California: Addison-Wesley.

Harris Stefanakis, E. (2002). **Multiple Intelligences and Portfolios: A Window into the Learner's Mind**. Portsmouth, New Hampshire: Heinemann.

Higgins, J. & T. Johns (1984). **Computers in language learning**. London: Collins.

Kerr, P. (2009). "Should 'Multiple Intelligences Theory' play a role in teachereducation programmes?" **The TTED SIG Newsletter** 2.

Kolb, D. A. (1984). **Experiential Learning: experience as the source of learning and development**. Upper Saddle River, New Jersey: Prentice Hall.

Literacyworks. "Multiple Intelligences for Adult Literacy and Education". http://literacyworks.org/mi/home.html.

Littlemore, J. (2001). "Metaphoric intelligence and foreign language learning." **Humanising Language Teaching Magazine** 3:2.

Lozanov, G. (1992). **Suggestology and Outlines of Suggestopedy**. New York: Gordon & Breach.

Mayer, J., P. Salovey & D. R. Caruso (2002). **Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)**. Toronto, Ontario: Multi-Health Systems.

McKenzie, W. (1999a). "It's not how smart you are – it's how you are smart!" http://surfaquarium.com/Mi/nine_intelligences.pdf.

McKenzie, W. (1999b). "Multiple Intelligences Survey". http://surfaquarium.com/MI/inventory.htm.

McKenzie, W. (2005). **Multiple Intelligences and Instructional Technology**. Eugene, Oregon: ISTE.

Merriam-Webster Online. http://www.merriam-webster.com/.

Moore, J. (2005). "Natural language learning (3)." **English Teaching professional** 36.

Nicholson-Nelson, K. (1998). **Developing Students' Multiple Intelligences**. New York: Scholastic Professional Books.

NIEHS Kids' Pages. http://kids.niehs.nih.gov/music.htm.

Operation MathLog. http://www.vasa.abo.fi/users/rpalmber/mathlog.htm.

Opp-Beckman, L. **P I Z Z A Z !...** http://www.uoregon.edu/~leslieob/pizzaz.html.

Owen, N. (2001). **The Magic of Metaphor: 77 Stories for Teachers, Trainers & Thinkers**. Carmarthen: Crown House Publishing.

Palmberg, R. (1984). "Om nationaliteter och engelska idiom." **Tempus** 4.

Palmberg, R. (1990). "Improving foreign-language learners' vocabulary skills". **RELC Journal** 21:1.

Palmberg, R. (2001). "Multiple intelligences and EFL coursebook exercises." In Gill, M., A. Johnson, L. M. Koski, R. D. Sell & B. Wårvik (eds): **Language, Learning, Literature. Studies Presented to Håkan Ringbom**. Turku: English Department Publications 4. Åbo Akademi.

Palmberg, R. (2002). “Catering for multiple intelligences in EFL coursebooks.” **Humanising Language Teaching Magazine** 4:1.

Palmberg, R. (2003). **Multipla intelligenser för språklärare**. Karperö: Palmsoft Publications.

Palmberg, R. (2004). **Developing EFL Learners’ Vocabulary Awareness**. EnglishClub.com.

Palmberg, R. (2006). “Vocabulary awareness activities for EFL learners.” **IATEFL Voices** 189.

Palmberg, R. & O. Palmqvist (1988). “Varying text revision.” **Practical English Teaching** 8:3.

Puchta, H. & M. Rinvolucri (2005). **Multiple Intelligences in EFL**. Cambridge: Cambridge University Press & Esslingen: Helbling Languages.

Redman, S. & R. Ellis (1990). **A Way with Words: Vocabulary Development Activities for Learners of English. Book 2**. Cambridge: Cambridge University Press.

Rimmer, W. (2010). “Preview of R. Palmberg: Basic Multiple Intelligences for EFL Teachers.” **Humanising Language Teaching Magazine** 12:5.

Romijn, E. & C. Seely (1981). **Live Action English. Book 2**. Oxford: Pergamon Press.

Salovey, P. & J. Mayer (1990). “Emotional intelligence.” **Imagination, Personality, and Cognition** 9.

Sanford, A. J. & Garrod, S. C. (1981): **Understanding written language: Explorations of comprehension beyond the sentence**. New York: Wiley.

SCBE (1996). “Multiple Intelligences Theory”. http://www.paec.org/planetdiscovery/air/strategies/mitheory.pdf.

Singh, S. (1999). **The Code Book: The Evolution of Secrecy from Mary, Queen of Scots to Quantum Cryptography**. New York: Doubleday.

Smiley Central. http://www.smileycentral.info/.

Smith, D. G. & E. Baber (2005). **Teaching English with information technology**. London: Modern English Publishing.

Stevick, E. (1976). **Memory, Meaning and Method**. Rowley: Newbury House.

Takala, S. (1984). **Evaluation of Students' Knowledge of English Vocabulary in the Finnish Comprehension School**. Jyväskylä: Reports from the Institute for Educational Research Vol. 350.

Tanner, R. (2001). "Teaching intelligently." **English Teaching professional** 20.

Teaching ideas. http://www.teachingideas.co.uk/.

TeAchnology. http://www.teach-nology.com/.

TEFL.net's Idea Thinktank. http://edition.tefl.net/ideas/.

The Tripoint Guru. http://www.vasa.abo.fi/users/rpalmber/tri-guru.htm.

Twelve Days of Christmas. http://www.12days.com/library/carols/default.html.

Video Nation. http://www.bbc.co.uk/videonation/feature/christmas.

Weinreich-Haste, H. (1985). "The varieties of intelligence: an interview with Howard Gardner." **New Ideas in Psychology** 3:4.

wikiHow. "How to draw a Family Tree". http://www.wikihow.com/Draw-a-Family-Tree.

Woolfolk, A. (2001). **Educational Psychology**. Boston: Allyn & Bacon.

Wordle. http://www.wordle.net.

Wright, A. (1994). **1000 Pictures for the Teacher to Copy**. London: Nelson ELT.

Zohar, D. & I. Marshall (2000). **SQ - The Ultimate Intelligence**. London: Bloomsbury.

SOLUTIONS

WILD ANIMALS

The animals are (in alphabetical order): bear, buffalo, deer, elephant, fox, giraffe, gorilla, jaguar, kangaroo, leopard, lion, monkey, panther, rhinoceros, snake, tiger, wolf, and zebra.

In the grid below, the position of the first letter of each animal has been marked by the colour red to help you along:

S	G	E	W	W	L	W	P	D	A	D	M
O	K	F	U	B	E	A	R	B	E	Z	A
R	R	E	K	A	N	S	G	Q	B	E	G
E	C	D	F	T	D	X	O	F	L	O	N
C	L	E	H	F	K	L	V	U	R	C	Y
O	L	E	O	P	A	R	D	I	N	Y	F
N	R	R	P	F	N	R	L	R	Y	Z	N
I	D	A	F	H	G	L	I	E	W	Q	D
H	Y	U	J	N	A	C	K	G	O	P	Z
R	B	G	C	B	R	N	O	I	L	U	P
B	E	A	S	E	O	R	T	T	F	P	X
O	R	J	H	M	O	C	H	X	Q	D	I

LANGUAGE SKILLS ACTIVITIES

The correct answer (according to Tanner 2001) is:

language skills activity	intelligence type
1.	linguistic
2.	logical-mathematical
3.	interpersonal
4.	musical
5.	visual-spatial
6.	intrapersonal
7.	bodily-kinaesthetic
8.	naturalist

LANGUAGE SKILLS ACTIVITIES

The "Speaking" column in Tanner's chart contains the following activities (Tanner 2001):

intelligence type	speaking skill activity
verbal-linguistic	In groups, learners discuss statements about a controversial topic.
logical-mathematical	Learners in a group each have a picture. They discuss and re-order them, without showing them, to create a story.
visual-spatial	In pairs, learners discover the differences between two pictures without showing them to each other.
bodily-kinaesthetic	Learners play a game where they obtain information from various places in the classroom and report back.
musical-rhythmic	Learners listen to a musical video clip (with the TV covered up) and discuss which images might accompany the music.
intrapersonal	Learners record a speech or talk on a cassette.
interpersonal	Learners read problem-page letters and discuss responses.
naturalist	Learners discuss an environmental issue.

PUPILS COUNTING PUPILS

Count the number of people in the classroom, including you. Multiply the number by three, and then subtract one. The result is the correct answer to your question. Why? Because each person in the classroom has two pupils, and in addition to that each person is a pupil – except for you, the teacher!

COLOUR STREET

The people on Colour Street are, in this order: Mr Bryan Yellow, Mrs Elsie White, Mrs Claire Green, Mr Bruce Blue, and Mr Frank Red.

The answer to the final task is (not surprisingly, considering the topic) a colour: black.

MARY'S PUZZLE

Mary is the school secretary.

THE HOUSE OF NUMBERED ROOMS

This is the unscrambled version of the text:

I live in a big house. On the ground floor there are a kitchen, a hall, a living-room, a dining-room, a bathroom and a toilet. On the first floor there are three bedrooms, a bathroom and a small toilet. On the second floor there is an attic.

CHOP SUEY

The following word parts are existing English words: **fore** (meaning 'in the front'), **ha** (a humorous exclamation)**, head** (the word has several meanings), **ids** (the plural form of a psychological term for 'the deepest part of the unconscious mind'), **in** (a preposition), **no** (meaning 'not', 'not any'), **oat** (something made from a grass-like plant), **rows** (lines of people or things), **ski** (one of a pair of long narrow pieces of wood), **tee** (a specially shaped piece of plastic on which a golf ball is placed before it is hit) and **ton** (a unit of weight).

The word part **shes** is almost a word, but the apostrophe is missing (**she's**).

The word parts **es** and **ir** are literally word parts (a suffix and a prefix, respectively), but not words. (**in**, of course, is not only a word; it is also a prefix.)

Some of the words parts, for example **che**, **gue**, **nost** and **rils**, contain perfectly acceptable letter combinations and there is no logical reason why they have not been assigned any meaning in English.

Most of the remaining words cannot be English words since they either lack vowels or contain letter combinations that do not exist in initial or end positions of English words.

IN THE KITCHEN

The hidden words are (in this order) ‘mug’, ‘ladle’, ‘teapot’, ‘fork’, ‘cup’, ‘toaster’ and ‘oven’.

PITCH BLACK OR SNOW WHITE?

Happy is the missing dwarf.

LOST IN THE CLASSROOM

The eleven classroom words hiding in the grid are ’board’, ’book’, ’computer’, ’crayon’, ’desk’, ’glue’, ’map’, ’paper’, ’pen’, ’poster’, and ’ruler’.

Three of the words are written horizontally: two forwards (‘computer’ and ‘ruler’) and one backwards (‘desk’):

K	R	U	L	E	R	J	N
O	E	D	P	Y	X	M	O
O	T	Z	P	R	B	G	Y
B	S	B	A	J	L	L	A
C	O	M	P	U	T	E	R
N	P	A	E	E	Q	A	C
L	M	T	R	P	N	L	S
R	K	S	E	D	F	G	T

Four words are written vertically: one downwards (‘paper’) and three upwards (‘book’, ‘poster’, and ‘crayon’):

K	R	U	L	E	R	J	N
O	E	D	P	Y	X	M	O
O	T	Z	P	R	B	G	Y
B	S	B	A	J	L	L	A
C	O	M	P	U	T	E	R
N	P	A	E	E	Q	A	C
L	M	T	R	P	N	L	S
R	K	S	E	D	F	G	T

Three of the words are written diagonally: two downwards (going to the right) (‘board’ and ‘pen’) and one downwards (going to the left) (‘glue’):

K	R	U	L	E	R	J	N
O	E	D	P	Y	X	M	O
O	T	Z	P	R	B	G	Y
B	S	B	A	J	L	L	A
C	O	M	P	U	T	E	R
N	P	A	E	E	Q	A	C
L	M	T	R	P	N	L	S
R	K	S	E	D	F	G	T

The last word is written diagonally upwards (going to the right) (‘map’):

K	R	U	L	E	R	J	N
O	E	D	P	Y	X	M	O
O	T	Z	P	R	B	G	Y
B	S	B	A	J	L	L	A
C	O	M	P	U	T	E	R
N	P	A	E	E	Q	A	C
L	M	T	R	P	N	L	S
R	K	S	E	D	F	G	T

TRI-NATIONAL BORDERS

There are 48 international tripoints in Europe (for a complete list, see my **European tripoint statistics** website). Austria has the largest number of international tripoints: nine. Nine European countries (Denmark, Iceland, Ireland, Malta, Monaco, Portugal, San Marino, United Kingdom, and Vatican City) have no international tripoints.

GOING DUTCH

The correct expressions are, in this order: ‘Dutch door’, ‘Dutch uncle’, ‘double Dutch’, ‘Dutch auction’, ‘Dutch courage’, ‘Dutch cap’, ‘went Dutch’, ‘Dutch treat’, ‘Dutch concert’, and ‘Dutch comfort’.