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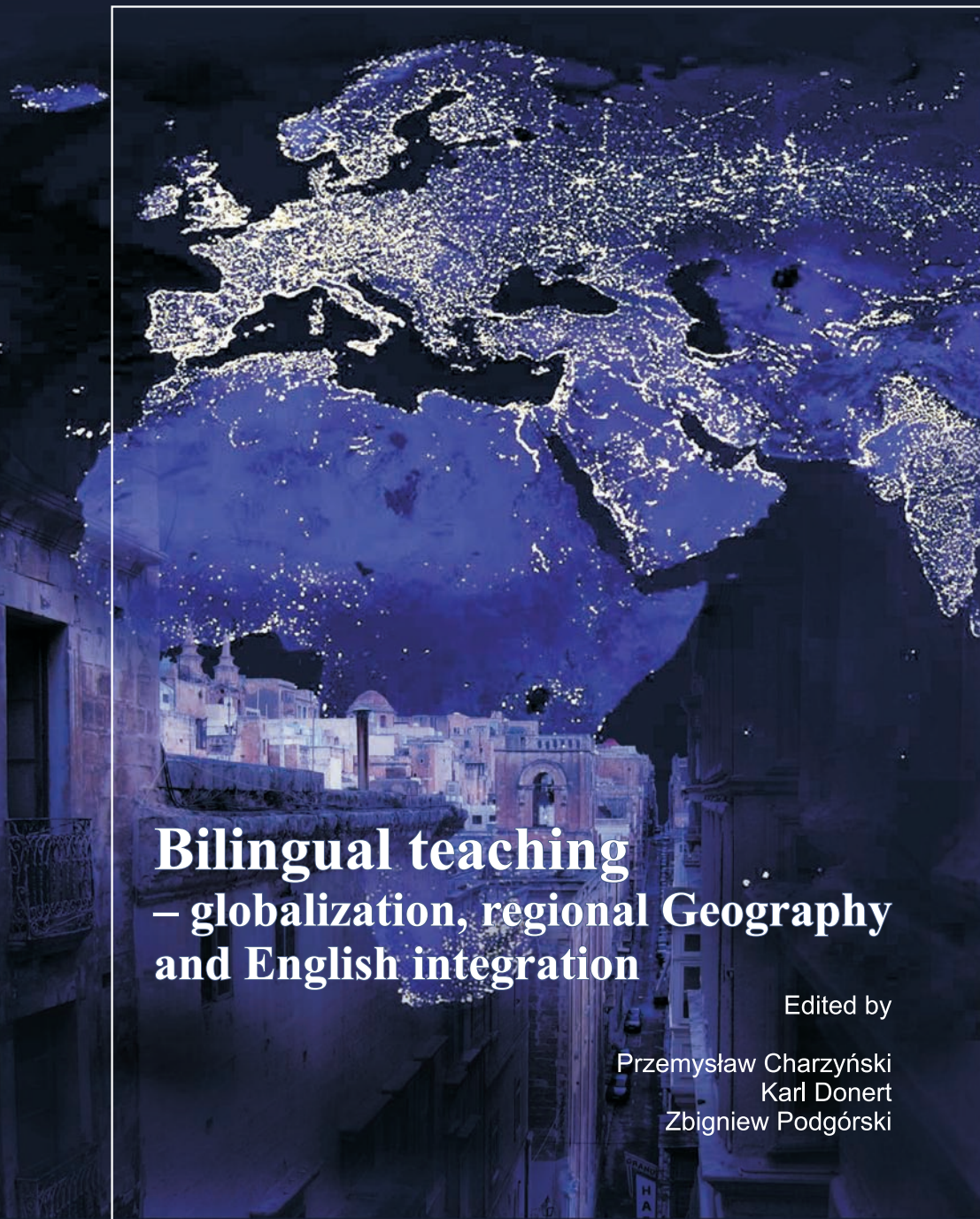
Geography

in European higher education



Bilingual teaching – globalization, regional Geography and English integration

Edited by

Przemysław Charzyński
Karl Donert
Zbigniew Podgórski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Bilingual teaching – globalization, regional Geography and English integration

Toruń 2012

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Contents

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INTRODUCTION

From October 7th to October 9th 2011 the National Centre for Further Training of Geography Teachers in Toruń organized a workshop entitled "Bilingual teaching – globalization, regional geography and English integration". The choice of these themes – certainly globalization – in combination with English – is rather obvious. When we talk about today's globalized world English is the ultimate language to be used.

This brings us to the existing tension between the content of the geography subject and the language course. It is not just a matter of teaching the subject, for bilingual teaching you also need to pay sufficient attention to the language skills. Many geography teachers therefore don't feel themselves called to teach bilingual courses. Hence this workshop, which was organized by the National Centre for the sixth time. As in the previous editions, those who attended were teachers who had years of experience of bilingual geography teaching, teachers who had just started to teach geography in English (or German, French) and teachers who were interested in innovative methodologies and assessment. Besides the main themes of the workshop the program set aside ample time for some of them to propose their own material.
The result of this meeting is written down in this publication. It will give you ideas on how to continue to activate the language in bilingual teaching.

Luc Zwartjes

How to activate the pupils

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In bilingual teaching giving enough time to the pupils to practice their English language is important. An easy way of doing this is to start the lesson with an icebreaker of up to 3 questions where pupils are forced to think, to allocate information on different pictures or graphs or even short movies. And let the pupils explain their choice. This can result in a nice discussion in the classroom. In the meantime they practice their English language skills.
Here are sample **questions from the International Geographic Olympiad***, which all aim at 'Thinking through geography' – as stated in the publications of David Leat**.

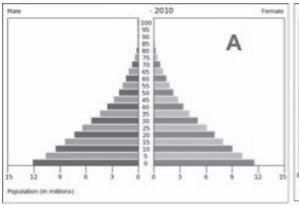
Task 1

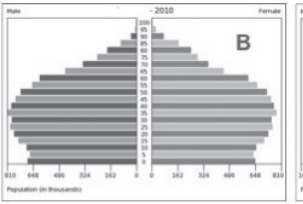
These pictures are taken in:

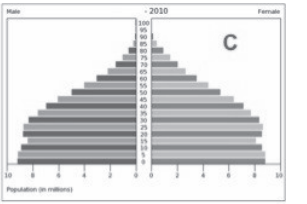
A. Kuwait
B. Gambia
C. Yemen
D. Turkey

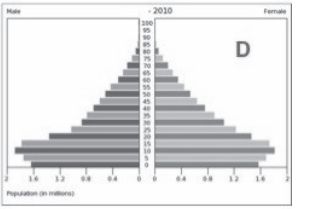
* http://www.geoolympiad.org/
** Information about the publications of David Leat can be found at http://www.teachingexpertise.com/chris-kington-publishing. Also many websites deliver examples of teaching material based on his ideas. Some examples:
http://www.geoworld.co.uk/
http://www.sln.org.uk/geography/thinking_through_geography.htm

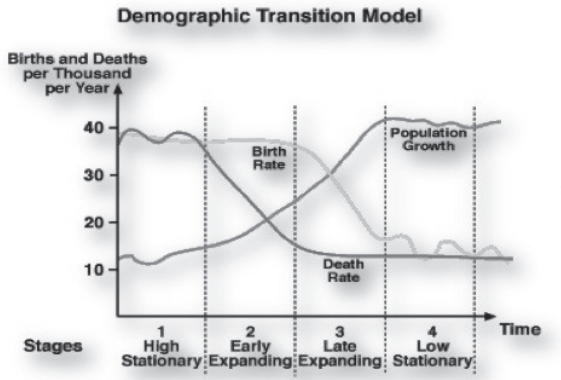
Task 2









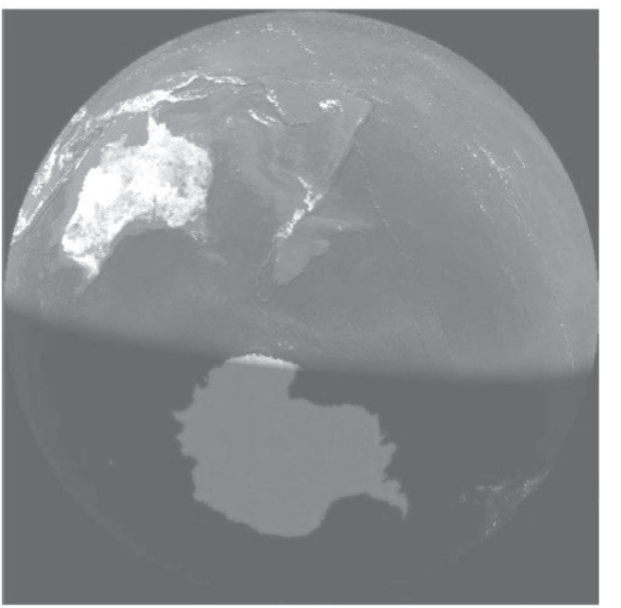


The diagram on the left shows the Demographic Transition Model. Which population pyramid – identified by letters A to D – is typical of Stage 2?

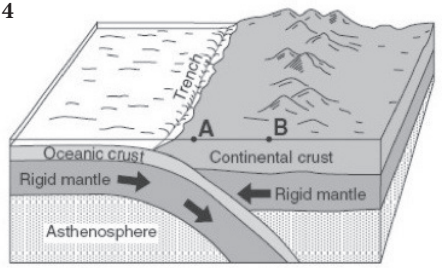
Task 3

For the people of Australia it is:

A. summer afternoon
B. spring morning
C. autumn afternoon
D. winter morning



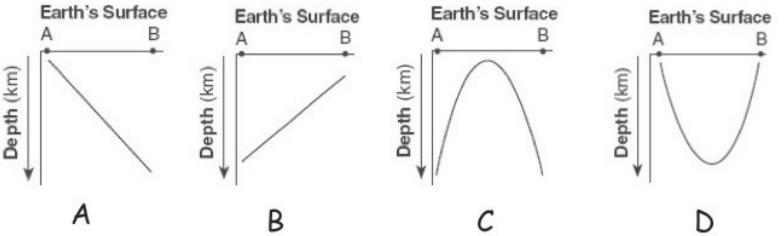
Task 4



(Not drawn to scale)

The diagram shows a tectonic plate boundary. A and B are at the surface.

Which graph shows the depth of the earthquakes with an epicentre between A and B?



Task 5

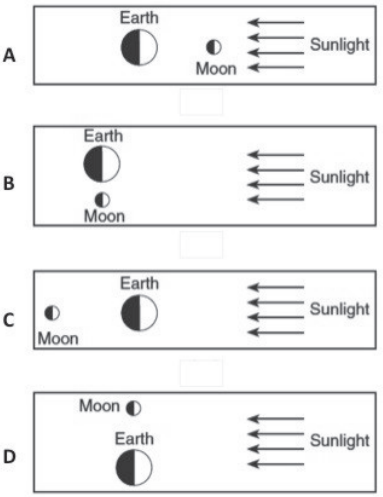
The picture is taken in London at 10 AM.
The top of the picture is:

A. East **C. North**
B. West **D. South**

Task 6

Updated: 05:51 AM EST on March 09, 2001	
Observed at	Albany, New York
Temperature	34°F
Windchill	26°F
Humidity	81%
Dewpoint	28°F
Wind	SE at 7 mph
Pressure	29.88 in
Conditions	Overcast
Visibility	10 miles
Clouds	Overcast (OVC): 1800 ft
Sunrise	6:17 AM (EST)
Sunset	5:51 PM (EST)
Moon Rise	6:02 PM (EST)
Moon Set	6:37 AM (EST)
Moon Phase	Mar. 09 Mar. 16 Mar. 25

Source: www.accuweather.com



Which diagram on the right shows correctly the position of the Moon and the Earth on March 9th 2001?

Correct answers: 1 – C; 2 – B; 3 – D; 4 – A; 5 – D; 6 – C.

Reading photographs

Another work form is 'reading photographs'. Instead of being used as general illustration the pupils – divided in small groups – get a set of photographs that need to be arranged in different groups.

Example: an exercise on globalization. All groups get a **set of photos**, coming from these countries: Unites States, Mexico, India, Nigeria, Brazil and South Korea. There are different stages in this exercise:

- First let the students make a selection of their own, meanwhile paying attention that they do their consultations in English. Pass by each group and ask them why they choose that particular selection.
- Next write on the blackboard the names of the countries where the photos were taken and give them the time adapt their selection. Again, you can stop at every group and ask to explain to their choice.
- Finally expose on the blackboard the correct format. Rest assured, there is much criticism because some pictures are obviously not directly representative of the 'general picture' of a country. But that just brings the discussion alive, and is an ideal icebreaker for this course.

Set of photos no 1

Set of photos no 2

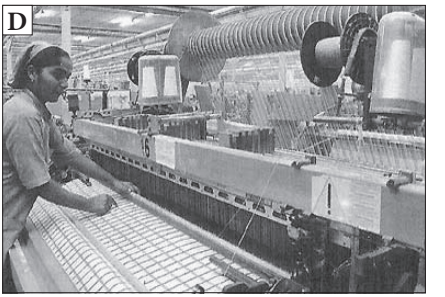
Set of photos no 3

A

B

C

D



Set of photos no 4

A

B

C

D

Set of photos no 5

Correct answers:

- Set of photos no 1: A – USA; B – Nigeria; C – Nigeria D – USA
- Set of photos no 2: A – India; B – USA; C – Mexico; D – USA
- Set of photos no 3: A – India; B – India; C – India; D – India
- Set of photos no 4: A – Mexico; B – Mexico; C – India; D – Brazil
- Set of photos no 5: A – Mexico; B – USA; C – Mexico; D – South Korea

Bilingual teaching (CLIL) in Flanders

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"CLIL – Content-language integrated learning – refers to situations where subjects, or parts of subjects, are taught through a foreign language with dual-focused aims, namely the learning of content and the simultaneous learning of a foreign language."

David Marsh, 1994, Finland

CLIL is relative new in Flanders. If we look at the latest report on languages teaching in schools (Key Data on Teaching Languages at school in Europe, Eurydice 2008*) we notice that Flanders is not mentioned in the school year 2006-2007**.

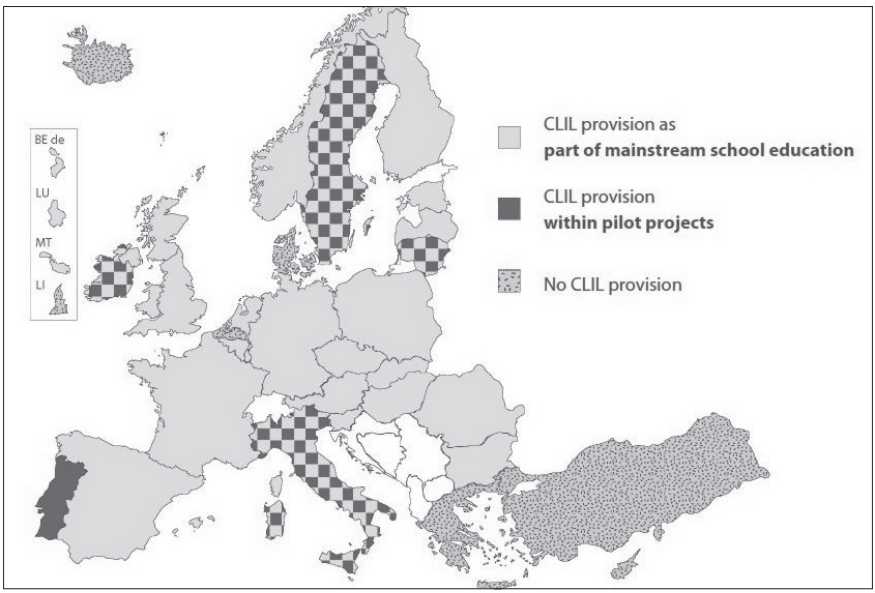

Figure 1. Status of CLIL provision in primary and general secondary education 2006/07, Eurydice 2008

* The whole report can be downloaded at
eacea.ec.europa.eu/about/eurydice/documents/KDL2008_EN.pdf

** With thanks to Johan Delbaere, pedagogic advisor of English for providing me this info.

On the other hand Flanders is one of the countries that – due to the composition of its population – has integrated foreign language education in the curriculum.

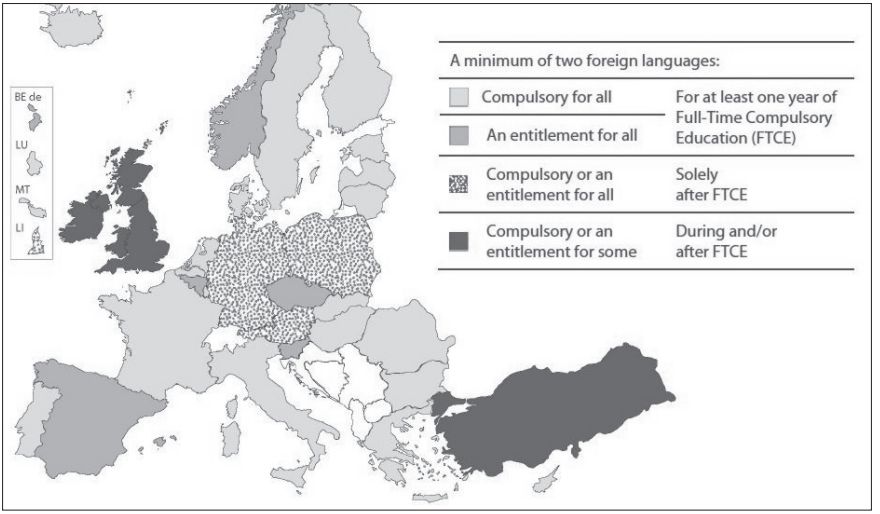

Figure 2. The teaching of two foreign languages in the curriculum for pre-primary, primary and general secondary education 2006/07, Eurydice 2008

	BE fr	BE de	BE nl	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU
2006/07		▲	▲●			●	●		⊗	●			●	●▲			■▲●
2002/03		▲	▲●			●	●		⊗	●				●▲	●		■▲●
1992/93		▲	▲●			●	●		⊗	●				●			■▲●
1982/83		▲	▲●	❍	❍	●	●		⊗					●			■▲●

	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK-ENG/ WLS/NIR	UK-SCT	IS	LI	NO	TR
2006/07		●	●							fi/sv	●		⊗	● da	●	●	
2002/03		●	●							fi/sv	●		⊗	● da	●	●	
1992/93		●	●							fi/sv	●			da ●		●	
1982/83	❍	●	●		❍				❍	fi/sv	●	⊗		da ●		●	

● English ▲ French ■ German ❍ Russian No specific mandatory language

⊗ No foreign language as a compulsory subject

Figure 3. Mandatory foreign languages specified by the central education authorities (full-time compulsory education) in 1982/83, 1992/93, 2002/03 and 2006/07, Eurydice 2008

CLIL project in Flanders

In 2006 Flemish Minister of education Frank Vandenbroucke launched a pilot project on CLIL in Flanders. During 3 schoolyears (2007-2010) nine secondary schools took part at it. Most schools were general edcuation. The project was monitored by the University of Louvain (KUL).

The subjects taught ranged from Art (as an optional course in the curriculum) to compulsory curriculum subjects in Science courses (Physics, Geography, Chemistry and Biology), Economics and History. Apart from one school all chose English as CLIL language.

There were some very strict conditions.

1. Optionally pupils should have the possibility to fall back into Dutch at all times. This means for schools with curriculum subjects two classes (or class groups) had to exists with the same curriculum, one with, the other without CLIL courses.
2. When the school chose English it was only approved in 5th and 6th forms.
3. There was a maximum of 4 hours a week (which counts 32 hours) of CLIL lessons possible.
4. The learning outcomes must be taught in Dutch.

The subject teachers were volunteers. They got support for the extra work and extra schooling through feedback from language teacher and optionally could attend courses abroad. The pedagogic advisor of English developed a special website with CLIL material for science teachers***. Also a lot of useful documents and information on classroom language was delivered.

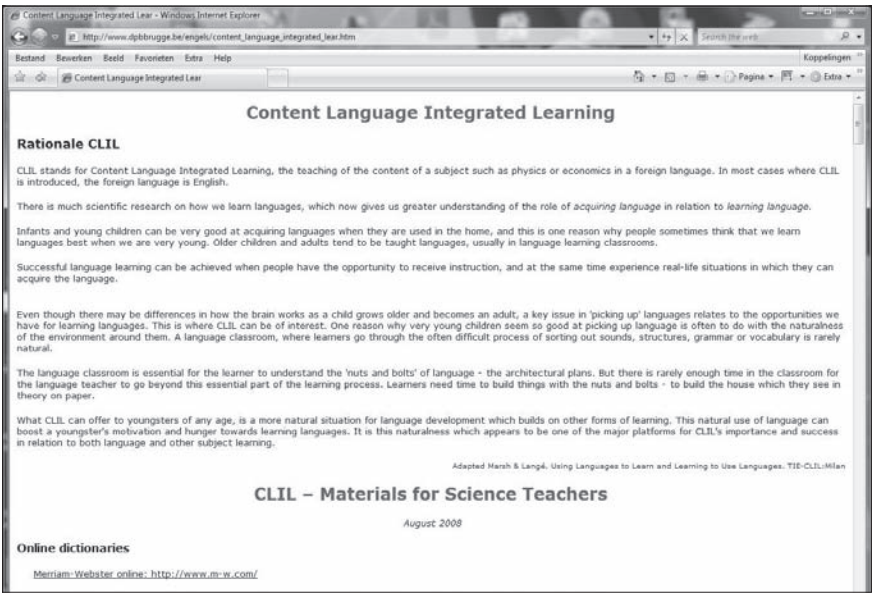

Figure 4. Website of the pedagogic advisor of English, specially developed for CLIL

*** http://www.dpbbrugge.be/engels/content_language_integrated_lear.htm

The government supported the project:

- Each school received 3,000 EUR per CLIL-class. This could be used for beamers, dictionaries, books, equipment science, schooling, copies, transport …
- Also a credit of 15 lesson hours 15 hours per CLIL-class was given for the school coordinator (language teacher) and subject teachers, thus giving them time to prepare the lessons and to meet during the normal lesson hours.

The Catholic University of Louvain (KUL) was responsable for the scientific background and support:

- Testing & Interviews,
- Intervision,
- Input on CLIL-methodologies,
- Testing students twice a year, both CLIL- and non-CLIL class,
- For the testing Dialang****, a language diagnosis system, was used.

Challenges

The main challenges for the project were.

1. Finding and training the subject teachers in the use of classroom English as a target language, using a good language methodology (eliciting, other skills but reading).
2. The elitist pupils: only the best pupils chose it.
3. The CLIL methodology did not always favour good language – subject balance. Also the subject teachers did not feel sufficiently qualified to assess the language. They ideal situation would have been to have in each CLIL lesson the language and subject teacher together but that was organizationally not possible. Also as mentioned before the learning outcomes had to be taught in Dutch.

Results

In 2011 the government published a report on the CLIL project. In it they made policy recommendations.

1. Enter CLIL in Flemish secondary schools if preconditions are met. The success of CLIL requires both visionary planning and ad rem creativity, the necessary multilingual and pedagogical skills within the school and an unconditional commitment of the school, the language teachers, subject teachers, educational counsellors and students.
2. Any school that wants to implement CLIL receives an initial period of two years to realize a number of preparatory steps.

**** More about Dialang can be found at http://www.lancs.ac.uk/researchenterprise/dialang/about

3. The schools must initialize a double track: one with CLIL and one without. Thus the freedom of choice by the pupils is guaranteed.
4. The number of existing language lessons may not be replaced by CLIL lessons, these should be extra.
5. Provide additional operating funds for the schools who develop CLIL tracks.
6. On behalf of equal educational chances CLIL education should be developed in all types of education.
7. The quality of CLIL education should be monitored.
8. Invest in the training of CLIL teachers.

The pilot project was finished in 2010. As yet no further efforts have been made on CLIL in Flanders. The pilot schools do have permission for the continue to organize existing CLIL courses.

References

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2. *Ministery of Education Flanders*, Brussel 2011, www.ond.vlaanderen.be/obpwo/rapporten/clil/ER.pdf
3. Key Data on Teaching Languages at School in Europe, Eurydice, Education, Audiovisual and Culture Executive Agency, 2008, eacea.ec.europa.eu/about/eurydice/documents/KDL2008_EN.pdf

International assessment of Geography through the medium of English: analysing the language skills required

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Abstract
International assessments in a wide range of subjects are being prepared for and delivered through the medium of English in a variety of multilinguistic and educational contexts. These assessments are taken by many candidates whose first language is not English and increasingly by students who have participated in Content and Language Integrated Learning (CLIL) programmes. This raises important issues relating to assessment validity and fairness. Ensuring validity of content area skills for students whose first language is not English has become a key concern in the context of high-stakes assessments. The study described here involves an analysis of language use in the Cambridge International General Certificate of Secondary Education (IGCSE). The IGCSE is a major, high-stakes qualification for 14 to 16 year-olds. Data for analysis includes examination syllabuses, question papers, mark schemes and candidate performances in Geography. The aims of the study are to: (a) build a 'profile' of the language skills required and evidenced by IGCSE Geography; (b) develop language awareness amongst content teachers as well as coordination between content and language teachers; (c) provide a set of language guidelines for informing question writers of potential language issues confronting international students.

Keywords: validity, fairness, international assessment, IGCSE Geography.

Introduction

International assessments in a wide range of subjects are being prepared for and delivered through the medium of English in a variety of multilinguistic and educational contexts. These assessments are taken by many candidates whose

first language is not English. This raises important issues relating to assessment validity and fairness.

According to Hughes, Porter and Weir (1988), "the provision of satisfactory evidence of validity is indisputably necessary for any serious test" (1988, p. 4). On the roles and responsibilities relating to the provision of validity evidence, Nichols and Williams (2009) argue that it is the responsibility of the test developer to provide validity evidence of the consequences of test score use. Test developers are also responsible for ensuring fairness in terms of equitable treatment for candidates (Davies, Brown, Elder, Hill, Lumley and McNamara, 1998; Kunnan, 2000).

Validity and fairness constitute the focus of an extensive, on-going research programme at the University of Cambridge International Examinations ('Cambridge'). A recent study located within the Cambridge research programme has explored the language demands of the Cambridge International General Certificate of Secondary Education (IGCSE). The outcomes of this study constitute the focus of this paper (Shaw, 2011).

The evidence needed to support the validity of a test necessarily depends on the claims being made about the test. The IGCSE, a high-stakes qualification offered by Cambridge and aimed at 14 to 16 year-olds, claims an international reach and local relevance. It also claims fair treatment of students for whom English is not a first language, as illustrated in the following quote taken from a current IGCSE Handbook:

> "The syllabuses use international examples and avoid terminology only used in one country. Non-native speakers of English are always treated fairly."
> (Cambridge IGCSE, 2010, p. 11)

The study described here involves an analysis of language use in IGCSE in order to: (a) build a 'profile' of the language skills required and evidenced by IGCSE Geography; (b) develop language awareness amongst content teachers as well as coordination between content and language teachers; (c) provide a set of language guidelines to inform question writers about potential language issues confronting international students.

Assessment validity and fairness in international assessments

Assessment validity

Ensuring validity of content area skills for students whose first language is not English has become a key concern in the context of high-stakes assessments

(August & Kahkuta, 1997; Martiniello, 2008). According to the current *Standards for Educational and Psychological Testing* (APA/AERA/NCME, 1999), assessments developed without accounting for language differences have limited validity. Cambridge sees a vital aspect of validity as "the extent to which the inferences which are made on the basis of the outcomes of the assessment are meaningful, useful and appropriate" (Cambridge Assessment, 2009, p. 8).

Often, one of the inferences that an awarding body wishes to make is that the test score reflects the extent of a student's learning in a given domain of subject knowledge and skills. A test score should accurately represent a candidate's level of knowledge, skills or competencies – that is, the underlying constructs of interest.

In testing terms, a construct is "an ability (or set of abilities) that will be reflected in test performance, and about which inferences can be made on the basis of test scores" (Davies, et. al. 1999, p. 31). The claim of validity is that the test adequately reflects the constructs and can be used as the basis for the inference of attainment or aptitude depending on the purpose of the test. For example, Geography IGCSE test scores:

1. provide a measure of relevant learning/achievement (this can be thought of in terms of an 'attainment' construct, for example, whether a student has made satisfactory progress in relation to a specific curriculum)
   If a student gets a high score, is it legitimate to infer that this student has very good knowledge, understanding and skills in the field?

2. provide an indication of likely future success (this can be thought of in terms of an 'aptitude' construct, for example, readiness for studying Geography at a higher level, aptitude for a career teaching Geography)
   If a student gets a high score, is it legitimate to infer that this student will do well in a further course in this field, or in a job in this field?

It is important, therefore, to establish that the test tasks or questions elicit performances that reflect the intended constructs. If the construct(s) is not well defined and the test tasks are inappropriate, then it will be difficult to support the claims an awarding body wishes to make about the usefulness of its assessments, including claims that the tests do not suffer from factors such as *construct under-representation and construct irrelevant variance* (Messick 1989). According to Messick (1989, p. 34), "Tests are imperfect measures of constructs because they either leave out something that should be included…or else include something that should be left out, or both". It is widely acknowledged that construct under-representation and

construct irrelevant variance constitute two of the most important threats to valid measurement (Davies et al. 1999; Crisp and Shaw, in press).

Construct under-representation (under-sampling of the achievement domain) indicates that the questions in the assessment fail to include important aspects of the construct. Therefore, the test results are unlikely to reveal a student's true abilities within the construct which is indicated as being measured by the test. The construct(s) tested in a Geography multiple choice question can be seriously underrepresented if the question fails to include, for example, appropriate 'distractors' – elements of the geographical problem that need to be seen as irrelevant (Schoenfield, 2007).

Construct-irrelevant variance (erroneous inflation or deflation of test scores due to certain types of uncontrolled or systematic measurement error) suggests that the assessment measures too many variables, some of which are irrelevant to the intended construct. In other words, construct-irrelevant variance exists when the "test contains excess reliable variance that is irrelevant to the interpreted construct" (Messick, 1989, p. 34). In a test of Geography, English language proficiency may introduce construct-irrelevant variance, that is, the tests may tap the candidate's knowledge of English rather than just their cognitive geographical abilities thus increasing the perceived difficulty of the test. According to the Standards "When the intent is to assess ability in mathematics or mechanical comprehension, for example, the test should not contain unusual words or complicated syntactic conventions unrelated to the mathematical or mechanical skill being assessed." (APA/AERA/NCME, 1999, p. 83). If the language of Geography tasks is inaccessible then it is not known whether a low score is due to the student's lack of mastery of the geographic content, limited English proficiency, or both.

Similarly, if students are allowed 90 minutes to complete a Geography examination requiring processing of a large amount of input stimulus material presented in English, then students with poor reading skills or weak English proficiency may be consistently disadvantaged. In such an example, geographical proficiency may be confounded with other characteristics of the measurement process that are irrelevant to the construct being measured. In other words, reading (for question comprehension) may be part of construct-irrelevant variance that impedes efforts to measure the student's knowledge, understanding and skills of Geography (Carver, 1994; Nagy & Scott, 2000).

Clearly, the claim of validity can be threatened by either under-sampling or irrelevant sampling of the intended constructs. In making the claim, serious social and

educational consequences are at stake which may have been the result of erroneous inferences made about a student's proficiency.

Fairness

Fairness has no single meaning and is more a social concept than it is a psychometric one (APA/AERA/NCME, 1999). Fairness implies impartiality, in other words, "score levels should have the same meaning and consequences in different population groups and environmental contexts" (Messick, 2000, p. 4). The major concern of fairness is comparability and ensuring that test score meaning does not differ consequentially across test takers and test contexts (Messick, 2000; Davies et al. 1999; Willingham, 1998; Willingham and Cole, 1997).

Fairness relates to both the validity of a given test as a measure of ability and to the whole testing process insofar as it reflects or contributes to social equity: "just treatment throughout the testing process is a necessary condition for test fairness" (APA/AERA/NCME, 1999, p. 74). Fairness requires that test takers have a comparable opportunity to demonstrate their cognitive competence, that is, their standing on the construct(s) being measured.

In terms of cultural and linguistic accessibility, fairness is a challenging aim for an awarding body as it is difficult to predict the familiarity of cultural references and of linguistic items in an examination paper taken in multiple and unpredictable national contexts. It could be argued that this would even be the case in a single, culturally homogenous country, as cultural exposure and sophistication of language skills vary hugely even amongst native speakers. In this sense, there can never be a truly objective level playing field. Furthermore, by virtue of being English-medium examinations, it could be argued that, by definition, a certain level of English language ability is required by students to access the assessments. Can and should such a minimum level of English be defined for the benefit of students in order to help clarify the notion of language fairness? This would place some onus on the students to be sufficiently prepared linguistically.

Reducing threats to validity in pursuit of fairness

Fundamental to the validity of test use is test fairness. Tests must be fair in the sense that they produce comparably valid scores across test takers and contexts. It is crucial then that "where the level of linguistic or reading ability is not part of the construct of interest" as is the case in an international assessment of Geography, "the linguistic or reading demands of the test should be kept to the minimum necessary for the valid assessment of the intended construct." (APA/AERA/NCME, 1999, p. 82).

An immediate solution to the problem of question language comprehension might be to eliminate language-loaded content questions. Removing potential barriers posed by language competence is tantamount to introducing an 'accommodation'. Accommodations, which take a number of forms, may threaten test validity, particularly if the accommodation changes the nature of the construct measured. Paradoxically, the introduction of accommodations may lead to under-representation of cognitive skills, knowledge and understanding. It is crucial, therefore, that if accommodations are used in order to improve fairness, the extent to which the accommodation enhances validity is directly related to the degree to which the accommodation alters the construct measured. In the context of test accommodations, Sireci (2008) stresses "the need to remove construct-irrelevant barriers to test performance while maintaining integrity to the construct being measured." (p. 84).

Context of the research

Cambridge provides international qualifications and education programmes for 5-19 year olds through the medium of English. Typically, students preparing for Cambridge examinations do so in very diverse linguistic and educational contexts, some following an entire curriculum in English, and others undertaking only one or two Cambridge examinations in parallel with qualifications from their own (non-English) national curriculum as part of a bilingual education programme. The integration of two curricula in bilingual education programmes presents challenges for the schools. Cambridge is keen, therefore, to understand this context in order to evaluate the impact of this choice of education programme and particularly the role of assessment within it.

Delivering education through the medium of English

Whatever the country, the common denominator of Cambridge schools is that students are taking Cambridge assessments through the medium of English and therefore being educated through the medium of English.

- Some schools use *bilingual instruction*, delivering certain subjects through English and other subjects through the first language, often trying to meet standards in both an international (such as Cambridge) and a national curriculum. This has led to the practice of content and language integrated learning (CLIL) programmes. CLIL programmes adopt "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language" (Mehisto, Marsh and Frigols, 2008, p. 9). CLIL is defined as "an approach in which a foreign language is used as a tool in the learning of a non-language subject in which both language and the subject have a joint role" (Marsh in Coyle, 2006, p. 1). CLIL involves "learning to use language and using language to learn" (Marsh and Lange, 2000). The CLIL approach

consists of teaching a curricular subject through the medium of a language other than that which is normally used and operates in a range of contexts and is subject to varying interpretations. In CLIL programmes of learning, learners gain knowledge of the curriculum subject while simultaneously learning and using the foreign language: curricular content leads language learning. Interaction in learning – a fundamental tenet of CLIL, is important because learners need to use and develop language of learning (the content); language for learning (peer interaction); and language through learning (for cognitive skills).

- Other schools use monolingual instruction and deliver all subjects through English, either as a first or as an additional language. Some of these schools will have monocultural student populations, whilst others will have multicultural populations. The latter places an additional responsibility on content teachers to be 'language aware' across the curriculum. The language across the curriculum movement has, since the 1960s, periodically sought to influence educational spheres (Parker, 1985; Leung, 2003) and has more recently made a comeback through the European Core Curriculum for a Mainstreamed Secondary Language Teacher Education (2010), the objective of which is 'to improve the pre- and in-service training of all teachers for their work with immigrant pupils'. This responsibility of language awareness can be challenging for teachers if English is not their first language.

Supporting teachers and students in understanding language issues

The focus on teachers and students has relevance for Cambridge which aims to highlight attention beyond exams to developing learners and their teachers. Cambridge is interested not only in making assessments more accessible, but in working more closely with teachers to help them understand, and convey to students, the demands of the assessments.

The demands of the assessments are traditionally understood in terms of content – the topics to be studied, the assessment objectives, the structure of the question paper and the marking criteria. More recently, Cambridge has also started to focus on the demands of the assessments in terms of language. Such language demands may be explicit or implicit – an inherent part of the subject – and more difficult to tease out. For example, a common part of a question in the IGCSE Geography paper is 'Explain why or Explain how?'. Students are expected to receive, make sense of and use information given in the question. Linguistically, this level of comprehension requires students to paraphrase information by describing in their own words whilst selecting facts and ideas. Such a task requires translation, interpretation and extrapolation. This suggests that humanities subjects such as Geography are necessarily language-rich and that

they could be challenging for non-native speakers of English whether they are teachers or students.

The International General Certificate of Secondary Education (IGCSE)
The focus of this study is the International General Certificate of Secondary Education (IGCSE). The IGCSE is offered in over 70 subjects and is taken at the end of a two-year course. At a similar and recognised level to the UK General Certificate of Secondary Education (GCSE), the IGCSE was developed for a global market, striving for non-UK centric contexts and awareness of second language needs.

IGCSE encourages learner-centred and enquiry-based approaches to learning by developing learners' skills in creative thinking, enquiry and problem solving. This gives learners a sound preparatory basis for the next stage in their education.

The IGCSE is open to schools from all over the world and is available twice a year in June and November. In many subjects there is an Extended and a Core Curriculum. The Extended Curriculum includes the material from the Core Curriculum, as well as additional, more advanced material. The grade set for the Extended Curriculum includes grades A*, A, B, C, D, E; the Core Curriculum includes grades C, D, E, F and G.

IGCSE Geography
Geography was chosen for the study because its assessment uses a range of question lengths, because it is a popular subject, and because the nature of the subject provides a reasonable basis from which to consider the generalisability of findings to a range of other humanities subjects.

Through the IGCSE Geography syllabus

> "Students will develop a 'sense of place' by looking at the world around them on a local, regional and global scale. Students will examine a range of natural and man-made environments, and learn about some of the processes which affected their development. They will also look at the ways in which people interact with their environment, and the opportunities and challenges an environment can present, thereby gaining a deeper insight into the different communities and cultures that exist around the world."
> http://www.cie.org.uk/qualifications/academic/middlesec/igcse/subject?assdef_id=859

The assessment of the Geography IGCSE level course is via two compulsory exam papers and one optional paper.

Table 1. Assessment of IGCSE Geography

All candidates take	
Paper 1 **1 hour 45 minutes**	**Paper 2** **1 hour 30 minutes**
Candidates answer any three questions out of six. There are two questions set on each of three themes. Questions are structured with gradients of difficulty and are resource-based, involving problem solving and free response writing (75 marks, weighted to 100 marks).	Candidates answer all the questions. The paper is based on testing the interpretation and analysis of geographical information and on the application of graphical and other techniques as appropriate. These questions will not require specific information of place (60 marks).
45% of total marks	**27.5% of total marks**
And either	**or**
Paper 3	**Paper 4** **1 hour 30 minutes**
Coursework (Centre-based assessment)	**Alternative to Coursework**
Teachers set one school-based assignment up to 2000 words (60 marks).	Candidates answer all the questions, completing a series of written tasks based on three themes: 1) population and settlement 2) the natural environment 3) economic development and the use of resources. The questions involve an appreciation of a range of techniques used in fieldwork studies. Questions test the methodology of questionnaires, observation, counts, measurement techniques and may involve developing hypotheses appropriate to specific topics. The processing, presentation and analysis of data will be tested (60 marks).
27.5% of total marks	**27.5% of total marks**

The IGCSE Geography Assessment Objectives (AOs) and their weightings are:

- *AO1: Knowledge with understanding (30%)*
  e.g. the wide range of processes, including human actions contributing to the development of physical, economic, social, political, cultural environments and spatial patterns and interactions
- *AO2: Skills and analysis (52%)*
  e.g. analyse and interpret geographical data and use and apply geographical

knowledge and understanding to maps and in verbal, numerical, diagrammatic, pictorial, photographic and graphical form
- *AO3: Judgement and decision making (18%)*
  e.g. recognise the role of decision making within a geographical context as affected by the physical and human contexts in which decisions are made and the values and perceptions of groups or individuals

Research questions

This study sought to address the following questions:
- What level of English, according to the Common European Framework of References for Languages (CEFR), is needed to access and achieve in IGCSE Geography assessments?
- What cognitive and academic language skills are needed to access and succeed in IGCSE Geography assessments?

Additionally, it was hoped that the research would inform practice, by addressing the following questions:
- How can schools be supported to prepare teachers and learners for whom English is a second language for bilingual programmes which include studying for and taking IGCSE Geography?
- How can examiners be guided to support claims of language fairness?

Method

The study adopted a two-phase methodology. Phase 1 of the study entailed an analysis of syllabuses, question papers and mark schemes (which guide the examiners on marking) from the November 2008 and June 2009 exam sessions to allow a full overview of the qualification. In addition to analysing the June 2010 question papers and mark schemes, Phase 2 also involved an analysis of candidate performances (examination scripts) and reports written by language consultants and Principal Examiners. (Principal Examiners are responsible for standards in the setting of question papers and the marking of examination scripts).

Focus was on the written components (as opposed to the coursework component Paper 3). In order to obtain varied perspectives, four grade levels were sampled (A, C, E and F) from four linguistic backgrounds (Romance; Semitic; Sinitic; Slavic). Three candidates at each grade were studied.

The final data set comprised 48 scripts ('script' being representative of a complete candidate performance). Additional documentation was provided for the second phase of analysis in the form of reports on the issues of language written by

consultants. These reports together with Principal Examiner insights from candidate performance on each paper within each subject enabled Phase 2 to be located in a broader context.

Findings

The findings are presented in terms of:

- the minimum level of English competence required to access and succeed at IGCSE Geography. This is done through an estimate of how the linguistic demands in the qualification might relate to the CEFR (Council of Europe, 2001). The CEFR is a framework that provides a basis for the mutual recognition of language qualifications and enables awarding bodies to define and articulate language proficiency levels and interpret language qualifications.
- the extent to which the language competence required and demonstrated could be defined as *Cognitive Academic Language Proficiency* (CALP). In an attempt to understand progression in students' learning of content and language, Cummins (1981) has shown how students need to progress from *Basic Interpersonal Communication Skills* or BICS (low cognitive demand, context embedded) towards CALP (high cognitive demand, context reduced). The distinction was intended to highlight the different time periods experienced by students to acquire conversational fluency in their second language (L2) as compared to academic proficiency in that language. CALP is a language-related term which refers to formal academic learning, as opposed to BICS which are language skills needed in social situations. Typically, students develop proficiency in BICS well before they acquire a strong grasp of CALP: conversational fluency is often acquired to a functional level within about two years of initial exposure to the second language whereas development of academic aspects of the L2 often takes between five and seven years (Cummins, 1981; Collier, 1987; Klesmer, 1994). As a consequence, students may give the appearance of being fully proficient and fluent, while still struggling with significant academic language deficiencies. From a pedagogic perspective, the BICS/CALP distinction helps teachers support students to access cognitively challenging content material by embedding activities in a supportive context.

The input language used in IGCSE Geography is not of a very high level. Generally, a CEFR B2 level student would be able to cope with the vast majority of the instructions, questions and stimulus material. In the question papers, assessment-specific vocabulary appears in the rubrics and in the questions themselves, giving instructions and specifying the functional language which candidates are required to produce. Candidates are required to identify from the instructions the functional language required. For example, functional verbs to indicate clearly the focus of the response (e.g. explain, suggest).

Independent User	**B2**	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialisation. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.

Candidates have to read and understand a range of forms which include graphical data (diagrams, bar charts, pie charts, maps, tables), photographs, short/long questions and short texts. The volume of graphical data is high, but much of it can be understood only if the accompanying text is understood. In all three papers candidates are required to scan stimulus material (whether it is a table, map or text extract) and to locate answers. Candidates are also required to read intensively for detail. This entails reading a wide range of graphical data carefully; separating data from questions, reading numerical and other information from graphical data accurately, and moving between graphical data and text.

The papers contain a mixture of closed and open question types, requiring answers of varying length and format. Overall, there is not a significant amount of extended text for candidates to read in any of the question papers. However, all the papers consist of several questions, which each have a different number of sections and sub-sections. As a consequence candidates need to employ a variety of reading skills.

In Paper 1 (in which questions are resource based, involving problem solving and free response writing), candidates need to skim read the six questions in order to choose which three questions to answer. This involves reading the whole question with all its sections to check which information on which aspects of the topic is required for each section. Candidates must ensure that each section is answered and repetition/overlap of information is avoided. Candidates also need to read stimulus texts before answering.

As papers do not have a standard format, candidates need to concentrate to read different question formats and different question types. Candidates may also need to deal with unfamiliar lexis which would entail deciding whether the unknown word is a key word and determining linguistic clues (using pictures/diagrams). Candidates need to be able to read the rubrics and questions carefully at clause and sentence level in order to be able to identify the type of response required (key words in the instructions) and what functional language to use in their answers. This can sometimes involve sophisticated recognition of textual patterns.

All questions require candidates to understand subject-specific vocabulary (with some questions comprising higher-frequency language than others) and then to produce appropriate subject-related vocabulary in their answers.

There is an expectation that the candidate has flexible language resources to deal with a wide variety of question types. A CEFR B2 level student should be able to produce adequate responses, providing they have the lexical range, but CALP is required. Short answers require quite specific subject-based language; longer answers need content knowledge but also a range of language to be able to describe, explain and draw conclusions, as well as the ability to write concisely.

Geography is a subject where students not only have to learn how to work with data, but also how to communicate in writing a wide range of concepts and ideas. Students with a good knowledge of Geography learnt in their first language (L1) would struggle to 'translate' this knowledge into English unless they had advanced language skills and could explain why things happen or might happen. CEFR C1 level students with a good knowledge of Geography and good data skills would perform well on this assessment. They would be able to write concisely for short answers, reformulate and develop ideas and speculate in longer answers, drawing on ideas learnt during the course as well as on evidence in the data on the paper. They would have language resources such that they could construct cohesive and coherent answers at the speed required (the mark scheme rewards development when longer answers are called for).

Proficient User	**C1**	Can understand a wide range of demanding, longer texts, and recognize implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational patterns, connectors and cohesive devices.

On the evidence of Phase 2, all candidates were able to attempt the majority of the questions. The main issues in terms of language use are (I) format of answers, that is, note form, bulleted lists, longer explanations; (II) the range of language used and (III) the accuracy of the language used. Candidates were also able to use a good range of subject-specific vocabulary and also demonstrated successful use of a range of general language structures and expressions relevant to and appropriate for the topics in the papers.

Discussion and conclusions

IGCSE alignment to the CEFR

The study suggested that for IGCSE Geography, the level of output of candidates with higher grades was CEFR level C1 in terms of range, accuracy and control of collocation. Candidates scoring lower grades were writing at CEFR B2 level and sometimes below. Although the approach to accuracy is not explicit in the mark schemes, it is assumed that comprehensibility of the answer is crucial as there is evidence that answers with non-impeding errors and only very basic use of cohesive devices score marks for content. In terms of the questions requiring explanation, speculation and judgement, the level of language in successful answers was closer to CEFR level C1 than B2. Explaining content simply can be done at B1/B2 level, but to qualify ideas is a more advanced language skill.

Therefore, it can be concluded that a minimum CEFR level of B2 is useful to access IGCSE Geography, and that CEFR level of C1 could provide an added advantage of linguistic resources to be able to develop arguments needed for higher grades for Geography.

Estimates of CEFR language levels of such high-stakes content exams enable teachers to better prepare their students. Also, successful attainment of IGCSE non-language qualifications gives added value to a bilingual education programme and indicates that a student has sufficient English language proficiency – at least CEFR B2, depending on the grade achieved, to be able to cope with academic content.

Supporting language claims underpinning the IGCSE

Generally, there seems to be few problems with Geography candidates not understanding assessment specific vocabulary. Most candidates sampled across the grades were able to complete all the questions and with full answers. Even weaker candidates are able to write something for each question (sometimes at length and often with much irrelevance). In Paper 2 (based on testing the interpretation and analysis of geographical information and on the application of graphical and other techniques) and Paper 4 (the 'Alternative to Coursework' paper), many candidates, mostly those with a lower level of language range and accuracy, answered questions with phrases and bulleted lists, often with fractured grammatical structures. The stronger Geography candidates produced full sentences and short paragraphs. Whilst the mark schemes make no reference as to whether both approaches are acceptable, it appeared that it is the content that counts, and not the style of the answer. Those candidates whose linguistic resources are not sufficient to support fuller answers could score satisfactorily

on short-answer items (assuming subject knowledge) but could not achieve maximum marks on questions requiring developed answers (and which often have higher totals of marks available).

In terms of relative time allowance, it is assumed that stronger candidates can produce longer and more cohesive text in the time given than weaker candidates. Sometimes, however, there is evidence of possible time advantage to candidates with knowledge of the correct answer and who opt for note form. In this case there is no evidence that providing lines for the answer guides candidates as to length; writing concisely is, however, a skill not always easy to acquire when writing in any language.

Two issues of interest with regard to candidate performance were, firstly, the ability to produce developed answers and, linked to this, the ability to deal with questions requiring some form of speculation and judgement. To quote the comment from the Principal Examiner on the June 2010 Paper 4 (Alternative to Coursework which includes questions involving an appreciation of a range of techniques used in fieldwork studies): "Weaker candidates scored on 'practical questions, such as drawing graphs' while candidates 'of higher ability' scored well on the 'more challenging sections requiring explanation and judgement, especially hypotheses'". (Principal Examiner Report for Teachers, 2010, p.37).

Research informing practice

Outcomes from the study have already informed the construction of a 'CALP guide' (Chadwick, in press) – *Language Awareness in Teaching: A Toolkit for Content and Language Teachers*. The toolkit is designed:

a) for teachers of IGCSE content subjects who teach students for whom English is not their first language
b) for E2L teachers who teach students who take some of their content subjects in English in other departments of their school, and
c) for content teachers who teach students for whom English is their L1 (English may be the teachers' L1 or L2 though English proficiency is assumed).

The function of the toolkit will be:

- to provide content teachers with a place to find the kind of language their students need support with when studying for their IGCSEs, and language that will enable their students to engage with content subject more effectively. This language will be CALP that is useful for all academic subjects and examinations.

- to help teachers become more aware of the language issues students face when they study content subjects.
- to include a rationale and strategies for supporting students with language in the classroom and to help students understand and engage with complex concepts in content classes.
- to provide guidance to E2L teachers on how they can support content teachers and students taking content subjects in English in their school by working together to support students and colleagues in a more integrated way.
- to provide E2L teachers with a resource that they can use to help plan and supplement their English lessons to be more effective across the curriculum.
- to highlight language issues specific to IGCSE exams.

The toolkit will also provide examples of *content-obligatory* and *content-compatible* language. When learning content through a second language, it is a requirement for a student to produce both content-obligatory and content-compatible language in a potentially wide range of subjects.

Content-obligatory language or specialist language is the language that can be taught be in the context of a particular subject and is essential to an understanding of content material. This is the subject-specific vocabulary, grammatical structures and functional expressions learners need in order to be able to learn about a curricular subject, communicate subject knowledge, and participate in interactive classroom tasks.

Content-compatible language is language that can be taught naturally within the context of a particular subject matter and that students require additional practice with. This is non-subject-specific language which learners may have been exposed to and learned in their English language classes and which they can use in CLIL classrooms to communicate more substantively in the subject.

Findings have also contributed to the Cambridge question writing process. As Cambridge states that 'non-native speakers of English are always treated fairly', question setters need to be aware of potential language issues confronting an international candidature. Effort is being directed to make examination questions more accessible in terms of their English language demands on linguistically diverse candidates. Examples of language guidance to question setters are now included in the Cambridge guide to question writing.

Table 2. Examples of language guidance for question setters

Check the following	Guidance
Ensure instructions are precise and convey exactly what the candidate is expected to do	Use: • simple language with 'straightforward' vocabulary, avoiding colloquialisms • standard command words • short sentences. Questions requiring candidates to perform two functions such as '*describe and explain*' should be avoided. Candidates tend to focus on the first function only. If you wish candidates to do two tasks, break the question into two parts.
Avoid long or structurally complex sentences which are difficult to process	Ensure that long sentences are broken up for clarity. Use short, simple sentences. Eliminate any superfluous words. Avoid starting questions with a clause as these take more processing.
Avoid phrasal verbs where the meaning cannot be worked out from the individual words	Although phrasal verbs use simple words, they are colloquial and are potentially difficult to process. For example, candidates may have difficulty with expressions like '*put up with*' and this can be replaced by '*tolerate*'.
While it is important to preserve the flavour of source texts, a degree of sensible editing and glossing could benefit all candidates	Where possible, make source material less culturally opaque. Give careful scrutiny to more colloquial sources. Colloquial language can be less easy to grasp. Avoid structurally complex source materials. For example, cartoons often contain colloquial language or contain certain cultural features which can cause difficulty. Photographic sources, though perhaps less rich in terms of the points that can be deduced from them, may be safer for a diverse international audience.
Try to standardise instructional language and command words	Aim for consistency in the command words used across a syllabus. Make transparent any specific language requirements. For example, if extended prose is required in a response ensure that the instructions elicit this; some candidates see the question asking '*Is X true?*' as a '*Yes/No*' question, when sometimes a response involving debate and qualification is required.
Where possible, use line spaces to separate points and to assist candidates in their reading	For example, for clarity, factual points could be made in single sentences which are then separated from the question by a line space.

Check the following	Guidance
Consider visual support – diagrams or illustrations	Diagrams, graphs and pictures can support and break up text and lessen the reading load.
Do not test language if it is not part of the assessment	Avoid difficult language questions and instructions, unless it is known subject-specific language. Check if a task depends on the understanding of one word. If so, should it be replaced or explained? Avoid colloquialisms, idioms and cultural non-familiarity in both words and pictures. Be aware that words may have different meanings in different parts of the world. Avoid irrelevant context. There is a tendency to provide unnecessary context to make questions more interesting. Context always adds words, which may cause more difficulty for those with weaker reading skills.

Future research

More research is needed into ways of making challenging academic content more accessible and meaningful to international students in multilingual educational contexts, without reducing the cognitive demand.

Building on the research reported here (which additionally investigated IGCSE Biology and History) future studies will attempt to assess the impact of linguistic complexity and language accessibility on candidates taking international A level examinations designed for 16-18 year olds. The research will comprise three phases. In phase 1, the marks obtained by each student for each sub-question on the exam papers for a random sample of at least 200 scripts for A Level Geography will be collected and keyed into data spreadsheets. The data sets will be used to conduct a number of statistical analyses to describe question functioning for both whole questions and question parts using traditional and item response analyses. In phase 2, questions that statistical analyses suggest are performing in 'unexpected' ways (extremes of difficulty; reverse thresholds, a number of overfitting and underfitting items) will be first identified then explored using textual and discourse analytic techniques in order to determine whether the questions present language problems for international candidates and, more importantly, why these questions might be problematic. In the final phase of the research, students studying in their second year of A Level Geography from a range of linguistic backgrounds will be asked to engage with the input language of questions identified in phase 1 and to comment on their linguistic complexity. Triangulation of textual analysis and think-aloud protocols will provide a powerful means to explore complex syntactic and lexical

features that challenge English language learners. Through the 'voices' of students, this work will scrutinize the appropriateness of inferences about English language learners' content knowledge based on linguistically complex test items.

Research into the language demands of Cambridge international programmes of learning and assessment, and the ongoing support of its teachers and students, continues to assume high priority. In the bid to be fair, it is impossible to anticipate all linguistic and cultural needs and it is important to avoid construct under-representation. However, by attempting to cross the language barrier it is possible to maximise accessibility and to avoid construct irrelevance – via guidance to teachers and examiners. By not testing or assuming language but being sensitive to language, we can put students at the heart of education and assessment.

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Bilingual (Geography) Education in Switzerland

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Abstract
This article presents an overview about the peculiar language situation in Switzerland in order to explain the implementation of bilingual teaching in the educational system ten years ago. Geography immersion teaching was introduced to many Swiss grammar schools ten years ago.

Key words: national languages in Switzerland, Swiss education system, immersion, geography.

A geographical introduction

In order to understand the language situation in Switzerland, it is useful to have a short look at some geographical facts.

Switzerland, officially the Swiss Confederation, is situated in Western Europe, where it is bordered by Germany to the north, France to the west, Italy to the south, and Austria and Liechtenstein to the east. It is a landlocked country geographically divided between the Alps, the Central Plateau and the Jura, spanning an area of 41,285 km^2. While the Alps occupy the greater part of the territory, the Swiss population of nearly 8 million people concentrates mostly on the Plateau, where the largest cities are to be found. Among them are the two global cities and economic centres of Zurich and Geneva.

Despite its small size, Switzerland comprises three main linguistic and cultural regions: German, French, and Italian, to which the Romansh-speaking valleys are added (**Figure 1**). The Swiss therefore do not form a nation in the sense of a common ethnic or linguistic identity. The strong sense of belonging to the country is founded on the common historical background, shared values (federalism, direct democracy, neutrality; Widmer 2011). As a consequence German, French, Italian, and Romansh are all national and official languages.

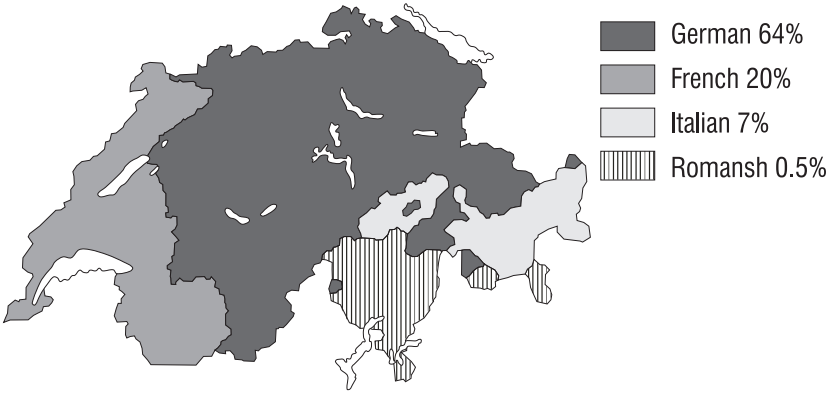

Figure 1. Distribution of the four linguistic regions in Switzerland (census 2000)

The Swiss education system

Education in Switzerland is very diverse because the constitution of Switzerland delegates the authority for the school system to the cantons. There are both public and private schools, but Switzerland prides itself on its high standard of publicly-funded education.

Switzerland is adapting its education system (such as enforcing English in schools) to keep pace with globalisation and growing partnership with other countries. The aim of the education provided is not only to ensure that pupils possess the necessary knowledge, but that they are able to adapt to new circumstances in a rapidly changing world (Swissworld 2011).

But one of the most controversial changes proposed in recent years is the introduction of English in primary school in 2004. Traditionally, the first foreign language in school was always one of the other national languages. One of the objection to the scheme was that the promotion of a non-Swiss language would threaten national unity. But there were also fears that children in the second year of schooling are too young to start a new language.

Bilingual education

Less controversial was therefore the introduction of bilingual education at grammar school level ten years ago. In Switzerland it is called late partial immersion and means that a minimum of 600 lessons are taught in a foreign language in at least two different matura subjects (this equals about 15% teaching time during a three-year schooling time). Every grammar school can decide on their own which language and which subjects will be taught immersively. Common subjects are mathematics, physics, biology, geography, history, economics, arts or sports. As a result there is a big variety of immersion programmes.

With regard to the immersion language, schools in French-speaking regions choose predominantly German as immersion language whereas in German-speaking regions English is preferred.
Meanwhile, more than 70 out of 170 public grammar schools are bilingual. 10% of grammar school students attend bilingual teaching, which equals about 7000 students (Elmiger & Näf 2009).

Bilingual Geography teaching

Geography is a suitable subject to be taught in English or in another language. Even so, according to the national law MAR 95 (‚Maturitätsanerkennungsreglement' 1995), the same content objectives should be used for bilingual programmes to assess the achievement of second language and native speakers alike. Lower standards of achievement should not be established for second language speakers. Owing to late immersion there is a gap between students‘ thinking ability and language level at the beginning of immersive teaching. This requires an integrated approach where both content and English language objectives are included, the educational approach ‚Content and Language Integrated Learning' (CLIL) described by Coyle et al. (2010) is often used by teachers in German speaking Swiss grammar schools.
With regard to teacher qualification, language level C2 is required as well as an immersion methodology course for all non-language teachers.
Geography teachers at Swiss secondary level usually need to have an academic masters degree in geography (or a closely related discipline). But facing a lack of teachers at the beginning of the bilingual programmes, there were many linguistic teacher with only a bachelor degree in geography who taught the bilingual classes. This might be a risk for an appropriate geographical education. That is to say, the education value of geography has already decreased in Switzerland in recent years obviously shown by lesson reductions.
On the other hand, geography contributes to foster students' important skills needed e.g. for science and economy but also to open a door to global intercultural understanding. The results after ten years of immersion experience are rather positive in Switzerland (WBZ 2009).

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CLIL in University Context. Teaching Geography to Bilingual Teaching Trainees

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Abstract
In recent years Bilingualism has become a quality factor on Infant and Primary Education in Spain. The Cardenal Cisneros University College in Alcalá de Henares has been developing a bilingual program since year 2008 as a response to the current educational demands in the Community of Madrid. This program is being applied to the Infant and Primary Teacher Training Degree and Geography is one of the subjects involved in. In this paper I am going to explain some facts and features related to our experience while teaching Geography to teaching trainees.

Key words: Human Geography, Teacher Training, Bilingualism, CLIL, Spain.

An introduction to our context

In this paper I would like to share with you some aspects referred to the Bilingual Teaching Program developed in the Cardenal Cisneros University College where I work. This college is a higher education centre located in Alcalá de Henares, Spain. Alcalá de Henares is a historic city, recognised as a World Heritage site in 1998, which is 30 km far away from Madrid. It is a meaningful place for the Spanish culture because it was the birthplace of the prominent writer Miguel de Cervantes and it has one of the most prestigious Renaissance universities in our country.

In recent years education has become a core concern for the Spanish society. We are living now in a crucial context determined by the economic crisis (23% unemployment rate), dramatic social changes experienced in the last two decades, inaccurate government policies in many areas and not very good results in our public educational system. Regarding our University situation we are currently adapting our degrees to the new European arrangement inspired by the Bologna process. Nevertheless, many lecturers are very traditional and they are having difficulties to change their methodology, classroom management and teaching organization. One of the most concerning issues related to Education in Spain is probably our long-established difficulties to learn English. Let me explain shortly which difficulties they are in relation to English teaching-learning in my country.

In the past English was always considered as a secondary subject and it hardly filled three hours per week in the school timetable. The methodology was focused on grammar and writing and as a result of this we tended to develop very low communicative skills. In conclusion, we studied English during our whole life but we were not able to speak it properly.

Fortunately, at the present time English is starting to be considered as a quality factor in Education and Bilingualism is being promoted by the government policies. Now the path is learning other contents through English in order to fill at least half of the school timetable. Apart from the English language classes, in many schools there are also other subjects such as Sciences and Art & Crafts taught in English. Regarding methodology there is less grammar focus and the principal aim is to promote higher communicative skills.

The introduction of Bilingualism has been particularly intense in the Madrid region due to the huge impulse given by the Government of this Community both in political and economic aspects. Primary Education in Madrid started to apply Bilingual programs in 2004, today reaching 267 schools and more than 65,000 students. The programs in Secondary Education began in 2010 and reached 52 high schools and more than 7,000 students at present time. There are around 2,400 bilingual teachers and more than a thousand native assistants participating in the implementation of these programs. Generally speaking, the upward trend has been impressive and the only worry is how the current economic situation is going to affect this positive forecast for the future.

The bilingual program in the Cardenal Cisneros University College

The Cardenal Cisneros College is linked to the University of Alcalá, but administrated by a non-profit foundation and the Marist Institution. We are specialized in educational studies so we offer three degrees regarding Infant Teacher Training, Primary Teacher Training and Social Education. In addition, there is also a Master degree about Special Educational Needs and a virtual campus for on-line scholars. Nowadays the total number of registered students in our college is around 1,400. Furthermore, we provide a wide range of activities that includes an Open University for seniors, a School of Music for children, an Environmental Education Classroom, a school for Leisure & Recreation educators, a scholarly journal, agreements with more than thirty universities all over the world to facilitate mobility and several social projects too.

Since 2008 we have been developing a bilingual program as a response to the current educational demands in the Community of Madrid. Our bilingual program

started to be applied in the academic course 2010-2011 so this one is our second year. There are twelve lecturers involved in the program. They have received both English language and methodological training from the British Council, Pilgrims Ltd., NILE and the Catholic University of Eichstätt-Ingolstadt.

The final goal of the program is to teach in English at least 1/3 of the total amount of ECTS in the Infant Teacher and the Primary Teacher Training Degrees. Learning processes is commonly based on CLIL focus. However, the use of English in the classes is going to be progressive, less in the first courses and more in the last ones. In the attached table I am mentioning all the subjects that are planned to be taught in English. Basically, there is one subject per semester in the first course and two subjects per semester in the second and the third course. For the fourth course of the degree it is predicted that both the practices period and the final project should be done in English too.

	Infant teacher training degree	Primary teacher training degree
1st Course	Didactics	Didactics
	Pedagogic Diagnosis	Geography
2nd Course	English Language I	English Language I
	Attention to Diversity	Attention to Diversity
	Early Childhood Intervention	English Language II
	Musical Expression	Physics
3rd Course	Teaching-Learning Social Sciences	Didactics of the Social Sciences
	Art Education	Art Education
	Psychomotor Education	Didactics of the Natural Sciences
	Elective subject	Elective subject

The key-factor in all this process is that our students do not come to our college only to learn some kind of contents. They actually come because they want to work as teachers in their professional future. So it is obvious that they need to know about Pedagogy, Psychology, Spanish Language, English Language, Mathematics, Physics, Chemistry, Geography, History, Music, Arts, etc. Nevertheless they mainly need to learn how to teach all these things to the children in a Primary school. In other words, we are teaching to students who are going to be teachers too.

Teaching Geography in English to teaching trainees

This year I have been in charge of Geography teaching within the bilingual program in the Cardenal Cisneros University College. I have been working together

with another colleague and a native assistant teacher. The target-group was formed by 54 students of approximately 18-25 years old who were studying the first course of the Primary Teacher Training degree. They have to pass successfully an initial test to be accepted into the bilingual program. Their level of English was in general between A2 and B1 according to the Council of Europe's Common European Framework of Reference for Languages.

The subject aims to offer the learner a meaningful set of both didactic resources and geographical competences and knowledge, especially oriented to the Primary Education content area of Science. Thus, the methodology has been extremely practical, based on the CLIL approach, whose main aim was creating a communicative atmosphere and involving students actively in high-order thinking processes. According to this, students were pushed to improve their competence in the English language at the same time they were learning about the specific geographical contents. It included warmer activities, group dynamics, classroom working, case studies, videos and many opportunities to speak and debate about Geography.

The specific content was mainly focused on Human Geography, dealing with the population in the world, the human settlements and their impact on the environment, urban spaces, models of social and political organization, economic activities and the analysis of some geographical areas in the world. We did not have an accessible textbook to be easily acquired by the students so we opted for a massive usage of the computer room, ICT, Internet links and Powerpoint presentations to cover the content learning. Throughout the year we have been collaborating with a publishing house that was preparing a good quality Geography textbook in English for the higher levels of the Secondary school. So we will use this as a reference for the next course.

Regarding classroom management we organized the classes into three types: big group with all the 54 students for theoretical classes; medium groups with around 25 students for practical classes and small groups of 10-12 for seminars and tutorials. Methodology changed in each case, more discursive for the big group and more task-based for the medium and small ones. As a conclusion, sometimes it was difficult to manage the big group whereas students worked much better in medium and small groups.

The result of the teaching-learning process has been in general good not only in relation to the geographical contents but also in relation to the English communicative skills. All the process has been constantly supported by scaffolding techniques

(mainly visual) and checked by a continuous assessment. The most difficult to understand has been probably the geographical specific vocabulary. However, final marks were slightly lower than expected. Only 50% of the students passed in the first round and another 20% passed in the second round. Perhaps it would have been helpful the use of a previous mock exam.

To end this paper I would like to refer some interesting learning activities that we have developed during the course. The first one is related to the unit Political Geography. The topic was the Cold War, which is something barely known by Spanish students. I planned a practical workshop that lasts two hours and was one of the most interesting lessons, according to the student's opinion. We used different types of didactic resources to teach many Cold War aspects: an audio record to introduce the topic, a big amount of pictures to understand the political propaganda objectives in that context, some historic texts by Winston Churchill and Joseph Stalin to be compared, a time-line to check Cold War chronology and of course several exercises to work on maps. From the methodological point of view I applied the Gardner's Multiple Intelligences theory providing different ways of learning (visual, musical, linguistic, etc.) that facilitated the understanding of the lesson.

The second activity is related to the unit Urban Spaces. It was based on an excursion to the Roman forum and the Medieval neighbourhood of Alcalá de Henares. This visit has to be followed with a didactic notebook to work on. The way to do this was putting attention to some archaeological elements, reading the information in panels and listening to the explanations provided by the guides. Thus, the notebook tried to connect the content with some didactic strategies that could be also used for children. Thus, our students could learn about urbanism and how to plan a didactic excursion too.

Finally it was especially interesting to assess both the content and the English language skills through a series of oral presentations developed in the classroom at the end of the term. These presentations were related to the final unit about Geographic Areas in the World. The most interesting thing is that the presentations were not only teachers' assessed but peers' assessed. They received a grid to check out different items classified in three aspects: geographical content, speech and the way of presenting. During one group's presentation the rest of the students had to mark each item. Then they passed their evaluation to the teacher to be compared with the teacher's one and the assistant marks. The aim was to develop a sort of co-evaluation.

In conclusion, the challenge has been enormous for both the lecturers and the students but we strongly believe that Bilingual Education worth the effort. It can be a gate for the future and people's integration in the world. And this is something especially important for Geography.

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We have not used one only textbook in the teaching-learning process. Instead we recommended our students to use frequently the following reference books related with Human Geography. They provide not only the theoretical topics but also many didactic suggestions and activities to be done in the classroom.

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The Amsterdam region – the heartland of culture, tourism and economy in the Netherlands

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Abstract
This paper presents a brief introduction into the role of history and geography in the development of the City of Amsterdam as an economic and cultural centre within the Netherlands. Special emphasis is laid on the parallels that may be drawn between national and municipal policy, cultural and economic implications, the environment and sheer luck.
A short off-the-cuff lecture has been presented by the author at the workshop organised by the Association of Polish Adult Educators in Torun in October 2011. The current paper deals with the contents of this lecture and expands on it wherever deemed necessary.

Key words: politics of tolerance and responsibility, migration, culture, tourism, history of Amsterdam. Hope for the future!

Early settlements in the Netherlands

In pre-Roman times the Netherlands were inhabited by Germanic and Celtic tribes. They had agriculture and concentrated on fertile areas like the löss-covered hills in Limburg, the floodplains of the Rhine, and (dangerous!) coastal plains covered with marine deposits. Water was a continuous threat and all people could do to defend themselves was to raise artificial mounds or to flee to safer grounds whenever the sea or the rivers rose. Large areas were empty, too dangerous, too swampy or covered with poor soil. Farms and tiny villages were the pattern of settlement.

In the first century BC the Romans conquered the Southern half of the present-day Netherlands. They established roads, improved trade and technology, defeated the Celtic tribes and started building forts and towns along the banks of the Rhine. This river was considered to be the boundary of their empire ("limes"). Barbarians lived to the North and East of the Rhine and were fought, bribed, taxed and used as trading partners. Roman authority came from towns like Nijmegen, Utrecht, Dorestad and Leiden. Maastricht, another Roman town, was built on the banks of

the Meuse River, half-way along the road between Brussels and Cologne. Nijmegen was the most important of the Dutch cities in Roman times.

After the collapse of the Roman Empire we went into the so-called Dark Ages. The population dwindled, towns disappeared and masses of Germanic tribesmen moved around adventurously or were driven by fear of the Huns. Charlemagne was the man that managed to restore unity, authority, religion and wealth. He used some of the remaining Roman towns (like Liege, Brussels, Cologne, Aix and Maastricht) for his court and visited Maastricht regularly. It became the urban centre of the country for several centuries.

At the death of Charlemagne his empire was split in three, most of the Netherlands being incorporated into the middle section that developed into Burgundy. This Burgundy did not survive attacks from its neighbours and it fell apart. The Netherlands subsequently became part of the Holy Roman-German Empire in the later Middle Ages and were ruled by clergy and nobility. The Dutch (note the great similarity with Deutsch) were treated like any other German residents. The most important ruler of the day was the Bishop of Utrecht and he used the incoming taxes to extend his armies, to build roads, huge monasteries, and new churches. His capital city grew into the major hub of the Netherlands. It had a fine central location and good connections by road and river towards the seas (North Sea and Zuyderzee), towards the more prosperous areas in Belgium and of course towards Germany. Many towns came into being and were quick to join the Hanseatic League in which they performed excellently.

Indirectly the policies of the Bishop led to the founding of the village of Amsterdam, as has been explained in a previous paper (issue of 2011) to our conference. The Amsterdammers soon became highly enterprising in trade, politics, whaling, and art. Within a time span of a hundred years (1550-1650) they had outclassed the other cities completely. What was their secret?

The Golden Age of Amsterdam

In the second half of the 16th century the reformation wrought havoc in many parts of Western Europe and particularly so in the Netherlands. After the death of Charles V the Dutch came under the strict authority of the Spanish King Philip II, purely as a matter of chance. This King had no tolerance towards Protestants and the result was a huge military clash between Spanish armies and troops led by Prince William of Orange, leader of the rebels. Many towns and cities were burned and besieged, starvation was rife. Amsterdam for a long time refused to reform religiously or side with the Orangists. It enjoyed peace and was able to expand trade

and wealth. In 1578 the Amsterdam aberration was a spectacular political feat: the City administration suddenly sided with the Protestants. A Catholic city that had tolerated Protestants became a protestant city that tolerated Catholics. Soon afterwards the city was flooded with immigrants from Belgium and France: Jews and Protestants fleeing from persecution knew they would be safe and welcome in Amsterdam. They brought with them huge reserves in gold and cash, financial knowledge, love for the arts, and international connections. For many centuries we would be dealing with a tricultural city.

Within the span of a hundred years the population increased tenfold. In 1650 Amsterdam was one of the biggest cities in Europe, famed for its beautiful architecture (the Canal Zone), its painters of the Rembrandt School of painting, its enterprise in colonies all over the world, its tolerance towards businessmen and religious denominations, and a continuous influx of manpower and capital.

The whole country benefited from the spin-offs of Amsterdam: the trade and the jobs, the reclaimed lands, and the spirit of free enterprise on the one hand and of tolerance and social responsibility on the other. A fairy-tale that could not last!

By 1670 neighbouring powers like France, Germany and England had come to realise that the Dutch were dangerous economic competitors and that the best way to beat them was through military action. In 1671-1672 the Netherlands were invaded by armies and navies from all sides, while inundations, floods and severe winter weather took their toll too. Effectively this brought an end to the economic boom and to the Golden Age. Dissent between the occupying powers of the day gave the Dutch the good fortune to maintain their independence and some of their colonies. Remember Poland!

The period between 1570 and 1670 is the cornerstone to the understanding of Amsterdam history. From here stems the dominance in finance (stock exchange, banking) and in arts (painting and architecture) that has been maintained ever since. The rather lukewarm relationship between the House of Orange and the city at that time lies at the root of the fact that Amsterdam has never been the centre of administration or the seat of the Dutch parliament nor the seat of residence for the Princes and Kings that ruled the Netherlands.

Typical elements of the Amsterdam culture, such as a dislike for authority, a "typical" sense of humour, the many Jewish slang words still in use, the taking of religious zeal with a large pinch of salt and the pursuit of all sorts of freedoms beyond the beyond, all originate from these fairy tale times.

The Industrial Revolution in Amsterdam

A big leap of almost 200 years carries us into modern times. We did live through the years of Napoleon, had some mild revolutions, and were faced with stagnation in population and economy until the second half of the 19th century when things started to change for the better at last.

- In 1850 a huge lake to the southwest of Amsterdam was drained by using steam engines from England. This gave the city more security against floods, 150,000 acres of fertile agricultural land, better connections with neighbouring cities and (much later) the space to construct a national airport close by and on stable ground.
- In 1870 wide canals were dug that connected the Amsterdam and Rotterdam Ports directly to the sea. Later another canal was constructed to connect Amsterdam to the Rhine. Finally the Netherlands were ready for industrial revolution, based on strong transport arteries with the German hinterland.
- Around 1870 there was a lot of political reform: children's rights, women's rights, union rights, increasing parliamentary representation, new political parties, social services, improved housing, new railways, introduction of sewage systems and piped drinking water, hundreds of thousands of jobs in factories, agricultural rationalisation, it all took place within a few years' time, a good lesson for present-day Dutch governments that seem to have great difficulty in coping with rapid change. Of course Amsterdam was at the forefront of these changes, since many of them went against traditional authority! Political powers of the House of Orange were further curbed, the Social-Democrat and later Communist movements were led from Amsterdam, and the (mostly Jewish) union of diamond workers was a great example to the countrywide movement for trade unions.
- In 1930 a dam was constructed to separate the Zuyderzee (now a lake) from the North Sea. Amsterdam became a sweet water port and lost its tides. It is now an inland city.

Hundreds of thousands of peasants came to Amsterdam from the countryside, especially Frisians. The new workers at first lived in tiny apartment houses, two families to one floor, and toilets in the kitchen. Soon, however, social democrats got into power in the municipality and started drastic projects of planning and of subsidised high-quality-housing. Architects of renown built beautiful extensions to the city; these still draw tourists from all over the world. Spatial Planning was well balanced and incorporated into the political culture of the day: public baths, no pubs in the new estates, housing schools (where antisocial elements were taught how to live!), well-ordered public transport with a dense network of tramlines, and a safe separation between housing and factories, the latter especially planned around the ports.

In fact the social democrats did such a good job that they created a lot of goodwill for themselves and are, up to this day, the major political party of Amsterdam. This party has managed to attract not only workers, but also many representatives of the middle classes, artists, immigrants, bureaucrats, and especially the non-working class!

During the Second World War 80% of the Amsterdam Jews were murdered, leaving a big scar on the city landscape and especially on the cultural identity of the city. Young men went into hiding or into forced labour, trees were cut for firewood, and some factories were destroyed by allied air-raids. As soon as the war ended, thousands returned to their homes and reconstruction started on the basis of high employment, cheap food and housing, and low wages. This system worked miraculously well in the nineteen-fifties, with low incomes and a bonus to emigrants. By 1960, there were over 800,000 inhabitants within the municipality of Amsterdam.

Post-industrial Amsterdam

1961 was a turning point for the Netherlands. The economy had become overheated and the contract between state, employers and unions, drawn up after the war to enable a speedy reconstruction, could not be sustained. Wages suddenly went up by 20% a year. Manufacturing almost expired in the city, and a service-economy took its place. Other interesting consequences of this "wage-wave":

- Emigration stopped and was replaced by the immigration of "gastarbeiter" from far-off places like Turkey, Spain and Morocco.
- Half a million people bought or rented bigger houses and moved out of Amsterdam into suburbia. Especially the poorer sections of the population remained behind.
- Government intervened on a huge scale, investing billions in New Towns and infrastructure.
- Most families bought themselves a car, easy for shopping, for holidays and for commuting, but how about city life? Children's playgrounds, security and the environment suffered the onslaught of motorised traffic.
- Airline traffic and mass-tourism developed on a grand scale, turning the little Airport of Schiphol (once a hell for ships at the bottom of a great lake!) into Europe's number four hub with (now) 50 million passengers a year.

The great changes of the sixties have left Amsterdam with a heritage of opportunities and problems: a multicultural population, a relatively young population, high demand for skills, huge traffic congestion, and the social problems that come with the life of every big city in Europe.

Just a few present-day statistics:

- 800,000 inhabitants within the municipality, over a million in Greater Amsterdam,
- 100,000 workers in business services,
- 60,000 hotel beds,
- 100,000 students in higher education,
- 50,000 creative jobs,
- almost 500,000 jobs within the municipal boundaries.

Since the year 2000 the Amsterdam council has made big plans for the future, the attitude was more of "the sky is the limit" than towards a balanced budget. A high-speed railway (that never ran at high speed), huge reconstruction of the main railway station, renovations to all the major museums, new tunnels underneath the ports, a new tube connection between the North side of the city and the business district to the South, and huge extensions to the airport have been the cause of dangerous deficits that will not be covered up by the Central government. Besides, these projects have taken far longer than planned and have disrupted business, traffic and tourism on a massive scale. Many Amsterdammers are now disgruntled with city policies and feel that their money has been squandered.

Amsterdam as a tourist centre

Since 1960, when mass-tourism became feasible and popular as a result of growing wealth and transport opportunities in the Western world (later in the rest of the world), Amsterdam has been the number one hub of tourism in the Netherlands and one of the major tourist attractions of Europe. 5 million foreigners visit the City in an average year. More than half of all the high-quality hotels (4 and 5 star) in the country are found in Amsterdam. What draws all these people from near and far?

- The Medieval zone and Canal Zone (17th century) contains thousands of interesting gabled buildings and dozens of beautiful canals, mostly tree-lined. Very little of this heritage has been destroyed in the wars and most of it has been well renovated thanks to long-time subsidies. The canals by themselves offer the biggest attraction in the Netherlands, approximately 3 million canal-boat cruises are sold every year!
- Half of the artists in the Netherlands reside in Amsterdam, especially painters, sculptors and writers. A huge concentration of art-galleries and museums draws them in. The van Gogh Museum, the National Museum, the House of Anne Frank, the Jewish Historical Museum, the Hermitage Dependency, the Shipping museum, and the Amsterdam Historical Museum each attract between 500,000 and 1,500,000 visitors a year. Their location is based on history, municipal policy, and the concentration of artists and tourists.

- Hotel and restaurant facilities are fairly good (though certainly not cheap).
- International visitors find it easy to get to Amsterdam through Schiphol Airport (an attraction by itself for some) or by high-speed train from Germany, Belgium or France.
- In the vicinity (within an hour's travelling time) there is a concentration of fishing villages, and cheese farms with their particular architecture, traditional costumes, and fish-restaurants.
- In the vicinity is the sea, with beautiful beaches, very well equipped (except for the weather?).
- Within 20 miles of the city there is the flower-growing area and the biggest flower-auction in the world.
- New land, polders, locks, dykes, all within an hour of Dam square, and a choice of 16th, 19th or 20th century projects, including New Towns at the bottom of the sea.
- Many interesting old towns and villages right round the corner: Abcoude, Ouderkerk, Weesp, Utrecht, Haarlem, Alkmaar, are all of medieval origin and very well maintained.
- Grand opportunities for cycling with many cycling tracks and a population that is completely used to cyclists. Actually the bike is the best way to see the city and the surrounding landscapes that show a variety of boglands, parkland, fantastic birdlife, dunes, lakes polders.
- Sports: no mountaineering, but some fairly good golf courses, swimming pools, and the Arena stadium where Ajax sometimes has a good game. Rowing, sailing, canoeing, and skating in winter: nowhere better.
- The multicultural city with music, markets, shops, bars and restaurants run by Chinese, West-Africans, Surinamese, Indonesians, Turks, Moroccans, Mediterraneans and even Irish.
- Every community has its own facilities, including religious ones. Remember half of the young people are of foreign descent. And besides these immigrants there are large numbers of expats in the business community: Americans, British, Germans, Japanese. All these have their own separate facilities ranging from schools to restaurants, clubs, churches, you name it and it is there, and is there for the tourist to enjoy too. Xenophobic political parties never had any foothold in Amsterdam, it is a globalised city!
- A large community of students all enjoying and supporting city facilities. Like many others they enhance the relaxed and tolerant atmosphere of the city.
- Finally there is Amsterdam as Sin City, with a wide range of brothels, night clubs, so-called coffee shops and quite a trade in hard-drugs. After a long period of extreme tolerance the municipality has finally decided to clamp down on this sector, much to the dismay of (especially British) stag-tourists and of course

the local ”entrepreneurs”. The relatively innocent Grass-museum and Sex--museum are not under police surveillance (yet).

These tourist attractions are apparently the result of city history: tolerance and social democracy, the environment, national policies, the agglomerative effects between artists, expats and businessmen (also in sin), good will and pure chance. Come and see for yourself!

Conclusions

Amsterdam is a city of great diversity, both in its history and in the present, in its culture and in its economy. However, there are weak spots too. Many people depend on government grants and subsidies, too many people lack educational facilities for the high-skill jobs we require, the local government is fastly running into debt and will not be salvaged by the national one. Housing, Hotels, and Restaurants tend to be overpriced. Organised crime is strong and is related to ethnical divisions. To get back on the track Amsterdam will require sound policies and an economic recovery. Let us hope and work for that!

Top-down (Qatar) vs. Bottom-up (Poland) In-Service CLIL Teacher Training*

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Introduction

The paper aims to compare and contrast two models of introducing CLIL teacher training programs, top-down in Qatar and bottom-up in Poland, and how they follow the concept of CLIL teacher competencies described in specialist literature. At the first glance, the Qatari example, based on the British Council's Academic Language Support Programme (2008-2011), seems to have nothing in common with the Polish one, based on the annual workshops for Geography bilingual teachers organised by the Association of Adult Educators in Torun (since 2006). Despite this, there are some basic similarities in the situation of teachers engaged in delivering their subjects through the means of a foreign language.

The hypothesis of the paper is that in terms of the in-service training all CLIL teachers have some basic requirements. However, whether the training offered to them meets their needs remains an open question.

The background information included in the paper was mostly based on the author's observation and informal interviews with teachers in both Poland and Qatar as well as specialist literature.

CLIL Teacher Profile and Training

Since CLIL as a teaching method has taken its roots in various educational contexts throughout Europe and beyond, there has been a growing interest in teacher training. As there is a general lack of pre-service CLIL teacher training available (although there are CLIL modules available in, for instance, Germany), most training is done as post-graduate or in-service. Again, there is a wide variety of contexts in which this training is done – from obligatory like in Qatar, to voluntary

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like in Poland, from those organised at universities, like in Nottingham, the UK, to those offered by publishers like in Mexico, and teacher training institutes like Norwich Institute for Language Education (NILE) and other major language schools throughout the UK. The teachers themselves show a variety of professional background – from subject specialists like in Bulgaria, to ELT specialists like in Basque country, through a large variety of combinations of subject & ELT specialists cooperating or team-teaching. CLIL materials available range from those specifically written, adapted or translated. Last but not least, investment in CLIL and CLIL recognition is highly diversified (Kelly, 2007; *Promoting*...).

Considering all the above, it is not an easy task to design a CLIL teacher training module fit for everyone and everywhere. To start, however, we need to look at the desirable, final "product", i.e. a CLIL teacher able to survive in the ever-changing educational context of his/her school. S. I. Georgiu (2011), when enumerating some of the main factors which influence the CLIL outcomes, mentions that those teaching their subject through a foreign language should have competences in the foreign language, language teaching methodology and the specific content methodology. For K. Kelly (2009), the ideal CLIL teacher should show awareness of the language of the subject and have skills in materials design for embedding language in content tasks. If developed, his ideal teacher and teacher training should contain *all* of the features mentioned in **Table 1**. The table suggests considering the obvious areas, that is the specific content and the language, but also such areas as the key aspects of CLIL methodology, materials and tasks design and lesson preparation followed by practice, as well as the issues of networking and ever-developing competencies by reading specialist literature.

Table 1. CLIL teacher profile and CLIL TT focus (after K. Kelly, 2009)

CLIL specifications	Teacher profile	Training focus
Subject	• has subject specialism	• covers essential aspects of subject content
Language	• is proficient in the FL	• offers subject-specific language
Method	• uses CLIL methodology	• gives examples of CLIL methodology • discusses theoretical foundations of CLIL theory and principles
Material	• uses language-appropriate materials	• exemplifies language-appropriate materials • practices materials writing and use

CLIL specifications	Teacher profile	Training focus
Practice	• integrates content and language learning during lessons	• gives examples of CLIL practice (video, plans, audio, transcripts) • discusses and analyses characteristics of good practice
Preparation	• has necessary skills for planning and preparing CLIL lessons	• gives and discusses sample lesson plans • discusses aspects, challenges, solutions of preparation issues
Subject Discourse Analysis	• ability to identify language demands of subject materials	• presents techniques for discourse data collection and analysis (frequency and usage)
Task	• is familiar with aspects of CLIL task design	• gives and analyses examples of CLIL tasks • presents idea of 'context embedding'
Networking	• takes opportunities to participate in professional communities	• presents examples of CLIL lists and groups • presents key websites
Literature	• is well-read on up-to-date CLIL literature	• presents CLIL literature, key ideas, key questions

Do the teacher training courses offered follow such a pattern? In his presentation delivered during the 16th National BETA-IATEFL Conference in Bulgaria, K. Kelly mentions areas worth investigating and questions worth asking and answering to ensure the teacher training session is successful:

- What are the areas of CLIL core content?
- What skills do CLIL teachers need?
- What is CLIL and where do teachers fit in?
- What makes CLIL TT different from other forms of teacher education?
- What is the role of materials design?
- What is the best way to deal with assessment?

Table 2 presents CLIL teacher training offered presently at four following institutions:

- the MA CLIL Module from Norwich Institute for Language Education (NILE) and Leeds Metropolitan University, which contains 30 to 90-minute slots (Kelly, 2009);

- the CLIL INSETT courses offered by the Sofia Teacher Training Institute (Kelly, 2009);
- two-week CLIL course for secondary teachers at Pilgrims in Canterbury (CLIL: Contents ..., 2012);
- two-week CLIL course for secondary teachers at Bell English Language Schools (Content and Language..., 2012).

Although in their detail the four analysed courses do vary, their main components generally cover the areas as suggested in Table 1, although the detailed wording does differ. What is more, additional areas are included, such as assessment and error correction.

Table 2. Contents of CLIL in-service teacher training courses offered by NILE, Sofia TTI, Pilgrims and Bell (own compilation)

Specifications	MA CLIL, NILE Norwich	CLIL TT Sofia TTI	CLIL TT Pilgrims	CLIL TT Bell
Subject	• Curriculum guidelines and language demands	• Curriculum demands	• Questions and answers about Ts' subjects	—
Language	• Investigating subject specific language • Subject-specific terminology and teaching vocabulary • Classroom language: teacher talk	• Vocabulary • Classroom language	• Classroom language • Helping you to understand spoken English • Pronunciation for listening purposes • Language work • Paraphrasing • Interactive ways of giving information	• Working with new content and vocabulary • Introducing and practising vocabulary • Checking understanding • Classroom language • Maximising exposure to English • Ways of recording vocabulary • More ideas to practise lexis • Vocabulary • Warmers and fillers in English

Specifications	MA CLIL, NILE Norwich	CLIL TT Sofia TTI	CLIL TT Pilgrims	CLIL TT Bell
Method	• What is CLIL? (types and definitions) • Integrating content and language • CLIL contexts, student contexts • School policy	• Introduction to CLIL • Integrating content and language	• Aims of and rationale for CLIL • Specific characteristics of CLIL	• Exploring different CLIL contexts • The participant experience • The rationale for CLIL • Different models explored
Material	• Exploring source materials, textbooks • Websites & Internet resources	—	• Adapting materials and activities	• Useful websites and materials • Exploiting materials in the classroom
Practice	• Microteaching • ICT & software in CLIL • Making presentations • Project work: SAW • Lesson observation & action research	• Peer observation • ICT • Projects (SAW)	• Demo Lesson plus analysis • Sharing Ts' activities • Teaching 30 minute lessons	• Microteaching
Preparation	• Planning topics & lessons	• Lesson planning	• Analysing the language • components in a lesson • Lesson planning • Materials development	• Working with text: evaluating implications for CLIL lesson planning • Planning for a presentation
Subject Discourse Analysis	• Investigating tasks & language • Providing language support: 'guiding' and 'supporting'	—	• Ways of helping students with their language • Getting students to think	• Helping learners to acquire key knowledge • Maximising student output

Specifications	MA CLIL, NILE Norwich	CLIL TT Sofia TTI	CLIL TT Pilgrims	CLIL TT Bell
Task	• Reading CLIL • Listening CLIL • Writing in CLIL • Speaking in CLIL	• Listening • Reading (texts and words) • Speaking/integration • Writing and note taking	• Making texts more accessible for your students • Activities across the curriculum • Consolidation and revision activities	• Working with text: exploiting text for input and developing learning skills • Speaking: more ideas to encourage learners to speak in class • Analysing a receptive skills lesson • Reading and listening in the classroom • Writing: helping learners develop key writing skills • Using visual and diagrammatic support • Using DVDs
Networking	• Professional development & networking	• Professional development/ networking	• Further support strategies for teachers and students	• Action plan for the future
Literature	—	—	—	—
Other issues	• Assessment in CLIL • Error correction	• Evaluation of language and content & assessment • Error correction • Drama, music and media	—	• Assessment: when and how?

Qatar CLIL TT context

Qatar, an oil- and gas-rich state in the Persian Gulf, has a large expatriate population. These are engineers and other highly qualified staff from the UK, US, Canada, Germany and other Western states, who are involved in oil and gas extraction; immigrants from other Arab-speaking countries, mainly Egypt but also Sudan, Somalia, Jordan, Syria, Iran and Palestine, often recruited as teachers; as well as South-Asians from Pakistan, India, Indonesia or Nepal employed as construction workers (men) or house-servants (women). As a result, English operates in Qatar as a "lingua franca" and a move towards its more extended use and application in the educational context seemed a natural one.

In 2006 the Supreme Education Council (SEC) started the implementation of the CLIL project in Qatar, first in primary schools and then in preparatory (junior high) and secondary schools. It was argued by the SEC that studying school curriculum subjects in a foreign language would offer benefits, such as a chance to develop the language in an authentic context by engaging students in real tasks. This was also seen as a way of helping learners function within their field in Higher Education and later in the workplace (*The Academic English*..., 2008).

The teachers of mathematics and science, for whom it became compulsory to switch from Arabic to English, were offered training within the frames of the Academic English Language Support Programme for Maths and Science, designed and implemented by the British Council. The teachers were obliged to complete the course by the year 2012. In the three years of its operation – since the academic year of 2008/09 to 20102/11, the program evolved from its initial form to comply with the needs of the SEC, the schools and the teachers involved. In 2010, when the author took part in the training as part of the BC team, the project had the following phases:

- **Phase 1 – General English,**
- **Phase 2 – Classroom Language,**
- **Phase 3 – CLIL.**

After an oral interview the teachers, often appointed by their schools, either joined the GE course or, if the language level was Intermediate or above, were immediately moved to Phase 2.

Polish CLIL TT context

The Polish context of CLIL itself and CLIL teacher training is diverse. Most of all, there is no external input in the form of multinational community around. The level of speaking English among the general society remains relatively low

if compared with the EU average. According to Eurostat, 29% Poles declare they know English, while the EU average is 51% (Eurostat). It is mostly declared by a younger generation, as until 1991 Russian was obligatory in primary and secondary education, and the second language was introduced only in high school. Presently it is argued, that if knowledge of English among Poles was at the EU average the economy would generate 70 billion Euros annually (Kumoch, 2009). As the knowledge of foreign languages in general, and English in particular is commonly seen as a spring board to better job opportunities, the percentage of students of all types of compulsory education learning English is growing steadily. In the recent decade it doubled from 46.9% (school year 1999/2000) to 86.2% (2009/2010) (*Powszechność...*, 2011). Besides, the bottom-up push for more intensive language teaching and learning expressed by parents and students themselves has resulted in the advancement of bilingual education. Present in the country for well over 50 years, the accession to the EU and the fact the EU advocates for multilingualism and supports CLIL, the recent years have seen a growing number of schools offering such type of education. At the moment, according to the Centre for Education Development (*Ośrodek Rozwoju Edukacji*) there are 239 educational institutions, both state and private, from kindergartens to high schools with bilingual classes. In terms of the languages, over 50% of them offer English. In 2009, there were only 120 such institutions, 47 offering English bilingual education. **Table 3** compares the 2009 and 2012 data in those terms. An interesting fact is that Russian, neglected for well over 20 years, is coming back as a second language and the first bilingual Russian class was opened.

Table 3. Schools offering bilingual education according to school types and languages in Poland (*Mapa szkół...*, as of April 2012 and, in the brackets, of 2009) (own compilation)

Language	Kindergartens	Primary schools	Junior high schools	High schools	Total
English	11 (–)	16 (1)	55 (20)	47 (26)	129 (47)
German	3 (–)	5 (1)	24 (10)	18 (21)	50 (32)
French	3 (–)	1 (–)	22 (14)	12 (7)	38 (21)
Spanish	– (–)	– (–)	5 (6)	13 (14)	18 (20)
Italian	– (–)	– (–)	2 (–)	1 (–)	3 (–)
Russian	– (–)	– (–)	– (–)	1 (–)	1 (–)
Total	17 (–)	22 (2)	108 (50)	92 (68)	239 (120)

Among the official requirements stated for bilingual teachers there is the competence in the content material, supported by the Master's degree. In terms of the language, the minimum level is B2 according to the Common European Framework of Reference (often taken in the form of FCE exam). As there is no formal requirement to complete a proper CLIL methodology course, there is not much offered for teachers in those terms.

In 2006 the first edition of the workshop for those who teach Geography through English was conducted by the Association of Polish Adult Educators, the Torun Branch. Since then, the workshop has established its position among bilingual Geographers as a unique platform for exchanging ideas and discussing various issues of this type of education. The organisers, financed by a local publishing house of Geography textbooks, make sure the leaders include native English speakers or other CLIL specialists and the language of the workshop is always English. A book of papers is published annually with the articles written by both workshop leaders and teachers themselves.

Discussion

As the context in which CLIL bilingual education takes place in Qatar and Poland is so diverse (see **Table 4**), mainly due to the official recognition of this type of education in the earlier and the lack of it in the latter, the teacher training does show some differences. They mainly concern the way stress is put during the training: in Qatar it was stronger on the language side (lower level of the teachers' and students' language) while in Poland the whole training is more subject-driven and different aspects of CLIL were spread over various editions of the training (**Table 5**). As a result, the Qatari teachers received a more complex overview of the existing CLIL methodology and, thanks to Microteaching and school visits conducted by trainers, had a chance to try out some of the newly learnt techniques. The training for the Polish teachers, however, never included Microteaching and only once a school visit was proposed.

Despite the obvious and clear differences in the training contents it seems that in both countries the CLIL teachers receive the training tailored to their needs. It is clear that some aspects are common, shared by teachers in both settings and stressed by them in discussions with trainers and/or training organisers. They include the following:

- upgrading the general language level – in both countries the trainings are/were conducted in the target language; the subject-specific vocabulary, relatively well recognised and used by teachers, needs to be complemented and supported by general English knowledge;
- meeting teachers of the same subject to discuss various aspects of teaching their

subject through a foreign language; this aspect is specifically strongly stressed by the teachers in Poland where the general recognition of CLIL teaching is insufficient;

- gaining a wider perspective on what is happening in CLIL in other countries, which helps teachers put themselves on a 'CLIL map'; in Qatar it was done in the form of presentations by trainers; in Poland it is mainly done by inviting Geography CLIL teachers from other countries, such as The Netherlands, Germany, Switzerland or Spain;
- sharing materials prepared by other teachers, which is most valuable as there is a general lack of ready materials suitable for the country specific curriculum; in Qatar it will be easier to produce materials for a nation-wide use due to CLIL being an obligatory mode of teaching, while in Poland a still relatively low number of schools means producing professionally prepared materials is expensive; this may, however, change if the number of schools offering bilingual education grows significantly, which is already happening.

Table 4. Comparison of CLIL context elements in Qatar and Poland (own compilation)

CLIL specifications		**Qatar**	**Poland**
CLIL Context	Recognition	Obligatory for all students of all levels of education in terms of Maths and Science.	Bilingual education is a choice; minimum two subjects taught through a foreign language.
	Teachers	Teachers obliged to take a CLIL course and teach through English (no fee paid).	Teachers decide whether they want to engage in this type of education and if they want training (fee paid either by teachers or their schools).
	Students	Obligatory for all students.	Students selected on the basis of the language level (English, German); in the case of other languages – intensive language preparatory year.
Subject		Teachers are subject specialists, often with academic degrees (PhD); as they are often immigrants their general subject methodology is highly diverse.	Teachers are subject specialists with minimum Master's Degree; a subject-specific methodology course is a requirement.
Language		Minimum Intermediate EFL level, which means teachers sometimes struggle with the language.	Minimum FCE exam (B2), which sometimes means students have a better knowledge of the language.

CLIL specifications	Qatar	Poland
Method	Often the minimum requirement is 50-50 use of English and Arabic; the CLIL methodology introduced.	Various models of language use implemented; no official requirement of the amount of EFL during content classes; often EMI rather than CLIL methodology.
Material	Teacher-made, in some cases prepared by teacher teams from a given school in the form of a booklet.	In 20-80% materials are teacher produced; limited ready materials (some books translated from Polish).
Practice	The TT course gives a chance to try out the new methodology during Microteaching sessions; advice from teacher-trainers based lesson observation during school visits.	Varies a lot as depends on a given school's policy on professional development of teachers. Often teaching with no previous practice at all, by trial-and-error.
Preparation	Lesson and task preparation often conducted by teams of teachers for a given school.	Freedom to choose subjects for bilingual education means a limited number of teachers teach a given subject at a given education level – team work difficult.
Subject Discourse Analysis	Teachers have difficulties in identifying language demands and providing language support.	Teachers have difficulties in identifying language demands and providing language support.
Networking	Networking limited.	Networking limited.
Literature	Knowledge of specialist literature limited.	Knowledge of specialist literature limited.

Table 5. CLIL teacher training contents offered in Qatar and in Poland (own compilation)

CLIL specifications	Qatar	Poland
Subject	During the training teachers were divided into 4 groups: Primary Maths and Primary Science as well as Preparatory /Secondary Maths and Preparatory/Secondary Science. Although Secondary Science group included teachers of Biology, Chemistry and Physics, each	As the training is conducted only for Geography teachers, be it Junior High or High School, the subject aspects receive a strong attention. The whole training is focused around the subject matters and the organisers try to adapt innovative and highly attractive

CLIL specifications	Qatar	Poland
Subject	subject received equal attention and the essential aspects of subject content were included.	aspects of Geography methodology, such as using ICT, GIS or conducting fieldwork.
Language	Subject-specific was introduced for all the subjects involved.	Subject-specific language is introduced although it receives a smaller attention than the subject matter itself.
Method	The training included theoretical foundations of CLIL and its principles and it gave examples of CLIL methodology.	The trainings, being an annual event and often attracting the same teachers again, offer few aspects of CLIL theory and methodology spread over the time.
Material	The training included examples of language-appropriate materials and the teachers received practice in materials writing and use.	As the language level of the students is a key factor in receiving this mode of teaching, fewer examples of language-appropriate materials as well as material writing sessions were included in the training.
Practice	The training gave examples of CLIL practice (lessons delivered by trainers) and the characteristics of good practice were discussed and analysed.	Some examples of CLIL good practice shown, discussed and analysed by trainers. However, individual teachers can prepare presentations on selected issues and often good practice is included.
Preparation	The training included a number of sample lesson plans and preparation issues.	No sample lesson plans were discussed but various aspects of preparation issues are discussed.
Subject Discourse Analysis	No techniques for discourse data collection and analysis (frequency and usage) were included in the training.	No techniques for discourse data collection and analysis (frequency and usage) were included in the training.
Task	The training gave and ana-lysed examples of CLIL tasks and the idea of 'context em-bedding' was presented.	At the workshops in various editions some examples of CLIL tasks were given and analysed. However, the idea of 'context embedding' was not deeply analysed.

CLIL specifications	Qatar	Poland
Networking	Few examples of CLIL lists, groups and websites were presented.	Examples of CLIL lists, groups and websites were presented.
Literature	Few examples of CLIL literature, key ideas and key questions were presented.	CLIL literature, key ideas and key questions are presented and discussed.

Conclusion

As the importance of the English language in both countries in question is increasing, the use of CLIL methodology is expected to intensify. However, whether introduced by the government, like in Qatar, or by individual schools, like in Poland, teaching of subjects through foreign languages requires well prepared teachers. Due to the diversity in national educational contexts – bilingual education obligatory vs non-obligatory for students and CLIL teacher training obligatory vs non-obligatory for teachers – it is impossible to design one course to fit all the situations. However, what seems common to all teachers engaged in delivering their subject through a foreign language, is the need for GE practice and a possibility to exchange and share views, ideas and materials with other teachers. Despite obvious differences, both trainings meet these needs of teacher trainees.

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Syllabus requirements and the regional Geography education at the secondary school level

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Abstract
The 2011/2012 school year was the first year in which middle school graduates were taught according to the new core curriculum. Next year students will follow it at high school level. The authors of the recent core curriculum formulated new main goals and assumptions for geographical education at third and fourth educational levels. According to them, teachers should no longer teach descriptive encyclopaedic knowledge in order to focus on development of needed skills to be able to understand the recent political, economic and social issues. The extent and type of knowledge was subordinated to the implementation of several goals and objectives of geographical education. One of them is the student's interest in the world, Poland and their own region. Regional education hence became one of the major fields in geography education. This article describes a few fieldwork lesson ideas for students who live and study in cities along Vistula river in Mazovian lowland.

Key words: fieldwork, regional education, Vistula river.

Introduction

A rightly understood comprehensive education is based not only on learning in traditional classroom lessons but above all on familiarizing students with processes and phenomena during indirect observations (Dylikowa 1990). Each student at least once during the whole process of education has experienced a fieldwork geography lesson. Some of these lessons involve measurements or different data collecting procedures. Others are short visits in a school background where we show students geographical directions and an apparent path of the sun across the sky. All the ideas should sensitize students on surrounding geographical environment. We teach them how to look at the nature to see it, to notice its presence, its influence on us and our influence on it. Students should be able to indentify connections and relationships between nature and human activity. In the literature we can find many ideas for geographical fieldwork. In determining whether an area is suitable for educational purposes, we should take into consideration major elements of the geographical environment, including the man-made part of it. This

type of lesson is undoubtedly one of the most effective ways of teaching. Most will involve an ecological approach in which students are taught about the way human activity is changing the surrounding environment. During fieldwork students usually measure water contamination or air pollution indicators. We usually point out the destructive influence of globalization on local cultures, etc. But should we teach about environmental influence on people activity? Do our students know what local culture of the region where they were born is? What is a cultural landscape and can we teach about it without understanding a regional geography?

Regional geography

The new core curriculum points out that regional geography education should be the way to replace traditional general geography knowledge. Changes in requirements involve not denying the past content and the introduction of new, but a fundamental change ratio between the main branches of geography taught in secondary schools (Szkurłat 2008). Regional geography is helpful in highlighting the synthesis relations between nature and human activity. It is focused on integrating knowledge from various categories of humanities and social science, and above all it arouses students' curiosity attitudes. It seems obvious that you cannot achieve these objectives without fieldwork lessons. Content relating to residence and region, where the students use their own direct observations may be more interesting for them.

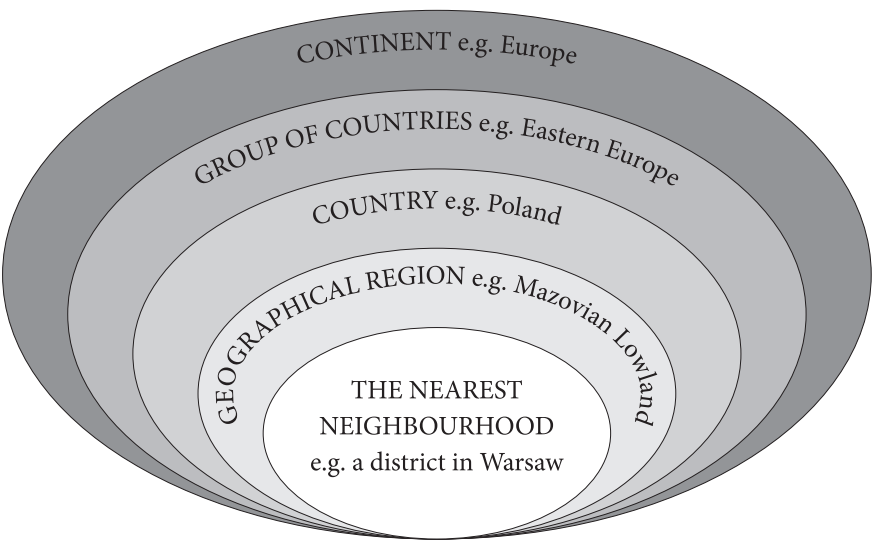

Figure 1. Students' perception of a region
Source: Author's own research based on students' mental maps.

The first difficulty which we come across will be connected with proper understanding of the term 'region'. When we ask students, they usually have lots of ideas related to the nearest neighbourhood, country district or historical area. They may also think about the region as a group of countries with the same culture or religion. Students use a different scale to describe it (**Figure 1**).

All difficulties with the definition can be solved if we introduce our students to a systems approach in a regional perspective. According to this a 'system' is a set of elements and relations between them (Chojnicki 1999). Main aspects of an each system are:

- Content – objects which are parts of a system;
- Surrounding – objects which are related with a system, but they are not included in it;
- Structure – relations between elements of a system and relations between its elements and surrounding of a system.

Selected methods and techniques in teaching about a region

It is strongly recommended that in all branches of geography teachers should avoid only using presentation methods of teaching. Especially recommended is the use of various active methods like decision making, solving problematic exercises, discussion, and valorisation. Active-learning methods of teaching should replace lecture–based activities. The new core curriculum recommends that in regional education teachers should select material in consideration of so-called 'nodal issues'. These ought to be specific facts relating to the geographical environment, social and economic phenomena that determine the uniqueness of the given region, factors which impact heavily on other elements of the environment, economy and society, a 'thing' which give to that region the stigma of individuality (Szkurłat 2008).

A further recommended method is called a case study. Fry et al (1999) describe case studies as complex examples which give an insight into the context of a problem as well as illustrating the main point. A case study is a detailed study of the unit (region, administrative unit, city, village, farm and other geographic features) well represent the features, phenomena, processes, and nature-human relationships, typical for larger areas. For geography, this method will combine problem-based learning and experiment method. Hence, well prepared and complex case studies will present students real world issues which they may be faced with in the future. In this method we teach through analogy. Rather than using an example or a sample after each part of geographical topics, case study methods involve an in-depth, longitudinal examination of a single instance or event: a case. Such a method can increase students' motivation and interest in a subject. We should not forget that

this approach needs to be well developed and prepared and students should have basic knowledge on certain topics for further investigation and its evaluation. The main difficulty in the implementation of this method is the proper selection and preparation of representative samples of good source materials for the independent work of students during lessons in classrooms as well as fieldworks.

Another interesting source of knowledge is the use of so-called the evolutionary-landscape method, which allows to be acquainted with the scale and dynamics of changes taking place in the area at different stages of civilization and stages of human use of the natural environment (Szkurłat 2008). It involves restoring and reconstructing the dominant features of landscapes that have occurred in the area in the past.

Next undoubtedly one of the most effective according to both students and teachers methods of teaching is fieldwork. The possibility to confront the theoretical knowledge with the reality can be an invaluable source of satisfaction gone through the permanent interest around the world.

Murzynowo as an example of an attractive place for a regional geography lesson
The chosen methods of teaching about the region described above were used in order to prepare a few lesson ideas for middle and high school level students, who

Figure 2. The map of Murzynowo location
Source: maps.google.com

live and study in cities and villages which are situated along Vistula river.
Although Mazovia is generally considered as a flat plain offering few attractive views, if you take a closer look at the region, you will be surprised by the variety of local landscapes. Murzynowo is a small village situated on the right bank of the Włocławski reservoir, next to Skrwa – a right tributary of Vistula river (**Figure 2**). The village, which was created at first next to Vistula, is a unique place for its cultural landscape. On the plateau above the river, there is an old manor house, in which the Mazovian Geographical Observatory is currently situated (**Figure 3**). The place has been used for decades as a training centre for geography teachers, but since 2004 the new project has been started. It aims to open the centre and the area for geography education at middle and high school level.

Figure 3. The Mazovian Geographical Observatory in Murzynowo
Photo by J. Angiel

Thanks to the research of students and University of Warsaw professors, detailed maps of this area have been produced. Investigated topics include: hydrology, soils profiles, natural vegetation cover, and geomorphological processes.

A proper preparation to fieldwork is essential at each stage. The fieldwork was prepared according to scheme presented in **Figure 4** for the topic investigating factors affecting settlements processes in Murzynowo.

By conducting a lesson in the field we have an opportunity to introduce the students to the meaning of direct observation in defining what the cultural landscape actually is. The first classical idea of defining a cultural landscape is taken from the anthropogeography of F. Ratzel. It places the main emphasis on transformation on natural environment by people, and on the way of conducting developments in the environment. The second, different approach is declared by the geography of culture, in which cultural landscape is supposed to be a reflection of human culture, both material and non-material, a kind of imprint of the specific features

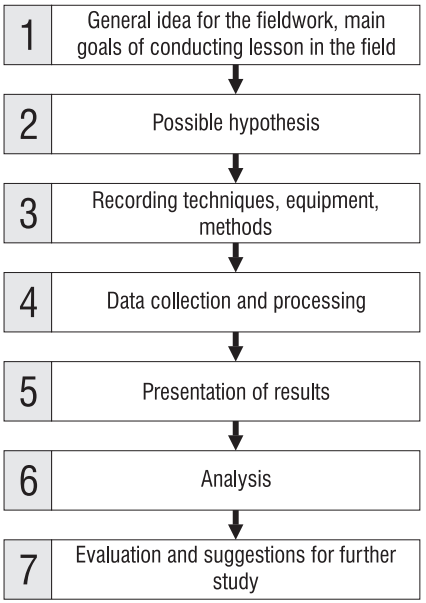

Figure 4. A fieldwork preparation scheme
Source: Boyce J., Ferretti J., 1984. *Fieldwork in geography*, Cambridge University Press, Cambridge.

Figure 6. A wayside shrine with an anchor
Photo by M. Byca

of culture, left in a given location (Plit 2008). Discussion about the cultural landscape involves students' interests in understanding that geographical environment combines both natural and human elements which influence each other. The understanding of these relations, often very complicated, is essential in education about sustainable development.

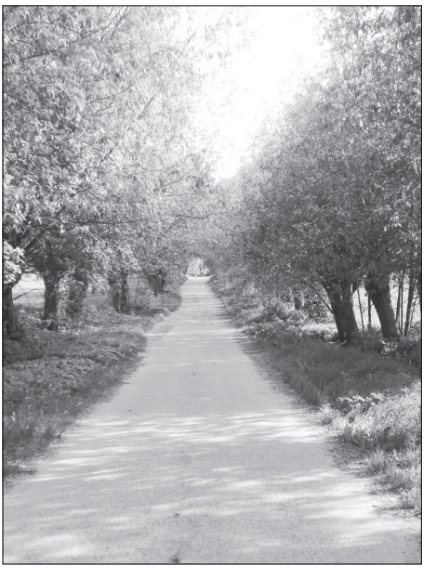

Figure 5. The local path leading to the Vistula River
Photo by M. Byca

Can we still find local identity in the Murzynowo landscape? Students can easily define factors affecting this village location only by direct observation of local architectural elements. As we go down the local road which leads us to the river we can admire a typical Mazovian landscape with willows (**Figure 5**).

The closeness of the river and its major role in early settlement's function is visible if we take closer look to the first material element of the landscape which we come across. An old wayside shrine with an anchor shows first dwellers' major activity – fishing (**Figure 6**).

The location next to the Vistula river played a significant role in terms of fishing. The river gave early farmers fertile soil in its terraces and reliable source of water. Local identity is strong, as people still link the village with the river. In local museum of culture we can find all kind of 'equipment' connected with the Vistula river (**Figure 7**).

Figure 7. Fishermen equipment collected in the local museum of culture
Photo by M. Byca

The 'nodal issue' for that area is of course human activity connected with the river. Next to its visible influence on people first activities in an early settlement stage we can still observe its presents. At this point it is worth to mention that the level of Vistula river is now 10 meters higher than original due to the fact that the dam was built in Włocławek. The observation of the Włocławskie reservoir (**Figure 8**) is a good opportunity for discussion about advantages and disadvantages of building dams.

Figure 8. Bird wildlife corridor above the Włocławskie reservior
Photo by J. Angiel

Conclusion

The new core curriculum emphasises the role of regional geography education. They include syllabus-selected regions which show clearly the variation of geographical environment and sociocultural diversity all over the world. But we should not forget that the first step towards regional education should be to familiarize pupils with they own region. Education about the local region is a way to move away from verbal geographical knowledge, and turn to an illustrative teaching of geography. Content related to their local region, where students use their own direct observation for analysis and interpretation, is likely to be more interesting for them.

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Geography and English Project: cooperation between rural and urban schools

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Abstract

I am a teacher of English and Geography at IB schools in Kraków, who strongly believes that international education must go well beyond the provision of information. Participating in the Teaching Excellence and Achievement Program 2012 in Lincoln (Nebraska), in the U.S.-Polish Youth Leadership Exchange Program 2012 in Hanford (California) and coordinating European Partnership and Individual Mobility Comenius Projects in my schools resulted in gaining knowledge about teaching methods used worldwide and helped me in a better understand diversity in the world. As it occurred during my stay at the University of Nebraska, in American high schools in Lincoln and Hanford self-development, love of teaching and learning, appreciation of culture, and civic responsibility are not only the characteristic features of the core of the European College Programme but also of the exchange programs worldwide. My school`s philosophy aims at facilitating our students to become part of the modern world and achieve better standards of learning. This is especially important, as we are an International Baccalaureate World School where internationalism is also understood as taking action to change the community on all levels: local, national and international. As a result, this fact became a crucial part of my desire to share my and my students` experiences with partnership school and coworkers.

I along with my colleagues would like to share our experiences of working with students in both rural and urban Poland. Thanks to The Small Grant support from *Polish-American Freedom Foundation*, the European College in Kraków (located in a city) and Zespół Szkół Ponadpodstawowych im. Wincentego Witosa (ZSP) in Samostrzel (located in the countryside), partner schools have run three projects together. My colleagues include Hugh Bilton, an English teacher from Australia at the European College in Kraków and Jolanta Krzemińska, a Geography teacher at ZSP in Samostrzel. Our schools were awarded a grant for the following projects: *The Grass is always greener on the other side of the fence* in 2009, The Survivor Challenge Project in 2010, *Make Hay While the Sun Shines Project 2011*. These projects were devoted to support activities that promoted the English language within the context of Geography.

Their aims were also:

- to enable students from rural Poland to have equal access to educational opportunities.
- to create English-speaking environment through Geography contex
- to give students an opportunity to speak English to a native speaker
- to conduct the street survey in English in Kraków
- to use online learning platform in teaching Geography: www.moodle.annakrzeminska.pl
- to promote service learning and volunteer work
- to promote good practice and program examples: Comenius Project, U.S.-Polish Youth Leadership Exchange Program.

The grant led our schools to stimulate and develop actions within the local communities. The grant allowed students to be treated equally and to start believing in their full potential. The core of our *Make Hay While the Sun Shines Project* was also to develop students` confidence and love of learning English, especially through a specialist English Hugh Bilton – a native speaker who could only communicate in English with these students as well as through IB students from Kraków and American students from Hanford.

In this article we would like to highlight how crucial a financial support is from nonprofit organizations in helping students and TEA teachers to organize and fund programs, workshops or camps where the knowledge and experience gained from the TEA programs, U.S.-Polish Youth Leadership Exchange Program, Comenius projects can be used to enhance and enliven their daily work. We would like to emphasis how vital native speakers can be in learning English as a second language.

In *Make Hay While the Sun Shines Project* I and Jolanta Krzemińska had an honour to work with Hugh Bilton a native English speaker from Australia – whose presence, creativity and engaging activities in teaching – strongly motivated students of ZSP Samostrzel and European College in Kraków to gain a profound insight into the knowledge of English. Also, hosting U.S. Teachers: Denise Ghiloni and Allyson Daly – within TEA and ILEP Programs 2010, as well as Allen Blanchard from Sierra Pacific High School in Hanford (California) – within U.S.-Polish Youth Leadership Exchange Program 2012 in Kraków – constituted a great support in deeper understanding of English speaking country, American culture and language. Just as, U.S. teachers and students came into the class a target language community was formed. Suddenly, students - who were claimed to be shy and not too talkative – were interested in interacting and cooperating with Mrs. Daly, Mrs. Ghiloni and Mr. Blanchard. What is more, thanks to their stay in Kraków, I and my students could appreciate our homeland, national heritage and be proud of being Poles.

Key words: Local Grants, Teaching English through Geography Context, School Partnership, Students` Feedback on The Survival Challenge Project, TEA programs, U.S.-Polish Youth Leadership Exchange Program, Comenius projects.

***Make Hay While the Sun Shines Project* – a note from ZSP Samostrzel coordinator – Jolanta Krzemińska**

Zespół Szkół Ponadpodstawowych in Samostrzel is situated in a small rural community on the outskirts of a small town, which in some people`s minds could mean that the students would be deprived of opportunities to expand and develop their thinking. Luckily enough, we had a chance to cooperate with the European College in Kraków, a city based school located some 550 km, to help overcome prejudices that students from a rural village are worse off.

As a geography teacher I have always wanted to be able to educate my students to be responsible citizens in the local community by appreciating their home and neighboring villages, but still have an invaluable contact with and encountering foreign cultures. Thanks to ***Make Hay While the Sun Shines Project*** I had a chance to do this. Bringing together well-motivated students who wanted to achieve success in communicating with a native speaker Hugh Bilton and have exposure to someone who has travelled extensively and has had various business dealings throughout the world. Thanks to the *Polish-American Freedom Foundation*, Hugh Bilton and Anna, the students had a chance to improve their standard of English and understand the importance of being part of the modern world. At Samostrzel school participants of the project took part in various initiatives preparing them for English and Geography Workshop in Pieniny with students of the European College in Kraków. This included extra English lessons after school and learning English through Geography context on the moodle platform. Once we found ourselves in Pieniny, students of the European College in Kraków with a really good command of English began working with my students helping them to improve and expand their English at the camp. Partner teachers organized the camp in such a way that nobody was felt left out. Students were working in 5 groups for 5 days. We were having English lessons in practice, outdoor activities commanded in English and tours guided by English-speaking guides or translated by students of the European College. For my students it was also the first time they had a chance to speak with the native speakers.

First of all, lessons given by Hugh Bilton and foreign students who spoke English to them were a challenge for my students. They were used to asking questions in their mother tongue if they did not understand the English teacher; during classes with Hugh Bilton they had no choice but to speak English. Besides, there were

students with different English background so as our camp changed into a small English-speaking community where we communicated in English and where the atmosphere of tolerance, collaboration and respect developed throughout out time of the camp. This project also taught my students appreciation of their homeland and personalities and gave them inner power to be part of the modern world where the knowledge of English is used and matters. A special thank to Anna and her participation in the TEA Program and willingness to share her professional development and teaching enthusiasm with my rural school. We can only continue to benefit from our partnership.

Figure 1. Participants of the *Make Hay While the Sun Shines Project* from Samostrzel and Kraków at the workshop in the Pieniny mountains

Students` project feedback on *Make Hay While the Sun Shines*

Students of the European College summarized the Project camp with ZSP Samostrzel as a life lesson. After the camp they really appreciated what they already gained in their lives so far. They were very grateful to be able to share their knowledge with the students of the partner school in Samostrzel.

Their opinions and reflections on the camp speak upon themselves:

1. *From Sunday September 25, 2011 through Thursday September 29, 2011 the IB I geography class and the 3rd class of middle school from the European College took part in a project called "Make Hay While The Sun Shines", which involved the getting together of not only the IB I geography class with the 3rd class of middle school but also the 1st and 3rd class of middle school from ZSP Samostrzel. This project was supported by 5 teachers (2 from the European College and 3 from ZSP Samostrzel); Mrs. Anna Krzemińska-Kaczyńska, Mr. Hugh Bilton, Mrs. Jolanta Krzemińska, Mrs. Ewa Makowska, and Mr. Damian Poniewierski. The project began on Sunday September 25, 2011 at Plac Inwalidow, our task began. To begin we had to get in our assigned groups and began talking. Everyone fit in well, so we had no problems getting along. We had about 30 minutes to interview as much people in English: Street Survey on Transport, Information,Entertainment, Shopping in Kraków. We worked within station method. After the 30 minutes were up we counted how many people our group interviewed; 17. Then our whole group moved on to the Main Square. In the Main Square we received 45 minutes to interview more people. In total my group "Shopping and Entertainment" (also known as "Wild Squirrels") surveyed 31 people with the 17 from the Plac Inwalidów. The rest of the afternoon we spent touring the underground of the Sukiennice in the Main Square and then with our private tour guide (Mr. Grzegorz Ciemala) we went on to the Kazimierz. The beautiful monuments and the dragon sculpture really grabbed my attention. After we finished the Cracow group had one night to get their things ready. Both of the groups rested and woke up around 7 a.m. The ZSP Samostrzel group ate breakfast at the European College as for the Cracow group got breakfast on their own. We all left the school at about 9:30 a.m. After the trip on the bus we got to the Niedzica Castle. The majestic, antique castle was located in the most beautiful place I can imagine. A tour guide talked about the history and legends of the Niedzica Castle. The beautiful site from the castles terrace was great for pictures. Everyone was so amazed by the view of the Dunajec River they could not believe their eyes. After the tour through the castle we all went to the Dunajec River. The 2-hour rafting trip was also amazing. We rafted through the Dunajec River, watching the breathtaking mountains we were going to hike through the next day. The hosts on the raft made the trip very entertaining for us. Apart from having our guides, we – students played roles of tour guides at any visited places too. Each participated was assignated to one/two travel destinations. After this trip we went to our hostel. After our dinner we all went to our workshops. The workshops included many English/Geographical games for us all. The next two days were the hardest for some of us. The mountains. The beautiful yet hard to reach mountain peaks were the most difficult thing on this trip, I would say. After each of these hiking expeditions which lasted at least 6 hours each (25 kilometers in total) we would have fun and educating workshops. It all*

ended on Thursday September 29, 2011 when the ZSP Samostrzel school and the European College had to go their own separate ways. Friendships that began on this trip will most probably say within us for a long time. My group as I mentioned before the "Wild Squirrels" (also known as "Shopping and Entertainment") won the 1st place during the workshops. All of our workshop activities were graded and summed up at the end. Our group came in the lead with 102 points. My role in our group was to support. I myself was pointed out as the leader but I just didn't want anyone to feel different so our group had no leader. I as I said was the support. I was the one to help the girls and boys in my group to find themselves in the group. I tried to make everyone feel welcome. I was always the back-up plan. If something didn't turn out all right I had a backup plan. We all tried our bests to be creative and supportive for each other. When someone lost all their hope I was the one to get them and talk them out of their doubts. During the workshops I was in charge of the multimedia part of our presentation and got our survey answers all summed up. Every point was earned with our knowledge and hard work. We – IB Geography students – gave Power Point presentations on the following topics to our younger friends 1. Urban Environment: Dharavi the Informal Economy 2. Disparities in wealth and development: the Kerala Region 3. Leisure, Sport and Tourism: Ecotourism: Namibia. Besides, Manca Jereb who spent 3 months in our school within Comenius Individual Mobility told us about a beautiful country of Slovenia, where she is from. We also were working on the environmental issues and topics connected with Partnership Comenius Project REACT. In conclusion, the field trip to Pieniny was very educational and fun. I had fun and wish this trip would last longer or that we in the same groups went on another trip alike to this one. It was fun and I wouldn't change anything about it. To end my report I would like to thank all of the teachers involved, that they were so patient and supportive of us.

Iwona Sroka, Geography SL IB I

2. *We were in Pieniny in Krościenko. We were part of Geography fieldwork called "Make Hay While The Sun Shines". I learnt a lot of things. I practiced my English speaking (fluency and pronunciation) while talking with Mr Hugh Bilton when walking in the mountains. Also, I learnt about geography tasks: about mountains, rivers and terrain. Of course we had many exercises connected with English and Geography and quick thinking. For example Mr Hugh Bilton was throwing balls. Big one - you have one second to say sentence, small one - you have one second to say a random word. We also were playing Wii, twister or Yenga. On the fieldwork in Cracow I learnt how to interview people without scaring them. We were working in teams. I didn't mind that because I like to work in groups. I'm not that kind of person that is a good leader but if I have some directed task (just main idea,*

not instructions about everything I have to do) I'm able to do it very nicely. If I'm forced to be a leader of a group I would like to be commander of a small one. In conclusion I took a lot of good things away from this camp. I think the group from ZSP Samostrzel took a lot (perhaps more) knowledge about Geography and the English language. I think we should do more camps like that. Maybe next time we should go to the seaside?

Krzysztof Kałwak, 3rd junior high school

3. *In the last week of September we went for an English and Geography workshop to Pieniny. We stayed at a lovely holiday camp in Krościenko with our partner school ZSP Samostrzel and our friends from IB class. Every day of our workshop we were doing a lot of things. We started on Sunday in Cracow, where we conducted a street survey on how travelers gained tourism information in Cracow. It was quite an interesting experience. I learnt that taking a survey depends on a good first impression. On Monday we went to visit Niedzica Castle and while we were there we learnt a lot about the castle in Polish and English. We also went rafting on Dunajec River and we had real fun! On the next day we went for a hiking trip and in the evening we had a lot of fun while playing some games, like catching a ball and saying a randomly chosen word or sentence. This game was really nice. We almost had the same schedule the next day, but in the evening we had to perform our fairytales and ZSP Samostrzel told us about their school and where they live. I am happy to say that we got on well with ZSP Samostrzel people. We had a lot of fun and we really enjoyed the time we spend together. I hope we will meet them again ! :) To sum up, the whole trip gave us a lesson about how we can cooperate with other people and how much we can gain from it. Although I came home very tired I think it was worth it!*

   Kaja Gryga, 3rd junior high school

4. *English and Geography workshop "Make Hay While the Sun Shines" Our class, Geography students from IB I and people from a partner school "ZSP Samostrzel" took part in the workshop. We were accommodated in a hotel in Krościenko. We had four days full of work but also had a lot of fun. Our workshop began on Sunday, we were doing the street survey about the public transport in Kraków. In one group there were five people from KE and ten from ZSP. We were divided into three groups. Doing the survey was a good experience because I haven't done a survey before. The real workshop started on Monday, at 9 or 10, with our departure from the European College. We went to Niedzica castle and my group had translation duty. Translation was in the hands of IB students but we (I, Krzysiek and Michał) were helping them if they had any problems. We learned a lot from presentations like "informal economy in India"(Miłosz's – IB student) or "Football*

rules"(Adrian's – IB student).We could talk with our native speaker Mr. Hugh Bilton and upgrade our English skills. We were trekking a lot and it was the best part of the workshop because I like trekking. We also had an opportunity to talk on the way to Trzy Korony, Sokolica or Góra Zamkowa. During the workshop we had an opportunity to improve our personal issues like leadership. We were working in groups even though I'm not a team player but I enjoyed it a lot. I'm an individual and I liked to be a leader and on this workshop it was quite easy for me to instruct people from ZSP. It was a pleasure to take part in this workshop.

Piotrek Chrzanowski, 3rd junior high school

5. *"Make Hay While the Sun Shines" – the English and Geography Workshop. At the end of September our class, some students from IB1 and Manca Jereb, who came to us from Slovenia, with help of Comenius project, took part in an English and Geography Workshop – "Make Hay While the Sun Shines". On Sunday (25.09.2011) some students from ZSP Samostrzel came to Kraków. We were divided into three groups. Each group included 5 students from KE and 10 from Samostrzel. After that, we made a fieldwork about "rating services for tourists in Kraków." On Monday (26.09.2011), together with Samostrzel, we went to Krościeńko, to do our workshop. I have learned a lot during those four days. For example some words like "a well", phrases (eg. "keep sb's word") and others. Also, some information about the castle in Niedzica and Dunajec river were very interesting. I grabbed the possibility of admiring some awesome views. What's more, I've learned not only English and Geography words, I've learned some personal issues. For example, leadership. For me, it was impossible to just sit in my place and listen to others – I started telling them what to do – and that was awesome – they enjoyed that, and they were very happy to do everything. I enjoyed helping them in their learning. Another positive and interesting thing was making new friendships. To sum up – I've been learning and teaching, and that was a very nice*

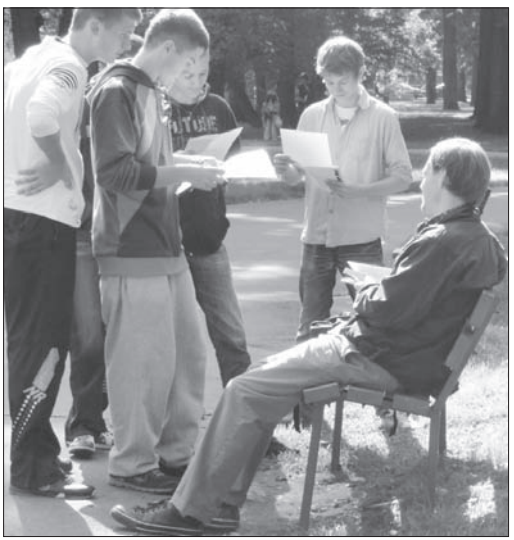

Figure 2. Students from Kraków and Samostrzel while conducting the street survey at Krakowski Park

experience – I think, that if I had another possibility to go on a workshop like that, I would be very happy to do so.

Joanna Bojarska, 3rd junior high school

6. *English and Geography workshop "Make Hay While the Sun Shines" Our school and a school from Samostrzel took part in project called "Make Hay While the Sun Shines". My class and IB students joined it. At the beginning of the work we had a field work survey to do. When we got to Krościenko we had accommodation in a hotel. We had a lot of trips for example; we went to see a castle in Niedzica and every day we went to the mountains. To Trzy korony and Wysoka the highest mountain in Pieniny. We were divided into 3 groups. In one group were 4 people from Kraków and 10 from Samostrzel. I learnt many things on this workshop especially a lot of new valuable words as well as geography words, also many phrasal verbs and idioms. I learnt some capital city of countries and also learnt something about Pieniny. In my opinion I learnt a lot from many exercises and IB's students project about informal economy in India and about football. Mrs Anna Krzemińska-Kaczyńska told us about her visit in India too. I think it was great experience to join the project. And I think I upgraded my level of English too. Personally I think that it was a great idea to do this kind of project. I really enjoyed it. I hope I will join in this kind of project in the future. Although it was good to meet new people and exchange experience with them. But at the end I was really tired but in fact it was great.*

   Bartosz Marzec, 3rd junior high school

7. *Last week we were on English and Geography Workshop in Pieniny with I IB class from the European College and 2 classes from ZSP Samostrzel. This workshop was called "Make Hay While the Sun Shines"* ***which means that we should learn as much as we can because we are young and our learning will be improved****. I've learned a lot of words on this workshop, like valley, well and other word connected with geography. There were also many other interesting things like Milosz's presentation about informal economy in India or games with Mr Hugh Bilton and Mrs Anna Krzemińska-Kaczyńska. We were climbing up mountains and translating into English the guide's stories. I was pretty exhausted after climbing up. After the trip we had about 3 hours of English workshops daily, but it was fun. I've also became a better team player because we were put in groups and we were competing against each other. That was really fun.*

   Michał Zdanowski, 3rd junior high school

As experienced Geography and English teachers we believe that learning should be active. Student-centered lessons and outdoor activities keep students engaged.

There are a number of activities that promote this, such as games, geography fieldworks, graphic organizers, and group work. In addition, lessons can be supported with outdoor activities, school trips, visit of native speakers and local leaders in schools, exchange programs, knowledge and experience sharings, and other strategies that promote understanding and engagement. As we presented above, we always try to provide some reflective thinking strategies to us – teachers and our students move toward a practical sense of what works, is useful in life, what is good and what has meaning. We also strive to answer the question of why these methods and practices are successful. We believe that reflective thinking strategies are helpful in improving the social/moral conditions in which we teach and learn and in giving insight for improving student achievement. Our professional goal is to help teachers bring teaching, learning and assessment together into a new vision for the classroom and students` self-development. We want them to experience a sense of integration with their students and the students with their teacher and with each other. Our dream is to see teachers and students experience the realization of raising achievement and improving the learning environment.

Such a lifelong goal is also possible to achieve in our urban and rural cooperation thanks to **U.S.-Polish Youth Leadership Exchange Program***. Teacher Anna Krzemińska-Kaczyńska was joined by students Filip Wątorek, Kinga Krzyściak, Maja Górecka, Marta Bochenek and Sandra Jagodzinska on the visit to Kings County. All are from Krakow, Poland. The students, who were here to learn about leadership, volunteerism and democracy, attended school for six full days during their stay in Hanford, which ended earlier this month. Students volunteered as ambassadors and translators for the World Ag Expo and worked on other community projects. Each student and their teacher spent a full day giving cultural presentations at all three Hanford high schools. Regional coordinator Adina Escarsega took them on tours of San Francisco, Hollywood, Kings Canyon National Park and other notable California destinations. Host families gave them a local tour and also

* The U.S.-Poland program was created by the U.S. Congress in 2008 at the initiative of Senator Richard Lugar, who worked closely with the Polish government as part of a larger initiative to celebrate 90 years of U.S.-Polish diplomatic relations. The program sends 15 Polish students and three Polish educators to the U.S. for four weeks, and 15 American students and three American teachers to Poland for four weeks of living with a host family, attending a host high school, civic education workshops (in each country), community service programming, internships with local business or government leaders and cultural excursions. Both groups will also give presentations to their classes and civic groups in the host communities. The program concludes with a mandatory community service workshop in Torun, Poland in June 2012 with both groups coming together to develop targeted service projects that meet the needs of their communities. The main goal of the program, now in its fourth year, is to give participants a sense of civic responsibility and a commitment to international understanding and cooperation among youth, and to develop young leaders who will share their knowledge and skills with their peers. Source: American Council

traveled to Yosemite, Pismo Beach and Disneyland. The group also joined with 10 other students and two teachers taking part in other exchange programs in the U.S. to visit and meet with government leaders in Washington, D.C. The host siblings of the Polish students travelled to Poland on June 3 to complete the direct exchange program. Hanford High School students Miguel Gonzales and Jenna Van Fossen, Sierra Pacific High students Tristan Robison, Peyton Sheets and Mehtab Boparai and Sierra Pacific coach and teacher Mr Allen Blanchard travelled throughout the country, made presentations at local schools and met Polish government leaders. They also toured Auschwitz, Częstochowa, Zakopane. The teacher Anna Krzemińska-Kaczyńska conducted the Geography Fieldwork at Ojców National Park for them and IB Geography students. The short visits are in contrast to most exchange students visiting for a full school year ("Hanford Sentinel" newspaper 23/03/2012). As our coordinator Adina Escarsega, regional coordinator for the World Link Inc in Hanford mentioned "it's exciting that Hanford and Kraków students are going to get this opportunity. It's such a rich experience. With all that's going on in the world, it's nice to get the chance to walk in other people's shoes."

Figure 3. *Polish Youth Leadership Exchange Program 2012* participants. IB Geography students at the General Consulate in Kraków

Conclusions

This program enriched myself and students from Kraków, Lublin, Wrocław and our partner school in Samostrzel. Through such an exchange program we have

discovered that `only sky is the limit`. Through our cooperation, partnership, open minds and institutional financial support we can make the world better. As Mahatma Gandhi claimed: You must be the change you wish to see in the world. No matter what your background is, what your national heritage is, whether you are from rural or urban area, the success of individual is your hands. Thus, MAKE HAY WHILE THE SUN SHINES! And strive to be the best for yourself.

Thanks to professional development teachers can change the school environment and help partner schools in opening the door to equal opportunities. Native speakers motivate learners of language to acquire the target language in a more effective way. National and international grants are needed to support regular English teaching activities and to bring up open-minded citizens of the world.

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Useful links:

1. Blog of the U.S. Polish Youth Leadership Exchange Program: http://uspolandyouthexchangecalif.wordpress.com/
2. www.book.annakrzeminska.pl

The application of blended learning in teaching natural sciences on the example of the Youth e-Academy of Maths and Natural Sciences in Kraków

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Abstract
This paper presents brief information on the 3-year project of blended learning that was executed in the years 2009-2011 among 1,800 talented junior high school and high school students in Kraków.

The lecture has been presented by the author at the methodology workshop organised by the Association of Polish Adult Educators in Toruń in October 2011 as well as at the Central European Forum of European Computer Driving License in Kraków in May 2011.

Key words: blended learning, e-learning, face-to-face lessons, computer skills, teaching natural sciences, student-teacher communication, new aspect of teaching.

Why e-Academy?

The following project was organized by The Department of Education of the Municipal Office in Kraków in 2009-2011 and was financed by the European Union within the European Social Fund.

The Youth e-Academy of Maths and Natural Sciences was created for the talented junior high school and high school students in Krakow to popularize the ideas of e-learning – studying with the use of today's technology: computers and information that can be obtained in the Internet and a distant/remote exchange of information between students and teachers and among the students.
The following facts were the reasons for the organisation of the large-scale course:

- the number of students who start their natural science studies has decreased,
- the faculties from technical and economic universities complain about the poor preparation of the high school graduates to study,
- the project executes the strategic aims of the voivodship included in the document of "Informative Society in the Development Strategy of the Malopolska Voivodship between 2007 and 2013."

The goals of blended learning program

- developing and improving skills described in examination standards,
- acquiring and widening knowledge about natural sciences,
- improvement of the skills such as: creating and verifying hypothesis, generalizing, concluding,
- improvement of the skills of achieving knowledge and the proper use of the Internet resources,
- enhancing responsibility for self-development,
- curiosity about the natural environment and responsibility for it,
- new ways of teacher-student communication,
- presenting the correlations among the natural environment elements,
- preparing students for competitions and Olympiads,
- developing communication skills with the help of informative technologies.

Both the prepared courses as well as the methods of teaching in e-Academy were focused on inspiring the students to acquire knowledge of natural sciences and maths. During the online and face-to-face lessons the following methods of teaching were used: experiments, online computer communication, discussions, presentations, observations, mind mapping, blended-learning. During the lessons the following forms of activities were used: group work, fieldwork, laboratory experiments.

Project personnel and technologies

The methodological advisors of the Department of Education of the Municipal Office in Kraków selected teachers-instructors - the best specialists from Cracovian schools and universities, experts – university professors and examiners of the European Computer Driving License (ECDL) for the purpose of the project. With the cooperation or the E-learning Centre of the University of Science and Technology in Kraków the e-learning platform was formed for the needs of the project. The multimedia courses were created and prepared for each of the subjects. This way there were 50 courses placed on the e-learning platform. All the teachers-instructors were trained how to teach and communicate with students on the e-learning platform.

Program of classes

The students took various subjects throughout the course: computer studies, maths, geography, biology, chemistry and physics. Apart from the numerous e-lessons taken online there were also additional courses organized to keep the natural face-to-face interaction between the students and the teacher. The face-to-face lessons were held twice a month on Saturdays in 6 buildings of junior high school buildings and in

6 high school buildings in Kraków so as to enable the participation of the students from various parts of the city in the project. The teacher-instructor's role was to instruct and manage the group of students, making them more curious and eager for self-studying rather than providing them with knowledge.

Junior High School monthly program:

Year 1 Computer studies: 3 face-to-face classes + 6 e-classes
Maths: 2 face-to-face classes + 6 e-classes.

Year 2 Computer studies: 2 face-to-face classes + 5 e-classes,
Maths: 2 face-to-face classes + 5 e-classes
2 subjects to be chosen out of biology, chemistry, geography, physics: 2 face-to-face classes + 5 e-classes per each subject.

Year 3 Maths: 2 face-to-face classes + 5 e-classes
2 subjects to be chosen out of biology, chemistry, geography, physics: 2 face-to-face classes + 5 e-classes per each subject.

High School monthly program:

Year 1 Computer studies: 3 face-to-face classes + 6 e-classes,
Maths: 2 face-to-face classes + 6 e-classes.

Year 2 Computer studies: 2 face-to-face classes + 5 e-classes,
Maths: 2 face-to-face classes + 5 e-classes
2 subjects to be chosen out of biology, chemistry, geography, physics: 2 face-to-face classes + 5 e-classes per each subject.

Holiday program:

The best 225 students took part in the 7-day-scientific project abroad that was organised 3 times in July 2009-2011. The participants travelled around France, Switzerland and Austria. The highlight of the project was a 2-day visit to the European Organization for Nuclear Research Centre in Geneva. In Winterthur, Switzerland, the students had the possibility to apply their knowledge and skills in Technorama – over 500 interactive exhibits of the Swiss Science Center. The participants could also admire the beauty of landscapes in the Danube Valley, the Jura Mountains, Lake Constance, Lake Geneva, the Rhone Valley, the Alps. The big attraction was a cable car trip from Chamonix up to Augille du Midi (3842 m above sea level) with the impressive view of Mount Blanc and the Alps skyline. Visiting cities such as Annecy, Geneva, Bern, Lucerne, Innsbruck and Vienna gave the students the possibility to learn about their geography.

Benefits of e-learning
Both the students and the teachers taking part in the project had the opportunity to practise new methods of teaching. Interactive teaching with the use of tasks, lessons, voting, workshops, a remote contact with the teacher via fora, messages, e-mail made the lessons more interesting and easier to study. The students were provided with interesting interactive resources for studying as well as on-line tests. The participation in the program helped the students to widen their knowledge of the chosen subjects and prepare better for subject competitions and Olympiads. The students also took a chance to take the exams and receive the European Computer Driving License (ECDL). The best students took part in the holiday program in CERN, Geneva.

During the course the students developed and improved skills such as: organizing individual work, self-planning and systematic online activity, seeking for information in different sources and a critical selection of achieved information, planning and conducting experiments, assessment of the obtained results and drawing conclusions, an application of acquired knowledge in practice, self-evaluation, gaining and processing information in the descriptive, statistical and graphic form, reading maps and interpreting the data, an application of maps for measurements and calculations, a presentation of correlations among phenomena/processes, an evaluation of an impact of phenomena/processes on the geographic environment.

Consequences of e-Academy
The similar projects have been created in the other regions Poland. The moodle platform for schools in Kraków has been created to enable a pilot study of 37 teaching institutions. The ECDL laboratories in Cracovian junior high schools and high schools have been created.

e-Academy in numbers:
- 3-year program (2009-2011),
- 6 subjects studied online and face-to-face,
- 50 courses on the educational platform,
- 30 university experts,
- 183 teachers-instructors,
- over 1900 junior high school and high school students from 90 schools in the area of the city of Kraków,
- over 800 European Computer Driving License certificates issued.

River action – its effect on the example of a big and a small river in a town and its vicinity

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Abstract
The article presents the observations (research results) made in the course of two field trip classes concerning the topic of river action. The use of the location of a town situated on a river and its tributaries makes it possible to implement this type of a class and present students with a lot of information related to a fluvial environment. Cooperation with a biologist enabled the enrichment of geomorphological and geological issues and made it possible to cover additional natural components. Both classes were carried out with scarce financial and temporal outlays.

Key words: fieldwork, river action, hydrometric mill, cooperation, low costs.

Introduction

The topics and issues of physical geography unfortunately seem to be perceived by many teachers as rather unfavorable to present on field trips, mainly due to the high estimated costs of their implementation. Indeed, some issues are difficult to display if no such forms or processes occur in the vicinity of a given school. A case in point could be volcanic processes as discussed in aseismic areas, or polar deserts in tropical zones. There is, however, a wide range of topics which may be presented to students on field trips, taking advantage of the school's location. One such example is the river and the effects of its action. The present article demonstrates our observations.

Context

Field trip classes should be treated as a fundamental component of geographical education. Within the curricular context, field trips constituted an integral part of geography at different levels of education. Field trips are often what students

remember most vividly from school. While making the discussed topic more attractive, fieldwork is also a form of class which amazingly diversifies working with students on the currently covered topic. Not only does a field trip class have a purely geographical value of observing and experiencing landscapes, the lay of the land, city life and urban processes, familiarizing oneself with different cultural regions, experiencing the hardships of hiking and collecting data, but it also provides students with the opportunity to develop themselves and perceive the geographical environment as a system.

Unfortunately, a lot of interesting topics are not supported with first-hand experiences. Be it either on account of the unwillingness of students themselves to leave the school premises, or due to the reluctance of teachers or parents, field trip classes tend to be extremely rare. The pressure of the overloaded school curriculum, alongside the necessity to cover each and every issue causes all classes to be conducted in classrooms. When given a chance to organize a geography field trip, many teachers presume it is easier to go on a social and economic geography field trip than a physical geography one. The most frequent reason is the expenditure. A conviction persists wherein to carry out a field trip class in physical geography, one requires significant financial resources to cover the outing, proper measuring devices, clothing, etc.

Thesis

If possible, classes should be taught outside the classroom, within the school's nearest vicinity. The arguments for such an approach are as follows:

- Students may have a better sense of regional geography than the areas located farther from school;
- Lower costs of the class, limited costs of transport, and possible lodgings;
- Time effectiveness– the farther the field trip, the more time we shall need.

Hence the choice of the subject of research – the river flowing through the city in which the school is situated, along with its tributaries.

The present article includes two field trip class scenarios. The former class presented the students with the section of the main river outside of the city, along which human activity is scarcely evident. The latter took place at the main river's tributary which flows through the city, long sections of which flow through municipal green fields (the so-called green wedges), intensely transformed by human activity.

Preparation for the class

The first essential element of preparation for a fieldwork lesson is to familiarise the students with available materials related to the study object. Therefore, before head-

ing out into the field the students studied all the cartographical material available. These were topographic maps at the scale of 1:10 000 (**Figure 1**) and a geological map at the scale of 1:50 000 (**Figure 2**). Additionally, the ways of presenting the results of field studies were discussed on the example of geomorphological maps at different scales (**Figure 3**).

Context, fieldwork materials

Class no 1 (field trip 1)

Subject of research – the Warta river section south of Poznań, between Puszczykowo and Rogalinek (**Figure 4**). This is the southern fragment of the so-called Poznań Gorge of the Warta, which stretches northwards from Rogalinek, all the way up to Oborniki. The present current of the Warta was shaped after the withdrawal of the last Scandinavian ice sheet (the Baltic Glaciation / Vistula Glaciation). Hence the occurrence of meridional (incl. the analyzed river section) and parallel sections of the Warta, related to the situation of the proglacial stream valley system. South of Rogalinek, the Warsaw-Berlin Proglacial River Valley is situated, stretching westwards. This route is currently used by the Warta. West of Rogalinek, though, the river changes it direction northwards. The place where the flow changes is where, concurrently with the Pomeranian phase of the Vistula Glaciation, the bifurcation of the Warta took place. Past Rogalinek, the Warta flows in a narrow valley which is first surrounded (from the west) by front moraine hills connected with the advance of the Baltic Ice Sheet lobe during its halt a the Poznań phase line. The traces of this halt are witnessed in the front moraine hills north of Poznań – the so-called Góra Moraska and Góra Dziewicza. The Warta of today flows between the two, using the then glacier gateway. This is a typical example of an inherited gorge.

Class context – owing to the significant width of the Warta river (ranging from several to ca twenty meters, and river velocity, the scope of activities during the field trip was limited to the stock-taking of terrain forms along the analyzed section of the river.

The qualities of the selected river section included easy access to the river, certain traces of human activity, strongly pronounced stream channel forms and off-stream channel forms.

The drawbacks included: a significant width and velocity, as well as depth in the sections of increased leeside erosion. Thus, the activities were confined to the analysis of the littoral zone and the floodplain, without taking measurements in the river itself (mainly for the sake of the students' safety). An additional component was constituted by the botanical aspect (examination of the habitat and base, based on the overgrowing vegetation).

Necessary equipment – worksheets, topographic map of the examined river section at the scale of 1:10 000, pencil, trekking boots, the atlas of plants, camera.
The students were handed worksheets to fill in (**Table 1a, b, c**), photocopies of topographic maps at the scale of 1:10 000 (**Figure 4**) to register their observations and take notes, as well as the atlas of plants to spot plant species, alongside a worksheet (**Table 2a, b, c, d, e**).

Work organization – the students were divided into groups of four, each group was given a set of the aforementioned equipment.

Presumed outcome of the students' work – cartographical study in the form of a simplified geomorphological sketch, on which the observed forms and base type, along with the detailed description, were to be marked.

Actual outcome – the outcome differed. The geomorphological sketches indicated the advancement of the students' perception, assisted by the teacher while in the field. Apart from the weak works, there were also genuinely conscientious analyses to which a colourful hypsometric map, made by the students themselves (**Figure 5**) based on the topographic map at the scale of 1:10 000, was attached other than the geomorpholofical sketch and description.

Class drawbacks – the biotic part was a weak point of this particular field trip class, primarily due to the lack of the biology teacher while in the field. Hence, lithology and soil types were recognized mainly macroscopically based on the sedimentation graining analysis.

Additional aspects of the class – during the hike along the river, the students had a chance to acquaint themselves with the components of river valley development, incl. the means of flood prevention. Elements of settlement geography and the region's history were included: Puszczykowo – currently a town and municipality, and Puszczykówko – a summer-resort in the interwar period, currently both places within the protection zone of the national park, hence the business restrictions. Interesting buildings (architecturally and historically) in Rogalinek and Rogalin. In Rogalin – a well preserved 18th century wooden church. Rogalin, in turn, is famous for its palace and park complex, dating back to the early 18th century, erected by the famous Polish magnate family of Raczyński. These days, apart from the part of the palace, visitors are admitted to the painting collection, the French and English gardens, with oaks – monuments of nature (examples of formations), the Raczyński family necropolis in St. Marcelin chapel, build to resemble the church in Nimes, France.

Class no 1 (field trip 2)

Subject of research – during the second field trip, the research was conducted in a left tributary of the Warta – the Bogdanka river. The Bogdanka is a little river which flows through green fields in its upper and middle course, while transforming antropogenically to a large extent in its lower course when flowing through the underground canal and into the Warta river in the city of Poznań. Within the boundaries of Poznań, the river flows through a natural reservoir – Lake Strzeszyn, as well as through an artificial one – Lake Rusałka, then underneath a freeway in an underground canal, following which it flows through two municipal parks, Sołacki Park and Wodziczki Park. Bothe parks were established in the interwar period. On the initiative of a naturalist and botanist, professor Adam Wodziczko, a plan was adopted to designate the so-called green wedges in Poznań. One of the wedges was marked out along the Bogdanka river valley. The Bogdanka river valley is a minor formation. Within Poznań, its width ranges from 700 meters to 300 meters at the entrance to the latter canal. A 30-meters wide floodplain in the end section of the middle course.

Class context – the Bogdanka was examined at the section between its outflow from Lake Rusałka to its mouth at the canal in the river's lower course. The Bogdanka is a small river, significantly transformed by human actions. The width of the river bed ranges from ca 2 m at the outflow from Lake Rusałka to ca 0.5 m in the lower section of the middle course. The bed is easily accessible, with a rather insignificant depth of ca 20 cm to ca 1 m. All of the above created conducive conditions to take measurements in the river bed.

Necessary equipment – worksheets, topographic map of the examined river section at the scale of 1:10 000, hydrometric mill, 20-meter measure, GPS, measuring stick for measuring the river bed's depth, river velocity measuring stick, stopwatch, pencil, trekking boots, the atlas of plants, camera.
The students were also handed a worksheet to fill in (**Table 3**), photocopies of topographic maps at the scale of 1:10 000 (**Figure 6**) to register their observations and take notes, as well as the atlas of plants to spot plant species.
An additional aspect of the present class was the presence of the biologist, whose task was to determine the vegetation along the river bed, and define the species of insects feeding in the river valley in the city.

Work organization – similarly to the first field trip class, the students were divided into groups of four. While two groups dealt with taking measurements in the river bed and describing valley forms, the other two dealt with the botanical aspects.
Presumed outcome of the students' work – owing to the possibility of taking

measurements in the river bed, the first goal of the class was to acquaint the students with the methods of river velocity measurement-taking (float method and current-meter method; hydrometric mill). Based on this ground, the students were to draw a sketch of water velocity breakdown in the bed using Cullmann's method. In order to take measurements, places were taken in which this breakdown differs significantly, i.e. straight sections, bends, places ahead of and past obstacles.

Actual outcome – as a result of the present field trip, the student learned the methods of taking river flow velocity measurements. Apart from that, they also observed, on a smaller scale, the forms of erosive and accumulative river action. Worksheets and sketches were compiled at different difficulty levels.

Class drawbacks – the river's minor size, where the insignificant depth of the bed hindered taking a sufficient number of measurements to draw a sketch of the river flow velocity breakdown.

Additional aspects of the class – during the present class, apart from hydrological issues and information related to fluvial geomorphology, the students had a chance to acquaint themselves with the problems related to the development of the city. The covered aspects included the problems connected to the functioning of municipal green fields, the city's interference with these areas, and the brief history of the green wedge spanning along the Bogdanka river valley. A certain issue from the biological curriculum was also covered.

Additional information

Prior to both the first and the second class, the students were assigned things to prepare. The topics concerned general matters related to the topics of subsequent classes. These were, e.g., the location, lay of the land and structure of the examined area, the Warta river, the Wielkopolski National Park, the history of Puszczykowo and Puszczykówko, as well as Rogalin and Rogalinek, Sołacki Park, Wodziczki Park.

Conclusions

1. The field trip, even a simple one, provides students with a chance to make observations and take measurements while in the field, at the same time instructing them how to approach such observations and measurements.
2. The two presented class proposals within the scope of hydrology and fluvial geomorphology differ in presenting the issues of rivers and river environment. Each of these proposals, though, has its qualities and drawbacks, which should be accounted for when writing the class scenario.

3. Field trips should be planned so that they can take place as close to the school and students' place of residence as possible. This makes it possible to expand the range of information and problems instead of merely focusing on a single issue. It also allows teachers to instill the ability to formulate problems systemically into their students. During the presented classes, geographical information (hydrological and geomorphological) was supplanted by historical knowledge (regionalism), as well as biological, cultural and ecological knowledge (human impact on the environment) on the local scale and within the nearest vicinity.
4. Field trip classes should be enriched by cooperation with other subjects – mainly biology, history, physics – thus enabling students to look more extensively at a given problem, or perceive it from a different angle.
5. The problems assigned to the students prior to the field trip were aimed at activating them in their preparations for the trip. The tasks were solved differently, some very diligently, others cursorily.
6. As for the cooperation with the biology teacher, not only did it make the class more attractive but it also enabled the biology teacher to cover certain topics within the biological curriculum (which, in turn, also resulted in further cost and time efficiency).
7. Classes taught this way do not require considerable financial outlay. The equipment: the hydrometric mill and the GPS, were leased to the students courtesy of Adam Mickiewicz University in Poznań.

Table of prints:

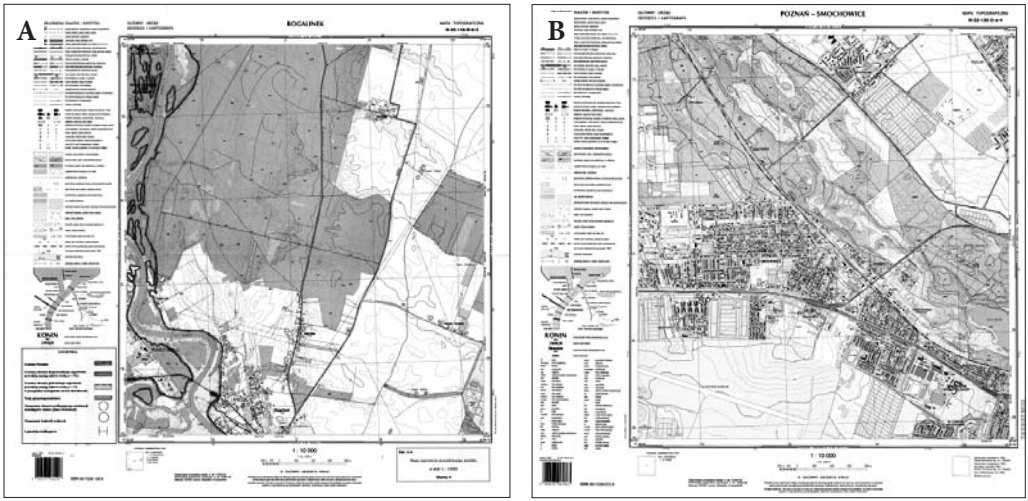

Figure 1. Topographic maps at the scale of 1:10 000, **A**. the Rogalinek sheet, **B**. the Poznań Smochowice sheet

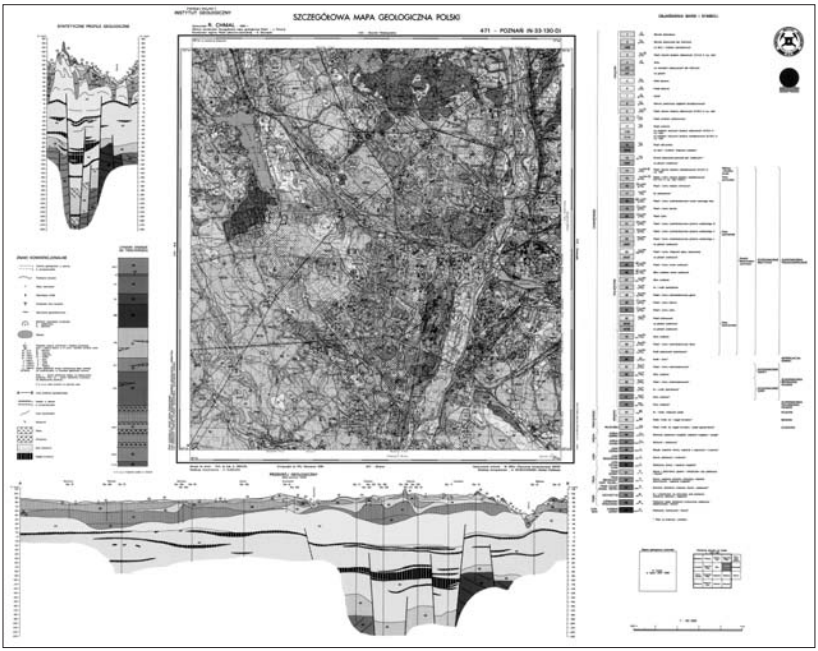

Figure 2. Geological map at the scale of 1:50 000, the Poznań sheet

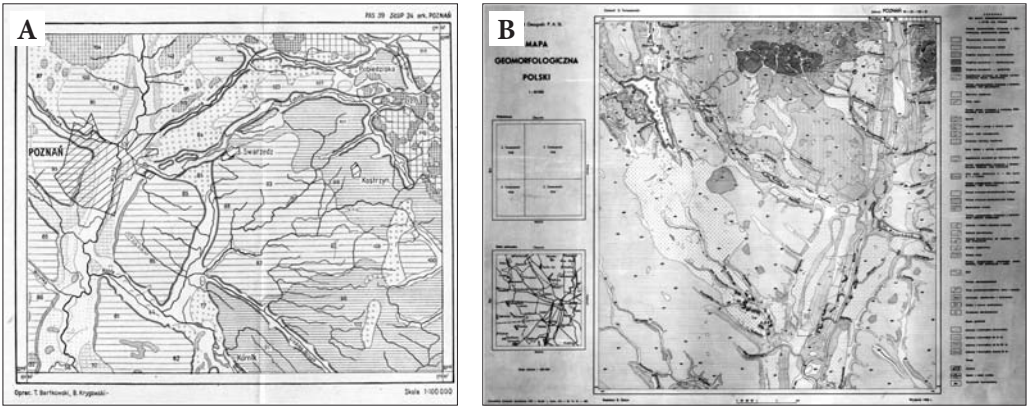

Figure 3. Geomorphological maps of Poznań, **A**. at the scale of 1:100 000, **B**. at the scale of 1:50 000

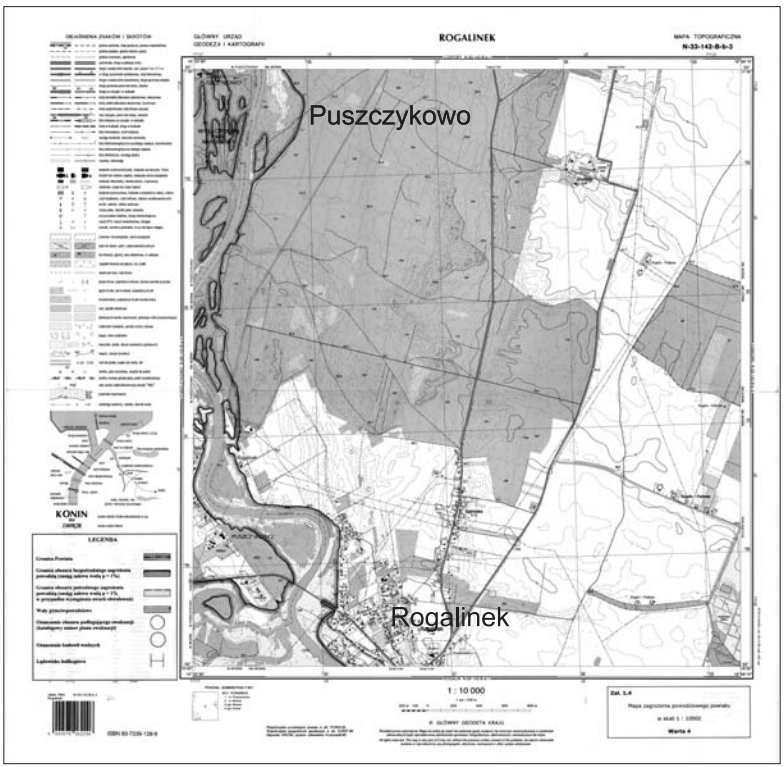

Figure 4. The Warta river valley between Puszczykowo and Rogalinek; topographic map at the scale of 1:10 000

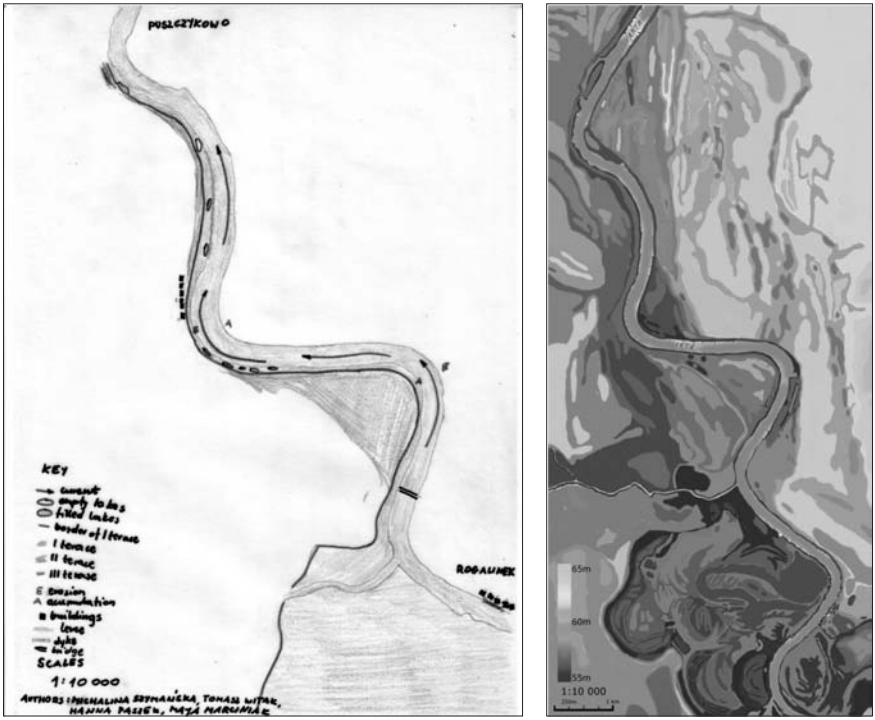

Figure 5. Geomorphological map – the outcome of the student's work

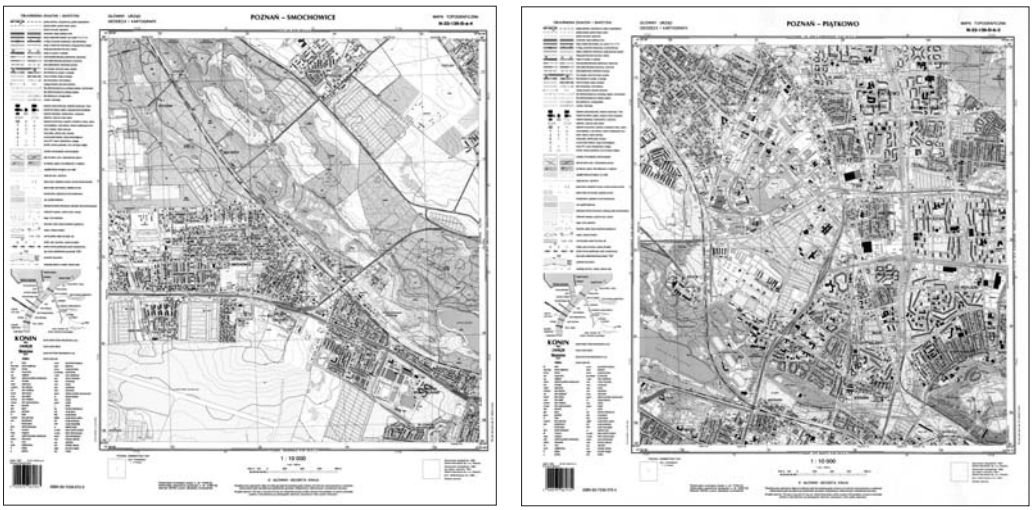

Figure 6. The Bogdanka river valley; topographic map in the scale of 1:10 000

Table 1a. The relief – river valley

GEOGRAPHY FIELDWORK
The Warta River Valley form Puszczykówko and Rogalinek

1. Situate forms on the respective Warta River terraces, especially on the floodplain (I) and the highest terrace (II), and mark them on the topographic map. (**Figure 4** & **Table 1b**).

2. What is the width of the floodplain along the investigated Warta river section? Does this parameter change? Or does it remain unchanged along the entire investigated section? If it changes, what can this be caused by?

3. Can we select valley parts along the analyzed Warta River section that are shaped by different types of River action: erosion processes and accumulation processes? Mark the parts that are especially shaped by erosion and accumulation processes on the topographic maps (**Figure 4**) and describe them in the notes section (**Table 1b**).

4. What is the type of the substratum along the investigated Warta River Valley and the aforementioned terraces (**Table 1b**).

5. Are there any channel forms along the investigated sections of the Warta River Valley? If so, what are they? Can you list them and mark them on the added map (**Figure 4**).

6. Can we observe changes in the water speed in the Warta River channel? (Be careful when making observations)

7. What is the land management of the terraces along the investigated length of the Warta River Valley? Mark these forms or objects on the map (**Figure 4**) and describe them (**Table 1b**).

8. Can we observe the effects of springtime floods along the selected Warta river section? If so, what are they (i.e. the diagnostic features)? Where do they occur (please mark them on the topographic map, **Figure 4**)?

Table 1b. Landforms along the Warta River in (date): ..... in Puszczykówko

LANDFORMS, TYPE OF RIVER ACTION, TYPE OF SUBSTRATUM				
RIVER SECTION Acc. to the map	**TERRACE**	**TYPE OF RIVER ACTION (erosion, accumulation) Landform**	**TYPE OF SUBSTRATUM**	**CHANNEL FORMS**

Table 1c. Landforms along the Warta River in (date): ..... in Rogalinek

LANDFORMS, TYPE OF RIVER ACTION, TYPE OF SUBSTRATUM				
RIVER SECTION Acc. to the map	**TERRACE**	**TYPE OF RIVER ACTION (erosion, accumulation) Landform**	**TYPE OF SUBSTRATUM**	**CHANNEL FORMS**

Table 2a. Overgrowth of the river

GEOGRAPHY FIELDWORK
The Warta River Valley form Puszczykówko and Rogalinek

Water vegetation overgrows the banks of the river and its water surface. This vegetation consists of many species that can fills the channel and be immobile on the channel bottom. **So please remember to count only the plants that could be found in masses.**

9. What plants can be found in masses along the river? Identify the specimen on the basis of the plant atlas, record any necessary information in **Tables 2b, 2c, 2d, 2e**.

10. On the basis of **Tables 1b, c**, complete **Tables 2d, e**. Group the plants in **Tables 2b, c** according to groups given in **Tables 2d** & **2e**.

11. Try to identify water plants – please be careful.

12. Observe whether there is any relation between the occurrence of species or plant complexes and channel depth.

13. Estimate, in %, how much of the channel is occupied by plants.

14. Find out if the banks of the river are overgrown by trees and bushes. Take down your remarks in **Tables 2d** & **2e** and mark them on the topographic map.

15. Surface water and other elements of nature are very often polluted by human activity. Name several sources of pollution of the Warta river.

Table 2b. Water plants on the Warta river channel in (date) ..... in Puszczykówko

RIVER SECTION Acc. to the map	WATER PLANTS			
	SUBMERGED AND PARTLY SUBMERGED IN WATER	SUBMERGED IN SLOW-FLOWING OR STAGNANT WATER	WITH FLOTING LEAVES	MARSHY

Table 2c. Water plants on the Warta river channel in (date) ..... in Rogalinek

RIVER SECTION Acc. to the map	WATER PLANTS			
	SUBMERGED AND PARTLY SUBMERGED IN WATER	SUBMERGED IN SLOW-FLOWING OR STAGNANT WATER	WITH FLOTING LEAVES	MARSHY

Table 2d. The relations between the occurrence of species or plant complexes and the depth of the Warta River channel in (date) ..... in Puszczykówko

RIVER SECTION Acc. to the map	PLANT SPECIES		
	LIVING ONLY IN RAPID-FLOWING WATER	LIVING IN MODERATEL-FLOWING WATER	AVOIDING THE CURRENT

Table 2e. The relations between the occurrence of species or plant complexes and the depth of the Warta River channel in (date) ..... in Rogalinek

RIVER SECTION Acc. to the map	PLANT SPECIES		
	LIVING ONLY IN RAPID-FLOWING WATER	LIVING IN MODERATEL-FLOWING WATER	AVOIDING THE CURRENT

Table 3. The Bogdanka Valley – type of a river, its channel and river velocity

Points of measuring	Coordi-nates	River velocity	River flow	Spread	Depth	Type of base	Type of channel (natural, artificial, straight or not)	Miniforms in the valley	Others (plants, dams, bridges...)
1.									
2.									
3.									

The didactic model LdL (Lernen durch Lehren; Learning by Teaching) as a way to learn in regional Geography

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Key words: regional Geography, small catchment, relief, didactic model LdL, learning by teaching, bilingual teaching

Introduction

Water is the most important factor affecting the relief and development in a specific place on the Earth. Consequently, it can be stated that water is the most important morphological factor in a small catchment. The activity of flowing water affects the development of river valleys, their course and appearance. It is never stable and is subject to changes in time, showing diversified process intensity. The role of water and surface run off is essential for shaping of small catchment areas and relief. The three mentioned processes, i.e. erosion, transport and accumulation, affect also landscape development. They occur along every river course and in most of climatic zones. The main erosional landforms of rivers include fluvial terraces, meanders or river gorges. The changes in the environment of a small catchment result from both natural and anthropogenic factors.

From this perspective, a small catchment may form an interesting geographical object in regional education. It provides an excellent opportunity for integrating various scientific and educational disciplines: geography, biology, ecology and chemistry. Selected research methods and geographical contents make it possible to learn about functioning of a fluvial system in a catchment.

Teaching-learning process

The process of teaching is an act by which the teacher conveys educational content (knowledge, habits, skills) to the student within a context. Learning is a process complementary to teaching, a process by which we gain or improve skills, abilities, knowledge, and behaviour, and it results from education, experience, study, and so on. Learning is an act by which the student attempts to capture, understand and

develop the content communicated by the professor. This, however, does not apply to the student-teacher relationship only, but to any person who is in the process of learning anything, either empirical or scientific.

According to Wygotski (1989) learning theory is divided into two levels. This is interaction with others, and then integrating that knowledge into mental structure of the individual. An imbalance occurs by assimilation of new experience, which adds to the student knowledge complement knowledge already acquired. This conducive to learning developed knowledge. Two elements should be taken into account: student learning, ranging from the repetitive or rote to meaningful learning, and the strategy of education, ranging from the receptive to the teaching that is based on the discovery by the learner himself. Learning knowledge is incorporated into structures of knowledge already possessed by the individual. To produce this meaningful learning the following conditions are necessary:

- logical significance: this refers to the logical sequence of processes and consistency in the internal structure of the material,
- cognitive psychology (previous knowledge): the student must have ideas that will act as a link between pre-existing cognitive structure of learners and new ideas,
- affective: positive disposition and subjective learning provision.

Methods

The diversity of educational methods and exercises encourages students to seek and use knowledge. The process calls for great involvement on the part of the young person, especially a will to study, a concrete discipline, for example geography, ability to plan work, enough time, and inventiveness.

This paper presents a didactic model called LdL (Lernen durch Lehren; Learning by Teaching) proposed in 1980 by Jean-Pol Martin, a professor of foreign language teaching at the Katholische Universität Eichstätt-Ingolstadt (Bavaria) in Germany. He established a method for students to learn by teaching their peers in his French classes. That experience being successful, so he could establish the "Lernen durch Lehren" (LdL) method in Germany. This idea has developed into a common practice throughout Germany and has been experimented with in other countries as well. He has dealt with that topic for 25 years, building a wide network of several thousands of teachers and promoting this method to a large scale. All teachers in Germany are now being trained in that method during their pedagogical studies.

Building neural networks, with web-sensibility as a target Martin (2002) attempted to transfer the brain structure, especially its operating model, to classroom inter-

actions during the various phases of lessons and their consequences (Martin 1996, 2002; Martin, Oebel 2007). This paper discusses an example of bilingual teaching (in French) in regional geography, "*Les agents de transport modifient du relief*"(**Figure 1**).

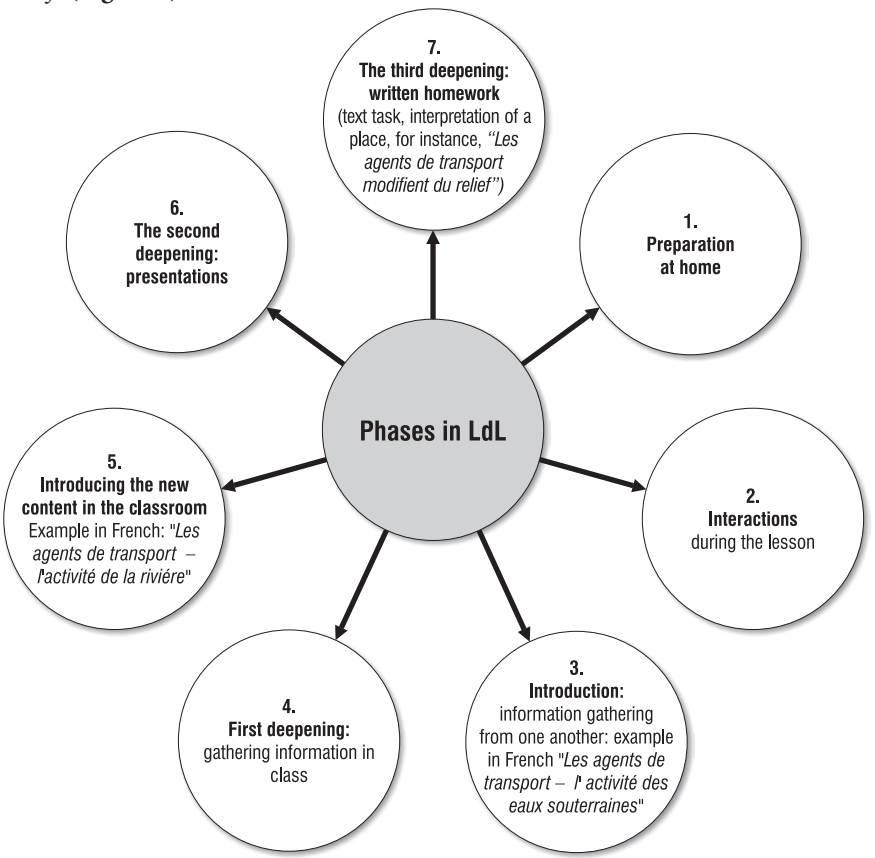

Figure 1. Phases in LdL by Martin 1996, 2002; Martin, Oebel 2007 (modified by I. Piotrowska)

During lesson time the LdL method will not be used in order to communicate new content but instead for interaction either in small groups or with the entire class (collective knowledge constructing). Homework should prepare the students to interact on at a high level during the lesson. During presentations and interactions the students have to be absolutely quiet so that everybody is able to listen to the others speaking. During the student interactions, the teacher has to back off. The

students' already existing knowledge about the new topic will be "inventoried" in little groups. Each student's previous knowledge is interchanged in the full-classroom discussion and aligned, since the new content will be fed in. Through LdL the new content is shared in small portions and communicated step-by-step

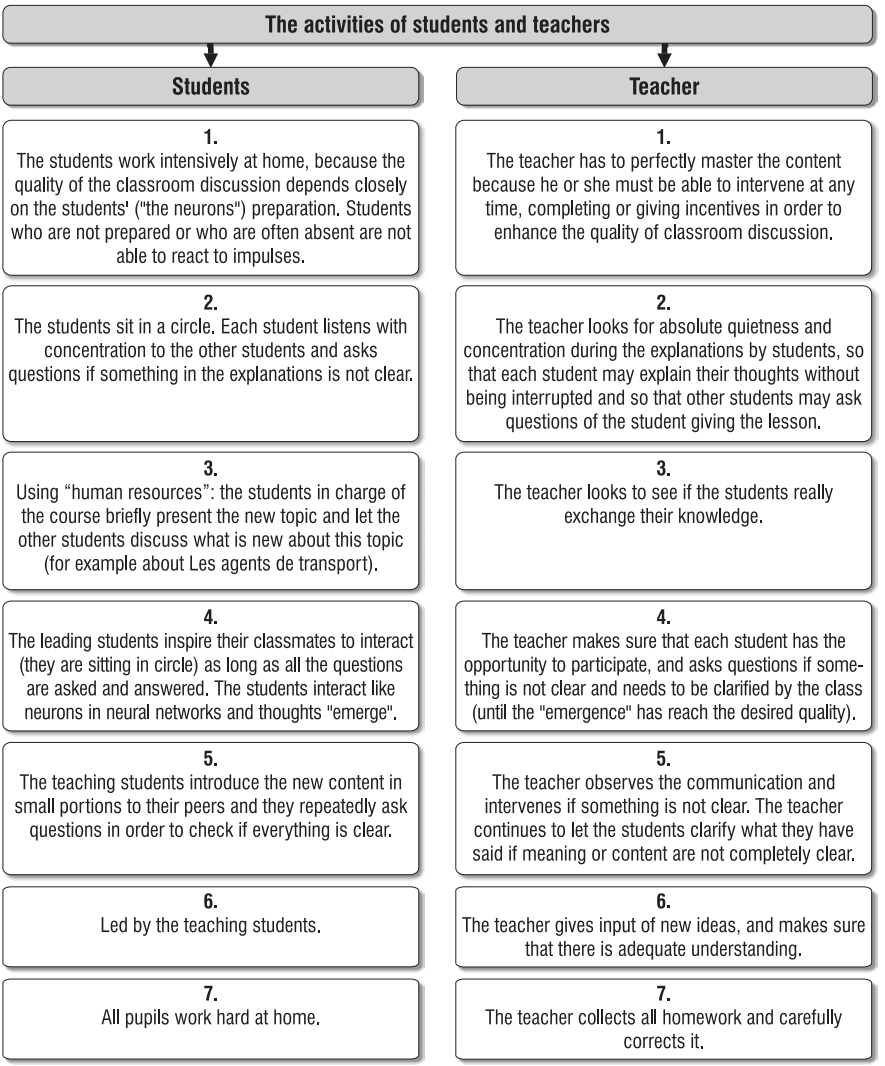

Figure 2. The activities of students and teachers in the LdL by Martin 1996, 2002; Martin, Oebel 2007 (modified by I. Piotrowska)

in the classroom. In LdL the teacher is a director and is not afraid of interrupting if presentations in front of the other students are not expressive enough (workshop ambiance). In teaching younger grades LdL tasks are prepared during the lessons themselves. For older grades, the preparation shifts more and more towards homework so that a bigger proportion of the teaching time is available for interactions (collective reflection). Most teachers that use this method do not apply it in all their classes or all the time (Martin 1996, 2002; Martin, Oebel 2007).

In the LdL model group work, discourse and concentration in language use are vital. It especially emphasizes linguistic tasks. There is one basic principle: during a lesson student can intervene at any time, but he/she has to do it in a foreign language.

Example for lesson working:

1. **based on a textbook:**
   Can be complemented with: 1. Geographical subject discussion; 2. Linguistic discussion; 3. Trip to a studied country (regional geography).
2. **based on a trip** (see **Figure 3, 4**; **Photos 1, 2**):
   Before trip it is needed to prepare: 1. Tasks to be done; work cards; and 2. Research sheets for students and teachers.

2.1. after trip inquiry results need to be presented as: 1. Presentation of the country's geography; 2. Research report; 3. Other trip-derived information.

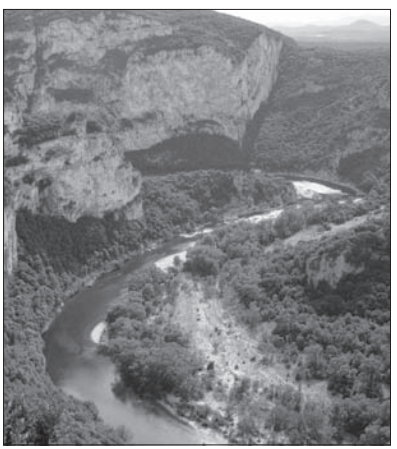

Photo 1. River erosion. The valley of the Ardèche river in the Massif Central, France. Photo by I. Piotrowska

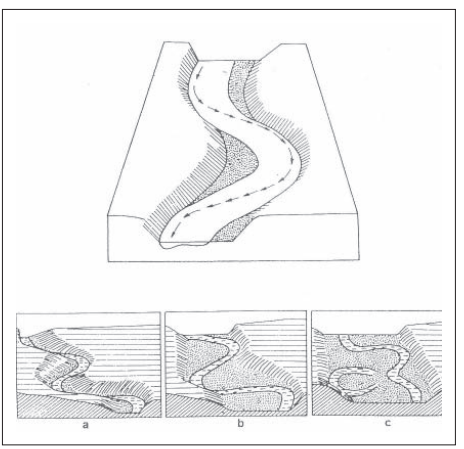

Figure 3. River erosion
Source: Klimaszewski M., 1978. *Geomorfologia*, PWN, Warszawa.

The whole project researching a small catchment and proper planning of educational tasks enables students to directly learn about both geodiversity and biodiversity in a catchment. Students develop creativity through activity. After they have studied the geographical issue set, as their task in the final stage students presented a poster to explain natural aspects of the geographical region. This is a very important subject which can help young people to understand the environment.

Photo 2. The Aven d'Orgnac caves. The valley of the Ardèche river in the Massif Central, France. Photo by I. Piotrowska

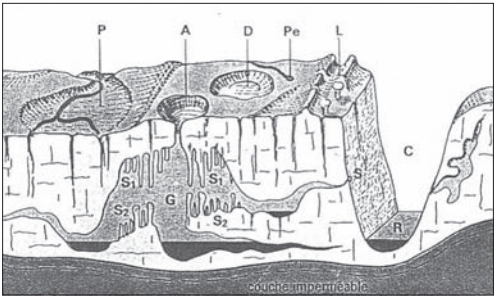

Figure 4. Karst forms
Source: Klimaszewski M., 1978. *Geomorfologia*, PWN, Warszawa.

Conclusions

In this didactic model LdL student work is more motivated, efficient, active and intensive. It eliminating the class division into an authoritative teacher and a passive audience. Students may perform many routine tasks, otherwise unnecessarily carried out by the instructor. Working with textbook and participating in trip they can studies regional geography. They also gain important qualifications like teamwork, planning abilities, reliability, presentation and moderation skills and self-confidence.

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How to teach Regional Geography today? – SWOT analysis

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Introduction

To equip young people with knowledge and abilities appropriate for curricular goals is a challenge of geographical education at various levels. Undoubtedly, geographical education in recent years has been focused on teaching core curriculum and high school achievements, especially in developing competences. For years, research conducted has shown a lack of connection between science studied in schools and the interests of students. Meanwhile, regional issues, both at local and continental levels, ranked first in their popularity. Unfortunately, teaching regional issues in the majority of schools is carried out superficially and is limited only to selected regions while describing the Earth's spheres. The result is that there are few incentives to learn about the issues which concern students, which in turn results in negative feedback and unsatisfactory achievements.

In Regional Geography, the region is a part of the Earth's surface delimited on the basis of one or many similar features which make it extraordinary. Regional Geography researches regions and their distinctive features related with environmental factors, culture, economy, topography, politics. It should be underlined that Regional Geography can refer both to regions of the world, countries, geographical regions or even the closest region.

The aim of this paper is to define the current situation of Regional Geography in school practice and to name methods of teaching the Geography core curriculum in a way which would reconcile curricular requirements with students' interests.

Pupils' and students' interest in Geography

Interest in Geography as a school subject is not big. Results obtained from a big group of respondents show that Geography ranks low and the subject is considered neutral, which is confirmed also by other authors such as Mularczyk and Kowalska (2003). According to them, Geography ranked even tenth in the hierarchy by importance in

some schools in the Lodz Voivodeship, while thirteenth in big cities of this region. Whereas research of Zielińska and Zieliński (2007), probably less representative, as conducted in only one secondary junior school in Kielce, shows that Geography ranked fifth, sixth and seventh in particular classes. Sadoń-Osowiecka (2004) has also written about low position of Geography in a school. Alike the research in the Lodz Voivodeship, in her paper one can observe decrease of interest in Geography and its importance among other school subjects. Accepting impassive attitude towards Geography and difficulty of Geography as a subjects, according to Mularczyk and Kowalska (2003), results from obligation of memorising too many facts.

Research conducted among third-year students of Geography at the Faculty of Geographical and Geological Sciences (FGGS) of Adam Mickiewicz University (AMU), preparing for profession of Geography teacher shows that lessons concerning Regional Geography, especially selected world regions, countries of the world and the closest region were the most interesting for their pupils. Similar results are presented by Hibszer (2011). Regardless place of living, both in Greater Poland and Silesia, among the favourite issues indicated by pupils the following have been found: continents, selected countries of the world, regions of the world, own region and geography of Poland. To students, in turn, continents and geographic regions in Poland seemed the most interesting, while political regionalisation of the world the least interesting. 78% of the students assessed their interest in regional issues as big whereas 22% as very big. Students' big interest in regional issues do not translate to willingness to conduct lessons in this subject. As little as 31% of the surveyed students declared very big interest in conducting a lesson about regional issues.

Strengths and weaknesses of teaching Regional Geography in a contemporary school

Teaching Regional Geography in the era of the Internet, when the young can access the most distant parts of the world but at the same time lose their capability to perceive and understand what is happening in the closest reality, is a huge challenge for Geography teachers. It is worthwhile to analyse strengths and weaknesses of contemporary Regional Geography in school practice and to think how to teach these contents, without changing core curriculum, but engaging existing pupils' potential resulting from big interest in this issue. Pupils' interest grows when a teacher uses computer animations and programs such as Stelarium or Google Earth during lessons. Using multimedia equipment allows not only to diversify teacher's methods, but above all enables more illustrative presentation of subject of a lesson, making it more attractive for a pupil. So, computer laboratories are important for teaching Regional Geography.

About 95% of schools are equipped with computer laboratories while 67% of the teachers see a need for multimedia application on their lessons, and great majority of the teachers (74%) irrespective of the subject to the question concerning frequency of computer application in getting ready for a lesson and preparing teaching ads, answered that they use computer for getting ready to the lessons once a week or once a day (Piotrowska 2011).

Exhibitions concerning travels, travellers' museums such as famous Museum of Arkady Fiedler in Puszczykowo perform cognitive functions. Multimedia exhibitions, therein exhibition presenting famous travellers of Greater Poland at the Faculty of Geographical and Geological Sciences AMU in Poznań may be interesting supplements to teaching process.

In turn, selection of contents is a weakness of teaching Regional Geography. Lessons about regions concern most often Geographic environment, mainly landscape, surface waters, soils and vegetation. Also, many teachers bring up issues of environmental pollution of a region and forms of environmental protection. Interestingly, Geography teachers more often talk about history of a region than its economy, social issues or Geographic location of a region. Drawing attention to culture and monuments should be considered positive, as it undoubtedly is related to pupils' interests (**Figure 1**).

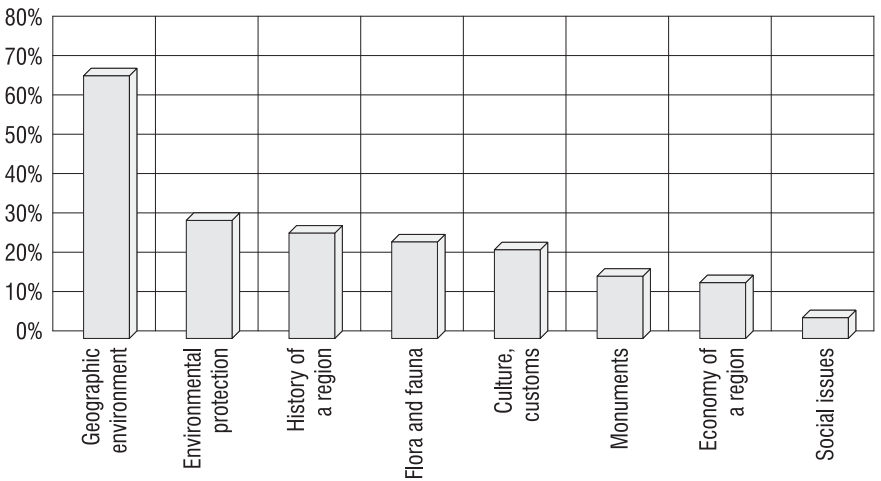

Figure 1. Issues taught within regional education by Geography teachers in selected schools in Greater Poland in 2005 (%)
Source: Own research

Also different pupils' and students' interest in region, but in territorial aspect, may be considered a weakness (**Figure 2**). Students are interested in much bigger areas, such as northern Europe or south-eastern Asia. It is probably related to university curricula, where during lectures particular parts of continents are presented, taking into account physical, cultural, economic or political features. Such understanding of regions is correct, however from the point of view of a pupil – too general. Pupils treat continents selectively and are interested, above all, in particular regions or countries of the world, relating them to selected issues, such as Chinese economy or volcanism in Europe. Students, as opposed to pupils, are interested also in Regional Geography of Poland, whereas issues of the closest region are weakly known by them. By contrast, pupils are more often interested in their local motherlands, due to the fact that teachers more and more frequently refer to this scale of a region, which results from a new core curriculum. It is possible that this different scope of cognition and interest among contemporary students (teachers) and pupils contributes to dissatisfaction among pupils.

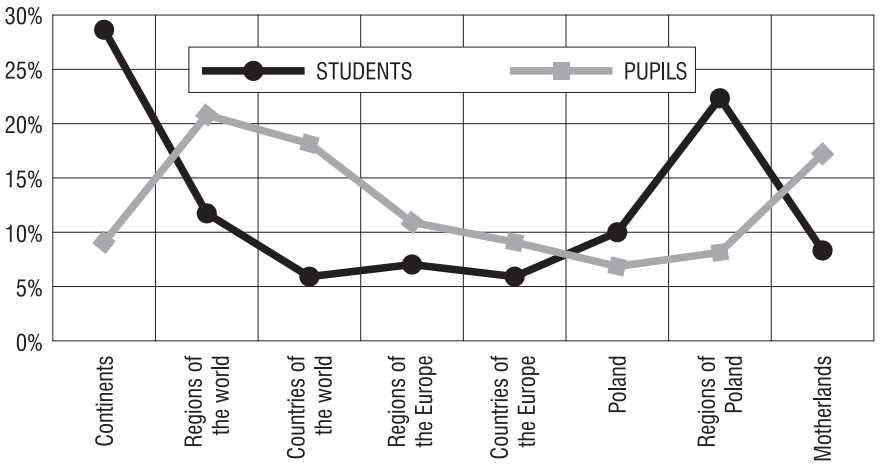

Figure 2. Pupils and students' interest Regional Geography (%). Source: own research

Opportunities and threats to Regional Geography

The Internet may be a chance and a threat at the same time. On the one hand, pupils stop perceiving phenomena, changes and relations which take place every day in natural environment. They are not aware of their role in managing the environment in which they live because they do not feel attached to or responsible for their closest region. In this context it is extremely important to see conducting geographical and regional education from the angle of computers, but most of all

excessive use of multimedia presentations. On the other hand, teachers should offer their students rational application of internet sites for updating their knowledge about the world and regions. Geography teachers should guide students to the most valuable sites, especially to those where they can find free of charge educational materials or movies produced for "National Geographic" or "Planete". Students are likely to be interested in current relations from alpine, sea or polar expeditions, cruises around the world.

Mistakes in understanding a term „region" are a threat to proper teaching Regional Geography. The first example concerns travellers' perception of regions. Pupils more and more often read diaries of Wojciech Cejrowski or Jacek Palkiewicz. Travellers, such as Arkady Fiedler or Kazimierz Nowak, become more and more frequently schools' patrons. Pupils, by relating only to places and routes of famous travellers, undermine importance of a region as an area with particular territory. And, despite the fact that pupils usually cope with points or lines, still points of reference of such type play an important role. For a regional geographer a region is constituted by more or less homogenous areas, however he needs accurate territorial data, not only points and lines. It often happens that a given region is presented in the media from the angle of politics – for example Afghanistan as an area of warfare. By such messages we show pupils that a region is politics, culture and population only, while there still is a whole environmental element in it. However, we use a term region most often in everyday life. Everybody relies on regional categories in order to classify spatial information: city centre, suburb, area of a city, municipality, the Greater Poland Voivodeship. Having said that, every person treats region individually and not always does he notice that features characteristic for a given region make it distinctive among surrounding areas.

Pupils, by their senses, observe and discover what role environment of their local motherland and region has for them. Under influence of such subjects as Geography, History or Polish they start to be interested in history of their region, processes influencing landscape of a region or they use dialect. In relation to pupils' big interest in the closest surrounding teachers should appropriately plan process of regional education, and most of all perception process.

For Pulinowa (2003) teaching Geography of the closest cities and region is possible only by outdoor classes as they account for the basis and point of reference in further education. Only direct observation and measurements in the area closest to a pupil enable comprehensive perception and understanding of relations taking place in geographic environment. Outdoor classes should be treated particularly seriously as, according to many authors (among others Nowacki, 1994; Czaińska,

Wojtkowicz, 1999; Hindson, 2009; Zaparucha, 2009; Cichoń, in press), their effectiveness is very high. Outdoor classes account for one of suggested methods thanks to which teachers can not only achieve high level of developed abilities adapted to teaching contents, but also, by developing inquiring attitude among pupils, increase their interests and durability of acquired knowledge (Cichoń, 2010).

Conclusions

According to one of the most important rules of education process – rule of gradation of difficulty one should accept direction of classes from the closest neighbourhood, for example place where a school is located, to objects located farther. When forming particular abilities, every teacher should consciously select teaching methods. In case of teaching contents concerning the closest region outdoor classes should be a basic method. Excursions all over the country and conducting lessons with application of multimedia are important in the last classes of primary and secondary junior school. Reading journey diaries or scientific articles is an interesting methodfor students of secondary schools, where regions of the world with respect to social and economic issues appear in school curriculum.

Curriculum of a reformed school assumes that it should bring up a creative man who can solve e.g. problems of local societies. In order to bring up such a man a school has to develop in him self-confidence and regional identity as a basis for engagement in functioning of their own region. If we presuppose that engagement results directly from interests, then teachers should make use of pupils' big interest in Geography and arrange their teaching plan, focusing on these regions of the world which arouse pupils' interest. This would really be regional education, which according to many authors means "specific selection of regional contents and values made by the people interested themselves in order to pass them on to next generation".

With regard to what has been said above, chance for Regional Geography lies in change of teachers' attitude by:

1. arranging subjects according to pupils' interests in e.g. regions of the world
2. restricting encyclopaedic attitude to getting to know countries of the world
3. pupils' interest in regions of Poland
4. drawing more attention to contents concerning the closest region
5. more frequent outdoor classes in area of pupils' place of living
6. placing emphasis on ability to read maps
7. rational application of multimedia
8. updating knowledge within range of Regional Geography, therein especially its social and economic aspects.

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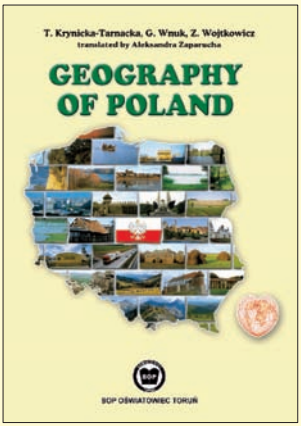

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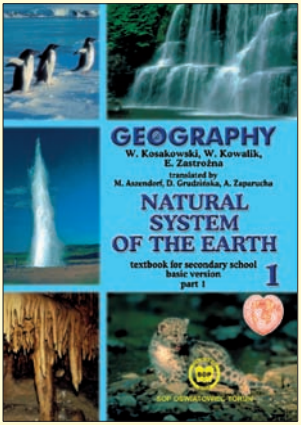

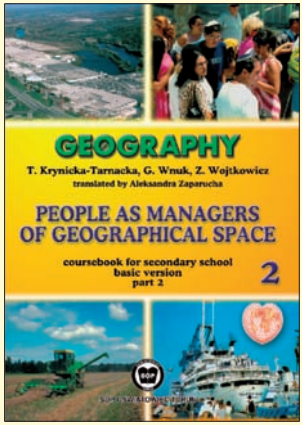

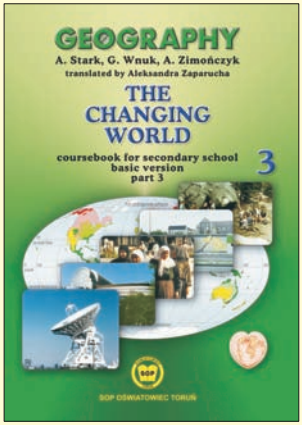

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