

EXAMINATION AND ASSESSMENT REFORM: AN OVERVIEW OF EXPERIENCES IN CENTRAL AND EASTERN EUROPE

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1 Abstract

This paper forms one element of the Assessment in Education Resource Pack compiled by the Education Support Program of the Open Society Institute (OSI). The resource captures the experiences of recent projects in the field of educational assessment in the countries of Central and Eastern Europe (CEE) and is intended to assist those planning or implementing similar projects.

The prime purpose of the paper is to give a general overview of experiences gained in CEE through assessment-related projects. (Annex A gives an overview of the current status of assessment reforms in the 17 countries which have contributed data to the OSI Assessment Resource.) Chapter 2 briefly describes the general background against which developments took place. Chapter 3 identifies some of the common issues linking the experiences of those involved. Chapter 4 looks at some of the future challenges that assessment agencies in CEE are likely to face in the light of current international developments. The paper concludes that, while much remains to be done, the progress in reforming assessment and examinations systems in the CEE region has been real and significant.

2 Background

Over the past fifteen years or so, we have seen an explosion of interest, and action, in educational assessment and examinations throughout Central and Eastern Europe. Many CEE countries, as evidenced by the case studies and country assessment matrices included in the OSI Assessment Resource, have seen extensive and radical changes in the way in which students are assessed and how their achievements are reported. In particular, we have seen a general move away from tests set and marked by schools towards more formal and rigorous examinations controlled, to a greater extent, by external agencies. In several countries, new assessment agencies have been developed and some of these have emerged as major players in their national educational systems. Of course, these changes have not taken place in a vacuum. Indeed, the case studies show that the development of new examination systems was almost always planned as an integral part of a more comprehensive educational reform programme. Typically, assessment reform was intended to complement curriculum reform, new approaches to teacher training and the development of new textbooks and teaching materials. This immediate and intense desire to revamp national educational systems can be directly attributed to the social, political and economic changes which swept through Europe at the end of the 20th century.

All the countries which contributed to the assessment in education resource pack are 'countries in transition'. Each country has its own history, but all have undergone dramatic changes in recent years. Some, such as the former republics of Yugoslavia and of the Soviet Union, have regained their independence after long periods within larger, centrally controlled federations. Others retained their national sovereignty but, for a variety of reasons, were, to a great extent, politically and economically isolated from the west. These are now trying to forge new links with the wider international community. In many cases this transition was, and continues to be, hard. Change has brought about political uncertainty, if not turmoil, and economic growth has, for many, proved frustratingly elusive. However, we can identify a number of common, if not universal, aims of the transitional countries of CEE:

- Moving towards political plurality and increasingly democratic modes of governance.
- Moving away from central control towards de-centralised governance and administration.
- Moving towards a more open, civil society where the individual is given greater prominence.
- Establishing (re-establishing) a strong national identity internally and internationally.

- Promoting economic growth in a competitive global, market economy.
- Promoting greater political, economic and social collaboration and integration within Europe.

These over-arching aims have made general educational reform a priority throughout CEE and, of particular interest here, the need to review assessment, examination and certification systems has become a necessity. Some, but not all, of the reasons behind this thinking are set out in the table below. The table identifies four typical ‘national imperatives’ for a country in transition. Alongside each, examples are given as to the contributions which can be made by educational reforms in general and assessment reforms in particular.

<i>National imperative</i>	<i>Examples</i>
Establishing/strengthening national beliefs and cultural values and redefining the rights and responsibilities of citizens in a civil society.	<ul style="list-style-type: none"> ■ Revising curricula, and national tests/exams, for key subjects, e.g. History, State Language, National Literature. ■ Introducing new subjects, e.g. Civics.
Developing a national workforce with the knowledge and skills appropriate for the economic growth of a country in a highly competitive, technologically advanced, global market place.	<ul style="list-style-type: none"> ■ Shifting the emphasis from ‘factology’, i.e. the recall of discrete facts, to widely applicable ‘enabling skills’ and problem solving in both curricula and examinations. ■ Introducing new subjects and qualifications in, e.g., Information and Communications Technology (ICT). ■ Focussing on ensuring <i>all</i> students achieve satisfactory standards of, e.g., basic literacy and numeracy.
Developing an assessment system which will a) allow the school and higher education (HE) systems to operate more effectively, and b) provide individuals with qualifications suitable for accessing learning and employment possibilities at home and abroad	<ul style="list-style-type: none"> ■ Moving from teacher-made tests to external examinations at key transition points. ■ Introducing ‘fairer’ university selection procedures either through centralised school examinations or through standardised tests. ■ Developing curricula and examinations which match standards typical for, e.g., European Union and OECD countries.
Developing an assessment system which will assist the government, and others, in monitoring educational quality, effectiveness and efficiency.	<ul style="list-style-type: none"> ■ Introducing sample-based national assessment systems. ■ Participating in international competitive studies (e.g. PISA, PIRLS, etc.) ■ Incorporating examination data into school monitoring and evaluation systems.

Whilst all the CEE countries for which we have data appear to recognise these imperatives and their consequences for education, their priorities and their responses differ.

3 Common Themes and Issues

3.1 Introduction

This chapter explores the common themes which have arisen in the course of assessment reform projects throughout the CEE region in recent years. They are not presented in any particular order and, therefore, the order in which they appear should not be taken to imply a hierarchy of importance. In addition, they are, for simplicity, presented as separate issues. In reality, however, there are numerous, complex interactions among them.

3.2 Policy, political support and advocacy

Significant and lasting reforms to national assessment and examination systems can be brought about only when they are in line with official policies relating to education and its future development. The most successful reforms are those where the government includes explicit objectives concerning assessment and examinations in its policy papers and, subsequently, in legislation. For example, in many of the countries contributing Case Studies, changes in assessment practices were included in new Education Acts drafted soon after political schisms of the mid-80s to early 90s. In all cases, assessment was a relatively minor part of the Act complementing significant structural changes and wholesale reform of curricula. However, references to assessment and examinations in primary legislation ‘legitimises’ activities in the field under, for example, a reform Project.

However, inclusion of assessment-related issues in a policy paper or even in an act of parliament does not guarantee implementation. This requires political commitment to reforms and the allocation of sufficient resources to allow work to proceed.

Evidence of political commitment at the system level can be seen in, for example, the formal establishment of the bodies necessary for developing and controlling a modern examination system. These include governing bodies or committees (e.g. The National Matura Commission in Slovenia^a) and quasi-independent national/regional assessment agencies or examination centres (e.g. as in Romania, Poland, Lithuania, etc.). Indeed, there is evidence to suggest that where a government is sufficiently committed to establish and support a dedicated assessment agency, the chances of success are high. On the contrary, where reforms are delegated to a small, under-resourced unit within a Ministry or educational institution systemic change is more difficult to achieve.

Perhaps surprisingly, several CEE countries indicated that individual politicians had, through their personal commitment, given essential impetus to examination and testing reforms.

It should also be acknowledged that the testing initiative got off the ground in 2002 primarily due to the vision and perseverance of a single individual – former Minister Sharshkeeva.

Case Study for Kyrgyz Republic, OSI Assessment Resource

... success is much more likely when politicians are willing to show their commitment by speaking out in defence of reform – especially when the inevitable problems emerge. Slovenia was extremely fortunate in this respect. Throughout the development of Matura, from independence in 1991 to its successful implementation in 1995 and beyond, the same Minister of Education was in post. He did not merely provide support from the background, he was also a constant advocate of Matura in public. This took considerable courage since a disaster in the first examination would have damaged his reputation considerably.

Case Study for Slovenia, OSI Assessment Resource

Of course, the danger with depending on the support of individuals is that there is no guarantee that they, or their party, will remain in a position of influence long enough for the reform to be ‘embedded’. In recent years, the tenure of a Minister of Education in a CEE country has typically been short leading to uncertainty in those charged with implementing change. Many fear that reforms will be halted or even reversed.

In 2002, general elections were held in Hungary and a new government came into power. This is pursuing a different educational policy and, as a consequence, surveys ... (as) described above have been discontinued. However, the follow-up assessment in the sixth and tenth grades will be performed in spring this year (2003).

Case Study for Slovenia, OSI Assessment Resource

^a *Examination Reform in Slovenia: Leading the way for others – and learning lessons in the process*, OSI Assessment Resource and *Matura Examinations in Slovenia*, Gabrscek and Bethell, 1996
02/02/05 Education Support Program, OSI Budapest

There is, of course, no way of ensuring political stability across the life of an examination reform project. However, disruption is kept to a minimum where:

- the reforms are based on policies fixed within primary legislation;
- the agency responsible for implementing the reforms is, as far as possible, insulated from political influence;
- the individuals leading reforms are not political appointees and/or governing committees are politically balanced;
- the case for reform has been well presented and has gained the support of the general public and educational practitioners.

3.3 *Building capacity – role of Technical Assistance*

Prior to the reforms of recent years, many CEE countries had limited expertise in the development, administration and processing of large-scale, centralised assessment systems. In those countries which had participated in international studies such as TIMSS, there were small groups with experience of modern assessment methods, but these were often based in academic institutes isolated from mainstream educational activities. The challenge was to build capacity to a point where new examination systems could not only be developed but also maintained in the long term. Areas of need included:

- theory of assessment and test design
- item writing and test construction
- scoring procedures for subjective tasks (e.g. essays)
- design of and scoring procedures for performance tests (e.g. speaking tests)
- test administration, logistics and examination processing
- test evaluation including quantitative analysis
- procedures for drafting and validating statements of ‘educational standards’
- sampling procedures (e.g. for national assessments)
- psychometrics
- feedback systems including reports for teachers etc.

Methods for building capacity included:

- study tours to well established assessment agencies in western Europe and the USA
- study tours to new assessment centres in CEE
- participation in international training courses
- in-country training supported by international Technical Assistance (TA).

International TA which takes into account the needs and preferences of the client can be an extremely effective method of building capacity. However, the client is usually under great pressure from, for example, its own government to develop more quickly or to expand the project to deliver more products than originally planned. Under these circumstances, tension can develop between the TA provider and the client. The project in Romania developed, of necessity, a general rationale for addressing such issues.

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| <ul style="list-style-type: none">◆ It is the Client who is ultimately responsible for defining the specific objectives and desired outcomes of any particular project activity.◆ The role of the TA team is to provide expert advice as to how the Client’s goals may be achieved. This should include any theoretical and/or practical considerations to be taken into account. In short, the TA team should first advise on best practice. |
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- ◆ The Client should identify any practical difficulties or constraints likely to prevent the application of the TA team’s recommendations **in the local context**.
- ◆ Where possible, the TA team should advise on an acceptable compromise which would both meet the Client’s objectives and maintain an appropriate degree of **technical quality**.
- ◆ Where a compromise is not possible, the Client’s decision should take precedence. In this case, the TA team’s role is to **provide expert support services** where possible but also **to highlight the technical shortcomings** of the approach adopted.

Reforming Educational Assessment in Romania, Stoica, Mihail, Bethell, 2001

In general, capacity building has been very successful, especially in the projects where larger, semi-autonomous assessment agencies were developed (e.g. Poland, Romania, Slovenia, Lithuania). The staff of these agencies are now responsible for all aspects of maintaining sizable assessment systems. Further evidence comes from the fact that professionals from CEE countries are now making a significant contribution to the international assessment community. The relatively new European branch of the Association for Educational Assessment (AEA-Europe) is active and growing, and a number of regional specialists now offer consultancy services to international agencies including the World Bank, the European Union and the Open Society Institute.

Whilst a ‘critical mass’ of expertise has probably been achieved in several countries, some of the smaller assessment units – typically those formed within ministries or educational institutions – have very few trained staff. This threatens not only further development but also sustainability. Where there is no ‘pool’ of assessment professionals available to replace those who leave, there is a danger that the system will stagnate or even regress.

Perhaps a bigger challenge faced by many countries is raising awareness of assessment issues and developing assessment skills in the teaching force. Strategies being used at the moment include:

- delivery of training courses and seminars for teachers
- provision of self-access training manuals for teachers
- provision of assessment handbooks for teachers (e.g. handbooks on item writing and item analysis are being produced in Latvia under the education improvement project)
- involvement of teachers in preparing and scoring examinations and national assessments.

The last of these is generally considered to be the most effective way of ‘training’ teachers and gaining their support for assessment reforms. It is also believed to have a positive effect on classroom practice (*backwash effect*).

3.4 Information technology in the administration of examinations

In modern, large-scale examination and assessment systems such as those being introduced in many CEE countries, information and communication systems play a vital role. They are required for the technical processes such as calculating results and producing statistical analyses but, and perhaps more importantly, they are essential for the many administrative processes entailed in conducting an efficient, effective and secure examination system. The table below shows the key elements of an integrated examinations processing system (EPS).

The key elements of an integrated examinations processing system (EPS)

System 'Block'	Typical tasks and outputs
Administration	registration of entries q paper ordering and address labels etc. for despatch appointment of markers/supervisors/moderators tracking and receipt of answer scripts issue of results statements and printing of certificates
Finance	budgetary control and financial reporting receipt of fees purchase/sales ledgers staff salaries and examiner payment
Marks Processing	capture, collation and consolidation of scores processing of scores grading and statistical reporting
Statistics and Research	item and test analysis subject, inter-Board and year-on-year comparisons research reports
Publications and Communications	electronic publishing of question papers and documents electronic transfer of results (e.g. schools and universities) e-mail communications and website (public and restricted access)

In CEE examination reform projects supported by grants from international donors or loans from the World Bank, provision has usually been made for the capital expenditure needed to install the core of the computerised EPS. In others, some money has been set aside for purchasing PCs and technical software (e.g. packages for statistical analysis). However, the needs are usually underestimated and other factors inadequately addressed. Two key issues which have repeatedly arisen are developed below.

Recruiting and retaining ITC staff

In many CEE countries, IT professionals are scarce and can command much higher salaries and better conditions of service than those offered in the public (i.e. state) sector. New assessment agencies throughout the region have found it extremely difficult to recruit and retain staff to develop and maintain their ITC systems. This remains a problem. In Lithuania, a small team of young, postgraduates from the Mathematics Faculty of the University of Vilnius was used to develop the EPS for the new National Examinations Centre^b. These received additional training in software development under Project enabling them to successfully implement an excellent small EPS. However, it remains to be seen if the NEC in Lithuanian can retain staff of such calibre against fierce competition from the private sector.

The problem is that examination processing systems are not static. The software requires updating every time there is a change to the examinations format – a change in the format of a question paper, the addition of an extra subject, or the introduction of a new grading system. This requires either the employment of one or more IT specialists on the staff of the assessment agency or the outsourcing of such services at commercial (i.e. high) rates.

^b See *Examination Reform in Lithuania*, Bethell and Zabulionis, NEC Lithuania 2000
 02/02/05 Education Support Program, OSI Budapest

The need for IT professionals on the staff of a national assessment agency has grown as the need for electronic communication and information systems have grown. For example, all modern assessment agencies need a dedicated website to facilitate communication, the publication of documents, and, in many cases, the transfer of data. This requires constant development and maintenance by an IT specialist.

New technologies

In developing new examination and assessment systems, many CEE countries have received technical assistance from international partners – most notably England, Scotland, The Netherlands and the USA. In all these countries, the assessment systems have evolved over many years and are generally accepted, and trusted, by the public. They are also relatively wealthy and so their assessment agencies have access to greater resources than their CEE counterparts. One consequence of this is that new assessment agencies in the CEE region often have *greater* need than their TA partners to use new technologies to a) promote security and counter malpractice, and b) increase efficiency and reduce costs. Some examples are given in the table below.

<i>Optical Mark Readers</i>	In high-stakes examination systems (e.g. university entrance tests) examiner subjectivity is often perceived as being a problem. In such cases, objective (multiple-choice) tests with computer scored answer sheets are seen as being desirable. The use of OMRs is also highly cost-effective. Increasingly examining authorities are using OMRs not only to score multiple-choice tests but also to enter other information (e.g. examiner scores) from pre-printed sheets.
<i>Bar Code Systems</i>	Bar code systems can be used for administrative purposes e.g. to code and track question papers. In Lithuania, student answer scripts are coded with a unique bar code rather than the student's name so that it remains anonymous throughout the marking process.
<i>Optical Character Readers</i>	Much progress has been made in recent years in the automatic reading of text (optical character recognition). In Lithuania and Latvia, pilots are currently taking place into the automatic scoring of student scripts for short, discrete, semi-objective answers. Whilst this is in its infancy, this technology is likely to become more important in the future. (It should also be noted that, in the USA, software for scoring student essays is now becoming available.)

Once again, many examination reform projects have allocated some funds to buying hardware and software but this does not solve the problem of sustainability. All these hi-tech solutions require specialist maintenance and support, additional machines are needed as back-up, and new machines and software will be needed to update the system in the future. In short, adequate funds are not only required for start-up costs, but also to support and develop the systems in the future.

3.5 *Financing and sustainability*

Almost without exception, the countries of CEE have faced, and continue to face, difficulties in funding their assessment reform programmes. These difficulties arise in three distinct phases:

- initial development of examination systems and the necessary infrastructure;
- post-development maintenance of the new system;
- further development and upgrading.

The difficulties are exacerbated in CEE by two factors – the tradition of operating low-cost (and low-quality) examinations and the severe economic difficulties faced by many governments in the region.

Almost without exception, the countries in our survey previously operated, and in some cases continue to operate, examinations which appeared to require very little expenditure. For example, in Romania, the prestigious Bacalaureate examination was prepared centrally, but only duplicated in enough numbers for each school to have a copy. In the examination rooms, teachers copied the master questions on the blackboard for the students. This was a very cheap delivery system raised many questions about quality. Examination papers could not include complicated diagrams or other forms of stimulus material. Errors in complicated mathematical equations were easily introduced in the transcription on to the blackboard. Students sitting at the back of the room were, unless they had extremely good eyesight, were at a disadvantage to those at the front! The reform project in Romania solved this problem but the cost of duplicating and distributing thousands of copies of question papers is high.

In several countries, including Serbia and Kyrgyzstan, books of examination questions are published in advance and the questions for the current year's examination broadcast on the morning of the examination. Whilst this is extremely cheap (especially if the books are sold to students!) and ensures a form of security, this delivery method severely restricts the quality of the examination. For example, if all the items are published in advance, rote learning is encouraged. Also, it is impossible to set items testing higher-level skills where unfamiliar contexts and stimulus material are required.

Finally, in traditional, non-centralised and/or teacher-marked examinations, many of the costs were hidden. For example, regional authorities supplied administrative services and teachers supplied marking services, not for free but at their own expense.

Against this background, it is extremely difficult to convince those who control education budgets that developing, implementing and maintaining high quality examinations and national assessment systems is expensive. They need significant capital expenditure, sufficient funding to meet recurrent costs, and access to contingency funds to meet the unforeseen emergencies that regularly arise in the complex task of running large-scale assessment systems.

In an independent agency, or in a Ministry department which acts as a *cost centre*, all expenditure must be met (or exceeded) by income. Establishing a self-financing examinations and assessment authority makes the costs transparent.

In an assessment agency there are typically three sources of income:

- allocation of funds from the State budget
- examination fees charged to candidates
- sale of professional services, publications and other materials

The relationship for a viable system is:



With the exception of large, commercial assessment agencies (e.g. ETS, USA and UCLES, UK), most national assessment agencies have little opportunity to generate income from other sources. Hence, the State budget and candidate fees are the only significant sources of income.

In most CEE countries, school examinations are, in general, free to candidates. This is in accordance with the principle that pre-university education (and, hence, exams) should be free. If this principle is upheld, it must be recognised that practically all examination costs will need to be met from the state budgets.

Unfortunately, several assessment agencies in the region find themselves in the unenviable position of being asked by governments to expand the scope and scale of new examination systems whilst, at the same time, being asked to work within existing budgets – or even to reduce costs! Clearly this is an unrealistic requirement.

Many of the new assessment agencies of the CEE region were established using international grants (e.g. EU, USAID, Dutch aid, Open Society Institute, etc.) and/or ‘soft’ loans from the World Bank (International Bank for Reconstruction and Development). As these projects come to an end, securing sufficient, guaranteed funding from government sources is often difficult. Small assessment units are much more vulnerable in this respect than the larger assessment agencies who have successfully established themselves as key players in the wider educational infrastructure.

The Slovenian government allocated a separate budget line for assessment and examinations and covered all costs both for the development as well as running of the system, without any foreign funding. This is in contrast with countries that develop an examinations infrastructure with international loans or grants, but then find it difficult to fund on-going costs from the state budget.

Case Study for Slovenia, OSI Assessment Resource

Presently, USAID, American Councils, and local stakeholders are developing a business plan that will allow the Independent Testing Organisation to become financially sustainable. At the time of writing, the ITO had already brought in significant revenue from the 2003 registration fees that will be applied toward future ITO sustainability.

Case Study for Kyrgyz Republic, OSI Assessment Resource

3.6 Public relations – teachers, parents, students and other stakeholders

Whilst all the themes mentioned above are important, the authors of our Case Studies, without exception, identified building consensus and support through consultation, communication and public awareness campaigns as a crucial element in implementing changes in assessment – especially where this involves high-stakes examinations.

Perhaps surprisingly, this is a field which the designers of earlier reforms neglected. However, resistance from teachers and students to the introduction of new examinations meant that action had to be taken. Indeed, the assessment reform projects in Romania and Serbia allocated some funds to building public relations (PR) skills and capacity through the support of professional PR technical assistants.

The key audiences for ‘awareness raising’ campaigns are:

- teachers;
- students and their parents;
- universities;
- politicians;
- the media.

Strategies include:

- distribution of general information material (including via website);
- distribution of special information for teachers;
- seminars, workshops and meetings for teachers;
- face-to-face meetings with key stakeholders;
- open public meetings;
- press releases and newspaper articles;
- radio and television broadcasts.

All these activities take time, energy and money. However, it is important to gain support at an early stage if resistance to change is to be overcome.

The key lesson learned is to do with communication and the necessity for wide publicity. It is obvious that the public was not informed well on what we can use this assessment for. If enough time and proper attention had been given to this, much of the tension and misunderstanding could have been avoided. Since time for the development and implementation was limited, communication was a neglected area. By the time education professionals and the wider public received information about the assessment, the general structure and the test were nearing completion. In such a situation it was inevitable that communication became one-sided.

Case Study for Hungary, OSI Assessment Resource

Secondary school students knew in advance that they would have to take the final exam, ... but it was felt that the process would be postponed. Faced with it as a reality, students decided to start a strike to obtain abolition of the final exam. ... agreement was reached whereby, for the first year only, just two subjects would be assessed. This event flagged up possible problems and helped to ensure that in planning future activities special attention was paid to information and public relations.

Case Study for Slovenia, OSI Assessment Resource

Finally, the initiation and development of a permanent public information campaign has helped the NAES to establish better relationships with other educational institutions and reach its stakeholders more easily. During the first two years, the NAES initiated an intensive press campaign aimed at creating a corporate identity for the agency and making the institution and its activities highly visible. The campaign consisted of press releases and radio and television interviews. It is important to mention that, in Romania, the impact of mass media on both the public and policy makers is very big. In this way we have succeeded in building the confidence of the stakeholders.

Case Study for Romania, OSI Assessment Resource

The National Examinations Centre also designed and conducted a public relations campaign using leaflets, posters, T-shirts, and even Matura postcards.

Case Study for Slovenia, OSI Assessment Resource

The key to a successful educational reform lies in a thorough and continuous process of gaining teachers' acceptance of the changes to be introduced as well as ensuring that teachers themselves are properly trained and fully qualified for the changes being implemented. It is essential that all teachers be involved in the process, not only a handful of enthusiasts.

Case Study for Poland, OSI Assessment Resource

The project tried to give these civic leaders and businessmen a voice in the implementation of testing and other education reforms. Rectors and school directors also had to be brought on board by organizing seminars and roundtables ... Supporters of reform appeared on TV shows, while others wrote newspaper articles in support of the new approach to testing. In the mainstream press, some national leaders agreed that there was a need to cultivate a new generation of thinkers who had the necessary skills to work and think independently. The team also held seminars, press conferences, and meetings to familiarize teachers, school officials, students, and their parents with all aspects of the scholarship test. TV, radio, and the print press were all utilized.

Case Study for Kyrgyz Republic, OSI Assessment Resource

4 Additional Challenges for the Future

The first challenge for the assessment agencies of the region is to secure their future by successfully maintaining and further developing the examination and national assessment systems that they have established over recent years. An agency which can successfully deliver high quality examinations over a period of five or more years gains the confidence of the public and becomes an accepted part of the educational and political systems. However, the world of international assessment constantly moves to reflect new approaches to teaching and learning. We can already see pressure building in CEE countries for more extensive and sophisticated models of assessment. A successful assessment agency will have to meet these new challenges.

4.1 New approaches to assessment

The reforms of recent years have largely focussed on ‘standard’ forms of assessment including formal school examinations (e.g. Matura or Baccalaureate in Poland, Romania, Lithuania, Latvia, Slovenia etc.), special university entrance examinations (e.g. Kyrgyzstan, Ukraine) and sample-based national assessments (e.g. Hungary, Serbia, Macedonia, etc.). However, there is growing pressure to pay greater attention to *alternative* forms of assessment to reflect new approaches to teaching and learning. Indeed, some assessment professionals have suggested that we are experiencing a ‘paradigm shift’ in the field.

The background to this trend and the details of its implications cannot be explored in this paper. However, several new techniques likely to emerge in the near future are outlined below.

Formative assessment: Assessment which, in contrast with summative examinations which take place at the end of a teaching programme, takes place within the teaching/learning process. Indeed, formative assessment is designed to have a positive impact on learning as it progresses. The challenge for assessment agencies is to develop, and control, school-based assessment practices which will be seen as being sufficiently reliable, and hence trusted, by those who will use the results.

Portfolio assessment: Assessment where the student collects evidence as to his/her achievement over a period of time and presents this in the form of a *portfolio* of work. The most sophisticated portfolio schemes define the required skills, but do not overly restrict the contexts in which they are to be demonstrated. As a result, evidence can be gathered across the curriculum breaking the rigid subject boundaries traditionally used in examinations.

On-demand competency testing: Where enabling skills are being developed, it makes sense for students to be allowed the opportunity to be tested when they are ready – rather than waiting for the examination to come around. A good example of a modular, on-demand system is the European

Computer Driving Licence (EDCL) model for the assessment and certification of basic ICT (information and communication technology) skills.

Computer based testing: In the future, computer-based testing will compete to a greater extent with traditional paper methods. European assessment agencies are already exploring ways of delivering and processing examinations tests electronically, but the future lies in giving students the opportunity to take their examinations electronically!

4.2 School evaluation and monitoring 'quality'

The prime purpose of an examination system is to provide each candidate with a result which accurately reflects her/his level of achievement. The use of the result, e.g. for university selection or as an employment qualification, is aimed at the individual. In contrast, the purpose of a sample-based national assessment is to provide reliable data on the effectiveness of the system as a whole. In fact it helps to view examinations and national assessments as *complementary* activities.

However, governments and their ministries of education, are interested in evaluating the effectiveness of schools and, in some cases, teachers. In the absence of other reliable data, the tendency is to look for ways of using examination results for *school monitoring*. Perhaps the most extreme example of this is the 'league tables' of examination and national test results published for all state schools in England. Part of a performance table for secondary schools is shown below.

	Pupils aged 15			GCSE/GNVQ Results			
	Total	SEN	% SEN	5+A*- C	5+A*- G	no passes	Average point score
England Average				50.0%	88.9%	5.5%	39.3
Local Authority Average				54.3%	92.5%	3.3%	42.2
New Town High School	198	15	7.6%	75%	99%	1%	51.3

'Total' shows the number of students in the specified age range at this school.
 'SEN' shows the number of students assessed as having *special educational needs*.
 '5+A*-C' shows the proportion of students gaining the higher grades in the GCSE and GNVQ examinations.
 '5+A*-G' shows the proportion of students passing in the GCSE and GNVQ examinations.
 'Average point score' indicates the average results for students in the examinations.

Note that, at least in theory, the school can judge its own performance against schools in the same region, and against the national results.

It should be noted that there are many critics of such 'league tables'. Some argue that examination results on their own offer a distorted view of school performance. Others argue that the results do not indicate how much progress has been made within the school ('value added'). Others argue that placing so much emphasis on examination results encourages teaching to the test and so distorts teaching and learning.

Whilst countries in the CEE region are unlikely to adopt the English model in its entirety, there is interest in using examination results for school monitoring.

In Latvia, for example, the assessment reform project sits alongside a school evaluation project. The latter includes as one of the tools for school *self evaluation* suggestions for using school results to judge performance against 'similar schools' and regional and national results.

In Hungary, quality became a central issue of public education in the 1990s. The most important (reason for this) is probably the fact that ... the monitoring and quality assurance mechanisms of the former centralized system of education have lost their importance, become dysfunctional or completely disappeared.

Case Study for Hungary, OSI Assessment Resource

4.3 *Quality Assurance in assessment*

As governments invest more money in education and its systems of assessment, there will be increasing pressure on assessment agencies to demonstrate that they are delivering high quality services in cost-effective ways. In addition, agencies will need to demonstrate their integrity and professionalism to the students, and their parents, who depend on examination results to make the most of their life opportunities. In short, government assessment agencies, like their commercial counterparts, will need to develop comprehensive quality assurance (QA) procedures and 'standards'.

"Standards are documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics, to ensure that materials, products, processes and services are fit for their purpose."

International Organisation for Standardization

In the context of a national assessment agency, the following elements have an important role to play in a Quality Assurance Strategy.

- Mission statement
- Documentation for processes e.g. 'Quality Handbooks' and 'Administrative Manuals'
- Process flow diagrams for complex activities and systems e.g. question paper production
- Targets and contracts
- Standardised consultation and feedback procedures.

QA in assessment requires a transparency which was, in former times, not a common feature of examination boards. Often their procedures were shrouded in mystery and their decisions were extremely difficult to challenge. That is no longer the case – modern assessment agencies are expected to demonstrate that they are professional in their actions. They are also subject to challenges through formal procedures, including legal action in the courts.

The following are features of QA systems operated by large assessment agencies in the US, in Western Europe and, increasingly, by the more developed agencies in CEE.

- Explicit mission statements

"To help advance quality and equity in education by providing fair and valid assessments, research, and related products and services wherever people or institutions are being held accountable for learning."

Education Testing Services, USA

- Extensive documentation on processes and administrative procedures freely available in the public domain e.g. downloadable from the internet.
- Agreed *Code of Conduct* setting out principles and processes- freely available in the public domain e.g. downloadable from the internet.
- Extensive support material for candidates and teachers freely (or cheaply) available e.g. from the internet including: syllabuses, past question papers, sample papers for new examinations, marking schemes and sample answers, handbooks for teachers.

- Extensive *and timely* reporting procedures including statistical and qualitative reports for teachers and other educational practitioners.
- Internal procedures for reviewing all products (e.g. examinations) and processes on a regular basis and improving them accordingly.
- Formal appeal procedures for candidates who wish to challenge their results including the right to an independent review of process and evidence.
- Formal procedures for receiving and processing comments and complaints from candidates, teachers and other interested parties.

The internet has become an important tool in increasing the transparency of assessment agencies, improving the distribution of information and materials, allowing better communication with groups and individuals. It is encouraging to see the excellent websites being set up and maintained by new institutions in the region. To see what is available, look for the website links page in the OSI Assessment Resource.

5 Conclusion

The past twenty years has seen an explosion of activity in the fields of public examinations and national and international studies of learner assessment. Nowhere has there been more activity than in the CEE region where many countries have embarked on major educational reforms incorporating examination and assessment components.

Whilst there have been, and continue to be many difficulties, significant progress has been made on several fronts. These include:

- The development of new agencies introducing new standards of professionalism to examinations and other forms of assessment.
- The development of new capacity in the fields of test design and administration to a point where assessment issues have been given new prominence in national debates and where CEE specialists are actively involved in the international assessment community.
- The introduction of new, fairer forms of examination – especially at the school/university interface in several countries.
- The development of assessment tools that can be applied to new challenges including school-based assessment of student learning, the verification of ‘outcome standards’, and the evaluation of school effectiveness.

Much remains to be done, but the evidence of the case studies included in the OSI Assessment in Education Resource Pack suggests that firm foundations have been laid for further development in the future.

Annex A: Where are they at? An overview of assessment reforms in CEE

This table summarises the achievements of various countries in the reform of their assessment and examination systems as at August 2003. The primary source for information in this table is the assessment matrices and case studies prepared by country representatives for the OSI Assessment in Education Resource Pack.

■ Status is reported on a general, 5-point scale as shown below. Where the scale does not match a country's situation, a note is given.
0 – not planned/not started **1** – early planning/discussion stage **2** – development and implementation **3** – piloting and experimentation **4** – operational

	Albania	Bulgaria	Croatia	Czech Republic	Hungary	Kyrgyzstan	Latvia	Lithuania	Macedonia	Moldova	Montenegro	Poland	Romania	Serbia	Slovakia	Slovenia	Ukraine
Establishment of new assessment authority	4	^a	2	1	4	4	^b	4	2 ^c	1 ^d	1	4	4	2	1	4	4 ^e
Reform of Matura/Baccalaureate examination	2	1	1	1	2	0	^f	4	1	2	1	3 ^g	4	1	2	4	1
Introduction of other school exams or assessments e.g. basic school	2	0	1	1	2	0	3	4	0	2	1	4	4	2 ^h	3	3	1
Introduction of sample-based national assessment	0	1	0	0	4	0	0	0	3	0	0	0	4	3	3	0	0
Standardisation of university entrance examinations	1	0	0	0	0	0	ⁱ	^j	0	0	0	0	0	0	0	^k	3
Participation in international assessments	4	4	1	4	4	1	4	4	4	4	1	4	4	4	4	4	0

^a Assessment Department within MoE established.

^b Examinations Unit exists within National Curriculum and Examinations Centre of MES.

^c New Assessment Unit within MoE.

^d Proposals to develop a national centre from the current Department of Examinations and Evaluation within MoE.

^e Testing Technologies Centre is established but MoE proposes new national assessment agency.

^f Increasing use of centrally-marked examinations using pre-existing model.

^g Full implementation in 2005.

^h Especially school-based assessment methods.

ⁱ Some use of external examinations being piloted by some faculties.

^j New Matura replaces university entrance examinations.

^k Matura has replaced university entrance examinations.

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