USAID | MACEDONIA
FROM THE AMERICAN PEOPLE

MID-TERM EVALUATION OF USAID/MACEDONIA'S PRIMARY EDUCATION PROJECT

July 19, 2010

This report was produced for USAID/Macedonia under Task Order 28 of the Global Evaluation and Monitoring (GEM II) BPA, EDH-E-28-08-00003-00. It was prepared by the Aguirre Division of JBS International, Inc. Its authors are Frank Schorn and Nikolina Kenig. The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Mid-Term Evaluation of USAID/Macedonia's Primary Education Project

July 19, 2010

Dr. Frank Schorn, International Consultant
Dr. Nikolina Kenig, National Consultant

This assessment was conducted by the Aguirre Division of JBS International under Task Order 28 of USAID's Global Evaluation and Monitoring (GEM) II BPA, EDH-E-27-08-00003-00. The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Acknowledgements

The evaluation of the Project for Primary Education was carried out by a three- person team led by Dr. Frank Schorn (International Consultant), Dr. Nikolina Kenig (National Consultant), and Mr. Aleksandar Ivanovski, who assisted with the logistics of the research process.

The team gratefully acknowledges the assistance provided by:

- USAID/Macedonia, especially to Mr. Michael T. Fritz*, Mission Director;* Mr. Alexander Woods, *Education Office Director* and Ms Lela Jakovlevska-Joshevska, *Senior Education Specialist and AOTR*.

The team would also like to express a gratitude for the technical support and the contribution with information to AED's Primary Education Project team and their partners, especially to:

- Mr. Keith Prenton, *Chief of Party*;
- Ms. Maja J. Cvetanovska, *Monitoring and Evaluation Coordinator;*
- Mr. Nebojsa Mojsoski*, School Renovations Specialist;*
- Ms. Gorica Mickovska, *Assessment Specialist;*
- Ms. Anica Aleksova, *Math and Science Specialist;*
- Mr. Petar Nikoloski, *ICTs in Education Training Specialist*;
- Mr. Gjorgji Kushevski, *Workforce Development Specialist;*
- Ms. Virna Manasieva, *Training and Events Manager.*

Other individuals and institutions also considerably contributed to this evaluation with their participation as informants:

- Hon. Nikola Todorov, *Minister of Education and Science* in the Government of the Republic of Macedonia;
- Mr. Gjorgje Arsov, *Head of State Education Inspectorate* in the Ministry of Education and Science;
- Mr. Mitko Cheshlarov, *Head of Sector at the Bureau for Development of Education* in the Ministry of Education and Science;
- Ms. Vera Kondik Mitkovska, World Learning's *Senior Program Manager for the* USAID Human and Institutional Development Project;
- Ms. Bojana Naceva, *Education Specialist*, World Bank office in Skopje;
- The principals, teachers and students from nine primary schools in the country ("Draga Stojanovska" in v. Rakotinci, "Joakim Krchoski" in v. Nikishtani, "Dimitar Miladinov" in Skopje, "Zivko Brajkovski" in Skopje, **"**Kiril I Metodij" in Tetovo **"**Sande Shterjovski" in Kichevo, **"**Nikola Karev" in Kochani, **"**Kiril I Metodij" in Kochani and "Josip Broz Tito" in Struga) where the field data was gathered.

Finally, the team acknowledges the valuable assistance provided by:

- Mr. Blerim Shaqiri, Ms. Jana Stanoeska and Ms, Sandra Jakasanovska – *interpreters* who were translating from (and to) Macedonian and Albanian and helped the Consultants in carrying out the interviews and class observations;
- Aguirre Division staff, especially Roger Rasnake, *Vice President* and Senior Evaluation Specialist; Edward Allan, *Senior Research Associate*

Acronyms

AED	Academy for Educational Development
BDE	Bureau for Development of Education
ESE	Employment Service Agency
ETST	Educational Technology Support Teachers
ICT	Information and Communication Technology
IU	Indiana University
M&S	Mathematics and Science
MCEC	Macedonian Civic Education Center
MoES	Ministry of Education and Science
MoU	Memorandum of Understanding
MTE	Mid-term Evaluation
PEP	Primary Education Project
SBA	school-based assessment
SI	State Inspectorate
SSTC	Student Support Technician Clubs
USAID	United States Agency for International Development
WFD	Work Force Development

Table of Contents

Executive Summary

This Mid-Term Evaluation (MTE) of USAID/Macedonia's Primary Education Project (PEP) was designed to provide USAID/Macedonia with an external assessment of the Primary Education Project (PEP**)** that can be used to increase the existing activities' effectiveness throughout the end of the project period. The MTE is expected be used for the next program planning and implementation cycle to ensure that future USAID basic education sector initiatives will be effective, efficient, and relevant to the broader contextual issues. The four main objectives for this MTE were to:

1. Evaluate progress towards meeting the overall project goals, as well as the specific objectives in each project component;
2. Evaluate progress towards a sustained impact of the project;
3. Recommend actions required in the remaining project period to ensure that stated goals are fully met; and
4. Identify if/what goals cannot be achieved and can be undertaken by the planned Basic Education Project (2011-2015).

The MTE reviewed the current conditions of the PEP components and the efficiency of the USAID/Macedonia basic education portfolio by conducting a document review that was followed by in-country interviews, focus groups, and site visits. A two-person team conducted this evaluation primarily via formal and partially structured meetings with key representatives at various levels of the system, including staff of government Ministries, educators at various levels from the school through the district to the national level, staff of implementing partners, and other relevant stakeholders. The evaluation focused on primary schools that have participated in at least two of the project component trainings and renovations. This evaluation restricted itself to the Primary Education Project. This included providing feedback the five PEP components.

Because the time available for the evaluation was limited, the key data gathering process made use of a purposive sample of ten schools, based on a principle of maximum heterogeneity according to five relevant criteria (geographical location, language of instruction, ethnic composition of the population in the region, urban versus rural location and coverage with different components of PEP). In addition to school visits and individual interviews conducted with a number of key persons, following the field research the team organized and facilitated a stakeholders' workshop with 21 participants. While this kind of sampling allows insight into variety of perspectives and experiences and we believe that our findings and recommendations are valid and generalizable, we make no claim for validity or reliability in a strict statistical sense. In addition, because of time and resource constraints, we have focused on detecting perceptions, opinions, feelings and experiences of the respondents as opposed to quantitatively measurable outputs. The findings presented represent the best possible approximation the views of the majority of the interviewed persons or observed situations.

Recommendations

1. Renovations to schools to improve efficiency

1.1 Schools should develop School Improvement Plans and systematically address all renovation needs and identify funding sources

1.2 The project should continue to engage municipalities, parents, teachers and other community members to donate time and resources to promote and renovate their schools

2. Increased access and improvements in the use of ICTs

2.1 Provide additional training to the school directors, school pedagogues/psychologists, inspectors and BDE advisors on using computers effectively in the classroom and refine the MoES integral evaluation instrument.

2.2 Computers need to be used in the classroom to support the instructional program on a regular basis

2.3 Additional software should be developed to support the curriculum in a wide range of content areas

3. Improved math and science education

3.1 Identify additional training follow-up strategies for all teachers to provide feedback on using the new interactive teaching approaches

3.2 Provide on-going professional development and encourage teacher support networks to share best practices

3.3 Improve the capabilities of school administrators and pedagogues/psychologists to support interactive teaching approaches on a regular basis.

4. Improved student assessment

4.1 Continue training on ethics, methodologies, test development, and effective use of school-based formative and summative assessment for student and teacher evaluation in all content areas

4.2 The Government's policy regarding student assessment should take into consideration the new continuous evaluation strategies introduced by PEP.

5. Increased workforce skills in students

5.1 Develop a teachers' guide on integrating career education and enterprise education into the curriculum using interactive teaching methods.

5.2 Continue to identify relevant workforce skills for students at all primary school levels and provide a connection between labor market needs and skills being developed.

5.3 Develop gender-sensitive approaches in order to encourage girls to consider careers in technology.

A number of crosscutting activities were examined including the development and dissemination of instructional and training material materials *such as A Manual For the 21s t Century Classroom.* In addition we reviewed School Support Teams, Mentoring and Coaching in Pilot Schools and PEP Standards for Workshop Facilitators.

In terms of sustainability, PEP has signed a revised Memorandum of Understanding (MoU) with the BDE and MoES in January 2009. This includes support for the technology curriculum and assistance in implementing new laws on grading and student assessment. Other sustainability issues examined included motivation and incentives for school professionals to apply the skills they gained from PEP and assuring that there is on-going professional development and training capability within the MoES following the project.

In terms of actions and activities required to assure that PEP goals are achieved at the end of the project we noted training follow-up requirements for each component. We noted that strategies for the use of computers and their deployment in the classroom need to be more clearly articulated. Refinements in the Integral Evaluated Checklist developed by the State Inspectorate are essential given PEP's contributions to quality teaching.

1. Introduction

The Mid-Term Evaluation (MTE) of USAID/Macedonia's Primary Education Project (PEP) is designed to provide USAID/Macedonia with an external assessment of the Primary Education Project (PEP) that can be used to increase the existing activities' effectiveness throughout the end of the project period. The task order began on May 1 and ended June 15, 2010. The in-country assessment activities took place between May 9 and May 21 and included an international and local consultant. The MTE is expected to be used for the next program planning and implementation cycle to ensure that future USAID basic education sector initiatives will be effective, efficient, and relevant to the broader contextual issues. The four main objectives for this MTE were to:

1. Evaluate progress towards meeting the overall project goals, as well as the specific objectives in each project component;
2. Evaluate progress towards a sustained impact of the project;
3. Recommend actions required in the remaining project period to ensure that stated goals are fully met; and
4. Identify if/what goals cannot be achieved and can be undertaken by the planned Basic Education Project (2011-2015).

The technical approach was inclusive of all relevant stakeholders: Ministry of Education and Science (MoES), Bureau for Development of Education (BDE), USAID and PEP staff, donor community, local partners, selected teachers, administrators and school Directors.

The MTE reviewed the current conditions of the PEP components and the efficiency of the USAID/Macedonia basic education portfolio by conducting a document review that was followed by in-country interviews, focus groups, and site visits. A two-person team conducted this evaluation primarily via formal and partially structured meetings with key representatives at various levels of the system, including staff of government Ministries, educators at various levels from the school through the district to the national level, staff of implementing partners, and other relevant stakeholders. The evaluation focused on primary schools that have participated in at least two of the project component trainings and/or renovations.

The consultants provided a debriefing presentation to the USAID/Macedonia staff on May 21, 2010. This included preliminary conclusions and recommendations from the completed data collection and in-country site visits. The meeting also provided an opportunity for the USAID/Macedonia staff to provide feedback on these early findings.

A close review of the proposed tasks demonstrated the need for a multi-level, multi-dimensional assessment effort, which required three levels of data collection and analysis:

- A focus on the *beneficiary level*, took the consulting team to the communities to visit schools and classrooms, to talk to teachers, students, to observe education in action, on the ground in order to determine stakeholder satisfaction.
- An evaluation of the *project activity level*, which examined interventions and impacts among each of the distinct project component areas within the education system as USAID has provided strategic support to strengthen the institutional capacity of the education system, including from what happens in the schools to innovations (and obstacles) at district and even national-level institutions and with other education partners; and
- An analysis of *sector-wide change*, as education reforms targeted at the primary levels have moved forward within the MoES and as part of a broader interchange of efforts with the donor community

and the range of education stakeholders within the nation, that will enable the assessment of the linkages between PEP program activities and future goals and planning.

The MTE Evaluation Report includes an introduction outlining the objectives of the mid- term evaluation and provides a summary of the task order. The next section includes a review of the methodology and constraints given our short time frame. A brief PEP overview in then provided. The report provides our *assessment findings* for each of the five components immediately followed by *recommendations*. *Crosscutting activities* are also noted. The report then outlines issues associated with the sustainability of PEP Project initiatives. *Actions and activities in the remaining project period* to assure that PEP goals are achieved are then noted. Finally *additional support for the education sector* following the completion of the project is outlined.

Appendices include a calendar for our consulting activities and a list of individuals interviewed. The PEP Performance Measures FY 2010 is provided. A summary of school visits are outlined. A description of our PEP Stakeholders Workshop is provided and finally lists of all documents consulted are noted.

2. Methodology

In this evaluation the consultants provided a research design that includes analysis of extant project data as well as qualitative data collection from multiple stakeholders. We provided a consultative participatory process with all key stakeholders represented and guided by the clear need for information about performance, effectiveness, and key challenges.

For Ministry staff, other governmental officials, national NGO and private sector stakeholders, the assessment concentrated on implementation challenges and successes, on capacity built, as well as on national policy, reform efforts, strategic planning, and multilateral cooperation in support of Macedonian educational priorities. For USAID implementers and partners, the team focused on the challenges and success of project activities and overall outcomes of USAID programming. Similar themes were pursued with implementers of activities funded by other donors. For students, the assessment focused on various program experiences and successes to date. For teachers and administrators, questions targeted on the relevance of training provided to local contexts, support and ongoing opportunities for professional development and project sustainability.

Team members also conducted a thorough review of extant data from implementing partners, drawing on the list of reports and materials provided by USAID/Macedonia. These materials included:

- USAID/Macedonia Extension Strategic Plan 2009/2010
- Primary Education Project Program Description
- PEP Project materials: work plans, agreement modification, quarterly reports, annual evaluations and miscellaneous reports.

Approach

The evaluation was conducted in May 2010 by a team of one international and one national consultant, assisted logistically and administratively by one national team member and interpreters.

During the first week, the two evaluators focused on developing a work plan proposal, formulating a plan for the field work (calendar of activities) and reviewing the relevant documents and reports. The project work plan tasks and the calendar of all evaluation activities are exhibited in *Appendix B.*

After completing the planning phase, the team spent ten days gathering data. Due to time constraints, there was no opportunity to conduct meaningful quantitative research. Therefore, the team decided to use a qualitative approach which featured semi-structured interviews (individual or group), focus groups and naturalistic observations. The interview protocol was developed around several major *themes* (e.g. frequency of use of a certain skill or innovative approach, satisfaction/dissatisfaction, major accomplishments/difficulties, sustainability etc.). This strategy of using broad themes instead of sets of structured questions made the most sense because such an open format enabled the evaluators to shift the focus to those areas that were most important to particular components of the project and also made it possible to make refinements to reflect the team's increased familiarity with beneficiary perspectives.

In addition to these techniques, the evaluators used open-ended questionnaires and small group discussions within a three-hour workshop organized for different project stakeholders that took place at the Jan Amos -Komenski Primary school in Skopje after the end of the field activities. The participants were asked to think over the achievements and the weaknesses in the implementation of the project activities within the components where they are engaged, as well as to fill an open-ended questionnaire on their individual opinions about important aspects of the project.

The list of the participants who took part in the workshop, along with the information of the project component on which they work is given in *Appendix B.* The same appendix also includes all other individuals that were interviewed or whose class instructions were observed for the purposes of this evaluation as well as the participants in the Stakeholders workshop.

The last evaluation phase incorporated review and discussion of the results gathered by stakeholder interviews, focus groups, meetings, class and workgroup/training workshop observations, and a triangulation of the data and generating the report on the findings and recommendations. In addition we examined the PEP Performance Measures FY 2010 provided in Appendix C.

Sampling

Taking into account the limited time-frame, it was decided that the selected schools should cover widest possible range of variables that might influence the implementation and success of the various project activities. Therefore, it was decided that the most suitable method would be a purposive selection of schools. The choice of schools was organized taking into consideration the following criteria:

- Geographical location: four schools from the capital and its surrounding - Skopje, two schools from the eastern part of the country – Kochani, and two from the western part of the country – Tetovo and Kichevo;
- Language of instruction: three of the schools have both Albanian and Macedonian as languages of instruction;
- Ethnic composition of the population in the region: two schools are located in a city where ethnic Albanians are majority of population, one is located at ethnically mixed settlement in Skopje and one in an ethnically mixed village;
- Urban versus rural location: two schools are located in the rural area near Skopje.
- Coverage with different components of PEP (e.g., renovation, workforce development, improving the instructions in math and science, etc.)

During the school visits, the focus of interest was directed to a specific component, but at the same time, the other components were evaluated as well. The list of visited schools, the main components that were explored and the techniques that were used can be seen in *Appendix D*.

In no case did any of the selected schools object to the evaluation visit. On the contrary, the school employees were without exception proud to show the accomplishments achieved within the project. The team was able to interview all the officials it wanted to interview except for a very few who could not respond due to their overloaded working agendas.

A stakeholders' workshop was organized and facilitated by the consultants on May 20, 2010. Thirty-five individuals were invited and 21 attended. The program is provided in Appendix E. The consulting team also examined a wide range of documents, training materials and manuals developed by PEP. This is noted in Appendix F.

While the sampling was systematic, given the needs of the Mission and the resource constraints on the assignment, the sampling was not representative, but purposive, based on a principle of maximum heterogeneity. This approach allows insight into variety of perspectives and experiences, but does not necessarily reflect the whole situation as it is. While we believe that our findings are accurate and reflective of the project's performance, we do not make claims as to validity or reliability in a strict statistical sense. Also, given the data collection techniques, we have focused on detecting perceptions, opinions, feelings and experiences of the respondents as opposed to quantitatively measurable outputs. Therefore, the findings presented represent the best possible approximation the views of the majority of the interviewed persons or observed situations.

3. PEP Project Overview

The Primary Education Project (PEP) is a USAID-funded project, working under *S.O. 3.4. Mitigate adverse social impact of the transition to market-based democracies*. PEP is implemented by the Academy for Educational Development (AED) under a cooperative agreement in partnership with Indiana University (IU), the Macedonian Civic Education Center (MCEC), and other local NGOs and private companies. PEP is a five-year project designed to contribute to the improvement of the primary education in all public primary schools in Macedonia.

PEP's main objectives are to:

- improve teaching and learning to enable students to acquire critical thinking skills;
- increase access to and use of modern computer and Internet technologies to help students succeed in the job market;
- help schools improve their learning environments by renovating their buildings to stimulate learning and creativity;
- work with educators and the Ministry of Education and Science (MoES) to develop quality digital learning materials to enable active inquiry-based learning;
- revitalize math and science education by improving curricula and teaching methods; and
- Improve school-based assessment to stimulate and reinforce quality learning.

PEP includes the following five components:

1. Renovate selected schools
2. Increase access to and improve use of ICTs
3. Improve math and science education (managed by Indiana University)
4. Improve student assessment (managed by the Macedonian Civic Education Center)
5. Increase workforce skills in students.

4. Assessment Findings and Component Recommendations

1. Renovations to schools to improve efficiency

PEP's renovation component aims to improve the learning environment, by: renovating classrooms; improving physical conditions (safety, warmth, insulation); providing educational equipment for the renovated classrooms and organizing professional development activities for the teachers. These activities are part of PEP because improvement of the quality of education by modernizing teaching and learning is reliant on a comfortable and stimulating physical environment.

PEP has committed to improve 100 schools by partnering with them and the local community, including the parents. Communities play an important role in school maintenance and security. Working with school directors and school boards, the Project holds school-hall meetings to gain the support and involvement of communities and local businesses.

Renovation includes the use of modern, energy-efficient building materials that will offer cost-effective solutions for the schools in the future.

Five schools piloted the use of "green" technologies, attitudes and approaches. They now serve as models for environmental projects involving students.

Findings

This component is perceived to be very successful for several reasons:

- Indications are that schools got value for the money spent, which included substantial cost-share with the project.
- Indications are that schools are now in a better position to plan their infrastructure needs.
  - the outcomes are easily and quickly visible
  - the infrastructure of most of the schools in the country is a burning issue and one that both teachers and principals frequently discuss and perceive as being the biggest problems for efficient learning
  - Scientific measurements made by engineers in the field show that there are savings in energy as a result of the interventions (the temperature has increased for about 4°C).
  - the school and the local government are actively engaged in the process, not just mere receivers of the service
  - Warm and comfortable classrooms are more appealing to children – they are willing to spend more time at school.
  - There is an overall change of attitude towards the school and education in general, which is crucial for creating educated generations.
  - School directors feel that they are "not left by themselves" in struggling for resources for school renovations

All beneficiaries agree that the renovations contributed to warmer surroundings and in some cases, to safer school environment. The partners of this project, included in carrying out the renovations, stressed that another consequence of this component is that mentality change among the teaching staff and the local community and now they do not only "sit and wait" for help, but are actively engaged in finding solutions for improving the infrastructure of their schools. One of the participants in the workshop illustrates these with the following statement:

"[The renovation component is successful] because the students and the teachers acquired better working conditions, because their perception of their own school will be changed, and finally, they will make efforts to keep and maintain these newly acquired conditions, for teachers will teach students that it is not enough just to say "thank you," but to be engaged in practice as well."

1. All stakeholders interviewed agreed that the renovations contributed to greater energy efficiency and comfort.

2. Stakeholders suggested that additional infrastructure interventions are needed to support a better learning atmosphere

3. School Directors indicated that coordination among donors is essential to maximize infrastructure benefits.

Recommendations

1.1 Schools should develop School Improvement Plans and systematically address all renovation needs and identify funding sources

1.2 The project should continue to engage municipalities, parents, teachers and other community members to donate time and resources to promote and renovate their schools

2. Increased access and improvements in the use of ICTs

The activities in this component are intended to support the Government's efforts to develop an ICT-based society by involving primary school students in ICT supported learning activities. Activities included: provision/testing of various ICT equipment to the schools; involvement of the teachers and school administration in professional development activities; and with the provision of continuous support and guidance.

For 2009, PEP planned to provide training for all primary school teachers for the use of Edubuntu applications, as support to the Government's initiative "Computer for every child". It was also planned to train Educational Technology Support Teachers **(**ETST**),** as in-school support for the teachers. However, since the "Computer for every child" computers were not deployed in the primary schools during the 2008/09 school year, these mass training activities could not be implemented.

This component is perceived to be partially successful for several reasons:

- ICT is used most frequently in lower grades (shortage of functional computers);
  - Student technical support teams are formed and function well in all of the schools that were visited.
  - PEP adjusted to the needs of teachers and it is introducing Linux in the training program
- At higher grades, computers are rarely used for teaching classes other than *Informatics*, although there are schools where teachers claim computers are being used on a daily basis. This does not match with the statements that we heard from majority of students in the focus groups.

  In the minds of many teachers however, it is a great step forward, regardless of minor setbacks (lack of computers). One teacher says: "*This component contributes to creating essential changes in education and in the mindset of teachers. More precisely, the establishment of ICT in schools is something that was necessary for the schools and something without each school in future could not function.*"

- The educational software is compatible with the curriculum and some teachers are very satisfied with it. However, others complained that the software is ill translated or that it is not prepared for every subject. On the top of that, while a portion of the software using EDUBUNTU is satisfactory, several workshop participants asserted that other parts are not tied to the curriculum.

Challenges:

- Few teachers have been trained to work with EDUBUNTU. The trainings are due for June.
- Another source of problems connected with this component is that both directors and teachers fear of the potential hardware damages of the computers. It is not very clear for the time being how to get technical and financial support for this.
- Some teachers feel anxious because more and more students are very skillful in computers
- All higher-classes students interviewed are very excited to use computers for subjects other than Informatics, but they claim that teachers do not use computers for instructions, with several exceptions when they were shown PowerPoint presentations. Also, teachers frequently suggest that students use the Internet as a source for getting information for homework projects.
- Student technical support teams are formed in the schools with greater number of computers with Windows-based platforms. The increasing number of schools with Linux-based computers necessitates the forming of such teams in such schools

Findings

2.1 Teachers primarily use computers for preparation of their classes and, from our observation, for presentation purposes as well.

2.2 The training is not synchronized with the distribution and the installation of the computers in the classrooms. We were told that PEP's ICT training was postponed multiple times due to Government delays in the deployment process and that training was to have been synchronized accordingly. Further, in some schools, we saw computers locked in storage. These factors are outside of PEP's direct control. However, it is hard for teachers to apply what they have learned without effective access to the computers.

2.3 The computers are not available for students in the higher grades except for outdated machines that are in the computer labs

2.4 Instructional software is not available for some of the content areas

2.5 There are few examples of effective use of computers to improve the learning throughout the curriculum

2.6 Teachers and school directors indicate that ongoing technical support is required to assure that computers function effectively

2.7 Follow-up assistance is required to help teachers use computers as part of their instructional program

2.8 Some principals fear that once the computers are installed they will have difficulties in maintaining them and keeping them safe.

Recommendations

2.1 Provide additional training to the school directors, school pedagogues/psychologists, inspectors and BDE advisors on using computers effectively in the classroom and refine the State Inspectorate (SI) integral evaluation instrument.

2.2 Computers need to be used in the classroom to support the instructional program on a regular basis

2.3 Additional software should be developed to support the curriculum in a wide range of content areas.

3. Improved math and science education

The need to start up the mathematics and science component (M&S) within the Primary Education Project is actually a need for bringing mathematics and science content closer to the students by introducing active teaching and learning methods that place the student in the center of the learning process. This aspect is presently insufficiently implemented in the math and science classes and curricula. Students need to work on real-life scenarios and problem solving activities in order to develop their critical thinking skills and to be able to apply what they have learned in class in new situations. Also, the equipment for these subjects in the schools is not sufficient for implementing the needed practical activities and for modernization of the teaching and learning in natural sciences.

Hence, PEP has contributed towards enhancing the teaching and learning in the mathematics and science subjects through providing recommendations to the BDE for improvement of the mathematics and science curricula for upper grades; through a number of professional development activities and support for the teachers and school administration; development of printed, digital and hands-on instructional resources; as well as through establishing school-based and regional learning teams to support the teachers' professional development.

This component is perceived to be very successful and the following reasons were identified:

- Handbooks (guidebooks) in each individual subject and training provided by PEP are very useful from the perspective of teachers. As one of the teachers said, this component contributed towards: "*moving the traditional way of teaching and it succeeded to raise the educational process on a* higher level."
- Video material of the practical work in classes are also useful, but not in all circumstances
- Students can identify whether their teachers use the innovative approach or not and they find learning easier and more interesting when the new approach is used.

  One of the participants in the workshop says that this component is very successful simply because*:* *… "some activities that were introduced before PEP would have been forgotten if there was no PEP, because it provided a new perspective to learning – namely through projects and research process, it developed the essence of that kind of learning. It prepared a lot of practical materials for teachers, and, most importantly, it is a first project that has focused on the subjects from the natural sciences."*

  The Minister of the MoES expressed a very strong opinion on this component, saying that it is indispensable for all teachers to be trained in using innovative teaching methods, pointing the model used by PEP as being a very good one. On the same line of reasoning, the Director of the State Inspectorate said that their recent study on a number of sample schools has shown that not many

teachers use active approaches and that further training and monitoring on that is very much needed. He welcomed the efforts made within this project.

Challenges:

- The level of implementation of the new teaching methods is conditioned by working conditions in schools. The arrangement of the computers in the classroom is found essential. In schools where the computers are installed, the teachers are struggling with insufficient space – computers dominate the classroom leaving little space for interactive teaching. A teacher noted: "*The fact that the students' desks will be predominantly occupied by computers will not leave the necessary space for practical activities and will heavily obstruct the group work and movement around the classroom. This setting will support the frontal teaching more, instead of the active teaching methods that engage the students*. "

- The process and the extent of this implementation depend on the individual effort and motivation of the teacher. In absence of mechanisms for promoting and valuing professional development, the implementation of this component is at risk.

- Many teachers think that they need additional resources (paper, equipment etc) in order to implement what they have learned during PEP trainings on a more frequent basis. It might be an excuse, but also there is a likelihood that schools cannot manage to provide even small things like paper, folders, toner etc. For instance, the Math teacher that we observed in one of the schools delivered a superb lecture, using several innovative approaches, but at the end he said that everything that was used (models, small cards for separating students in small groups, handouts, etc.) was at his own expense.

Findings

3.1 Math and science teachers are mostly satisfied with the training and the teaching materials provided by PEP.

3.2 There seems to be a challenge in using space effectively for interactive teaching and computer assisted instruction.

3.3 Teachers are having difficulties using active learning methods and implementing them in their classroom on an on-going basis given curriculum constraints.

3.4 Teachers have demonstrated the use of hands on instructional recourses

3.5 Math and science learning teams are being established so that teachers can share best practices and support each other in their professional development. However, while teachers we met in Kichevo (where we observed a meeting of a regional team) and Kochani (where teachers claim that they have excellent in-school cooperation) do find them very useful, we also heard that some teachers have restricted themselves to a sporadic exchange of experiences or teaching materials. Also, where teachers outside of cities may have to spend significant amounts of time getting to regional team meetings, it is likely to be challenging to keep them going. This includes career opportunities in these fields.

3.6 The majority of students welcomed the introduced changes in the way that the content is delivered, but some of them express concern that it gets difficult adjusting to the different teaching approaches used by different teachers.

3.7 One of the concerns raised by teachers is that the new teaching approaches need financial support (for paper, toner, etc.) in order to be sustained.

3.8 Many teachers interviewed are convinced that the training is useful and assists them in performing more effectively in the classroom.

Recommendations

3.1 Identify additional training follow-up strategies for all teachers to provide feedback on using the new interactive teaching approaches

3.2 Provide on-going professional development and encourage teacher support networks to share best practices

3.3 Improve the capabilities of school administrators and pedagogues/psychologists to support interactive teaching approaches on a regular basis.

4. Improved student assessment

This component is focused on improving school-based assessment by equipping all subject teachers from Macedonian primary schools with knowledge, skills and instruments for the use of formative assessment and to implement summative assessment that is objective and fair. The first three years of the project were dedicated to formative assessment. Concretely, this means that the teachers are being taught how to provide the student with useful feedback on her/his achievements registered through various forms of student activities (discussion, presentation, portfolio, projects, essays, etc.), thus informing the student what and how to learn better. Also, they will invite students to take active role in the school-based assessment by evaluating their own work (self-assessment) and their peers' work (peer assessment). In this way, teaching and learning outcomes were strengthened and student stress level as to their achievement was reduced.

PEP has committed to improving school-based assessment by undertaking a number of activities that will provide teachers and school administrators with structured information and skills for performing school-based assessment. Firstly, PEP engaged international and local experts to learn and draw from other countries positive experience and develop national standards for school-based assessment (SBA) and a Code of Ethics. Then, PEP provided professional development activities and continuous support for the teachers and school administration regarding the implementation of the NSSBA; developed creative and attractive promotional materials for the schools and the parents; organized events for promotion of the new way of student assessment; etc.

This component is perceived as being successful for several reasons:

- For an extended period of time, education in Macedonia has suffered from an inadequate system of school achievement assessment. First of all, it was focused exclusively on summative assessment activities, and secondly, teachers were pressed to follow the expectations of the parents, students and sometimes even principals, to grade up to 80% or 100% of students only with highest grades. Therefore, the assessment neither served the purpose of giving feedback, nor gave even closely

realistic information of the achievements of students (which was confirmed in the latest international comparison, especially in the area of math). This shortcoming of the educational system along with the positive role of PEP in overcoming these assessment shortcomings was stressed both by the Minister of Education and Science and the Director of the State Inspectorate.
- An ethical code for school assessment was produced and teachers, students and parents are familiar with it, which makes objective assessment somewhat easier. The code of ethics is publicly displayed in schools.
- All school teachers have gone through formative assessment training by now.
- Teachers are trained to produce better test items (this training is barely present during their pre-service training) and are trained that there are levels of knowledge that go beyond memorizing facts (Bloom's taxonomy), which for decades was the only requirement from students in the primary and secondary education in the country.
- Teachers are familiarized with the advantages of formative assessment and are taught how to create a portfolio.
- Students are engaged in peer-assessment and now they perceive that their opinion matters and that the grades are fairer.
- Time devoted to progress checks is reduced due to formal assessment processes.
- Materials distributed to teachers on how to use formative assessment prove to be a great help to them.

One statement from the workshop participants illustrates the perception of the success of this component: *"Teachers now understand the need for changes in the students' assessment and they are aware that they have to follow their achievements and that acquiring skills is also important. On the other hand, it helps students to build their responsibility and self-esteem in the process of learning."*

Challenges:

- Teachers think that the policy of external assessment counterpoises the policy of formative assessment, because they are afraid that the format of the external assessment does not match the style of learning proposed by the formative assessment approach. Therefore, teachers and students claim that summative assessment activities prevail, instead of the formative ones;
- Due to the cascade method of training, trainings on formative assessment vary in quality;
- Some teachers complain that they need more support from the BDE advisors in getting feedback as to whether they are on the right track with the portfolios.

Findings

4.1 All teachers valued formative assessment and indicate that it is included in their teaching on an on-going basis.

4.2 Teachers need more consistent support from the BDE advisors, especially from those who are subject area specialists.

4.3 The conflict between the way the external evaluation was envisaged and the formative assessment made the majority of teachers reluctant in using the new approach.

4.4 Students think that the feedback that they are getting from the formative assessment is useful for them.

4.5 In some schools, we saw well-developed teacher portfolios.

Recommendations

4.1 Expand materials and training on ethics, methodologies, test development, and effective use of school-based formative and summative assessment for student and teacher evaluation.

4.2 The Government's policy regarding student assessment should take into consideration the new continuous evaluation strategies introduced by PEP.

5. Increased Workforce Skills in Students

This component focuses on increasing workforce skills (e.g., ability to use technology, communication, technology, initiative, teamwork, etc) in students and helping them meet the demands of the job market and contribute to society. Based on the revised MoU signed with the MoES in January 2009, the proposed areas for intervention are: Technical Education, Entrepreneurial/Employability Education and Career Education.

This is the newest component, so it is hard to conclude much. However, the teachers and workshop participants interviewed generally agree that **it is a successful one** because:

- The nine selected schools were equipped with very attractive working tools (robots, robotic arms, programmer kits; however, in some cases the schools did not have the computers with which they can program the robots, etc.) and also the classrooms for the *Technical education* were renewed.
- Teachers now stress the applicability of the things that students learn at school. However, based on responses at the workshop, there are only some curriculum topics (primarily in biology, chemistry, and physics) where they are able to point to the direct applicability of curriculum content to workforce development. This includes career opportunities in these content areas.
- Teachers think that they have always tried, whenever possible, to enable students develop certain skills.
- Students enjoy and are very involved in these technical education classes where PEP equipment is used.
- The Workforce Development team collaborates with the BDE to integrate employability skills into classroom instruction

Challenges:

- The new plan for primary education decreased the overall number of classes for *Technical education* and places this class as an optional one for higher grades;
- Technical education teachers expressed a need of an operating system based on Windows, not Linux;
- One cannot fit the entire material in the timeframe of one class. The curriculum has to be well thought through in order to efficiently implement these contexts into the program for individual subjects.

Findings

5.1 Curriculum changes have resulted in the reduction of time spent on technical education

5.2 It is unclear to teachers where they are to integrate career and enterprise education into the overall curriculum

5.3 Teachers in technical education need additional instructional materials and supplies

Recommendations

5.1 Develop a teachers' guide on integrating career education and enterprise education into the curriculum using interactive teaching methods and assure that career development in all appropriate areas include content on vocational and professional opportunities.

5.2 Continue to identify relevant workforce skills for students at all primary school levels and provide a connection between labor market needs and skills being developed.

5.3 Develop gender-sensitive approaches in order to encourage girls to consider careers in technology.

6. Cross-Cutting Activities

Manual for the 21st Century Classroom

In collaboration with BDE advisors, PEP is in the process of introducing this project designed manual for professional on-going development activities. One member from each of the 365 schools is expected to learn how to use this resource. These materials should contribute to providing support for additional in-service training.

PEP Teacher Certification Process

The purpose of the teacher certification process is to provide recognition that teachers are implementing the new skills and knowledge gained from PEP workshops within their schools. As noted in the most recent PEP Work Plan, pedagogues and psychologists are being trained how to implement the certification procedure in their schools. Teachers respect this process but indicate that time constraints make it difficult for them to develop portfolios in a number of components. Recognition by the MoES is also considered important.

School Support Teams

Teams are being trained to assist teachers in preparing their professional development activities and improving the quality of teaching and learning in the schools. Guidance materials are in the process of being developed. This could contribute to assuring that theory and practice are merged.

Mentoring and Coaching in Pilot Schools

An on-going mentoring program is being planned and will include activities for providing continuous improvement for the implementation of new teaching methods, integrating ICT and using formative assessment. The focus of the program will include advising on teaching strategies, joint lesson planning, observing instruction in the classroom, demonstration lessons, and curriculum planning and leading study groups.

Workshops on PEP Standards for Learning Facilitators

All learning facilitators involved in PEP professional development activities become familiar with PEP professional development standards. This has provided PEP with certification standards for all learning facilitators and could provide the MoES with a cadre of trainers for other in-service activities.

5. Sustainability of PEP Project Initiatives

In terms of sustainability, PEP has signed a revised Memorandum of Understanding (MoU) with the BDE and MoES in January 2009. This includes support for the technology curriculum and assistance in implementing new laws on grading and student assessment. It is expected that Educational Technology Support Teachers (ETST) and Student Support Technician Clubs (SSTC) will be institutionalized throughout the education system.

PEP is working to support the government's decentralization process through direct involvement of the municipalities in renovation projects and workforce development initiatives as well as working to identify computer maintenance solutions for the schools.

A final evaluation conference is being organized this year to document achievement and integrate all PEP materials and systems developed to the MoES. A local chief of party has been identified and mentored and will replace the international chief of party in September for the final year of the project. The following are critical sustainability issues and require greater elaboration.

1. Motivation and Incentives

It is not sufficient just to provide in-service training and professional development to teachers. It is also necessary to ensure that participants are given sufficient incentives to avail themselves of the wide range of activities provided. Most educators are indeed aware of the fact that they need additional training. However, they must perceive the training to be relevant in terms of improving job satisfaction as well as dealing with career goals. The PEP portfolio system has been an excellent strategy to provide meaningful recognition and documentation of skills gained in many of the components but must also be recognized and valued by the MoES.

.

Incentives identified as a result given our discussions with participants include:

*RELEASE TIME***:** Opportunities for professionals to have a specified number of working days off each year to participate in workshops, course etc., is an indication that the MoES values such training.

NETWORKING AND IN-COUNTRY TRAVEL: Teachers often feel isolated and are unaware of important developments even in their immediate districts There is a need to share accomplishments and challenges and examine how other professionals have dealt with similar problems. In addition the opportunity to exchange resources is often welcomed. The MoES should continue to encourage such exchanges and provide appropriate logistical support. The opportunity to attend regional courses at In-service Training events is already an important in-service contribution. Having one's accomplishments acknowledged by the teaching profession during study tours and forums could also be an important incentive. PEP has initiated a number of effective networking initiatives including school support teams.

TRAINING AS A PREREQUISITE FOR PROMOTION: Another inducement is to make in-service training conditional on the successful completion of appropriate training activities. This could be part of the criteria for the selection of inspectors, BDE professionals, deputy school directors, and school directors.

NEW ROLES AND RESPONSIBILITIES: Training could result in new roles and responsibilities for teachers, school directors, and inspectors. Upon completing their in-service programs, individuals could have overall responsibilities for such tasks as staff appraisal, materials development, clinical supervision, mentoring and orientation programs for teachers as well as provide overall leadership for staff development in their schools. They could contribute to national dissemination activities in various curriculum areas as well as be selected as itinerant resource teachers. Many teachers and school directors themselves could be selected as part of the MoES in-service training talent pool and be used as instructors for appropriate workshops and courses. They could be compensated financially and/or given release time as well as recognition for their achievements.

HIGH QUALITY INSTRUCTION AND INTERACTIVE LEARNING: Learning that is enjoyable and relevant and based on adult learning methodology is most desirable. Assignments could be tailored to each participant's interests and working situation. Each course would allow for critical thinking, problem solving and reflection. Case studies, demonstrations, role playing, brainstorming, simulations and self-analysis exercises could be factored into many in-service activities. Participants would receive relevant materials to be used back on the job. Given the participant's high level of satisfaction, it is clear that PEP has addressed these issues and developed exceptionally high quality training materials to support training and professional development.

CERTIFICATES: The MoES could work with appropriate agencies to determine the viability of certificates following certain training programs that would be recognized by the MoES for the purpose of salary increments and/or new positions. These activities would involve a substantial time commitment on the part of the participant, be highly structured and document knowledge and skill acquisition. PEP's portfolio system could be an excellent model for all training providers in Macedonia.

2. Ongoing Professional Development

The importance of making training and professional development responsive to the needs of teachers, school directors and other educators in Macedonia requires consideration of participant competencies, school environments, and student populations. The initial challenge is to develop procedures whereby professional growth could be personalized, allowing individuals to define their own needs, to begin at their own level of sophistication and progress at their own rate whenever possible.

The purpose of training for the MoES is to assist educators to develop new perspectives, skills and insights. Instructional programs in the schools are expected to be strengthened resulting in greater student achievement. In-service training is considered an effective means to enhance the overall performance and job satisfaction of school personnel and educators by providing them with relevant knowledge, skills and attitudes.

In summary, the overall purpose of the PEP Training and Professional Development component of the project components is to:

1. Improve the effectiveness of individual teachers, school directors and related BDE staff.
2. Strengthen the overall effectiveness of the schools in delivering quality instruction resulting in improved student achievement
3. Assist in the implementation of innovations and new materials valued by the MoES.
4. Improve the management capabilities of school directors and management staff both at headquarters and in the municipalities.

The BDE should continue to perform a wide range of administrative and professional functions which relate to needs assessment activities, program planning, program delivery, monitoring training, evaluation and record keeping.

These tasks include:

1. Devising an overall MOE in-service training management structure to plan, implement, monitor and evaluate training programs.
2. Coordinating training activities planned by all in-service institutes.
3. Devising a detailed schedule/calendar for all in-service training activities or a yearly basis for MOE initiated training.
4. Developing and acquiring appropriate training resources.
5. Developing training of trainers and Master Teacher programs.
6. Formulating specific objectives, content, learning activities, materials and evaluation procedures.
7. Determining the best delivery approaches for In-service.
8. Developing projects with cooperating organizations.
9. Coordinating logistical and professional support for all MoES-initiated training.
10. Evaluating the impact of in-service programs and providing evaluation results to activity organizers.
11. Issuing appropriate certificates.
12. Documenting all aspects of in-service training and professional development.
13. Providing the financial resources for in-service training and preparing budgets.
14. Strengthening regional mechanisms to do all of the above.

Key issues associated with delivering high quality relevant, applicable training and professional development to a large number of participants should be identified and discussed at all levels in the education sector. They include:

1. Determining how people who are employed full-time can gain most effectively from their training.
2. Developing strategies for strengthening existing training programs throughout Macedonia and supporting other institutions to develop and deliver quality in-service education and professional development.
3. Determining alternative ways of delivering training services.
4. Increasing the pool of training talent within the MoES.
5. Providing access to training for more teachers regardless of whether they live in urban or rural areas, or whether they have had previous training or specific credentials.
6. Identifying real problems and differentiating needs from wants.
7. Exploring low cost and relevant approaches for human resource development.
8. Obtaining reliable information on what works, for whom and under what circumstances.
9. Strengthening the coordination, initiation, implementation, monitoring, and evaluation of all in-service training.
10. Identifying training methodology which is interactive, relevant and applicable back in the schools.
11. Providing appropriate follow-up and documenting impact.
12. Strengthening the municipalities and the schools capacity in initiating in-service training for school personnel.

6. Actions and Activities in the Remaining Project Period to Assure that PEP Goals are Achieved

1. Memorandum of Understanding (MoU) with the Ministry of Education and Science (MoES)

This document should include the transition process in 2011 and determine who will take responsibly for what. The capacity of the MoES should be strengthened as result of PEP especially in the area of Professional development and Teacher In-service Education. Issues on who will receive the project data bases, training materials and evaluation instruments need to be articulated. The role of the BDE in terms of follow-up needs to be clarified. The status of the working group needs to be determined.

2. Training follow- up for each component

PEP is continuing to assist the BDE in developing a school-based professional development system by working with BDE advisors in implementing regional and in-school support systems. In addition case studies are being developed to study effective school management practices. These can be disseminated to other schools, which can use them as a model for change and development. PEP is collecting evidence of school best practices. This will be used to encourage peer-collaboration through an on-line forum. It is also important to make the project toolbox accessible and sustainable. This will assure the collecting and sharing of instructional materials and subject specific manuals. It is essential to assure that the BDE will take over the Toolbox website. School and regional teacher networks need to strengthened and meet on an ongoing basis especially in the areas of mass and science.

3. Develop a strategy for the use of computers in the classroom and the deployment of computers

Strategies of integrating computers into the instructional program on an on-going basis especially in the area of math and science needs to refined and training provided to teachers. Additional software is essential. Using the computer to identify innovative instructional materials should also be continued.

4. Complete high quality training for all components given the cascade model with appropriate follow-up.

Quality control issues should be identified given the first phase of training and training programs modified given input from trainers and participants. The role of the BDE in terms of follow-up needs to be clarified given their time constraints and responsibilities of the advisors in areas other than professional development.

5. Adjust the integral evaluation checklist to include as many objectives of PEP as possible.

USAID's Human and Institutional Development Program, implemented by World Learning, has provided training for the State Inspectors on Informal evaluation. It has also developed a job profile for the inspectors. The inspectors were provided with instruments for evaluating teachers. We could identify five criteria for effective teaching that relate PEP components and in-service training initiatives in that document. PEP should assure that this checklist measures their concepts of interactive teaching and the effective use of technology in the classroom. The project should assure that have provided appropriate input to the development of this instrument.

7. Additional Support to the Education Sector Following the Completion of the Project

Improved quality instruction should remain the focus for supporting the next phase of assistance to the education sector, given PEP's accomplishments. This will continue to ensure that students "acquire relevant knowledge and skills through improved pedagogy, strengthened quality of teaching, beneficial learning environments and sound educational management." The strategy builds on USAID/Macedonia's success in professional development to expand and support innovative, student-centered methodologies at a national level. Quality instructional materials and classroom renovations have supported effective instruction in addition to producing positive government and community engagement in education.

As part of its education assistance strategy, USAID could expand materials and training on ethics, methodologies, test development, and effective use of school-based formative and summative assessment for student and teacher evaluation.

Improving Management and Instructional Leadership Capabilities of School Administrators.

USAID could support the improvement of the management capabilities of school administrators because effective management ensures quality control, promotes efficient use of resources, includes essential planning approaches, and fosters productive community involvement. The School Director must be seen as the key change agent in the school. Significant results have been realized from which to build on, including comprehensive training for school board members, implementation of a school director certification program, and programs for the State Education Inspectorate and Bureau for the Development of Education. The role of the School Director as the School Improvement Specialist and the person who provides instructional leadership is essential to support PEP's contributions. Support for an innovative leadership program requiring the School Director to develop a school improvement plan and a strategy for implementation could have significant impact on the education system. Training and professional development for Inspectors and BDE Advisors would assure that they would reinforce what was gained from PEP.

Strengthening Professional Development Capacity

This could include provide technical assistance to the MoES to establish an integrated professional development infrastructure. This could include:

- Assessing the effectiveness and efficiency of the current delivery of teacher in-service programs,
- Identifying key areas for institutional strengthening and capacity building for teacher in-service training and professional development,
- Developing specific recommendations to redesign the delivery of teacher in-service training,
- Building the capacity for trainers in teacher training colleges and within the BDE to promote and support student-centered teaching methods and other methods of contemporary teaching,
- Developing an improved system of needs assessment for in-service teacher training and use the system to conduct a needs assessment for teacher trainers and teachers that participated in PEP training,
- Identifying prospective areas for short-term in-service training programs, develop a training schedule for the programs and improve the descriptions for the programs,
- Identifying/verifying criteria to select local trainers, conduct a needs assessment of local trainers and prepare a training programs based on the needs assessment,

- Training the BDE Advisors as an instructional improvement specialist and provide them skills in clinical supervision.

Providing More Effective Support for Children and Youth with Special Needs

The next phase of assistance to the education sector should also address the needs of students with disabilities. PEP has had limited involvement in this area. USAID/Macedonia could support training of teachers and teacher trainers on methods to integrate students into the learning process through the use of innovative information technologies and mainstreaming approaches. Teachers could be provided training in diagnostic/prescriptive teaching. Strategies for inclusive teaching could be provided as an on-going part of professional development.

Further Focusing on Gender Sensitivity

PEP is committed to a gender sensitive approach in carrying out the project activities, which is especially important for two components of the project – M&S and WFD. USAID/Macedonia could support further training of teachers in developing and improving gender-sensitive teaching, encouraging girls to consider gender non-stereotypical careers and creating a gender-sensitive school atmosphere.

Funding for Instructional Materials That Support Interactive Teaching and Workforce Development

Educators throughout Macedonia have indicated a need for relevant instructional materials and equipment materials which support the PEP methods and approaches for interactive teaching, problem solving and critical thinking. Disseminating the materials developed by PEP to a wider audience should also have a multiplier effect.

Infrastructure Development for Science Labs

The Minister of Education noted that this was a priority given the recent PEP developments in strengthening science education. This is an infrastructure and renovation need as well as an important approach to interactive teaching, critical thinking g and problem solving. He has already completed a comprehensive needs assessment in this area.

Expanded Workforce Skills for Youth

A workforce project, planned entrepreneurship program, will establish Career Services Networks with schools, universities, the private sector and the Ministry of Labor and Social Policy's regional offices of the Employment Service Agency (ESA). These networks will establish the vital connection between labor market needs and skills being developed through the educational system, and they will cater to both ethnic Macedonians and minorities. Materials developed for the schools this year by PEP could be highly relevant and the technology training initiatives could benefit from additional support.

APPENDICES

APPENDIX B. Calendar of Events

May 2010

School Visits and Meetings

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	10	11	12	13	14	15
13:00 – 17:00 Lunch meeting with Nikolina (Local consultant) **17:00 – 19:00** Dinner meeting with Alex Woods and Lela Jakovslevska Joshevska for project overview	**09:00 -12:00** PEP Orientation Presentation: COP Keith Prenton **12:00 – 14:00** USAID Meeting with Director Michael Fritz and senior education expert Lela Jakovlevska Joshevska at US Embassy **14:30 – 17:00** Planning meeting with PEP Component Coordinators and Evaluation specialist	**11:00 – 12:00** Meeting with Gorge Arsovski Head of The Sate Education Inspectorate (SEI) **14:00 – 15:00** Meeting with Mitko Cheshlarov, Head of Sector in BDE; Ajshe Ajrullai, BDE Advisor and Goce Sopkoski, BDE Advisor.	**10:30 – 13:00** School visits in Skopje: ***"Draga Stojanovska" - Sopishte Municipality, v. Rakotinci*** Interviews with *Director, Teachers and Pedagogues.* Nebojsa Mojsoski/ focus: *School Renovations* **13:30 – 14:30** School visits in Skopje: ***"Joakim Krchoski" - v. Nikishtani*** Interviews with *Director, Teachers and Pedagogues.* Nebojsa Mojsoski/ focus: *School Renovations* **15:00 – 17:00** Refine and submit Work plan to USAID	**08:30 – 12:00** School visits in Skopje: ***"Dimitar Miladinov" – Center, SKOPJE*** (Second Shift) Interviews with *Director, Teachers and Pedagogues.* *Olga Samardzich Jankova / ICT* **12:30 – 13:30** Meeting with Maja J. Cvetanoska, PEP`s M&E Specialist **14:00 – 17:00** School visits in Skopje: ***"Zivko Brajkovski" – Butel, SKOPJE*** Interviews with *Director, Teachers and Pedagogues.* focus:*Gorica Mickovska / Assessments*	**09:00 – 11:30** School visits in Tetovo: ***"Kiril and Metodij" – Municipality Tetovo*** Interviews with *Director, Teachers and Pedagogues.* *Anica Aleksova /Math and Science* **12:30 – 14:30** School visits in Kicevo: **"Sande Shterjovski" – Municipality Kichevo** Interviews with *Director, Teachers and Pedagogues.* *Anica Aleksova /Math and Science* **15:00 – 17: 00** Observing the Activities of a Science Teachers Network and Interviews *Anica Aleksova* focus:*/Math and Science*	**09:00 – 12:00** Visiting Workshop ***Improving Math and Science Education (grades 1-3)*** Visiting Math and Science Workshops in School Josip Broz Tito in Struga. Interviews with participants. *Anica Aleksova* focus:*/Math and Science*

May 2010

School Visits and Meetings

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
16	17	18	19	20	21	22
16:00 - Return to Skopje	**10:30 – 13:00** School visits in Kochani: ***"Nikola Karev" – Municipality Kochani.*** Interviews with *Director, Teachers and Pedagogues.* *Gorgi Kushevski /* focus:*Workforce Development* **13:30 – 17:00** School visits in Kochani: ***"Kiril I Metodij" – Municipality Kochani.*** Interviews with *Director, Teachers and Pedagogues.* *Gorgi Kushevski /* focus:*Workforce Development*	**11:00 – 12:00** Meeting with Nikola Todorov, Minister of Education and Science and Jovan Grposki, Chief of Cabinet in Ministry of Education and Science. **14:00 – 15:00** Meeting with Virna Manasieva *PEP Training and Event Manager* **15:00 – 17:00** Meeting with Vera Kondik Mitkovska *Senior Program Manager* at World Learning for International Development.	**09:00 – 14:00** Preparing for the PEP Evaluation Stakeholders Workshops/Focus Group **14:30 – 16:30** Consultants finalize Program and materials	**10:00 – 13:30** PEP Stakeholders Workshops/Focus Group for Mid Term Evaluation **13:30 – 17:00** Translating/discussing data gathered during the workshop	**10:30 – 12:30** Debriefing with COP Keith Prenton **15:00 – 16:30** USAID Presentation on the initial findings and recommendation by the consultants	**Frank Schorn departs Skopje**

APPENDIX C. List of Individuals Interviewed/Observed

NAME	POSITION	ORGANIZATION/LOCATION	PURPOSE	MOBILE PHONE	E-MAIL
USAID					
Michael T. Fritz	Mission Director	USAID / US Embassy	Reviewed assignment expectation	070 /228 - 324	mritz@usaid.gov
Alexander Woods	Education Office Director	USAID / US Embassy	Project orientation and review scope of work for PEP Evaluation	070/276 - 090	awoods@usaid.gov
Lela Jakovlevska Joshevska	Senior Education Specialist	USAID / US Embassy	Project orientation and review scope of work for PEP Evaluation	070 /364 - 908	ljakovlevska@usaid.gov
PEP					
Keith Prenton	Chief of Party	Primary Education Project / PEP OFFICE	Project overview and staff introductions	071 /248 - 696	kprenton@pep.org.mk
Gorica Mickovska	PEP Assessment Specialist	Macedonian Civic Education Center (MCEC) / PEP OFFICE	Overview of the School-based Assessment Component	071 /248 - 694	gmickovska@mcgo.org.mk
Nebojsa Mojsoski	School Renovations Specialist	Primary Education Project / PEP OFFICE	Overview of the School Renovation Component	071 /248 - 691	nmojsoski@pep.org.mk
Petar Nikoloski	ICTs in Education Training Specialist	Primary Education Project / PEP OFFICE	Overview of the ICT Component	071 /248 - 692	pnikoloski@pep.org.mk
Anica Aleksova	Math and Science Specialist	Primary Education Project / PEP OFFICE	Overview of the Math and Science Component	071 /248 - 693	aaleksova@pep.org.mk
Gjorgji Kushevski	Workforce Development Specialist	Primary Education Project / PEP OFFICE	Overview of the Workforce Component	072 /228 - 285	gkusevski@pep.org.mk
Maja J.	Monitoring and	Primary Education Project / PEP	Overview of the	071 /232 - 162	mcvetanoska@pep.org.mk

Cvetanovska	Evaluation Coordinator	OFFICE	M&E Component		
Virna Manasieva	Training and Events Manager	Primary Education Project / PEP OFFICE	Overview of the Training and Events Component	071 / 248 695	vmanasieva@pep.org.mk
GOVERNMENT					
Nikola Todorov	Minister of Education and Science	Ministry of Education and Science (MoES)	Interview	02 / 31 17 896	biljana.cvetkovska@mon.gov.mk
Jovan Grpovski	Chief of cabinet	Ministry of Education and Science (MoES)	Interview	075 / 402 911	jovan.gropvski@gmail.com
Gorgi Arsov	Head of State Education Inspectorate (SEI)	State Education Inspectorate (SEI) / Ministry of Education and Science (MoES)	Interview	02/ 31 40 103	maja.marinova@mon.gov.mk
Mitko Cheshlarov	Head of Sector in the Biro of Development in Education (BDE)	Biro of Development in Education (BDE) / BDE Office	Group interview on the role of BDE in the Project	02 / 30 89 015	mitkoceslarov@bro.gov.mk
Aishe Ajrulai	Advisor in the Biro of Development in Education (BDE)	Bureau of Development in Education (BDE) / BDE Office	Group interview on the role of BDE in the Project	070/276198	aisheajro@yahoo.com
Goce Shopkoski	Advisor for Professional Development in the Biro of Development in Education (BDE)	Bureau of Development in Education (BDE) / BDE Office	Group interview on the role of BDE in the Project	076 / 484 080	gsopkoski@yahoo.com
OTHER INSTITUTIONS					
Vera Kondik Mitkovska	World Learning	Senior Program Manager	Interview	02/3132026	Vera.Kondik@worldlearning.org
SCHOOLS					
Goce Jankulovski	Director of the School	P.S. "Draga Stojanovska" / Sopishte Municipality, v. Rakotinci. - Skopje	Interview	02 / 27 42 022	gjankulovski@yahoo.com
Valentina	Director of the	P.S. "Joakim Krchoski" /	Interview	02 / 20 53 117	jkvolkovo@yahoo.com

Ivanovska Salaedin Isaki	School	v. Nikishtani - Skopje		02 / 20 53 216	
Lidija Apostolova Ramos	Director of the School	P.S. "Dimitar Miladinov" / Center Municipality, Skopje.	Interview	02 / 31 14 216	
Vesna Damcevska	Director of the School	P.S. "Zivko Brajkovski" / Butel Municipality, Skopje	Interview	070 / 284 138.	v_ilievska@yahoo.com
Zhaklina Ristovska	Lower grade Teacher	P.S. "Zivko Brajkovski" / Butel Municipality, Skopje	Class observation (From Wheat to Bread)	070 / 804 355	zaklinaristovska@gmail.com
Nusret Sulejmani	Director of the School	P.S. "Kiril I Metodij" / Tetovo	Interview	070 / 784 191	nusretsulejmani@yahoo.com
Satki Ismaili	Math Teacher	P.S. "Kiril I Metodij" / Tetovo	Class observation (Area of the ring and circle sector)	071 / 257 030	satkiismaili@yahoo.com
Lulzim Mehmedi	Director of the School	P.S. "Sande Shterjovski" / Kichevo	Interview	070 / 328 003	lulzimmehmedi@yahoo.com
Vlado Andov	Director of the School	P.S. "Nikola Karev" / Kochani	Interview	033 / 274 216	
	German Teacher	P.S. "Nikola Karev" / Kochani	Class observation		
Ljiljana Arsova	School psychologist, Project coordinator	P.S. "Kiril I Metodij" / Kochani	Interview	033 / 272 711	
Suzana Aneva	Technical Education Teacher	P.S. "Kiril I Metodij" / Kochani	Class observation (Using robots and connecting physics to everyday life)	071 / 473 602	suzana_aneva@yahoo.com
TRAINING WORKSHOPS VISITS					
Lidija Shutinoska	Trainer (Biology Teacher)	P.S. "Josip Broz Tito" / Struga	Group interview	071 / 587 738	lidija_sutinoska@mail.net.mk
Vlado Noneski	Trainer (Biology Teacher and BDE Adviser)	P.S. "Josip Broz Tito" / Struga	Group interview	070 / 277 985	bro.struga@hotmail.com

Ana Stocheska	Trainer (Math Teacher)	P.S. "Josip Broz Tito" / Struga	Group interview	070 / 261 173	astole@t-home.mk
Lidija Kondinska	Trainer (Math Teacher and BDE Adviser)	P.S. "Josip Broz Tito" / Struga	Group interview	076 / 484 807	l.kondinska@yahoo.com
WORKING GROUPS					
Abduraman Memeti		P.S. **"**Sande Shterjovski" / Kichevo	Observation	076 / 484 762	abduraman_memeti@hotmail.com
WORKSHOP (THURSDAY, MAY 20TH, 2010)					
Anita Angelovska	History Teacher	P.S. "Krste Misirkov" / Skopje	Assessment	071 / 358 341	anita_angelovska@hotmail.com
Tanja Mitrevska	BDE Advisor	State Examination Centar	Assessment	070 / 277 196	tanja.mitrevska@yahoo.com
Andrijana Taseva	School Psychologist	P.S. "Krume Kepeski" - Skopje	Assessment	075 / 507 143	tandrijana@macedonia.eu.org
Sofce Koceva	BDE advisor	Bureau of Development in Education (BDE)	Workforce Development	076 484 702	kocevasofka@yahoo.com
Katerina Mitevska	English Teacher	P.S. "Jan Amos Komenski" /Skopje	Workforce Development	075 / 440 126	katerina.mitevska@yahoo.com
Sofija Cvetanovska	School Psychologist	P.S. "Stiv Naumov" / Skopje	Workforce Development	075 / 783 464	sofcvet@yahoo.com
Zlatika Daskalov	Technology teacher	P.S. "Lazo Angelovski" / Skopje	Workforce Development	070 / 244 268	goldy@mt.net.mk
Gordana Janakievska	BDE advisor	Bureau of Development in Education (BDE)	ICT in Education	076 / 484 704	Gogajpz@yahoo.com
Anita Sterjoska	University Professor	Faculty of Pedagogy - Skopje	ICT in Education	070 / 464 879	asterjos@yahoo.com
Irina Ivanova	IT Teacher	P.S. "11 Oktomvri" / Skopje	ICT in Education	075 / 430 486	irinaiv2001@gmail.com
Cvetanka Sjeklocha	Engineer	Ministry of Education and Science (MoES) / Sector for Capital Investments	School Renovations	076 / 485 072	csjeklocha@yahoo.com
Zarko Ilievski	President of the NGO	MACEF	School Renovations	070 / 228 577	macef@macef.org.mk
Suzana Kirandziska	CEO	Step by step	Math and Science	070 / 219 717	skiran@soros.org.mk

Loreta Georgieva	CEO	MCEC	School Renovations	071 / 226 920	lgeorgieva@mcgo.org.mk
Elizabeta Jovanovska	Chemistry Teachers	P.S."Stiv Naumov" - Skopje	Workforce Development	075 620 892	elizabeta.jovanovska@yahoo.com
Igor Donov	Physics Teacher	P.S. H. T. Karpos	Math and Science	070 682 190	igordonov@gmail.com
Oliver Zajkov	University Professor	Faculty of Mathematics and Natural Sciences, University of Sts. Cyril and Methodius	Math and Science	075 438 357	zoliver@pmf.ukim.mk
WORKSHOP (THURSDAY, MAY 20TH, 2010) PEP PARTNERS					
Suzana Pecakovska	Project coordinator	Open Society Institute Foundation – Macedonia	PEP partner	070 / 272 443	specako@soros.org.mk
Bojana Naceva	Education Specialist	World Bank	PEP partner	02 / 31 17 159	bnaceva@worldbank.org
Leila Jakovlevska Joshevska	Senior Education Specialist	USAID / US Embassy	PEP partner	070 / 364 908	ljakovlevska@usaid.gov

APPENDIX D. Schools That Have Been Visited, Main Focus and Implemented Evaluation Techniques

MAIN FOCUS IN DATA GATHERING								
School Renovation	**School Renovation**	**ICT**	**Assessment**	**Math & Science**	**Math & Science**	**Math & Science**	**WFD**	**WFD**
"Draga Stojanovska", v. Rakotinci.	***"Joakim Krchoski" - v. Nikishtani.***	***"Dimitar Miladinov" –Skopje***	***"Zivko Brajkovski" Skopje***	***"Kiril and Metodij" –Tetovo***	**"Sande Shterjovski" –Kichevo**	***"Josip Broz Tito"* - Struga**	***"Nikola Karev" –Kochani.***	***"Kiril i Metodij" - Kochani***
Observing/ viewing the School	Observing/ viewing the School							
Interview with the school Director		Interview with the school Director	Interview with the school Director	Interview with the school Director	Interview with the school Director		Interview with the school Director	
Interview with a school Psychologist/ Pedagogue							Interview with a school Psychologist/ Pedagogue	Interview with a school Psychologist/ Pedagogue
			Observing a class (lower grade)	Observing a class (Math)			Observing a class (German)	Observing a class (Technical edu)
				Observing a work-group meeting	Observing a workshop	Observing a workshop		
					Interviews with Trainers	Interviews with Trainers		
		Interviews with teachers			Interviews with teachers		Interviews with teachers	Interviews with Teachers
		Focus-groups with students			Focus-groups with students		Focus-groups with students	

APPENDIX E. Review of PMP

Performance Measurement Plan FY 2010
Primary Education Project

PERFORMANCE INDICATOR	INDICATOR DEFINITION	DATA SOURCE	UNIT OF MEASUREMENT	BASELINE	TARGETS FY10
PEP OBJECTIVE - Component 1: Renovate and improve learning environments in selected primary schools					
Schools provide effective classroom environments using energy efficient technologies	**I.** Selected classrooms show increased **agreed comfort standards** **(In 4 schools visited achieved)**	• Supervisors reports • Teachers' questionnaires	• Number of classrooms meeting the agreed comfort standards.	0	**Target:** 60% of all renovated classrooms (in phase 3 schools) show increased agreed comfort standards
	II. Schools show **adequate thermal conditions**. **(In 4 schools visited achieved)**	• Municipalities'**/** Schools' officials reports	• Number of schools that show improved thermal conditions	0	**Target:** 90% of all renovated phase 3 schools have adequate thermal conditions

PERFORMANCE INDICATOR	INDICATOR DEFINITION	DATA SOURCE	UNIT OF MEASUREMENT	BASELINE	TARGETS FY10
PEP OBJECTIVE - Component 2: Improve the use of computers and ICTs in schools					
Effective use of ICTs in the schools	**I. More educational software** is available for classroom instruction May require additional efforts in 6 schools visited	• Project reports • Focus groups with teachers	• Number of educational software prepared • Number of educational software available at schools	**48** applications within the ToolKID software for lower primary grades	All EDUBUNTU applications were translated and adapted for local use. There are no targets related to this indicator for 2010.
	II. Computers are used more effectively to improve learning throughout the curriculum (at least once a week) May require additional efforts in 6 schools visited	• Questionnaire for teachers • Lesson plan review form • Classroom observation form • Focus groups with teachers • Surveys with students	•Frequency/percentage of answers that show effective use of ICTs • Number of *lesson plans* that integrate ICT • Number of *classes* that integrate ICT	10% of the surveyed teachers implement ICT based classes at least once a week	**Target:** 40% of trained teachers from the M&E schools integrate ICT in their teaching
	III. Schools have established **Student Support Technician Clubs (SSTC)** which are providing support for computer maintenance and deployment in schools	• Questionnaire for teachers • Questionnaire for SSTCs' role in the schools • Surveys with students • School reports on SSTCs functioning This is underway	• Number of SSTCs functioning (bi weekly meetings, increased computer use and access)	0	**Target:** 30% of all primary schools in R.Macedonia have SSTCs trained in maintaining new GoM computers working under OS Linux

PERFORMANCE INDICATOR	INDICATOR DEFINITION	DATA SOURCE	UNIT OF MEASUREMENT	BASELINE	TARGETS FY10
PEP OBJECTIVE - Component 3: Improve the Quality of Math and Science Education					
Math and Science teachers use active teaching methods (such as problem-solving and inquiry and project-based approaches) in class	**I.** Teachers **plan for active teaching methods and implement** them in their classes **(Observed in 3 classrooms- effective interactive techniques were demonstrated)**	• Questionnaire for teachers •Monitoring reports on the review of teachers' portfolios (lesson plans, case studies and supporting teaching materials) • Classroom observation form • Focus groups with teachers • Surveys with students	• Frequency/percentage of answers that show use of active teaching methods • Number/percentage of teachers showing evidence of using active methods in their *planning* • Number/percentage of teachers showing evidence of using active methods in their *teaching*	0	**Target:** Phase 1 schools 70% of math and science teachers from the M&E schools plan for active learning methods and implement them in their classes Phase 3 schools 60% of math and science teachers from the M&E schools plan for active learning methods and implement them in their classes
	II. Teachers use **hands-on instructional resources** related to active teaching and learning **(Observed in 3 classrooms)**	• Questionnaire for teachers •Monitoring reports on the review of teachers' portfolios (lesson plans and supporting teaching materials) • Classroom observation form • Focus groups with teachers • Surveys with students	• Frequency/percentage of answers that show use of hands-on instructional resources •Number/percentage of teachers showing evidence of using hands-on instructional resources in their *planning* • Number/percentage of teachers showing evidence of using hands-on instructional resources in their *teaching*		**Target:** Phase 1 schools 80% of math and science teachers from the M&E schools incorporate in their plans and use hands-on materials and tools provided Phase 3 schools 60% of math and science teachers from the M&E schools incorporate in their plans and use hands-on materials and tools provided
	III. Teachers participate **in learning teams (school-based or regional)** to support their professional development Functioning effectively in district visited	• Questionnaire for teachers • Focus groups with teachers	• Frequency/percentage of answers that show teachers' participation in school-based or regional learning teams for professional development	0	**Target:** Phase 1 schools - 50% teachers from the M&E schools participate in school-based, municipality or regional learning team Phase 3 schools - 40% teachers from the M&E schools participate in school-based, municipality or regional learning team

PERFORMANCE INDICATOR	INDICATOR DEFINITION	DATA SOURCE	UNIT OF MEASUREMENT	BASELINE	TARGETS FY10
PEP OBJECTIVE - Component 4: Improve School-Based Assessment for Basic Education					
Teachers and school administrators meet nationally agreed assessment standards	**I.** Teachers and school administrators are **familiar with the national standards for school-based assessment**, including a code of ethics Teachers and students interviewed noted awareness of national based standards	• Questionnaire for teachers • Focus groups with teachers	•Frequency/percentage of answers that show that teachers *know* the national standards for school-based assessment •Frequency/percentage of answers that show *familiarity* with the national standards for school-based assessment	0	**Target:** • 95% of teachers from the M&E schools *know about* the existence of the national standards for school-based assessment. • 80% of teachers from the M&E schools *are familiar with* the national standards for school-based assessment
	II. Teachers **use formative assessment** with a purpose to improve students' learning Teachers and students interviewed noted effectiveness of formative assessment	• Questionnaire for teachers • Monitoring reports on the review of teachers' assessment portfolios (lesson plans, periodical plans, case studies and formative assessments instruments) • Class observation form • Focus groups with teachers • Surveys with students	•Frequency/percentage of answers that show use of formative assessment • Number/percentage of teachers showing evidence of using at least three approaches to formative assessment	0	**Target:** Phase 1 schools - 60% of the trained teachers incorporate in their *plans* and 40% *implement* formative assessment Phase 3 schools - 40% of the trained teachers incorporate in their *plans* and 30% *implement* formative assessment

PERFORMANCE INDICATOR	INDICATOR DEFINITION	DATA SOURCE	UNIT OF MEASUREMENT	BASELINE	TARGETS FY10
PEP OBJECTIVE - Component 5: Workforce Development					
Increased workforce skills in primary and secondary school students	**I.** Teachers include new **technology, equipment and teaching resources** in their plans and use them in class to enhance the teaching and students' learning in the **technical subjects** **In process**	• Surveys with teachers •Monitoring reports on the review of teachers' lesson plans • Surveys with students	•Frequency/percentage of teachers'/students' answers that show use of new technology and equipment • Number/percentage of teachers showing evidence of using new technology and equipment in their *planning*	**Primary school students report to use:** - Computers: 31% - Robots: 0% - Digital photo cameras: 0% - Software for technical education: 0% - Control boxes: 0% - Digital video cameras: 0% **Vocational school students report to use:** - Content related software: 21% - New technologies (ex. robots): 8% - Control boxes: 3%	**Target:** - 70% of trained technology teachers from the WFD pilot schools incorporate in their lesson plans and 50% use new technology, equipment and teaching resources in the technical subject
	II. Teachers plan **entrepreneurial/employability learning activities** and implement them in class **In process**	• Surveys with teachers •Monitoring reports on the review of teachers' lesson plans • Surveys with students	•Frequency/percentage of teachers'/students' answers that show implementation of entrepreneurial/employability activities • Number/percentage of teachers showing evidence of presence of entrepreneurial/employability activities in their *planning*	**Primary school students report:** - Visiting a company/factory: 58% - Visiting a high school: 0% - Interviewing businessmen from the local community: 0%	**Target:** - 60% of trained primary school technology teachers from the WFD pilot schools incorporate in their lesson plans and 40% implement entrepreneurial/employability learning activities in their classroom
	III. Teachers plan **career related learning activities** and implement them in class **In process**	• Surveys with teachers •Monitoring reports on the review of teachers' lesson plans • Surveys with students	•Frequency/percentage of teachers'/students' answers that show implementation of career related activities • Number/percentage of teachers showing evidence of presence of career related activities in their *planning*	**Gymnasium students report:** - School as a source of career related information: 23% - Learn at school how to prepare a CV and cover letter: 23% - Learn about techniques of active job search: 4% - Learn about job interview: 3%	**Target:** - 60% of trained gymnasium teachers incorporate in their lesson plans and 40% implement career related learning activities in their schools

PERFORMANCE INDICATOR	INDICATOR DEFINITION	DATA SOURCE	UNIT OF MEASUREMENT	BASELINE	TARGETS FY10
PEP OBJECTIVE - Component 5: Workforce Development					
	IV. Developed new technology and teaching resources, and provided equipment to schools in order to increase the workforce skills in students Planning stages	Project reports	•Number of new technology developed •Number of new teaching resources developed •Number of equipment provided	0	**Target:** - 60 computer PLC control devices for technical vocational schools (4 per school) - 60 computer control kits for new primary schools (4 per school) - 9 Robotics arms for pilot primary schools (1 per school) - 5 Robotics arms for pilot secondary schools (1 per school) - 27 electronics kits for pilot primary schools (3 per school) - 18 solar robotics kits for primary schools (2 per school) - Manual for PLC control devices - Manual for 3D designing

APPENDIX F. PEP Stakeholder Feedback Workshop

PEP Stakeholder Feedback Workshop

PEP Midterm Evaluation

Objectives

1. To evaluate progress towards meeting the overall project goals in each component
2. To review the sustainability of PEP project initiatives
3. To recommend actions and activities in the remaining project period to assure that PEP goals are achieved
4. To analyze overall achievements and challenges of the PEP project
5. To discuss additional support to the education sector following the completion of the project

PROGRAM

10:00 – 10:30 --- Dr. Frank Schorn and Dr. Nikolina Kenig, Evaluation Consultants: PEP Project Evaluation Indicators

10:30 – 11. 15 --- What PEP goals have been achieved? (Stakeholder groups)

1. Renovate and improve learning environments
2. Improve use of computers and ICT in schools
3. Improve the quality of Math and Science
4. Improve school-base assessment
5. Increase students work skills

11: 15 – 11:45 --- How can PEP assure the sustainability and impact of their initiatives? (Small group discussion)

- Required follow up activities after training and implementation/ by whom, when, where, and how?
- Sustainability challenges
- The role and responsibilities of the BDE and the State Inspectorate
- Donor support and cooperation with other Projects/Institutions

11:45 – 12:30 --- What additional support is suggested for the education sector following the completion of PEP? (Group discussion)

12: 30 – 13:00 --- **Summary by consultants**

APPENDIX G: List of Documents Consulted

Name	Type of Document	Component	Published by
Windows XP professional operating system and WLAN (Manual for the Student Support Technician Clubs)	Manual	ICT in Education	USAID and AED
Yearly planner for ICT deployment	Planner	ICT in Education	USAID and AED
ICT Deployment guidebook	Guidebook	ICT in Education	USAID and AED
Poster for ICT awareness "Internet safety"	Poster	ICT in Education	USAID
Poster for ICT awareness "Take care of me!"	Poster	ICT in Education	USAID
Improving mathematics education (Manual for facilitators)	Manual	Math & Science	USAID and AED
Improving science education (Manual for facilitators)	Manual	Math & Science	USAID and AED
Strategies for student centered teaching and learning mathematics (Manual for facilitators)	Manual	Math & Science	USAID and AED
Classification of tasks in teaching mathematics according their cognitive demands (Manual for facilitators and teachers)	Manual	Math & Science	USAID and AED
Learning cycle in teaching biology (Manual for teachers)	Manual	Math & Science	USAID and AED
Learning cycle in teaching chemistry (Manual for teachers)	Manual	Math & Science	USAID and AED
Learning cycle in teaching physics (Manual for teachers)	Manual	Math & Science	USAID and AED
Learning cycle in teaching geography (Manual for teachers)	Manual	Math & Science	USAID and AED
Improving mathematics education and education for natural surrounding in lower primary grades (Manual for facilitators and teachers)	Manual	Math & Science	USAID and AED
Poster "☐ Scientific Method"	Poster	Math & Science	USAID and AED
Assessment in the Primary School Curriculum (Guidelines for schools)	Guidelines	Assessment	USAID and AED
Improving School-Based Assessment; Developing Assessment Standards; Code of Ethics in Assessment (Manual for educators)	Manual	Assessment	USAID and AED
Implementation of Assessment Standards in Students Assessment (Manual for facilitators)	Manual	Assessment	USAID and AED
Implementation of Assessment Standards in Students Assessment (Manual for teachers)	Manual	Assessment	USAID and AED
Implementation of Assessment Standards in Students Assessment (Presentations and materials for teachers)	Presentations and materials	Assessment	USAID and AED
Assessment tips	Tips	Assessment	USAID and AED
Code of Ethics on Assessment of Students' Achievement	Brochure	Assessment	USAID and AED
Poster "Code of Ethics on Assessment of Students' Achievement"	Poster	Assessment	USAID and AED
A Manual for the 21st Century Classroom	Manual	Publications for	USAID and AED

		teacher professional development	
Name	**Type of Document**	**Component**	**Published by**
PEP Certification Procedure	Procedure for providing certificates	Publications for teacher professional development	USAID and AED
Creating Innovative Schools: Preparing Students for the 21st Century	Manual	Publications for teacher professional development	USAID and AED
Manual for Creating a Learning Environment for the 21st Century	Manual	Publications for teacher professional development	USAID and AED
Green Club Working Book (Student activity Book)	Working Book	Green schools	USAID and AED
Manual for working with the Green Clubs (Teachers Manual)	Manual	Green schools	USAID and AED

PEP MONITORING AND EVALUATION PLAN

Name	**Submitted by**	**Published by**
PEP MONITORING AND EVALUATION PLAN	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University *Under Cooperative Agreement No.165-A-00-06-00101-00*	USAID

Name	**Type of Document**	**Date**	**Published by**
FY08 Report on the Primary Education Project EVALUATION	Report	November, 2008	USAID and AED
FY08 Report on the Primary Education Project EVALUATION	Report	September, 2009	USAID and AED
PEP Performance Measurement Plan FY 2008	Plan	2008	USAID and AED
PEP Performance Measurement Plan FY 2009	Plan	2009	USAID and AED
PEP Performance Measurement Plan FY 2010	Plan	2010	USAID and AED

PEP PLANS OF WORK

	Period of time			
Name	**From:**	**To:**	**Submitted by**	**Published by**
Plan of Work	18 Sep. 2006	17 Sep. 2007	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University *Under Cooperative Agreement No.165-A-00-06-00101-00*	USAID
PEP Plan of Work *(Revised February 2007)*	18 Sep. 2006	17 Sep. 2007	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University *Under Cooperative Agreement No.165-A-00-06-00101-00*	USAID
PEP Plan of Work	18 Sep. 2007	17 Sep. 2008	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University *Under Cooperative Agreement No.165-A-00-06-00101-00*	USAID
PEP Plan of Work	18 Sep. 2008	17 Sep. 2009	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University *Under Cooperative Agreement No.165-A-00-06-00101-00*	USAID

PEP PLANS OF WORK

	Period of time…			
Name	**From:**	**To:**	**Submitted by**	**Published by**
PEP Plan of Work	18 Sep. 2009	17 Sep. 2010	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University *Under Cooperative Agreement No.165-A-00-06-00101-00*	USAID

PEP STATISTICAL REPORT

	Period of time…			
Name	**From:**	**To:**	**Submitted by**	**Published by**
PEP Statistical Report	Sep. 2006	Jul. 2009	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID

PEP QUARTERLY REPORTS

	Period of time…			
Name	**From:**	**To:**	**Submitted by**	**Published by**
PEP Quarterly Report	18 Sep. 2006	31 Dec. 2006	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Second Quarterly Report	01 Jan. 2007	31 Mar. 2007	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Third Quarterly Report	01 Apr. 2007	30 Jun. 2007	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Fourth Quarterly Report	01 Jul. 2007	30 Sep. 2007	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Fifth Quarterly Report	01 Oct. 2007	31 Dec. 2007	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Sixth Quarterly Report	01 Jan. 2008	31 Mar. 2008	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Seventh Quarterly Report	01 Apr. 2008	30 Jun. 2008	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Eighth Quarterly Report	01 Jul. 2008	30 Sep. 2008	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Ninth Quarterly Report	01 Oct. 2008	31 Dec. 2008	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Tenth Quarterly Report	01 Jan. 2009	31 Mar. 2009	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID

PEP QUARTERLY REPORTS

	Period of time			
Name	**From:**	**To:**	**Submitted by**	**Published by**
PEP Eleventh Quarterly Report	01 Apr. 2009	30 Jun. 2009	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Twelfth Quarterly Report	01 Jul. 2009	30 Sep. 2009	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Thirteenth Quarterly Report	01 Oct. 2009	31 Dec. 2009	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID
PEP Fourteenth Quarterly Report	01 Jan. 2010	31 Mar. 2010	Academy for International Development (AED) with Macedonia Civic Education Centre (MCEC) and Indiana University	USAID

Primary Education Project Web Site: www.pep.org.mk

U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523
Tel: (202) 712-0000
Fax: (202) 216-3524
www.usaid.gov