
The Eurasia Proceedings of Educational & Social Sciences (EPESS), 2016

Volume 5, Pages 313-316

ICRES 2016: International Conference on Research in Education and Science

FORECASTING EVALUATION OF SCHOOL ENVIRONMENTAL PROJECTS: FRAMEWORK AND RESEARCH OBJECTS

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Abstract: Evaluation and inspection systems can provide valuable feedback to the school to build upon its achievements and meet the changing needs. Evaluation is treated as an integral part of the teaching and learning process and focuses on actual teaching practice, deeply transformative force in society, offering feedback and optimization processes. European Parliament and the Council, in 2001, set up the framework of the school evaluation processes with the recommendation to the Member States to establish transparent quality assurance systems and encouraged them to create a balanced framework of school self-assessments, and any external evaluations, to involve participation and stakeholders in all processes which can disseminate good practices, achievements of knowledge and experience. The initial assessment of educational projects is carried out before the start of a project to estimate some variables related to the development of the program. In this research, School Projects of Environmental Education of Heraklion, Crete (Greece) were checked about the prediction of evaluation concerning the planning and structuring phase. The research queries concerned the prediction of possible processes and techniques of initial evaluation, with criteria the analysis of needs, the recording of the objectives, the selection of type and model, the educational schedule and budget. An Evaluation Tool with the criteria of the projects' forecasting evaluation applied in order to check if the design and planning are aims-centered, innovative, sustainable, participative and digital. Status of the assessment, in terms of validity, reliability, the persuasiveness, its acceptance, its use and ultimately its usefulness, depends primarily on the accuracy and appropriateness of the criteria used

Keywords: Environmental education, school educational projects, forecasting evaluation, diagnostic evaluation

Introduction

Evaluation of educational works, in recent decades, is a growing field of educational theory and practice. In particular, the evaluation of educational programs is realized as necessary dimension of the design and completion of all educational interventions. In the design of appropriate educational activities (legislation, educational programs, institutional changes etc.) and adopt of necessary decisions of education policy required the processing of data obtained from evaluative procedures (Vergidis & Karalis, 1999). An evaluation study, as open process, in order to contribute to the development and improvement of the educational program, has to be carried in a specific political, social and educational context, with scientific research methods, by researchers with specific theoretical options and emphasize to the expression of all involved stakeholders (Aegean, 2004; NTUA, 2007).

In Greece, EE is applied in secondary schools, volunteered, beyond the obligatory timetable, guided by the Greek Ministry of Education (Circular YPEPTH Doc. Ref. 117 302 / C7 / 19.10.2007). As for the materialized School Projects of Environmental Education (SPEEs) every school year, most of them are not evaluated at all, relies on teachers good disposition, since the evaluation is proposed-not imposed (Mavrikaki, 2001). Evaluation that often becomes in SPEEs is usually descriptive, without absolutely clear objectives and under questioning the validity of the design, the method of implementation and the value of the results (Zygouri, 2005). Some researchers attribute it to the lack of experience of most teachers in the field of evaluation and the lack of appropriate tools for educational evaluation, mostly related to the general lack of educational evaluation and assessment of schools (Mavrikaki, 2001; Zygouri, 2006; Drakonaki, 2006).

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- Selection and peer-review under responsibility of the Organizing Committee of the conference

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In SPEEs, in Greece, the initial/investigation/primary/forecasting/diagnostic evaluation is not included in the Application Forms of SPEEs, not even mentioned in the designing of the projects. Generally, in SPEEs, the greater weight given to activities and implementation and not to the formative and final evaluation (Zygouri, 2005; Mavrikaki, 2001; Kalathaki & Sfakianaki, 2008). In this research, School Projects of Environmental Education (SPEEs) of Heraklion (Crete, Greece) were checked on the prediction of evaluation concerning the planning and structuring phase. The research queries concern the prediction of the processes and techniques of the evaluation as the analysis of needs, the recording of the objectives, the selection of type and model, the educational schedule and budget. The sub-queries constituted criteria of the projects' primary evaluation which checked if the design and planning of SPEEs were aims-centered, innovative, sustainable, participative and digital.

Methods

For the research demands, were used criteria of the Evaluation Tool for content analysis of the environmental teachers' training projects regarding the determination of requirements for the SPEEs implementation (Kalathaki, 2015). They, also, were taken into consideration the principles for design and evaluation of SPEEs from Greek literacy of EE (Flogaiti, 1993; Zygouri, 2005; Flogaiti, 2006; NTUA, 2007; Aegean, 2004), the objectives and methodology as expressed in the Tbilisi conference (1977) and Thessaloniki (1997) (UNESCO, 2004) and quality indicators developed by UNESE experts (UNECE, 2006) and Frangoulis (2006).

In the research, carried out discourse analysis of the archival material of 22 SPEEs, printed and digital, of the Application Forms (AF) and Final Reports (FR). AFs were of two types A and B, because 8 of them were funded by Aegean University which required specific type (AF-A), more analytical.

Status of the assessment, in terms of validity, reliability, the persuasiveness, its acceptance, its use and ultimately its usefulness, depends primarily on the accuracy and appropriateness of the criteria used (Cohen & Manion, 1994; Bell, 1997; Iosifidis, 2003). To answer the research questions, the sub-queries functioned as indicators/criteria in the study of the SPEEs archival material.

Results and Findings

As the research revealed, there is not planned evaluation process in the initial design of the studied SPEEs. The evaluation is only indicative included in the AF-Bs (circular YPEPTH, 2007), where requested to complete the question "Who from? (From A. Students (Self-assessment), B. Teachers. The template of AF-As suggested by Aegean University was more detailed and demanded more thorough fulfilling. It asked the type of Evaluation a. Primitive, b. Formative c. Final and possible uses of the project evaluation findings (Aegean, 2004).

Teachers select the type of evaluation that think to follow in the project planning by clicking only the option, they have nothing to describe and explain about. Similarly, in FRs, which have not a template as AFs have, teachers do not make systematic evaluation, they express particularly evaluative judgments, in relation to what they experienced themselves and gained their students. Also, there were not any data from SPEEs' archives justifying the need of their evaluation. Lack of systematic evaluation in SPEEs of Secondary Education of Lasithi prefecture of Crete pointed also Drakonaki (2005), where only 5% of SPEEs had evaluation and that was final. In 70% of SPEEs, the teachers surveyed did rudimentary judgments, since most of them had not thought to evaluate their project. Generally, evaluation of SPEEs, where it carried out, is empirical and inadequate, with no evidence whether they are effective or not (Zygouri, 2005).

Service Of Requirements And Expectations Of The Project Stakeholders

The proposal includes adequate activities to evaluate the outcomes of the individuals and of the project as a whole. The evaluation will address and whether the expected outcomes of the project have been realized and whether the expectations of the schools and the participants have been met. So, the project plan ought to provide information on the impact expected on the students, teachers and others, and on the school overall; how the school will integrate the competences and experiences that will be acquired through the project materialization (Erasmus, 2014).

Nowhere list the needs and expectations of the implementing the project operator, which is the school and school community, the wider Educational Directorate of Crete. There were no relevant evidence indicating ways

thought they implemented SPEEs to response to the requirements of the award and funding bodies, of the evaluation recipients (institutions, organizations, individuals).

As in the analysis of the previous criteria, there are not mentioned needs and expectations of students and teachers participating in the project, with a few exceptions, nor is it specified investigation of needs of the target populations. The survey of Aggelidou & Kritikou (2006) reported data on the non-satisfaction of the teachers' expectations who participated in SPEEs and who, in the coming years, did not participate in the EE.

The project is likely to have a substantial positive impact on the participants' competences and future professional practice but also on the sending and, if relevant, receiving organization (Erasmus, 2014). The objective of the evaluation in EE is the improvement of projects and promotion to achieve the objectives. The use of the evaluation has to be provided from the project design (Zygouri, 2005). In educational programs design must be assessed, also the structure and the project development, so the findings to be useful in the next, since results of the evaluation are useful to redesign the educational process, when repeated (Koutouzis & Chatziefstratiou, 1999). As for the exploitation of findings of the evaluation, below are some excerpts from the AF-As of two projects. The program A7 refers "Identifying processes to bridge the gaps and reconstruction of distortion of the practical-experiential knowledge, exchange of information, processing and synthesis of materials, further facilitate planning, control, comparison of views, proposals configuration authority". In the program A8 is written "The exploitation of the program will be done first by the school environmental team, as group experience. Also can be used by other teachers and schools". Ioannidou et al (2005) report in the results of their research that one of the causes of non-integration of SPEEs is the assessment weakness not only of the official state, also informally from the teachers by themselves, who seem to be unable to record clearly the data of their implementation, assess the results with respect to their effects on learning outcomes, the pedagogical processes and school management, in order to derive a feedback for the future development.

Methodology Of The Forecasting Evaluation

The various evaluation tools for educational projects include responses tests, questionnaires, observation tools, skills test, etc. (Zygouri, 2005). Δεν υπήρχαν δεδομένα στα ΣΥΠ-B και στις ΕΠ για να απαντηθούν τα κριτήρια αυτά. Teachers who completed the 8 AF-As describe how to make the initial, formative and final evaluation at SPEEs. Certainly not do the same teachers who completed the AF-Bs because it was not requested. In FRs, fragmentary evaluation elements were observed.

The characteristics of new curricula of the Greek Secondary Education, that have to penetrate all the courses, projects and initiatives in schools are those characteristics had suggested many years before UNESCO and EU for EE. There were no references on the assessment of the researched archival material regarding the above characteristics in the initial design.

The Educational Activites Match The Objectives

Programing of activities has to be clearly defined, comprehensive and realistic, match the capacity of the participating organizations (Erasmus, 2016). The study of AFs showed that all the phases of the projects had been properly developed in order to realize their objectives. The project results will be incorporated in the management and/or pedagogical/curricular framework and practice of the school. The dissemination includes the transfer of competences acquired during the mobility, and actively involves the participant.

Conclusion

In the studied SPEEs, forecasting evaluation is usually lacking, although is carried out vestigial a formative and final-result form, it is not applied in a formal concrete way. Findings of the evaluation, in the beginning, during the materialization and at the end of SPEE will be useful to the stakeholders and embodied in the formative changes, also in the next.

Recommendations

In order to design educational interventions in the Greek schools of the 21st century with the characteristics aims-centered, innovative, sustainable, integration and digital we need to prepare comprehensive frameworks with detailed templates of work sheets, to equip teachers with skills of mentoring, discussion and dialogue, cooperation and work in groups, to encourage students to participate in discussions and connect the lesson with

prior knowledge and experiences and support them to construct critical and creative thinking, bring in reflection processes and self-evaluation (EC, 2007).

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