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RESEARCH ARTICLE

EVALUATION TOOL FOR THE FORCASTING INITIAL EVALUATION OF SCHOOL ENVIRONMENTAL PROJECTS: A CASE STUDY.

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Abstract

Evaluation is an integral part of teaching and learning process focusing on actual teaching practice, deeply transformative force in society, offering feedback and optimization to the teaching activities. The carried out research was a qualitative approach to the initial primary, forecasting, diagnostic evaluation of school environmental projects, focusing to the needs of stakeholders and participants, the recording of objectives, type and model, schedule and budget of evaluation giving emphasis to the service or not of requirements and expectations of the project stakeholders, the used methodology and the materialized activities that matches the objectives. An Evaluation Tool for the forecasting evaluation of school projects of Environmental Education developed to serve the needs of the research.

The design of evaluation, especially the forecasting initial evaluation, is extremely neglected in Greek SPEEs which submitted for approval of implementation in Secondary Education of Crete, also in the rest regions of Greece as bibliographic research appealed, mainly attributed to the type of the used Application Form which needs upgrade, also to the lack of the proper teachers' training. In order to design educational interventions in the Greek schools of the 21st century with aims-centered characteristics, innovative, sustainable, integration and digital, the School Projects of Environmental Education, need to be materialized in more comprehensive framework with detailed templates of Application Form and Final Report by well-educated teachers.

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Introduction:-

Evaluation and inspection systems can provide valuable feedback to the schools, to build upon the didactic and pedagogical achievements and meet the educational 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 of processes. European Parliament and Council set up, in 2001, the framework of school evaluation processes with the recommendation to the Member States to establish transparent quality assurance systems and encourage school communities to create a balanced framework of school self-assessments, and any external evaluations. Next years must be involved stakeholders in all processes which can disseminate good practices and achievements of knowledge and experience (EC, 2007).

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The success of a school project of Education for the Sustainable Development (ESD) attributed to many factors, among them are good and decentralized project management, interdisciplinary approach, team work, attainable outcomes, professional core tasks, analytical definition of the project, appropriate indicators of success, initial well defining of the problem, working with real problems, capacity building of participants who will work as facilitators rather than teachers, initial training change agents, understanding sustainability of the school and local community, develop visions and alternative ideas for a sustainable future (Hesselink et al, 2000). Obviously, like any project, an ESD project needs to be organized and managed in a professional way in order to obtain the expected results. But considering that ESD projects are often very complex in nature, because many actors and interests are mostly involved, professional project management becomes even more essential for achieving goals, and this type of management needs very well organized primary and forecasting evaluation in the design phase.

Several studies are internationally referred to theoretical approaches, types, methods, techniques and evaluation plans of Environmental Education (EE) with indicators/criteria, that most have been used in the educational evaluation, mainly concern the performance of students. Design and planning criteria of school educational projects are developing rapidly in recent years, specializing in criteria of framework or input, process, outcome, divided into general and particular, depending on the reference range on the faces of the evaluating objects. High care is required in the entire evaluation in terms of validity, reliability, persuasiveness, acceptance, use and ultimately usefulness of the selecting criteria, depends primarily on their accuracy and appropriateness (Dimitropoulos, 1999).

Since students have a strong natural interest about the environment, helping them to conduct research on environmental issues, and following up on the research with action as responsible citizens, is an effective way to create broader environmental knowledge. By investigating and evaluating environmental issues and actions, they improve science learning and teaching in conjunction with current school curriculum, and develop tools to investigate and evaluate environmental issues of environmental education quality standards (Hungerford et al, 1996). EE needs equipped 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, with the school curricula, supporting them to construct critical and creative thinking, bring them in reflection processes and self-evaluation (EC, 2007).

Due to educational research, our concepts of learning continue to evolve, but there is still a long way until the lessons from research are fully assimilated in the teaching methods and the school organization (EC, 2007). Forecasting evaluation, as initial assessment of school educational projects has to be carried out in the startup phase of the projects to estimate variables and resources related to the design and structuring, to the human and economic resources, to the ways of cultivating values and behaviors for the personal development of the participants and the progress of the school and local community. It allows the evaluator to focus on specific characteristics, parameters and procedures in order to recognize interactions and problems from the beginning, in the planning phase of project (Koutouzis & Chatziefstratiou, 1999). The forecasting evaluation can be carried out in the school forum, at a school conference, with an open discussion of all those who intend to participate in the project, or by a committee of students and teachers. They may set specific criteria or simply the evaluation questions about the topic, the content, the aims, the methodology and the actions that will be developed in the SPEE. Some questions that can be set from the outset of the design in the construction phase of the project can be: why is the topic interesting for me, to school? How the decision was made for dealing with this issue? How to check whether the project objectives can be achieved and to what extent? Is there correspondence to the project goals and actions to the school curricula? What will be the new knowledge I'll acquire? How this knowledge will be useful to me personally, to my peers, at school, in society at local, national and global level? Is there anything that would change in the design of the project and what is that? Will be the project method useful and appropriate for approaching this issue-Why? (NTUA, 2007; EKDDA, 2012).

In Greek secondary schools, EE is applied, volunteered, beyond the obligatory timetable, guided by the Greek Ministry of Education (Circular YPEPTH Doc. Ref. 117 302 / C7 / 19.10.2007) and the local Educational Administrations. Regarding the materialized SPEEs every school year, the most of them are not evaluated at all, relies on teachers good disposition, since the evaluation is proposed-not imposed (Mavrikaki, 2001). The evaluation, as part of the project, is not included in the Application Form of SPEEs (AF-B), not even mentioned in the designing of the projects. Generally, in SPEEs, the greater weight is given to the activities and the implementation procedure and not to the primary, formative or final evaluation (Zygouri, 2005; Mavrikaki, 2001; Kalathaki & Sfakianaki,

2008). In this research, SPEEs of Heraklion (Crete, Greece) were checked if initial evaluation, as forecasting, had been taken place in the planning and structuring phase.

Method:-

The describing research is a qualitative approach of the evaluation design the primary phase of SPEEs planning. In the research, SPEEs that materialized in school year 2005-2006 in Heraklion (Crete) Secondary Education, were checked on the prediction of evaluation in their planning and structuring phase, if they had incorporated a forecasting evaluation as assessment of important factors with sequent effectiveness and reflection to the participants, stakeholders, aims and actions of SPEEs.

The research sub-queries concern the prediction of the process and techniques of the projects' evaluation, more specifically the analysis of needs, the recording of the objectives matched to the planned activities, the selection of type and model, the educational schedule and budget. Greek Centre of Public Administration and Local Government (EKDDA, 2012) has established indicators for assessment programs, following some of them are gleaned those are relevant to the initial/forecasting evaluation of SPEEs. These indicators help in the creation of research questions and sub-queries about the existence or not of the initial/diagnostic evaluation in SPEEs, oriented to: a. satisfaction of personal interest and objectives of the school curricula and strategic objectives, b. completeness, communicability, organization, activation interest, cooperation, educational materials, training methods for teachers, c. open to participation with timely information on participation, support the implementation by management of the school, cooperation and support by the school-the program is hypothesis of the whole school community, d. infrastructure for implementation, visual aids, access to resources and materials.

Twelve specific criteria were developed in the applied Tool (Table 1) for the initial evaluation of SPEEs, with four research objects, regarding the evaluation design and planning in order to reveal if they are aims-centered, innovative, sustainable, participative and digital, if they have designed in accordance to the principles of EE and ESD. The Tool is suitable for qualitative approaches of primary/forecasting/diagnostic evaluation of SPEEs, focusing to the needs of stakeholders and participants, the recording of objectives, type and model, schedule and budget of evaluation. In the construction of the evaluation Tool, were took 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), also the Evaluation Tool of the environmental teachers' training projects regarding the determination of requirements for the SPEEs implementation (Kalathaki, 2015).

Table 1:-Evaluation tool for the forecasting evaluation of school environmental education projects (SPEES)

1 PRACTICAL ISSUES OF APPLYING THE FORECASTING EVALUATION
a. who will carry out the forecasting evaluation procedure (school forum, open discussion, committee of students and teachers)
b. establishing monitoring and evaluation indicators and criteria (input, process, outcome, attainable outcomes, professional core tasks, transparent and balanced framework)
c. timing of the project's actions
2. SERVICE OF REQUIREMENTS AND EXPECTATIONS OF THE STAKEHOLDERS
a. of the operator of the project implementation (school, educational directorate)
b. of the participants to the project (students, teachers, local authorities, bodies, scientists, organizations, universities, enterprises, etc.)
c. of the recipients of the project results and evaluation report (school and local community, educational authorities, acceptance, use and ultimately usefulness)
3. METHODOLOGY OF THE FORECASTING EVALUATION
a. the selection of the type and model of evaluation (primitive, formative, final, self-assessment)
b. the links to the school curricula (divided into general and particular, interdisciplinary, modern characteristics, ICTs)
c. valuation of the project objectives (knowledge, skills, values, principles of Education for the Sustainable Development), setting evaluation's objectives
d. efficiency of available resources (educators, economical support, infrastructure)
4. RELEVANCE OF OBJECTIVES AND ACTIVITIES
a. educational activities,

b. social and environmental interpretive actions.

The Tool applied in the archival material of 22 SPEEs, printed and digital, of the Application Forms (AF) and Final Reports (FR) for content analysis (Cohen & Manion, 1994; Bell, 1997; Iosifidis, 2003). The AFs were of two types A and B, because 8 of the studied SPEEs were funded, also, by Aegean University which required specific type of Application Form (AF-A), more analytical. The AF-B is the demanding type by the Greek Ministry of Education.

The applied research criteria of the Tool are referred to the stakeholders and participants of the project, the educational objectives and actions, the requirements and usefulness of the project, the type and model of the evaluation, concerning the beginning of the project: 1. Practical Issues of applying the Forecasting evaluation: a. who will carry out the forecasting evaluation procedure, b. establishing monitoring and evaluation indicators and criteria, c. timing of the project's actions, 2. Service of requirements and expectations of the stakeholders: a. the operator of the project implementation, b. the participants to the project and c. the recipients of the project results and evaluation report. 3. Methodology of the forecasting evaluation regarding: a. the selection of the type and model of evaluation, b. the links to the school curricula, c. valuation of the project objectives, 4. Relevance of objectives and activities: a. educational activities, b. social and environmental interpretive actions.

Results and Findings:-

As the research revealed, there is not planned evaluation process in the initial design of the studied SPEEs. Greek Ministry of Education does not request in the AFs-B explanations on who, why and what in SPEEs' evaluation.

Practical issues of applying the forecasting evaluation:-

Who will carry out the forecasting evaluation procedure?

The forecasting evaluation can be carried out in the school forum, at a school conference, with an open discussion of all those who intend to participate in the project, or by a committee of students and teachers. The asked evaluation in the AF-Bs is only indicative, (circular YPEPTH, 2007), where requested to complete the question "Who will do the evaluation of SPEE? (From A. Students/Self-assessment, B. Teachers). In the studied SPEEs, teachers had to select the type of planning evaluation in the project by clicking only the option, they had nothing to describe and explain about. The proposed AFs-A template by Aegean University was more detailed and demanding than the Greek Ministry of Education AF-B, it was more thorough fulfilling about the project evaluation. It asked the type of Evaluation a. primitive/forecasting, b. formative c. final and possible uses of the project evaluation findings (Aegean, 2004).

Similarly, in FRs, which have not a template as AFs had, teachers did not make systematic evaluation, they express particularly evaluative judgments, in relation to what they experienced themselves and gained their students, mainly in the final phase of SPEEs. 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 (2006), where only 5% of SPEEs had evaluation and that was on final evaluation. In 70% of SPEEs, the teachers did rudimentary judgments, since most of them had not thought to evaluate their project. Generally, evaluation in SPEEs which are materialized in Secondary Education in Greece, where it carried out, is empirical and inadequate, with no evidence whether the projects are effective or not (Zygouri, 2005).

Establishing monitoring and evaluation indicators and criteria:-

The indicator framework for educational projects should facilitate clear and transparent reporting, also effective communication about the objectives and achievements of each stage of implementation. UN (2015) established thematic Indicators to Monitor the Education 2030 Agenda by the Technical Advisory Group Proposal, October 2015, of ESD and global citizenship education (GCE), new territories, and with differences in approach, for developing comparable indicators. Among the indicators, at the level of measuring inputs, it could be measured the extent to which elements of ESD/GCE are found in curricula as subjects and approaches to learning. At the level of measuring knowledge, there is consensus that progress in the acquisition of knowledge and skills related to SD and global citizenship needs to be monitored, even if it is not linked to changes in attitudes and behaviors, linked to the age group.

Timing of the project's actions:-

The evaluation will answer when and whether the expected outcomes of the project have been realized also when and whether the expectations of the schools and the participants have been met. There was no evidence for the alignment control of the assessment timing with the project completion deadlines.

Service of Requirements and Expectations of Stakeholders:-

The project proposal must include adequate activities to evaluate the outcomes of the individuals and the project as a whole. So, the project plan ought to provide information on the impact expected on the students, teachers and others, and on the school overall. Also it has to make suggestions to how the school will integrate the competences and experiences that will be acquired through the project materialization (Erasmus, 2014).

Forecasting Evaluation concerning the Operator of Implementation:-

Public dialogue increasingly revolves around the request of schools' cooperation with other bodies and organizations. Evaluation and inspection systems can provide valuable feedback to school to build upon, not only its achievements but also the benefits of the total school community, and meet changing needs. Unfortunately, parents, students and other members of school and local communities are involved less and less often in the school projects and evaluations than teachers and school councils (EC, 2007).

Needs and expectations of the project operator, that is the school and school community, and wider the Educational Administration of Crete, were not recorded in any of the researched SPEEs. Also, there were no relevant evidence, indicating ways thought the implemented SPEEs to response to the requirements of the award and funding bodies, or even the evaluation's, recipients which are, among the others, the collaborative institutions, organizations, bodies and citizens. In no project sought persons available to engage in the evaluation process, even the comfortable periods for applying evaluation. No data was about the efficiency of educators and human resources in connection with the use of infrastructure and other available resources. Also, no explanation had been on how the school will integrate the competences and experiences acquired by the project in its strategic development in the future (Erasmus, 2016).

Forecasting Evaluation concerning the Participants:-

Primarily, it has to be answered the number of people will be affected by the outcomes of the project and how will be achieved this number. The proposal is good to identifies and addresses clearly the specified needs of the applicant school in terms of educational development of students and teachers. It also has to be described how the project will be aligned with the profile of the students and teachers who will materialize the project (Erasmus, 2014). Teachers, by investigating and evaluating environmental issues and actions, get students to think for themselves and to analyze their own ideas and teach the learners how, not only what, to think (Hungerford et al, 1996).

Given the empirically proved importance of the teacher education, educator in the inspiration and formation of the teacher, in teacher education, the educator is an extremely marginalized part of research (cf. Van der Walt et al., 2011). The reality of increasingly multicultural society's worldwide necessitates the inclusion of multicultural and intercultural education in teacher education programs. This entails not only a knowledge of other cultures and their cultural heritage, but is also a matter of attitude of creating intercultural sensitivity (Wolhuter, 2011). There is also the issue of making teacher education accessible to members of the entire spectrum of cultural groups. Some intellectual of the EE area believe that ESD should not just focus on school audiences, but also and perhaps foremost on situations where informal and non-formal education takes places, i.e., the workplace, recreation areas, people's homes, etc., as well as in policy and decision making processes. Some even prefer to speak of learning rather than of education. Since, in their eyes, education has strong connotations with in-school and formal learning whereas, the 'broader' concept of learning refers to learning taking place at all levels in all situations formal, informal and non-formal (Hesselink et al, 2000). Having this point of view for SPEEs, teachers need suitable education and training to receive before they undertake the implementation of a SPEE. There were no evidence in the researched archival material about training and education of teachers and whom they would consult and support professionally on designing and implementing the project and especially the evaluation. In a metacognitive approach of the evaluation applied in the studied SPEEs, about the same archival material, Kalathaki and Sfakianaki (2008) remarked to have a substantial positive impact on the participants' competences and future professional practice.

In the studied archival material, it was not mentioned needs and expectations of students and teachers who participated in the project on their 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

the SPEEs materialized in Secondary Education of Attica and who, in the following years, did not participate in new. They related their attitude, mainly, to difficulties and adversities of the school environment, generally in inadequate support of the projects by the school directors, the colleagues and the Educational Administration which could have been avoided with a better initial/forecasting evaluation of the implemented SPEEs.

Initial Evaluation concerning the Recipients of the Evaluation Results:-

Identification of the recipients of results and conclusions of the project's evaluation is important element of the project. It was requested to be recorded in the AFs-A, not in the simpler AFs-B. In this criterion, analogies found to the recordings of the recipients of the project results, even it was not given concrete recipients' description and categorizations of the conclusions in AFs and FRs, not even their fitted profile to the project (Ioannidou et al, 2005).

The objectives of the evaluation does not necessarily coincide with the educational objectives of the project. In forecasting evaluation as primary assessment, usually carried out an initial investigation of the level of the aims' satisfaction and the results may lead to a redefinition of the objectives, methods, partners, even of the project scope. Regarding the service of the purpose and objectives of SPEEs evaluation, no recordings of evaluation targets were detected in the AFs-B and FRs of the studied projects. In the AFs-A there is a special field on the utilization of the findings of the evaluation, with widespread references of joint drafting and/or general information on the projects' objectives, the used educational techniques to achieve these goals, but without clear assignments of the initial evaluation of these objectives and the methodological tools. In all AFs-A becomes clear definition of additional knowledge, but not participants' skills that each SPEE aimed to provide, with clarity in the wording of cognitive and psychomotor objectives and how to evaluate them during all phases of project materialization.

In educational projects' design, must be also assessed the structuring and the project development, so the findings of the evaluation to be useful in the future to redesign the educational process, when repeated (Koutouzis&Chatziefstratiou, 1999). Below are some excerpts from the AF-As of two projects. The program A7 had aims, among the others, "*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 was 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*".

Methodology of the Forecasting Evaluation:-

UNESCO (2012) proposes teaching with multiple perspective approach. Eight complementary and specifically approaches are selected, as of high importance, for understanding the complexity of the world today, for understanding long-standing global inequities and problems, and for their appropriateness for secondary students. They are scientific, historical, geographic, human rights, gender equality, values, cultural diversity and sustainability perspectives.

Selection of the type and the model of evaluation:-

There were not retrieved data from the AFs-B and the FRs to answer this criterion of selection the type and the model of evaluation (Vergidis&Karalis, 1999). Only the 8 AFs-A approved for funding by the Aegean University had descriptions in special field about initial, formative and final evaluation of SPEEs, to report and analyze the type, means and utilization of project evaluation. It was the same teachers who completed the two types of AFs, but, because it was not requested in the AF-B, they had not made any reference on this matter. In the FRs of the SPEEs, fragmentary evaluation elements were noticed. Only one program, A5, proposed in AF-A to materialize external evaluation: "*Evaluation by third parties with a questionnaire during the presentation of the project*". In the AF-A of the project A1 designed "*Monitoring of the change, if any, to the knowledge, attitudes and behaviors of students*". In the AF-A of the project A3, during the initial evaluation planned to be done "*Detection of particular inclinations and skills of the students to take into account of the division of labor ("students as painters, actors, lyricists")*".

The self-evaluation, from the beginning to the end of the SPEE, does not aim to control, but improving quality of educational work. It motivates all school factors, engages many people in joint determined actions, commits towards predetermined designs, builds collaborative behaviors, concrete problems and suggests areas for self-education and training (Papaioannou, 2013). No self-evaluation references were detected in the studied SPEEs.

Project's links to the school curricula:-

All school projects' results ought to be incorporated in the management and pedagogical, curricular framework and practice of the school. Applying in SPEEs the characteristics of new curriculums of the 2010 Greek educational reforming of Greek schools called 'New School', the projects, as all educational activities, must be aims-centered, innovative, sustainable, integration and digital. More analytically, a. the aims-centered projects propose objectives relating not only to building knowledge, but also to develop skills and desirable attitudes, b. the innovative projects put the focus of learning process on the students and their contribution to the initiation in research procedures and processes that promote scientific way of working and thinking ("young scientists" or "young investigators"), has a proper evaluation, etc., c. the sustainable projects help people to become sensitive to environmental issues and stakeholders for the sustainable development, d. the integration projects adopt collaborative teaching and learning processes by fostering responsibility, honesty, mutual aid, self-confidence and acceptance of the other, of the different, e. the digital projects adequately integrate ICTs to achieve specific learning objectives (PI, 2011). As Information and Communication Technologies (ICTs) have an enormous potential to support autonomous learning, the collaborative construction of knowledge and skills development, they must be exploited, in the higher possible degree, in all educational projects (EC, 2007). There were no references on the assessment of the researched archival material regarding the above characteristics in the projects' design. Of course the projects had some or all the above characteristics, indications immersed from the describing materialized activities, but hadn't not expressly referred in the AFs or elsewhere as initial/forecasting valuation approach.

Evaluation of the project objectives:-

In EE are evaluated/assessed individuals, resources and procedures. Evaluation items of SPEEs (Dimitriou, 2007) may be the knowledge, skills for the recognition of environmental issues and the mesh of relationships that create them (values, attitudes, physical, social, economic, cultural factors), skills to investigate environmental problems (data collection from various sources of information, data synthesis for investigating problems, recognition alternatives), attitudes, values, participation and possibility to take action to protect the environment. The targets of the projects should be clear, concrete and realistic because lack of clarity of objectives is one of the major causes of ESD projects going astray (Hesselink et al, 2000).

The SD agenda calls for an explicit focus on equity, including equity-specific goals on gender equity and reductions in inequalities. In response, education indicators should aim to capture variation across different sections of the population defined by group and individual characteristics, such as sex, wealth, location, ethnicity, language or disability, and combinations of these characteristics (UNESCO 2012; UN, 2015). 'The Future We Want' Conference's outcome document emphasizes the importance of greater international cooperation to improve access to Education including through building and strengthening education infrastructure, increasing investment in Education, particularly to improve the quality of Education for all in developing countries (Rio+20, 2012). It encourages international education exchanges and partnerships, including the creation of fellowships and scholarships to help achieve global education goals.

Where evidence retrieved about the type of SPEEs evaluation, revealed that the evaluation is independent from the project objectives, is not systematic and written only the positive outcomes that experienced students and teachers. In the FR of the project A3, teacher says that *"The environmental team having put high goals, I think, that has managed to achieve them"*. According to Mager (in Aegean/spee, 2004), when didactic aims formulated, they must respond to the questions of what the participants must be able to do (activity), under what conditions they can do it (conditions) and how well has to do it (criteria).

Efficiency of available resources:-

Forecasting evaluation of the efficiency and efficacy of the available resources for the project materialization, such as educators, economical support, infrastructure is fundamental for SPEEs implementation because the planned educational actions are usually much demanded and uncommon to the used school methodology of lessons and educational projects. All AFs had forecasting budget for the economic needs of the studied SPEEs. The AFs-A had analytical budget records and some explanations on the monitoring mechanism of the economic potential of the project with the estimated materials of type, quantity, cost, transportation on how many and who, publications, and in a few of them about the forecasting revenue. The AF-B had records about the total amount and, in some cases partial needs. In FRs there were no references about the way they work in order to support economically the project actions which constitutes part of forecasting evaluation.

Relevance of Objectives and Activities:-

Specifying the relevance of objectives and activities, the educational activities ought to match the objectives. Programming of activities has to be clearly defined, comprehensive and realistic, matched to the capacity of the participating organizations (Erasmus, 2016). The planned activities must versus needs with a prediction about what will be future activities matching the identifying needs and objectives. With the educational activities and actions in social and environmental interventions, in the school and the society, communication becomes a broader concept in dissemination and exploitation of the project results, with the information and promotion activities to raise awareness and enhance the visibility of the project's activities (Erasmus, 2016).

When objectives set out at the levels of ecological foundation, at the level of conceptual education for environmental consciousness and shaping environmental attitudes, at the level of life and action skills with eco-management level greatly assist the selection of appropriate activities to achieve effectively them (Zachariou, 2007).

In order more effectively to be achieved the objectives of SPEEs, would be selected appropriate pedagogical, teaching methods and instructional materials, especially active participatory methods in interdisciplinary, multidisciplinary and holistic approach of the issue. To this contribute, also, the clear definition of the objectives and the determination of the type, model, methods and assessment techniques which will be applied from the beginning of the process.

Educational activities:-

The subject content of ESD needs proper understanding, taught with learner-centered methods, communication at a mutually agreed time between the teacher and the environmental team, benefiting effectively of issues involved in the renewal of a common world (Ojedokun, 2012). The educational activities must negotiate issues at a more detailed level than simple information, such may be visits, magazine publishing, seminars, educational projects on television, educational videos, etc. (Aegean, 2004).

The educational software applications, which are frequently used to cultivate knowledge and skills in various issues of SPEEs, is special software with clear learning and teaching purposes in various forms of multimedia applications and robotics, applets or general software, mostly web2.0 technologies and applications. The study of FRs showed that all the phases of the projects had been properly developed, with many actions and activities, in order to achieve their objectives.

Over and above the dissemination of project results, the transfer of competences acquired during themobility and actively involvement of the participants are also of high educational importance for the project benefits.

Social and environmental interpretive actions:-

Interpretative activities and actions serve the reveal of the physical processes to the learners with the presentation of complex and simpler issues at an understandable level to the general public, without the use of specified terminology. They include exhibitions, brochures, tours, pathways, lectures, presentations, voluntary environmental activities, etc. (Aegean, 2004; Katsikis, 2000). Useful tools in the design and implementation of such activities are the multimedia and Internet sites become a very flexible and powerful tool for disseminating educational activities. According to the annual Circular of Ministry of Education for Environmental Education, the basic principles to be designed the SPEEs' activities, are the interdisciplinary approach, the experiential approach, the opening of school to society, the development of democratic dialogue and the cultivation of critical thinking. As teacher E1 said, "Was an attempt to bring the school closer to the community, get to know the students the principles and institutions of public administration to manage growth, to learn about the management practices developed in areas of great ecological and cultural interest of the site and elsewhere." "The program aim (AF) was" to make students aware of the geophysical and cultural identity of the regions with different biodiversity than that of their place".

Democracy in schools also has a practical reason to exist as an effective way for creating a climate of confidence and responsibility within schools. The contribution of school staff, including teachers is key to the success of each school (EC, 2007).

Conclusion:-

In SPEEs, evaluation is organic part of the project and assigned to weighty significance, since it is an inquiry educational process. In Greek Secondary Education, the evaluation in the educational process is limited and in this general climate, happens the inexistent initial evaluation of SPEEs. The carried out research was a qualitative approach to the initial, forecasting, diagnostic evaluation of school environmental projects, focusing to the needs of stakeholders and participants, the recording of objectives, type and model, schedule and budget of evaluation. As concluded from the research, the design of the evaluation is extremely neglected in SPEEs submitted for approval of implementation in Secondary Education, as none of the type of Application Forms (AFs) and Final Reports (FRs) had recordings about evaluation objectives, timetable and required financing when SPEEs were designed. This lack is, mainly, attributed to not requirement in the completion and submission of the AF-B to the local educational Administrations. The studied SPEEs not provide forecasting assessment of the expecting results in terms of the students themselves and the usually involved school and local community. Actually, this would be concomitant to the recording of students' and stakeholders' expectations from the educational project, if it carried out a primary research, at the beginning of the project designing, to reveal the needs and expectations of the school and local community, as it happens in Adult Education projects. Due to educational research, our concepts of learning continue to be evolved, but remains a long way until the outcomes from the international researches to be fully assimilated in teaching methods and school organization of Greek SPEEs.

Recommendations:-

According to the research results and reported highlights of other researchers, it is required previously specialization and training of teachers in the design and implementation of evaluation process, particularly in setting the objectives, the choice of form and type, to select appropriate activities that match more effectively to the SPEEs' targets and the way they will be evaluated in the initial, formative and final level. The requested by the Greek Ministry of Education template of AF-B is substandard and needs upgrade, taken into consideration the Application Form (AF-A) suggested by Aegean University. In order to design aims-centered, innovative, sustainable, integration and digital environmental educational interventions in the Greek schools of the 21st century, need to prepare comprehensive frameworks with detailed project templates, by well-educated teachers. By evaluating and reflecting thoroughly the past we can looking more hopefully at the future.

References:-

1. Aegean (2004) Project Management Guide "School Programs of Environmental Education", 2002-2006, Aegean University, available www.Aegean/ee.gr
2. Aggelidou E. & Kritikou E. (2006) How is shaped the profile of teachers of Secondary Education of East Attica who permanently or temporarily stopped the implementation of environmental education programs, 2nd Congress of School Programs IP Athens 15-17 December 2006
3. Bell J. (1997) Methodological Design of Pedagogical and Social Research, Publications Gutenberg, Athens
4. Circular YPEPTH Doc. Ref. 117 302 / C7 / 19.10.2007, entitled: Design and implementation of School Activities program: Career Education, Environmental Education, Health Education, Cultural issues, Comenius-Leonardo da Vinci and eTwinning, Integrated Administrative Affairs Sector Studies, Education and Innovation, D / Directorate of Advisory Vocational Guidance and Educational Activities, section B of Environmental Education, Athens
5. Cohen, L. and Manion, L. (1994) Research Methods in Education (4th edn), London: Routledge
6. Dimitriou A. (2007) Evaluation of School Programs of Environmental Education, University Notes in the Postgraduate Program of Environmental Education, University of the Aegean, TEPAES, Rhodes
7. Dimitropoulos E. (1999) Evaluation of Education and Training Programs, the evaluator Guide, Gregory Publications, Athens
8. Drakonaki Ch. (2006) Environmental education in schools of Secondary Education of Lasithi, 2nd Congress of School Programs of Environmental Education, Athens 15-17 December 2006
9. EC (2007) Schools for the 21st Century, Working Paper of the European Commission Services, Brussels, 11.07.2007, SEC (2007) 1009, Available 23-09-2010 http://ec.europa.eu/education/school21/consultdoc_el.pdf and 29-01-2016 http://e-learning.sch.gr/pluginfile.php/7824/mod_resource/content/0/GENIKO_MEROS/ENOTHTA_1/MATHIMA_1/SCHOOLS_FOR_THE_20TH_CENTURY.pdf
10. EKDDA (2012) Indicators for Programs' evaluation INEP, <http://www.ekdd.gr/ekdda/index.php/gr/2012-06-19-08-31-50/48-2012-06-29-12-10-45/118-2013-01-04-09-27-47>

11. Erasmus+ (2014) Guide for Experts on Quality Assessment, Actions managed by National Agencies, European Commission, Version 1: 26/02/2014, available 220416 http://jaunatne.gov.lv/sites/default/files/web/ErasmusPlus/2014/dokumenti/expert-guide_en_youth.pdf
12. Erasmus (2016) Erasmus+ Programme Guide, Version 2 (2016), https://eacea.ec.europa.eu/documents/eforms_en
13. Flogaiti E. (1993) Environmental Education, Greek University Press
14. Flogaiti E. (2006) Education for Environment and Sustainability, publications Greek Letters, 2nd edition
15. Frangoulis I. (2006) Design and development of Quality Indicators for Evaluating Local History's Programs in Primary Education, 5th National Conference of Greek Pedagogical Society, Thessaloniki 24-26 November 2006
16. Hesselink F., Kempen P., and Wals A. (Editors), (2000) ESDebate: International debate on education for sustainable development, Commission on Education and Communication of IUCN - The World Conservation Union, IUCN Publications Services Unit, Switzerland
17. Hungerford H., Litherland R., Peyton R., Ramsey J. & Volk T. (1996), Investigating & Evaluating Environmental Issues & Actions, available 5-4-2007 on http://www.classroomearth.org/classroomearth/programs/investigate_and_evaluate.cfm
18. Ioannidou E., Kourou M., Tzelve-Anesti S. (2005), The Contribution of environmental education programs in the effectiveness of the school, 1st Conference of School Programs of Environmental Education, Corinthia 23-25 September 2005
19. Iosifidis Th. (2003) Qualitative Data Analysis in the Social Sciences, Kritiki Publications, Athens
20. Kalathaki M. & Sfakianaki M. (2008). Metacognitive approach of an evaluation inquiry of school projects of environmental education in prefecture of Heraklion, Proceedings of 4th Panhellenic Conference of PEEKPE under the auspices of the Ministry of Education, "Towards Sustainable Development, Natural Resources, Society, Environmental Education", Nafplio 12-14/12/2008, in electronic format on CD-ROM and on the website, <http://kpe-kastor.kas.sch.gr/peekpe4/proceedings/synedria11/kalathaki.pdf>
21. Kalathaki M (2015) Evaluation Tool for Teachers' Training Projects of Environmental Education, International Journal of Education, Macrothink Institute, ISSN 1948-5476, 2015, Vol. 7, No. 1, <http://www.macrothink.org/journal/index.php/ije/article/view/6927/5719>
22. Katsikis A., (2000), Environmental Education: Findings and configured orientations. Environmental Education in the Context of the 21st Century Education: Perspectives and Possibilities. Larisa: Primary Education UTH, pp. 101-110.
23. Koutouzis M., Chatziefstratiou I., (1999) Evaluation of the Educational Unit, in Administration of Educational Units-Social and European Dimension of Educational Administration, Volume III, Greek Open University, Patras, 1999
24. Mavrikaki E. (2001) The problem of the evaluation of school environmental education programs-Models, evaluation processes and proposals, Congress School Knowledge and Teaching in Primary Education, Ioannina
25. NTUA (2007) Educational material for Teachers and Executives Training Seminar of Environmental Education, EPEAEK II Writing Group with scientific responsible Professor Koutsopoulos K., National Technical University of Athens
26. Ojedokun E. O. (2012) Diffusing Education for Sustainability Into Teacher Education Programme in Nigeria: A Theory in Use, World Journal of Education, Vol. 2, No. 2; April 2012 doi:10.5430/wje.v2n2p109 URL: <http://dx.doi.org/10.5430/wje.v2n2p109>
27. Papaioannou (2013) Evaluation in Education, Management Proficiency Certificate National Centre for Public Administration and Decentralization (EKDDA)
28. PI (2011) Major Training Program, Basic Training Material, Volume A: General Part, Pedagogical Institute, Athens, available on <http://www.epimorfosi.edu.gr/>
29. Rio+20 (2012) "The Future We Want", Conference_outcome_document, Rio+20 United Nations Conference on Sustainable Development, Rio de Janeiro, 20-22 June 2012 <http://www.hellenicaid.gr/diethnes-plaisio/diethnes-plaisio/pagkosmia-diaskepse-gia-te-biosime-anaptuxe-ton-ee-rio-20.html>
30. UN (2015) Education 2030 Incheon Declaration and Framework for Action Towards inclusive and equitable quality education and lifelong learning for all, available http://www.unesco.org/new/fileadmin/multimedia/HQ/ED/ED_new/pdf/FFA-ENG-27Oct15.pdf
31. UNESC (2004) Draft UNECE Strategy for Education for Sustainable Development, Addendum, Background, 2nd Regional Meeting on Education for Sustainable Development, Rome, 15-16 July 2004, cep/ac.13/2004/8/add.1, 18May 2004, Economic Commission for Europe Committee on Environmental Policy
32. UNESCO (2012) Exploring Sustainable Development: A Multiple-Perspective Approach, Education for Sustainable Development in Action, Learning & Training Tools N°3 – 2012, UNESCO Education Sector,

- United Nations Decade of Education for Sustainable Development (2005-2014)
<http://unesdoc.unesco.org/images/0021/002154/215431E.pdf>
33. UNECE (2006) Expert group on Indicators for Education for Sustainable Development, Fourth meeting, The Hague (the Netherlands), 10-12 May, Available 070208 on <http://www.unece.org/env/esd/inf.meeting.docs/EGonInd/Guidance.for.reporting.final.e.pdf>.
 34. Vergidis D. & Karalis Th. (1999) Adult Education: planning, organization and evaluation of programs, EAP, Patras, 1999
 35. Wolhuter C.C. (2011) Teacher Education to Meet Twenty-First Century Society, chapter in book 'Teacher Education in Modern Era, Trends and Issues' by Anastasiadis P et al, University of Crete, Pedagogical Institute, Athens
 36. Zachariou A (2007) Interdisciplinary in Environmental Education and Education for the Sustainable Development, University Notes in the Postgraduate Program of Environmental Education, University of the Aegean, TEPAES, Rhodes
 37. Zygouri E., (2005), Evaluation of environmental education programs: Theory and Practice, Athens: Typothito