US-China Education Review B, December 2017, Vol. 7, No. 12, 552-560
doi: 10.17265/2161-6248/2017.12.002

# Greek Model Experimental Schools, Too Good to Last: An Attempt to Evaluate*

Chiotelis Ioannis, Theodoropoulou Maria
University of Patras, Patras, Greece

Since 2011, the Greek Ministry of Education introduced Law 3966—instituting the model experimental schools. New policies were applied to these special schools that differentiate them from other types of schools. The major changes were towards personnel recruitment. As for the very first time in Greek public education, teachers were recruited after evaluation and interview and students were joined these schools after national exams, too. On the other hand, some of the innovative educational methods implemented were the excellence groups instituted for the very first time in Greek public schools—participation in European programs (e.g., Erasmus +) and open-to-society educational programs. Additionally, information and communication technology (ICT) was strongly introduced in learning procedure, teachers were encouraged to participate in highly rated in-service training courses, and a serious number of conferences were organized nationally. Despite of these remarkable educational achievements in 2016, the government decided to make some serious changes in the law, thus, causing fatal setbacks to schools' project plans. In many experimental schools, the five-year educational plan, which was planned according to Law 3966, was brutally interrupted, as this type of schools actually did not exist anymore! As the initial plan was predicting a major evaluation after a five-year period, these crucial law changes cancelled any type of evaluation, almost two years before the end of this period. Eventually, teachers were no more interested in producing and introducing innovation in their classrooms. In this paper, we are trying to record the changes caused to the number and quality of educational activities (excellence groups, educational programs, and innovative teaching methods) after these major law changes. We detected a dramatic decrease in the number of activities and exceptional disappointment to highly qualified teachers and educators. So, we are questioning ourselves: Were model experimental schools too good to be Greek, or these changes were too Greek to be true?

*Keywords:* model experimental schools, evaluation, educational policy impact to Greek society

## Introduction

Some years ago, in 2009, European Union (EU), in order to improve the quality of the provided education, to empower and encourage creativity and innovation, and to offer equal opportunities, proposed and organized the 2020 agenda for education in Europe called "Europe 2020." Within all the other parameters, Europe 2020 predicts new innovative educational methods and techniques implemented in all European schools and all education levels (European Commission [EC], 2010). Also, teachers' and students' motilities were strongly

*Acknowledgement: This research paper was funded by the European program Erasmus + KA2 code: 2015-1-EL01-KA201-014029, titled "E-learning interactive open school."
Chiotelis Ioannis, Dr., professor, Department of Primary Education, University of Patras.
Theodoropoulou Maria, Dr., special research and teaching faculty, Department of Primary Education, University of Patras.

proposed towards the direction of cooperation and good practices exchange. Greece, as a member of EU, was invited to reform its educational policies towards the priorities of the *Europe 2020 Agenda*. These innovative educational approaches had to be addressed and set within a national educational framework. Apart from these EU main strategies, Greece was facing the problem of bad results in Program for International Student Assessment (PISA) (see http://www.compareyourcountry.org/pisa/country/GRC?lg=en) competitions impacting in low Organization for Economic Co-operation and Development (OECD) placement in the global educational ranking (Martens, 2010; Marlier, 2010).

According to these two axes, a new pilot type of schools was proposed, called "model and experimental schools." In 2011, the Law 3966 was proposed and voted by the Greek parliament under vast majority, establishing a new pilot type of schools. A wide call to public primary and secondary schools was announced in order to choose the initial hub schools. Finally, 61 schools from primary and secondary education were selected to become pilot schools characterized as model and experimental schools. Law 3966 also predicted evaluation procedures for recruiting teachers and exams for students. Teachers' evaluation was the first major matter that causes many protests and disagreements. Former teachers in the selected schools who did not accepted to be evaluated left the schools and a national call was announced to recruit new ones. This was also against former Greek laws that were ruling and predicting teachers' mobility. As teaching years was the major criterion for position occupation and teachers' mobility from school to school, this extra possibility for mobility, especially for young highly qualified teachers was a matter of debate but often caused great disagreements (Zarotiadou & Tsaparlis, 2000).

Despite of the problems caused mainly from new coming law adjustments at the beginning, model and experimental schools introduced many new innovative educational methods and techniques. There were some of the most remarkable activities through information and communication technology (ICT), and modern teaching means, such as in-service training, interschool contests, collaboration with universities and research institutes, mentoring, and conferences. These educational programs can approach to excellence and creativity groups (Katsillis & Rubinson, 1990). Many schools regarding the need of financing their own activities, proposed successful European project (e.g., Erasmus $^{+}$), thus, financing their innovative ideas under the auspices of EU. The initial schedule for model and experimental schools was a five-year plan, including an evaluation after three-year time, and finally, a major evaluation at the end of the five years. The intermediate evaluation never fulfilled due to political reasons (elections), but since 2015, the new elected government banned any evaluation procedure and frizzed Law 3966 concerning matters of model and experimental schools. Since then, these types of schools are under uncertain conditions and unknown future. In this paper, we are attempting to evaluate the impact of this type of schools to Greek education. We collected all data related to innovative activities and the propagation throughout these five years. We also inquired the impact of political reforms and decisions on teachers' activities and school innovation.

## Propagation of Innovative Activities in Greek Model and Experimental Schools Excellence and Creativity Groups

According to Law 3966, model end experimental schools can organize and support groups of excellence and creativity. Actually, this ability differentiates experimental schools from all other types of public schools in Greece. These groups are organized just after the main curriculum and mainly refer to non-typical education subjects. During the research, we visited all WebPages and searched for excellence groups organized to all

model and experimental secondary schools since 2012, recording also the respective deliverables. In case of lack of data, we contacted to each school of interest and gathered data instantly. In Figure 1, we can see that the number of organized excellence groups to secondary level experimental schools during the last five years.

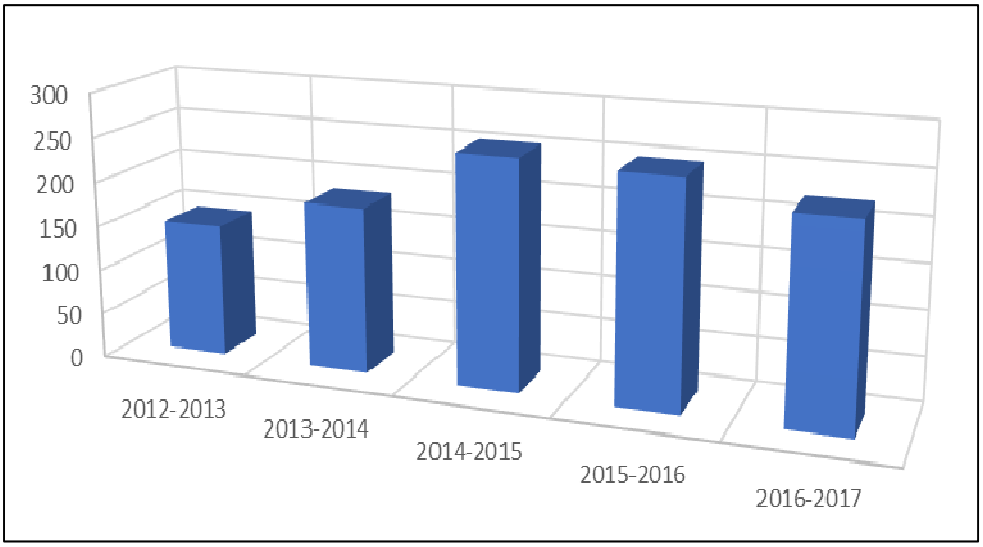


*Figure 1.* Organized excellence and creativity groups per school year in model and experimental schools.

As we can see from Figure 1, during the first three school years, we recorded an increase to the number of the innovative excellence and creativity groups. This increase is mainly attributed to the willingness of teachers to work on new ideas in collaboration with students and create in a totally new working and educational environment. Of course, teachers also aimed to supervise an excellence group in order to upgrade their curriculum vitas (CVs) under the condition of an evaluation after a three-year period. On the other hand, we recorded a decrease in the number of proposed and functional groups during last two school years. This decrease was caused mainly after cancelling any type of evaluation and partly transforming the Law 3966. These changes discouraged teachers to propose and supervise new excellence groups as there was no kind of reward for extra effort. This is one of the most remarkable side effects of cancelling an evaluation procedure. Fair play between teachers triggered a sequence of activities mainly innovative towards the direction of excellence and creativity. Absence of fair play competence reflected to the reduce of non-typical educational projects.

## Educational Programs

We then considered the possibility of exceptional reaction in the excellence groups, because of their special character. Thus, we searched for similar data related to the educational projects. Greek schools can propose and compose educational programs related to cultural, environmental, athletic, vocational, and health subjects. These programs also aim to non-typical education courses and are very common within all types of Greek public and non-public schools. In model and experimental schools, educational programs proposed towards innovative directions, incubating ICT, new technologies, new ideas, and developing strong relationships and collaborations with universities and research institutes. As these educational programs are very common within Greek schools, we initially considered that will be similarly popular to experimental schools and not affected by law transformation.

Though, as we can see in Figure 2, we recorded similar trend as the excellent group revealing the importance of motivation for teachers and educators.

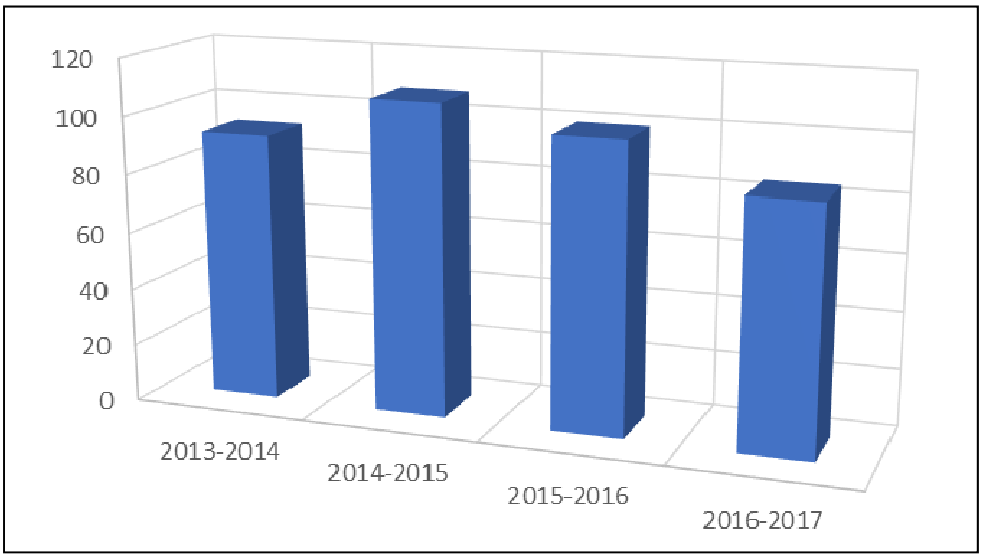


*Figure 2.* Organized educational programs per school year in model and experimental schools.

We can even easily observe that within the first years of model experimental schools there was a strong increase in composed and supervised educational programs, but just after the changes in law a strong decrease detected. We cannot discard in any way how beneficiary and triggering motivation is, and under no type of reward, gradually teachers are lowering their efforts. We must mention that teachers are always willing to supervise extra activities for students, but as these activities has no extra profit (These are no payable activities), they prefer to focus on typical education courses under the pressure of student's' families for success at their exams. We must mention that our research focused on secondary education schools which are strongly related to exams for universities.

## Erasmus $^{+}$ and Comenius Programs

Another important aspect of these schools was the number of successful Erasmus $^{+}$ proposals applied for funding from EU. We recorded in total 21 Erasmus $^{+}$ projects funded with hundreds of thousands of euros. We can mention the experimental high school of University of Patras that applied successfully for totally over 100,000 euros from several projects. Regarding that the national annual funding is less than 8,000 euros per school and we can realize how important this amount is for each school.

Apart from the economical part, these programs are important for the extroversion of schools and openness to societies. Entangles and promotes collaboration between several partners, including universities, research centres, and companies. Additionally, schools, teachers, and students through European motilities are gaining a more cosmopolitan character in the same way the former Comenius programs did in the past. By the way, we must mention that three schools also mentioned that are still gaining profits from their former Comenius projects regarding them as totally positive for the evolution of their schools.

## Innovative Activities, Conferences, and In-Service Trainings

We then recorded all type of innovative activities including organized conferences, in-service trainings,

and distinctions of teachers and students. In Table 1, we can see that all these activities in total during the five years.

Table 1

*Innovative Activities, Distinctions, Conferences and In-Service Trainings*

| | |
|---|---|
| Innovative activities | 485 |
| Distinctions | 287 |
| Other kind of innovative activities | More than 100 |
| Conferences and training workshops | 85 |

We must mention the great number of distinctions gained mainly from students' works supervised by inspired teachers. We can refer first positions in international contests, first positions in Mathematics and Physics Olympiads, and many national wins in relative contests. These achievements are strongly related to excellence, which was one of the initial goals of model and experimental schools towards upgrading the teaching level nationally. Under specific conditions, these educational philosophies can assist to PISA competitions and improve the standards of the Greek performance.

As far as concerns the organized conferences, we can mention that after 85 such activities, including workshops, trainings, and many-days conferences, one of the main purposes of the model and experimental schools—the diffusion of good practices was fulfilled. As these schools initially set as pilot schools, under the framework of workshops and conferences, they function as good practices hub schools, tried to communicate their educational practices widely and supported openness to society. Open invited talks during the conferences were unique opportunities for all interested people to attend a more dedicated and special speech.

On the other hand, 485 innovative activities of all types focusing on students' best understanding are a remarkable number for a four-year period. These innovative approaches are also targeting to the European axes set by the EU through the *Europe 2020 Agenda*. Incorporating ICT, technology, new educational techniques, and practices, we altogether altered the level of the provided education. Some of these innovative practices strongly reflected to an international level adopted from many European schools as good teaching practices. Within the same framework, the vast majority of these innovative activities are strongly related to the philosophy of the PISA tests.

Finally, other type of activities, such as open science days, students' science days, study visits, inter-disciplinary educational scenarios, virtual visits, dialogues with experts, astronomical events, and many others complete the so called "future school." All these activities were set to support the deep knowledge of students through hands on activities, inquiry based learning and experimentation. Model and experimental schools achieved to upgrade the Greek educational system, wishing to continue upgrading, in contradiction to against educational policies.

## Reasons and Reactions

According to the findings, we are strongly convinced that motivation is important for teachers and students to develop new educational techniques and good practices. Thus, just after the formation of model and experimental schools, all teachers and educators realized that they have to prepare and organize educational projects within the framework of excellent groups, educational programs, or innovative inter-disciplinary activities. The rise of the number of such educational activities is attributed to this statement.

Apart from this parameter, teachers and students also faced a properly structured educational environment to propose, support, and supervise such activities. As model and experimental schools based mainly on excellent activities, all teachers and students felt the need to participate into contests and cultivating their special talents to compensate under fair play conditions. We justify the great willingness for participation from students to this special knowledge incubator.

We must also mention that according to Law 3966, teachers were supposed to be evaluated after a three-year period. This evaluation was initially proposed as an advisory mean for teachers and educators. Under these conditions, many teachers tried to present as many as possible good educational practices to upgrade their CVs. After political reformations and law changes, teachers never got this advisory evaluation. Furthermore, as the new educational policies were against any type of evaluation, teachers regarded this as a reason for lowering their efforts.

Additionally, salary cuts and reduces also reasoned a general disappointment to teachers and educators. Although money was not the main motivation, and generally was not even a motivation, all other types of reward were also eliminated. Point system for personal or professional development was also cancelled and the only criterion for professional development was the years of professional experience.

Gradually, the number of activities was reduced as is shown in both charts presented in this paper. Teachers and educators since then focused their interest mainly on strictly personal development, applying for a second degree or a Master's degree. Of course, this reaction is somehow positive, but on the other hand, students are not taking part, so they did not gain profit from this alternative. As model and experimental schools' main goal was to raise the impact of knowledge exclusively for students, this reaction was crucially negative.

Of course, we must mention that one of the main policies was to change the type of model and experimental schools basically by changing the Law 3966. This happened in 2015, reforming the main axes of experimental schools and discouraging any excellence activities. Thus, actually all schools were regarded the same without recording possible positive results from the former achievements of model and experimental schools. On the name of school equality, honor distinctions, new educational techniques, innovative activities and more were ignored and never embodied to all types of schools, towards the direction of educational upgrade.

## Dissemination of Good Practices

From the findings presented in Table 1, we can see that 85 conferences, in-service training events and workshops were organized by model and experimental schools. This concludes into a huge number of more than 20 dissemination events per year. Model and experimental schools not only composed and supervised good practices within their own schools, but also diffused all these activities through dissemination events (Pohorille et al., 2010).

In many cases, these events were aimed not only towards teachers and educators, but also towards families, parents, relatives, and local society in general. These activities are actually the basis of open schools to open societies, especially when the subjects are of general interest. We can mention the "1st Student Science and Research Conference" organized on March 11-12, 2017 and the "1st and 2nd National Conference for Contemporary Good Educational Practices" organized in Patras by the experimental high school of University of Patras on October 2016 and October 2017.

Furthermore, we can mention the virtual visit to Ice Cube, a South Pole research laboratory for the neutrinos investigation, organized by a consortium of experimental public and private schools in Patras in

December 2015. This was an open to society event that also incorporated an observation by telescopes. Within the same framework, we can also mention many voluntary events related to social health affairs or charity events organized by the experimental schools. One of the most remarkable categories of events is the info days for radioactivity and the so called "day of the young researcher" organized once per year at the end of September (Blase, 1989).

All these activities are included in the other type innovative activities (see Table 1) and mainly are focused to school extroversion. Many schools also performed virtual visits to Conseil Européen pour la Recherche Nucléaire (CERN) open to people, families, parents, and society. One of the highest impacts of model and experimental schools is the extroversion of this type of schools and mainly the dissemination of good practices, as these activities are promoting scientific literacy to our societies (Weinstein, 1979).

As technology and science propagates and develops fast, it is totally necessary and extremely important to support the scientific asset of people and society in order to make decisions or choose attitudes according to hard scientific data. The so called "scientific literacy" is how people realizes and understands science and scientific matters and act accordingly (e.g., vaccination). Dissemination activities from schools are towards this exactly direction of constantly informing people about new scientific findings (Stoll & Fink, 1996).

## The PISA Rating

Greece has one of the most disappointed ratings in the PISA contest. According to these results, Greece and consequently Greek education is not as good as OECD average in the fields of Science, Mathematics, and Reading. Although, these disappointing results students from model and experimental schools never invited to participate in any way to this contest and evaluation.

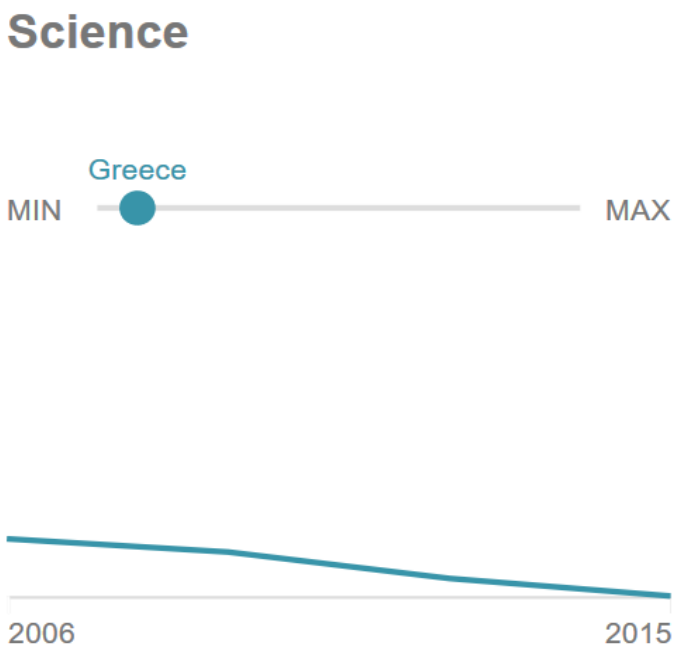


*Figure 3.* Science performance of Greece in the PISA contest from 2006 to 2015.

Especially, in the field of science (including Physics, Chemistry, Biology, and generally Natural Sciences) the results are showing a constant reduce in performance since 2006, although we already rated low enough in

general sequence (see Figure 3). The same trends occurred at Mathematics and Reading ratings, causing a negative impression especially as far as concerns Reading (see http://www.compareyourcountry.org/pisa/country/GRC?lg=en).

Authorities are attributing this disappointing rating into the different educational philosophy that dominates Greek average public secondary school. They somehow claim that the type of PISA examination is not compatible to the Greek educational priorities and basis. As PISA is based on project, problem-solving and inquiry based learning methods, Greek educational system is not compatible as it is mainly oriented towards a typical, old-fashioned, and exam-cantered model (Anagnostopoulou et al., 2013).

This philosophy is somehow in accordance to needs of Greek families, as they strongly persist on success in the exams for the Greek universities. On the other hand, this educational model has some non-profound results revealed years later, as young people seem not to have the correct skills to adjust into modern employment conditions, find or start a job and earn money. In a way, unemployment and economic crisis can be attributed to these educational conditions at the very beginning of students' mature life. Modern economics are strongly joined to personal skills and ability to adjust ourselves to constantly changing global conditions (Murnane & Levy, 1996).

We can easily understand that all innovative approaches applied in model and experimental schools are incorporating problem-solving methods, project method, and inquiry-based learning. We suggest students from model and experimental schools must be invited to participate at PISA exams. In any way, students from model and experimental schools are gaining skills that can certainly assist them in their life time.

## Conclusions

As main conclusions, we can mention the great number of excellence groups, educational programs, and innovative practices supervised at model and experimental schools. Furthermore, evaluation of teachers and educators acts as motivation towards proposition and implementation of new educational and pedagogical practices. Changes in central educational policies can dramatically change trends and behaviour of teachers (mainly) and students (secondly). Model and experimental schools recorded a positive impact in Greek education, so many students applied for studying in this type of schools. We can also regard as positive the successful funding of projects and activities through European programs and the dissemination of good practices nationally and often in European level through funded motilities.

## References

Anagnostopoulou, K., Hatzinikita, V., Christidou, V., & Dimopoulos, K. (2013). PISA test items and school-based examinations in Greece: Exploring the relationship between global and local assessment discourses. *International Journal of Science Education, 35*(4), 636-662.

Blase, J. J. (1989). The micropolitics of the school: The everyday political orientation of teachers toward open school principals. *Educational Administration Quarterly, 25*(4), 377-407.

European Commission (EC). (2010). *Europe 2020: A strategy for smart, sustainable and inclusive growth*. Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF

Hanushek, E. A., & Woessmann, L. (2010). *The high cost of low educational performance: The long-run economic impact of improving PISA outcomes*. France: OECD Publishing.

Katsillis, J., & Rubinson, R. (1990). Cultural capital, student achievement, and educational reproduction: The case of Greece. *American Sociological Review, 55*(2), 270-279.

Lundvall, B. Å., & Lorenz, E. (2012). From the Lisbon strategy to Europe 2020. In N. Morel, B. Palier, & J. Palme (Eds.), *Towards a social investment welfare state? Ideas, policies and challenges* (pp. 333-351). Bristol: Policy Press.

Marlier, E., & Natali, D., & VanDam, R. (Eds.). (2010). *Europe 2020: Towards a more social EU*. Brussels: PIE-Peter Lang.

Martens, W. (2010). *Europe 2020 and beyond.* Antwerp, Belgium: Department of Communication, University of Antwerp.

Murnane, R. J., & Levy, F. (1996). *Teaching the new basic skills: Principles for educating children to thrive in a changing economy*. New York, N.Y.: Free Press.

National Research Council. (2000). *Inquiry and the national science education standards: A guide for teaching and learning*. Washington, D.C.: The National Academies Press.

Pohorille, A., Jarzynski, C., & Chipot, C. (2010). Good practices in free-energy calculations. *The Journal of Physical Chemistry B, 114*(32), 10235-10253.

Stoll, L., & Fink, D. (1996). *Changing our schools: Linking school effectiveness and school improvement*. Buckingham: Open University Press.

Weinstein, C. S. (1979). The physical environment of the school: A review of the research. *Review of Educational Research, 49*(4), 577-610.

Zarotiadou, E., & Tsaparlis, G. (2000). Teaching lower-secondary chemistry with a Piagetian constructivist and an Ausbelian meaningful-receptive method: A longitudinal comparison. *Chemistry Education Research and Practice, 1*(1), 37-50.