Monograph

ARTICLE

Regional Universities and the Learning Society: roles and influence on educational policy and practice

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Abstract

The roles of regional universities should not be underestimated in terms of their influence (economic, political, social and cultural) within the regions. This paper examines one regional university and uses that institution as an example to illustrate both the influence of the university on the region and the impact the regional university has been able to exert on educational policy and practice at the national level. This case study is analysed within the framework of Luhman's theory of the socio-functional equilibrium. This theory explains that a social system has its own dynamic and, as a result, different components and the relationships between these components, within and outside the system, will be harmonised into a self-organising or 'autopoietic' system.

Keywords

regional university, technology education, educational policy, self-organising society, learning society

Universidades regionales y la sociedad de aprendizaje: funciones e influencia en las políticas y prácticas educativas

Resumen

Las funciones de las universidades regionales no se deben infravalorar en cuanto a su influencia (económica, política, social y cultural) dentro de cada región. Este estudio analiza una universidad regional y se sirve de esa institución como ejemplo para ilustrar tanto la influencia de la universidad en la región, como el impacto que la universidad regional ha podido ejercer en las políticas y prácticas educativas a nivel nacional. Éste es un caso práctico que ha sido estudiado dentro del marco de la teoría de Luhman sobre el equilibrio socio-funcional. Su teoría explica que cada sistema social tiene su propia dinámica que da como resultado diferentes componentes, y que las relaciones entre éstos, tanto dentro como fuera del sistema, estarán en armonía según un sistema autoorganizado o «autopoietico».

Introduction

The major role of the traditional university of producing systematic scientific knowledge has changed over time, particularly over the last 50 years. The demand for instrumental knowledge and specialisation stimulated the establishment of mass higher education, polytechnics, and higher vocational education institutions. Currently, the so-called "learning society" requires a re-consideration of the university's role within that society. Learning society refers to one where "all are committed, through effective education and training, to lifelong learning", one in which "people in all walks of life recognise the need to continue in education and training throughout their working lives and see learning as enhancing the quality of life throughout all its stages" (NCIHE, 1977, p.9)

The challenge to link higher education with the constantly changing needs and opportunities of contemporary society is seen as an increasingly important issue by universities and politicians (European Commission 1995; Neave & van Vught, 1991). Creating a fruitful and dynamic partnership between higher education and society at large has become one of the basic missions (together with teaching and research) of universities (e.g. Griffith University, 2002). Pavlova (in press) argued that at the political level, the ideology of the detachment of university degrees and their academic curricula from the labour markets can be regarded as a negative aspect of a university's function due to the insufficient skills development required to increase employability of university graduates. A university's responsibilities and opportunities lie beyond education and research. Universities have a responsibility to lead society towards a sustainable future.

Within this general discussion on the university's role in the modern society, the role of the regional university requires particular consideration. Its role can be explored from a number of different perspectives: political, economic, social and individual as well as within different contexts: national, multi-regional and regional. The complexity of these roles can be understood through the application of Luhmann's theory to the analysis. This theory explains that a social system has its own dynamic and, as a result, different components and the relationships between these components,

within and outside the system, will be harmonised into a self-organising or "autopoietic" system.

This article explores how one regional university in Russia "harmonised" its interaction within different contexts and, through a "communication of messages/actions", established the regulatory mechanisms and frameworks that shaped particular policies in education at different levels. It analyses institutional relationships between the university and the wider society in respect of teaching and learning, the ways power has been transferred from the structure (university) to agency (teachers). The case study examined in this article is related to the educational reform in technology education and to the role the programme *Technology and Enterprise Education in Russia* has played in that process. The nature of the regional university, *Nizhny Novgorod Institute of Education Development*, the nature of technology education and major characteristics of Nizhny Novgorod region are considered firstly, to set up a context for the case study.

The context

Nizhny Novgorod region

Nizhny Novgorod Region occupies a convenient geographical position and serves in a sense as a bridge between the European and Asian parts of Russia. It is situated along the 57th parallel at the confluence of the Volga and Oka rivers. The region covers an area of 80,500 km2. Nizhny Novgorod Region has a population of 3.7 million people (about 2.5% of the population of Russia), 78.2% of whom live in urban areas. The regional centre is the city of Nizhny Novgorod located 400 km east of Moscow. It has a population of 1.4 million, making it Russia's third-largest city. The city of Nizhny Novgorod is itself rich in history and tradition, to the extent that it has been named a World Heritage Site by UNESCO.

In Nizhny Novgorod region there are approximately 1500 schools. 28,000 teachers are employed. There are 26 institutes of higher education, several affiliates of the Russian Academy of Sciences, about 100 scientific research

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laboratories, carrying out research into nuclear physics, chemistry, electronics, and so on.

Nizhny Novgorod Region ranks seventh in Russia in industrial output. Industry generates 83% of the regional GDP. Engineering and metalworking, followed by the chemical and petrochemical industries and forestry, woodworking, and paper industries, account for about 75% of all industrial production. The engineering industry is mainly oriented towards transportation, 34% of the trucks and 26% of the buses produced in Russia are made in Nizhny Novgorod Region. Two Eurasian transport corridors intersect in Nizhny Novgorod Region: the road and railway Pan-European Corridor No. 2 (Berlin-Warsaw-Minsk-Moscow-Siberia TransSib) and a shipping route (Antarctic-Middle Eastern seas through the Volga Basin). (Sources: http://www.government.nnov.ru; http://www.kommersant.com/t-55/r_5/n_399/Nizhny_Novgorod_Region/; http://www.unn.runnet.ru/nn/)

NIRO – Nizhny Novgorod Institute of Education Development

The regional university analysed in this article is Nizhny Novgorod Institute of Education Development (NIRO). It is mainly in charge of in-service teacher training for the region. It is a relatively small institution with 250 academics, including 15 professors. Currently 44 in-service programmes and 10 initial training programmes (re-training other professions into the teaching profession) are open for student enrolment. Its structure includes 2 faculties, 16 departments, 7 research laboratories (see the site: www.niro.nnov.ru). Departments are in charge of in-service training for a particular subject area. The Department of Technology and Labour Training has in-service educational programmes for technology teachers, technical drawing and pre-vocational teacher preparation courses. There are around 2500 teachers from the above categories in the region. The department was established in 1994 and trains around 400 teachers per year. Three professors, one associate professor, four senior lecturers, lecturer and research assistant work in this department.

It is worth mentioning that a well-established system and infrastructure for teachers' professional development operates in Russia and this system has a long tradition. Every five years after university graduation, each teacher must enrol in professional development programmes taught by special universities or institutions. The usual arrangement is one day of study per week during the year or a number of 2-week long sessions during the year (around 100 hour programmes). A teacher's salary level depends on participation and successful graduation from these in-service training programmes.

The importance that is placed on the in-service training of teachers is caused by the Russian encyclopaedist educational tradition, developed from the ideas of Comenius (1967) with the belief that all students should acquire as much knowledge as possible about all valid subjects appropriate to their age. In-service universities were established due to the need to update teachers' knowledge on a regular basis.

The transmission of a universal curriculum was considered to be a route to "liberty, equality and fraternity". These ideas found their roots in the French revolution. Lyotard (1979/1996) described the educational policy of the French Third Republic as follows:

> the nation as a whole was supposed to win its freedom through the spread of new domains of knowledge to the population... The State resorts to the narrative of freedom every time it assumes direct control over the training of the "people", under the name of the "nation", in order to point them down the path of progress. (p.484)

The same description can be used to characterize an understanding of the relationship between Education and State in Russia. In-service training provides the direct control over knowledge transmission to teachers. Programmes are regulated by the State and developed on a very broad basis that includes not only specialised knowledge but general knowledge as well.

NIRO had been a very traditional in-service university, however, despite the long standing tradition of knowledge transmission, the relationships between the structure and agency (university – teachers) had been challenged and changed through the programme *Technology and Enterprise Education in Russia* (T&TEiR). And this is considered as one of the reasons for the successes analysed in this article.

Technology education

For this article, reform in the technology education area has been chosen as the context for the case study. In 1993, Technology Education replaced the subject Labour Training, which had occupied a significant position in the Soviet curriculum. Technology education was introduced as a compulsory learning area in Russian state schools (where

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the vast majority of students study), with 808 hours allocated over the period from Years 1 to 11.

Although the development of curriculum for primary and secondary schools is a shared responsibility between the federal, regional and school levels, it is still a highly centralised system and the federal component of the curriculum constitutes a major part of the curriculum. It is specified by what is known as the *Standards*. The nature of the first *Standards* for technology education (Lednev, Nikandrov, Lazutova, 1998) remained essentially unchanged from Labour Training. A knowledge-based paradigm for education shaped the whole content-based curriculum. Technology was defined as "a science [body of knowledge] regarding the transforming and using of materials, energy and information for the purpose and interest of man" (Lednev, Nikandrov, Lazutova, 1998, p.247). The aims of Technology Education were to:

- develop students *polytechnically*, to acquaint them with modern and prospective technologies of processing materials, energy and information via the application of knowledge in the areas of economics, ecology and enterprise;
- develop general working skills;
- stimulate the creative and aesthetic development of students;
- acquire life-needed skills and practices, including the culture of appropriate behaviour and non-conflict communication in the process of work;
- provide students with the possibilities of self-learning and studying the world of professions, the acquisition of work experience which could be the basis for career orientation. (Lednev, Nikandrov, Lazutova, 1998, p.248)

The educational approach advocated in the *Standards* is the process of transferring the relevant knowledge to the students. There is no acknowledgement that students can construct their knowledge through practical activities. Thus the content was specified in detail in the *Standards*.

A process of designing new *Standards* commenced in 2002 and was related to the process of Modernisation of the Russian Education system. The rationale for developing these *Standards* stated that they should include a re-orientation from the content-based approach to the activity-based approach in teaching and learning. Thus, the outcomes of the learning should be formulated through the patterns of activities that students should be able to perform. The T&EeiR programme analysed for this case study were established when the first Standards were in force.

Technology and Enterprise Education programme

The case study to be analysed here is related to the establishment and operation of the *Technology and Enterprise Education in Russia* programme. This programme had grown from action and research undertaken by Margarita Pavlova into the Design and Technology curriculum in the UK (Pavlova, 1993) over the period 1988 –1994. From 1994, this work had been supported by the English academic James Pitt. The idea of the programme was to examine the ways the project method (design-based approach) could be used in Russian schools within the content-based approach to education. Central to the whole project-based approach is that the students identify real needs, and design and make products (or services) to meet those needs.

Teachers who are following a more design-based approach (the project method) are moving towards an inductive approach to knowledge, and a constructivist approach to knowledge acquisition. They are more likely to give students the experience of some technological phenomenon, and ask them to explain it using scientific language. Experiential, inquiry-based learning is therefore a central element of their pedagogy. "It is widely known that for long-term retention of knowledge, skills and values, we retain 80 percent of what we do and only 10 to 20 percent of what we hear or read" (Cortese, 2003, p.19).

By 1996, seminars for teachers and academics were conducted in St. Petersburg, Moscow, Bryansk, Pskov, and Nizhniy Novgorod. There was huge interest – including requests for seminars from fifteen other pedagogical universities where Technology teachers are trained. The programme *Technology and Enterprise Education in Russia* was established in 1996 with the aim of developing a rationale, standards and curriculum in technology education using the project method (or design-based approach) as its basis, at national, regional and local levels, preparing teaching materials, enhancing competencies among teachers and teacher trainers and organising effective dissemination of the results. Communication was established with the "Centre" (The Federal Ministry of Education and The Institute for General Secondary Education at The Russian Academy of Education) for establishing a shared understanding of the aims and actions within the programme. This had been considered an important feature of the programme's success.

From an early stage, the Ministry of Education was impressed by the results achieved. Dr M Leontieva, the

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official with overall responsibility for schools curriculum, made a significant contribution to this process towards the end of 1997 (Leontieva, 1997). Addressing the nature of Technology education and the most effective methods for teaching it, she wrote:

> It is necessary to elaborate a system of teaching in which the project method is at the heart of the programme… Undertaking creative projects is considered one of the more effective means of labour training and technological education. Through realising projects, students develop and strengthen the habit of analysing situations relating to consumers, economics, ecology and technology. It is important [for students] to develop their ability to evaluate ideas, starting from real needs and material resources, to learn how to make technological and economic decisions appropriate to their designs, the needs of the school and the potential market. (p.4)

Leontieva argued that it is essential to transfer gradually to teaching by the project method, taking into account concrete conditions in schools and vocational educational establishments, while maintaining continuity.

Originally the programme started in four regions and later on (1998 – 2002) funding was available from the British Council for two regions - Nizhny Novgorod and Greater Novgorod. However, the only university that was prepared to challenge the existing power structure practices was NIRO in Nizhny Novgorod. Thus, successful implementation and further development of the programme was associated with one region: Nizhny Novgorod. What were the reasons? What had been achieved there?

Regional level

NIRO in general, and the department of Technology and Labour Training in particular, were very proactive in taking part in the programme and leading the programme. The decision was made to provide in-service training for teachers, select experimental schools and work with them closely, to train teacher trainers for dissemination purposes and develop teaching and learning materials.

Around 600 technology teachers from Nizhny Novgorod region have been trained through the 80-hour in-service training programme over the period 1996 – 2002. 50 teachers from 15 experimental schools took part in in-depth training programs (180 hours of training). This journey has not been an easy one for the teachers or in-service educators. The traditional method of teaching in

Russia has been frontal exposition of fact or skill. Teachers have relied on the official text-book. There is no tradition of teacher-generated curriculum development. The curriculum was developed in the centre and disseminated through the bureaucratic structure. The seminars presented by NIRO have been based partly on lecture format (with extensive use of slides to show examples of students' work), and partly through group-work, brainstorming and one-to-one peer teaching. These methods have caused as much interest as the content. However, many teachers have not found it easy to use different teaching methods in their classrooms. The pupils expect the teacher to know what is what and to explain it to them. For a teacher to reply to a question with the words "I don't know! How do you think you might find out?" is fairly shocking. Some teachers were expecting to be told (in a prescriptive way) how to run their classes, so some time was required to change their attitude.

The process of implementing the project method in schools has been monitored by NIRO. Compared to 1999 when only 48% of teachers used the project method, in 2005 – 82% of them based their teaching on the project method.

In 15 experimental schools, expert centres for teachers have been established with a rich collection of materials and experienced teachers ready to provide advice. Teachers involved took part in action-research projects based in schools. The central thrust has been the introduction of teaching technology through the project method. This was a very powerful approach that provided an opportunity for teachers to reflect on their practice, bring it back to in-service training, discuss it further and then describe it, so it could be used by the others as a teaching resource.

NIRO also organises after-school in-service sessions for technology teachers in their local "methodological centres". These are virtual centres: teachers from a cluster of schools (usually somewhere between six and ten schools) meet at one of the schools, usually under the guidance of a "methodist", to discuss matters of common interest, share experiences and listen to speakers. NIRO uses the "methodological centre" network to great effect as a vehicle for disseminating good practice. Through these practices the relationship between the structure and the agency became self-monitoring and reflexive. Teachers, together with the University, created shared meanings of the project approach and best practice. Teachers used their judgement to monitor themselves in relation to their schools and NIRO, and to interpret themselves and their lifeworld (Beck, 1992). These new power relationships were radically different to the traditional approach for in-service.

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At the regional level, 5 major publications were produced: two books that analysed and presented the essence of project method and the teaching and learning processes associated with the method, collections of projects, working books for year 5 –6 students, syllabus (alternative programme on how to plan technology teaching on the basis of project method and the Standards).

A number of research projects have been conducted through NIRO by the teachers. For example, students' creativity was evaluated in one school using the Torrance test. In the experimental class (students were learning through project activities) the level of creativity increased by 20-30% over one year: in particular, originality and the level of elaboration. In another study, students' (year 5) and parents' attitude towards projects was monitored by the teacher. At the beginning of the year, parents and students did not understand what technology education was, or what a project might be. By the end of the year, 96% of students responded that they liked projects and would like to continue to use them in year 6. Parents presented their view that they saw value in students being involved in the projects (85%).

The results of the work were shared with the Centre, The Ministry of Education and the Academy of Pedagogical Sciences. They were invited to evaluate results at the different stages of the programme, to visit schools and discuss the results of their observations.

A new development in NIRO is related to the inclusion of education for sustainability into the work of this regional university. There are no "official" documents that state the place of technology education in the overall strategies for sustainable development (SD). Thus, technology teachers have not really been involved in education for sustainability (ES). To identify the possible ways of introducing ES in technology education, a focus group of 20 technology education teachers involved in an in-service training programme in Nizhny Novgorod was chosen for this new initiative.

After a two-day seminar on the concepts of SD in August 2005, issues associated with ES and the ways it could be addressed via technology education, teachers were asked to reflect on the issues and trial some activities. In November 2005, teachers from the focus group were asked to reflect on their practice, to define ES and identify activities that could be used in technology education to address ES.

Half of the participants were experienced technology teachers involved in T&EEiR and who were involved through on-going in-service training and action research on implementation of a design-based approach to technology education in the Russian context. The remaining participants were new in-service trainees who had just started the development of their understanding of what design is, and what it means in terms of technology education. Although "experienced" teachers led the discussions, newcomers were fully involved and contributed their ideas. This is an on-going initiative. Some results from this study are reported in Pavlova (2006).

Influences at the multi-regional level

T&EEiR started across a number of regions with training courses for academics and teachers, thus the programme aimed to share the results achieved at the regional level with the other Russian regions. The programme also worked with the comprehensive network of Heads of Technology education departments within Universities all over Russia (57 at the moment, and they regularly meet to develop common policy and share effective practice in the area).

NIRO has also been instrumental in setting up a Centre for Technology Education. 14 teachers were trained as teacher trainers through the 300-hour programme). These teacher trainers are all practising classroom teachers, who have qualified as trainers in the Project method through a programme supported by the Federal Ministry of Education, the British Council, and the Department of Education and Science of the Nizhny Novgorod Region.

From 2001, teacher trainers started practicing their training skills working within in-service training for the Nizhny Novgorod region. Then the teacher trainers and the academics from NIRO conducted training seminars in Komsomolsk-on-Amur, Khabarovsk, Novosibirsk, Chelabinsk, Pem, Rostov-on-Don, Vladikavkaz, Lipetsk, Astrahan, Kaliningrad, Izhevsk, Cheboksaru, Kostroma, Ioskar-Ola, Elets, Bereznjaki, Novgorod the Great, St. Petersburg, Krasnoyarsk and Sochi. These locations cover a wide range of different geographical regions of Russia. Representatives of the eleven cities took part in the training seminars in Nizhny Novgorod. Articles about the project were published in national-level journals. In the long run, the Centre for Technology Education plans to establish a web site and a range of distance learning courses.

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Influences at the national level

Keeping in good contact with the Centre through NIRO and the leaders of the T&EEiR, in 2000 the programme received a request from the Federal Ministry of Education to develop an "alternative programme" for schools (the syllabus), based on a project method to the subject. This work has been completed and it became visible that this approach could be used to meet the existing technology education standards (Lednev, Nikandrov, Lazutova, 1998).

When the draft of the second *Standards* for technology education was discussed, the results achieved through the T&EEiR programme and the document, the "alternative programme", influenced the debate. The second *Standards* was published in 2004 (The Ministry of Education of the Russian Federation, 2004). The aims of technology education outlined in the standards are less oriented towards knowledge acquisition, and more oriented towards the personal development of students: developing inquiring minds, technical thinking, spatial imagination, intellectual, creative, communicative and management skills, on self-directed involvement in activities, on mastering a technological culture, as well as orienting a pedagogy towards diverse activities aimed at creating personally and socially useful products. In addition, a concept of projecting (design) has been introduced in the document. The *Standards* are less directly related to a particular type of work after school and are aimed at preparing students for life and work in general.

Publications produced in Nizhny Novgorod region became known to the Ministry of Education of the Russian Federation. The team of authors from the T&EEiR programme and the editor from the Russian Academy of Education was put together to form a team to produce teaching materials based on the project method at the federal level. In 2000 and 2001, the team won a tender organised by the World Bank for the new generation of All-Russia textbooks. All teaching materials and textbooks passed through the expert assessment of the expert committee from the Ministry of Education of the Russian Federation. The series is composed of a collection of projects, books for teachers, student reference books/textbooks, two types of workbooks (one for boys, and for girls), and a book for administrators and school directors to help them get up to speed on "normative legislative documents" on technology education. Since 2003, 17 books for year 5 –9 have been published by one of the biggest Central publishing houses in Moscow, Ventana-Graff. Now these books and the project-method approach advocated in them constitute one of the two approaches approved by the Ministry for teaching and learning materials to be used in schools all over Russia. The World Bank initially, and the publishing house later on, funded training courses to promote the dissemination of these books. Judging by the number of books sold, it is possible to propose that the results of the work done by this regional university are widely disseminated all over the country.

A recent development at the national level is the establishment of the All-Russian competition for student projects, initiated by NIRO. The competition was first conducted in 2006-2007. 290 projects were received and evaluated by the selection committee. There were four different nominations for students in years: 1-4, 5-7, 8-9 and 10-11. The projects were received from different regions including Siberia, St. Petersburg and the Volga region. Students' work demonstrates that they use the project method successfully and the problems identified and solved by the students are important, original and varied in nature. Thus, the results of this competition indicate the high level of understanding of the project method.

Self-organizing or "autopoietic" system OR how the achievements can be explained

To understand the social complexity to be found in the world or specific locations within it, different theories can be used. In this article, Luhman's theory of society is applied to explain the relationships between the regional university, central authority and the regions. These relationships can be analysed in terms of a self-organizing ("*autopoietic*") system that was introduced into theorizing about society by Luhmann in 1984. In accordance with that view, regional initiative, requirements from the "Centre" and interest from other regions would be harmonised through the function of stabilisation over the particular period of time. The dynamics of this system in terms of functional differentiation, reflexivity, and self-organization is developed through communication. Luhmann (1984) specified that the relations between the social communication system and what he called "individual consciousness systems" (i.e. actors) are "structurally coupled": the social communication system cannot operate without individuals who communicate, but only the message (i.e. the action) and not the actor is communicated. The action will thus have different meanings for the sending actor, for the receiving

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actor, *and* for the social communication system, since they are different systems of reference. However, through this interaction, systems exchange information through interpretation, i.e. by means of action. The social system then has its own dynamics and gradually the successful results achieved by the regional university have been harmonised within the national educational policy.

If we look at the relationships between NIRO, The Centre and the regions and apply Luhman's theory we would see that traditionally it was a balance achieved appropriate for the social conditions. Power and decision-making were detached from NIRO and the other regions and transferred to the Central structures where the "experts" play the major role in decision. The balance was there. Central control over curriculum became the main managing principle for decades.

Since the early 1990's, the social and economic situation has changed. The request to modernise the educational system was formulated at the Central level as well as the new processes started at the regional level including requests for more freedom. The teachers became more active, a different type of pedagogy was advocated. Different interest groups such as teachers, parents, university academics, institutions and the Ministry all contributed towards the process of communication by the means of action. Thus, gradually the balance within the system has been achieved.

A learning ecology metaphor can also help to understand the process. Ecologies focus on living systems and their dynamic relationships. Adaptability is a key survival capability within ecology. When there is stability in an ecological environment there is equilibrium. However, when there is a disruption or disturbance to the equilibrium of an ecological system, agents respond by adaptation. Rather than a model or a set of procedures, ecology is orientation. "It offers a complex, diverse, dynamic and adaptive framework that gives us a fresh perspective on working and learning in contemporary environment" (Staron, Jasinski and Weatherley, 2006, p.27)

The process of self-organisation or the process of achieving equilibrium became possible through the process of reflexive modernisation of society (the concept developed by Beck, 1992; Giddens, 1991; Lash, 1994) where more people acquire the ability to reflect on social conditions and change them as a result. In Russian terminology "perestroika", "glastnost" provided a starting point for people to "take advantage of increased access to cultural competencies to create their own meanings, monitor and organize their own life narratives and attempt to shape society itself" (Huckle, 1996, p.113). Technology teachers

as the agents became more reflective and "shaped" educational policy and practice at the regional, multi-regional and national levels.

Conclusion

This article explores the case study of how a regional university succeeded in influencing educational policy and practice at the regional, multi-regional and national levels. This article discusses the T&EEiR programme, aimed at introducing a design-based or "project" approach to Technology education. It concludes that equilibrium between innovation and reflection, individual and collective activities, specific conditions and educational discourses of that moment provided a perfect condition to develop the regional initiative into a successful national achievement.

The role of the regional university within the context of what constitutes life-long learning can be considered as a way to sustain a learning society. Teachers, although forced by the structure to continue in education and training, identified the project approach as a new and exiting initiative and appropriated the idea. This educational involvement enhanced the quality of their professional life by increasing their work satisfaction.

Through constant interaction, system exchanges of messages through interpretation and action such as action research; in-service training; Ministry updates; conference participation; journal publications; work with a number of regions. Through these activities the system runs through the self-organising mechanism and the project method has been harmonised within educational policy and practice at the regional and national levels.

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