Educational Improvement in Europe and other Contexts:

from Theory to Practice

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(Editors)

CONTENTS

Foreword

The publication we now present offers a series of contributions from academics and researchers on how to improve education in today's societies: most of the authors work in different European Universities or institutions or in other entities dedicated to researching and promoting the quality of education; three authors proceed from non European countries that are looking at European approaches, trends and challenges faced by educationalist and researchers working on this continent. Articles inserted here have been elaborated by authors from the following countries: Austria; Finland, Iran; Italy, Latvia; México; Portugal; Scotland; Spain; Taiwan; and Ukraine.

With the basic concern of improving the education of the respective citizens, authors could use different perspectives and methodologies to emphasize relevant aspects of education as one of the most influencing factor that determine the improvement of human beings and societies. If the importance of education is permanent evidence, this is particularly clear in the epochs we are living now. And if the quality of education is highly important for every person and community, efforts dedicated to its improvement are the authentic guarantee of advancing on this unending process of attaining the maximum or total quality of education: this is valid for Europe as a whole community and for each one of its countries. And comparison with communities from other areas and countries is, no doubt, a useful exercise to know how to advance towards the most appropriate goals and with the most effective ways.

Articles inserted in this publication have been presented in the network 11 (on 'Educational Effectiveness and Quality Assurance) at European Conferences of Educational Research (ECER, 2009-2010). A very short summary of the articles included in this publication is inserted here:

1.- *School Improvement for Learning: some Reflections in a Theoretical Framework,* by Cristina Stringher:

This article analyses the theoretical implications for a school improvement programme conceived within European Social Funds evaluation in Southern Italian middle schools. First in its kind in Italy, this programme originates from the necessity to audit the use of ESFs granted to each of the involved schools, while helping them find a way to start coherent and sustainable school improvement practices.

2.- *Quality Assurance on the Road: a Comparison of Finland and Austria,* by Andrea Bernhard:

How do these countries cope with the pressure to compete with the global higher education market? Is their system of quality assurance in line with the European mainstream to create a *European Higher Education Area*? The purpose of this study is to provide an overview on two national quality assurance systems and to figure out similarities and differences.

3.- *Evaluating the Importance of Pupil Involvement in Transition*, by Lynne Grant:

This study focused on the transition of pupils between primary and secondary education. Evidence arising from the study indicates that the majority of participants wanted to be involved in their learning and felt it was their right to do so. The findings raise new questions about the involvement of pupils in the cognitive aspects of transition and provides recommendations for the future.

4.- *The Perspective of Teachers, Parents and Students about the Educational Treatment of Diversity in México: a Qualitative Approach,* by Blanca Valenzuela; Manuela Guillén; Elizabeth Pérez; Reina Campa & Rosa-Elena Salazar:

The purpose of this study is to explore attitudes towards inclusion, suitable conditions and available resources to promote the educational treatment of diversity in inclusive educational institutions. The research explores topics such as: attitudes toward inclusion; teachers', parents' and students' perceptions of educational treatment of diversity; and obstacles that hamper educational inclusion.

5.- *The Emergency of Problems Against Coexistence and Tolerance at the Educational System* , by Samuel Gento; Raúl González & María-C. Domínguez:

Students are an important sector contributing to the quality of education. Improvement of educational treatment to them represents an important contribution. But, emerging problems caused by students could attempt against effective processes and results. The research shows basic fields where problems against coexistence and tolerance could attempt against the quality of education.

6.- *Crisis of Cultural Values and Teachers' Attitudes to Discipline*, by Salvador Peiró:

Questions that guide this work refer to: social and cultural critical situations of students causing school indiscipline; appropriate teacher's models of behaviour to reduce lack of discipline; how teachers could create a suitable climate for a peaceful coexistence; best valued teaching style; and values that define o teacher's behaviour style on critical situations.

7.- *Practical Actions for the Improvement of University Students' Motivation towards Study,* by Rafael López & María-del-Pino Sánchez:

This is a research about the practical actions that would help to improve the university students´ motivation toward study. Cognitive and motivational components are needed to increase academic learning and student's overall preparation. The research focuses on studying the links between motivational aspects and the use of learning strategies by students.

8.- *Methodological Strategies for the Reduction of Stress Levels in University Students*, by Rafael López & María-del-Pino Sánchez:

Stress is the physiological, psychological and behavioural answer of a person trying to adapt and readjust to pressure (whether internal or external) to situations that mean an everyday effort. The research refers to the effects of the use of a methodology focused on the student as the builder of his/her own learning and on the main factors which generate students´ anxiety.

9.- *The Effectiveness of Student Evaluation of Teaching from the Point of View of University Teachers and Students: Results from Iranian Higher Education Settings*, by Naser Shirbagi & Nematollah Azizi:

This article presents a research conducted to systematically investigate the effects of regular student feedback on the effectiveness of university teaching over a period of several semesters. The main purpose of the research was to examine effectiveness of SET from the views of faculty members and students of the three universities in west of Iran.

10.- *Factors Contributing to the Learning Achievement of College Students*, by Wen-Hui Lu & Chiung-Hui Chuang:

The authors explore how entrance systems, perceived cognitive abilities, learning strategies and motivational factors could differentiate the low from the high achievers. The implemented research shows that transferring entrance system, learning strategies and motivational factors effectively differentiate the two groups investigated in this study.

11.- *Innovation in University and in the Enterprise in Galicia: Human Resources, Financing and Marketing*, by José Cajide; Beatriz García; María-Carmen Sánchez &; Irene González:

With the purpose of finding the best way to introduce the universities in regional economic development strategies, this study focuses on some innovation factors. After a first analysis of some determinants of innovation and transfer, it analyzes some results of an investigation about indicators such as human resources, financing and marketing.

12.- *Transformation of the University Academic Staff Understanding of Future-Oriented Competences: Quality Assurance in Continuing Education for Professional Development*, by Svetlana Surikova & Sanita Baranova:

The article presents the findings of the research conducted in 2006 in Latvia (the first phase) and compare them with the results gained in 2009 (the second phase) and in 2010 (the third phase) during the repeated research on university academic staff future-oriented competences and opportunities of qualitative continuing education.

13.- *Quality Evaluation in Preschool: Education a Collaborative Process*, by Sonia Góis & Gabriela Portugal:

This article presents the results of a case study implemented by the authors within a postgraduate research project that intends to contribute to the development of an efficient strategy to evaluate and to improve the quality and effectiveness of the learning of the children in contexts of preschool education. The project is supported by the Ministry of Education in Portugal.

14.- *Educational Effectiveness and Quality Assurance in Alternative Education*, by Oksana Zabolotna:

The article deals with the issue of quality assurance in alternative schools in EU countries. The goal of the research in general is to compare alternative education systems in traditional EU countries and those joining in two last enlargements in terms of school environment using Early Childhood Environmental Rating Scale (ECERS).

Samuel Gento.

School Improvement For Learning.

Some Reflections in a Theoretical Framework

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Abstract

School improvement in Italy is in its infancy, and the opportunity lies for a robust thrust of this concept within European Social Funds to work towards the realization of major undertakings in this field.

Scope of this paper is to analyse the theoretical implications for a school improvement programme conceived within European Social Funds evaluation in Southern Italian middle schools. First in its kind in Italy, this programme originates from the necessity to audit the use of ESFs granted to each of the involved schools, while helping them find a way to start coherent and sustainable school improvement practices.

After a diachronic literature review on school effectiveness and improvement models, and a brief analysis of the Italian school self-evaluation attempts, this paper seeks to answer a very simple yet crucial question: why is school improvement so difficult to obtain? What is the focal point in dealing with students in the classroom in order to improve their performance?

The author proposes a theoretical approach grounded in learning to learn and reflection as the focus for students, teachers and organizations. A series of principles guiding improvement practice in schools is offered and delineates the need for actions to stem from clearly stated student, classroom and school objectives, rather than from school effectiveness abstract reasoning or from mere statistical exercises.

Keywords: learning to learn, assessment, school improvement, socio-cultural-constructivist epistemology.

Introduction

In Italy, a geographical divide of Northern and Southern schools has historically contributed to delineate a dual educational system[1]. According to PISA 2006 and 2009 data (INVALSI 2008a, 2011), while students in some Northern Italian regions achieve a level of competence in language, math and science similar to that of Finnish children, in Southern Italian schools there is a concentration of lowest performance levels. A similar pattern is encountered when analyzing IEA PIRLS 2006 (INVALSI, 2008b) and TIMSS 2007 (INVALSI, 2008c) primary school data, anticipating a hiatus which seems to grow with the progression from one school level to the next. Indeed, PISA, IEA and national data show that students' basic competences in Italian Convergence regions are lagging quite behind compared not only to International but also to Italian average students, as shown in tables 1 and 2 below.

Table 1 – North-South divide in Mathematics

Mathematics comparison				
Average scores	North	South	Italy	International
IEA TIMSS 2007 4th grade (1)	517	496	507	500
IEA TIMSS 2007 8th grade (1)	499	457	480	500
PISA 2006 (2)	495	430	462	498
PISA 2009 (2)	507	458	483	496

(1) Invalsi processing of TIMSS 2007 data

(2) Invalsi processing of PISA 2006 and 2009 data

Table 2 – North-South divide in National language

National language comparison				
Average scores	North	South	Italy	International
IEA PIRLS 2006 (1)	555	546	551	500
PISA 2006 (2)	500	435	469	492
PISA 2009 (2)	507	462	486	493

(1) Invalsi processing of IEA PIRLS 2006 data

(2) Invalsi processing of PISA 2006 and 2009 data

The structural and historical nature of the North-South divide is not to be discussed here in detail. However, school improvement in Southern regions is a priority on the Italian educational agenda. The European Social Fund (ESF) in education is meant to contribute to the reduction of this gap since its introduction in 1994. Now at their third cycle, 2007-13 ESF programmes are focused on two major aims: the reduction of student drop-out rates and the concomitant increase in their key competences (MIUR - Italian Ministry of Education, 2009).

INVALSI, the National Institute for the Educational Evaluation of Instruction and Training, participates in ESF programming with its role of internal evaluator and contributes with an evaluation strategy of the overall intervention plans. Within this capacity, INVALSI has proposed

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[1] The historical perspective helps shed a light on the peculiarity of educational achievement and attainment in Italy. In 1881, twenty years after the creation of the Nation and the subsequent introduction of mandatory primary education, illiteracy was a vast reality in most Central and Southern Italian regions. After more than a century, the historical comparison shows that in 2001 the areas of non possess of lower secondary degree are quite similar to those of the illiteracy referring to 120 years earlier: although illiteracy has almost been eradicated, the cultural gap between Northern and Southern regions is still current. For a rich and updated account of educational history in Italy, see D'Amico N. (2010). *Storia e Storie della Scuola Italiana - Dall'unità ai giorni nostri*. Bologna, Italy: Zanichelli.

an *Audit & Mentoring* action. First in its kind in Italy, such project stems from the necessity to audit the use of ESFs granted to schools for their own interventions, and at the same time it support them in finding solutions to start coherent and sustainable improvements.

This paper intends to focus on theoretical antecedents of this school improvement programme. The aim is to set the basis for the model operationalization and related data collection strategies. In order to achieve this goal, this exploration seeks answers to a set of very simple yet crucial questions: why is school improvement so difficult to obtain? Why improvement programmes achieve such contrasting or feeble results? What is the focal point in dealing with students in the classroom?

The methodology is a diachronic literature review on school effectiveness and improvement models (Borman, Hewes, Overman, Brown, 2002; Buechler, 2002; Creemers & Kyriakides, 2006; Goldspink, 2007; Hopkins, 2008; OECD, 2008a; OECD, 2008b; Reezigt, Guldemond & Creemers 1999; Scheerens, 2000), with a brief analysis of Italian school self-evaluation attempts (Castoldi, 2005a; Castoldi, 2005b; Castoldi, 2005c; Melchiori, 2001; Martini, 2006; Paletta & Vidoni, 2006; Sammali, 2006).

After a methodological overview, the first paragraph summarizes international models on school effectiveness and school improvement in order to identify their strengths and weaknesses with a particular attention to the Italian situation. The second paragraph offers an account of previous research in school improvement in Italy, while in the third a synthesis will be provided of the literature search. Considering the identified pitfalls, the fourth paragraph introduces the concept of learning to learn for school improvement by providing a definition and a model, a framework with improvement principles and an improvement route for implementation in Southern Italy. Actors involved in this process and aspects related to data collection strategies will also be analysed within this framework. Conclusions and future research directions complete this exploration.

Methodology

The study has been conducted using a meta-review on school improvement for learning. Key words guiding the literature search have been: review, improve student learning, improving own learning, school effectiveness models comparison, school improvement models comparison. The inclusion criteria for study selection have been: intervention models to improve student learning; list of variables to take into consideration, Italian context whenever possible.

The search has been conducted in the period January-December 2010, with up-dates also up to July 2011. Major sources have been located through EBSCO data banks: ERIC Education Resource Information Center, ERC Education Research Complete, Psycinfo, Psycarticles, Psychology & Behavioral Sciences Collection, EJS Electronic Journals Service, Source OECD. For Italian studies, several sources were searched, including the web, INVALSI own library, and the repository of the University of Milan. The use of cross-references among articles has been very useful in locating Italian resources.

A total of 20 studies has been considered and analysed[2]. A discussion on the identified studies and models, with pros and cons, yields to the new improvement proposal.

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[2] See reference list.

International models of school effectiveness and school improvement

Given the breadth and depth of over 40 years of studies in the field, which is impossible to summarize in just a brief paragraph, a synthesis of Educational Effectiveness Research (EER) and school improvement studies will be presented in this section, with the idea to show their epistemological origins and to identify potential strengths and weaknesses.

Two preliminary definitions are given on school effectiveness and school improvement. Iap Scheerens (2000, 33-34), citing Van Kesteren (1996), characterizes school organizational effectiveness as:

the degree to which an organization, on the basis of competent management, while avoiding unnecessary exertion, in the more or less complex environment in which it operates, manages to control internal organizational and environmental conditions, in order to provide, by means of its own characteristic transformation process, the output expected by external constituencies.

The control element of the managerial organization to deliver externally defined outputs seems of paramount importance in this definition. Another central feature is that effectiveness happens at the school level, and that above-school level decisions should take this into careful consideration. A third basic assumption is the value-added which an individual school should be able to offer to its student population and external stakeholders.

Basically, the effectiveness paradigm deals with the quantitative analysis of large data sets in order to derive "what works" in "best practices" of best performing schools which can be more or less easily transferred to similar institutions.

Concerning school improvement, Elmore (2008) defines improvement simply as increases in quality and performance over time, the problem being what quality and performance are, and focuses on the processes which construe improvement in individual schools. The qualitative aspect is generally prevalent in this research strand, mainly oriented to understand the internal processes yielding certain results.

According to the Effective School Improvement movement, the main difference between school effectiveness and improvement is a focalization of the former on outputs/outcome measures of student achievement and school added value, while school improvement generally deals with the internal processes needed for a school to produce more quality (Melchiori, 2001).

Creemers (2001) explains this difference maintaining that school effectiveness is strongly focusing on student outcomes and on the characteristics of schools and classrooms that are associated with these outcomes. However, school effectiveness generally is not so much interested in looking at the processes that are needed to bring changes. School improvement, quite the other way, is mainly concerned about changing the quality of teachers and schools without automatically looking at the consequences for student outcomes. In short, school effectiveness is trying to find out what is to be changed in schools in order to become more effective, while school improvement is trying to find out how schools can change in order to improve.

The improvement process itself is characterized by some kind of change. Change management has also been influential in shaping school effectiveness and improvement models and reforms.

In the U.S.A., in the context of the Comprehensive School Reform Program (CSRP, CSR) reviewed by Borman, Hewes & Brown (2002, 3), the Department of Education defined a school reform[3] approach consisting in an impressive eleven tight characteristics, the basic ones being:

1. employs proven methods for student learning, teaching, and school management that are based on scientifically based research and effective practices, and have been replicated successfully in schools;
2. includes measurable goals for student academic achievement and establishes benchmarks for meeting those goals;
3. meets one of the following requirements: the program has been found, through scientifically based research, to significantly improve the academic achievement of participating students; or the program has been found to have strong evidence that it will significantly improve the academic achievement of participating children.

Given these basic definitions, literature on effectiveness and improvement has been examined in order to comprehend how other countries have addressed the problem of improving the teaching-learning process, as for the Italian ESF project this was one of the most relevant objectives.[4] Basic knowledge from the searched literature can be summarized as follows, in relation to the Italian system in particular.

Evidence from international studies on school effectiveness and improvement

There is a wide knowledge base on school effectiveness and improvement which can be tapped also in Italy by researchers, practitioners and policy makers to sustain efforts in raising student academic achievement (Scheerens, 2000)[5].

Most of the studies on educational effectiveness are more concerned with the establishment of statistical relationships between variables rather than with the generation and testing of theories, with considerable loss in explanatory power of such statistical exercises (Creemers & Kyriakides, 2006). It is evident from these studies that even elaborate analyses of large data sets, however useful, are not the key to improved learning on the student side, since a causal effect on learning is extremely difficult to trace (Gustafsson, 2008).

Three basic approaches to EER have been developed so far: a) an economic approach, focussing on malleable input variables such as student/teacher ratio to influence learning outputs (an example being Hanushek's production function); b) frameworks dealing with students' cognitive development and social antecedents, such as Carroll's and Bloom's models; c) a generalist educational approach, attempting to integrate school effectiveness research, teacher

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[3] Within this context, the authors refer to "reforms" as models of intervention in individual schools aimed at improving student learning and achievement, usually in basic competencies.

[4] Major reviews and contributions on this topic were considered, although the aim was not a comprehensive representation of studies in the field. The studies considered have been: Borman, Hewes, Overman, Brown, 2002; Buechler, 2002; Creemers & Kyriakides, 2006; CSRQ, 2006; Goldspink, 2007; Hopkins, 2008; OECD, 2008a, 2008b; Reezigt, Guldemond & Creemers, 1999; Scheerens, 2000.

[5] It should be noted that school effectiveness and its public choice theoretical antecedent are not the only research fields that contributed to our understanding of how schools and classroom work to build student knowledge and competencies. They will be discussed here in more detail for the wealth of research evidence produced.

effectiveness research and input-output studies in a blend of learning and organizational theories (Creemers & Kyriakides, 2006).

The CIPP model reported in Fig. 1 has been established within OECD as the dominant approach to the study of factors affecting student performance. However, no definitive list of factor components has been agreed upon yet, and the classroom level is by many regarded as a black-box where something unintelligible happens to students. In addition, this typical school effectiveness model yields long lists of contextual and input variables, while the output variables are not always homogeneous in terms of student outcomes upon which the supposed effectiveness of the school is measured. Moreover, student learning is not the only measure, but also prosecution in other educational levels and entry into labour market may be taken into account as measures of school effectiveness from a social standpoint, resulting in further complexity which cannot be handled all at once.

Figure 1 – The CIPP model
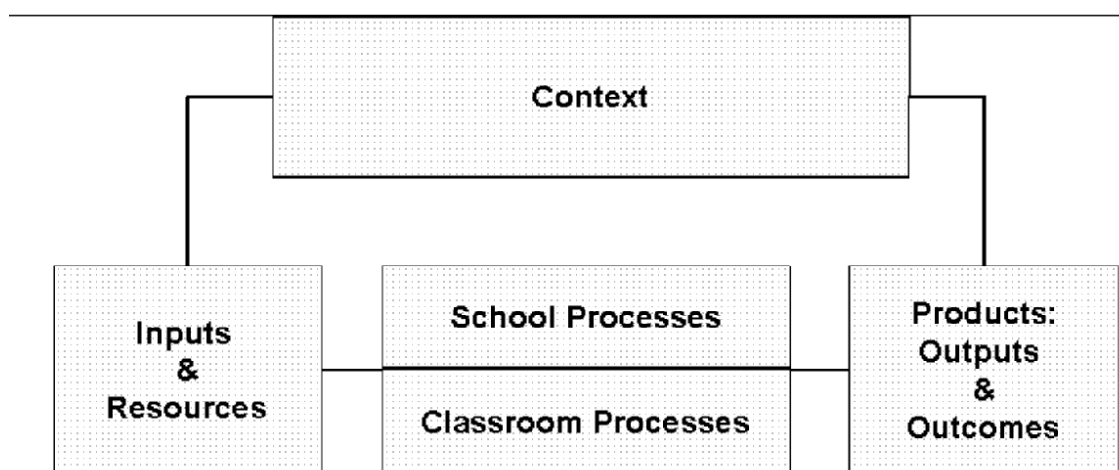
Without going that far, the analysis of the collected literature points to some interesting findings. Especially in the United States, there has been a flourishing market of school improvement models said to be replicable in a variety of situations[6]; however, there is also a wide variety in program components required to be implemented and no clear priority among components has been identified yet, a partial exception being the number of years needed for an intervention to impact on student outputs (Borman et al, 2002)[7].

In his influential meta-analysis of reviews and studies carried out internationally, Scheerens (2000) offers several conclusions which appear to be very sharp for this argument:

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[6] Buechler's 2002 catalog of school improvement models reviewed 27 school-wide reforms, and subsequent issues of a similar catalog by CSRQ even increased this number.

[7] Borman et al. (2002) maintain that the number of years a reform has been implemented is a statistically significant predictor of effect size, with substantial increases in achievement from year 5 up-ward. This finding supports the claim that any improvement intervention should run for a sufficient number of years to see progress and to build on such progress. Another finding of this meta-analysis is that school reforms requesting to implement activities for parental involvement in school governance achieve worse results than those that do not include such feature. This is explained by authors with the loss of focus if the immediate goal is student achievement.

a) In the industrialized world, resource-input factors, such as student/teacher ratio but also teacher training and experience, show negligible effects (below 0.04 correlatio with achievement), while in developing countries they have been established in a large proportion of studies.

b) In developed countries, there is a relatively small impact of school factors, such as pressure to achieve, educational leadership, staff cooperation, staff professional development and parental involvement (below 0.20 correlation); the same factors not appear to be significant in developing countries.

c) Aspects of structured teaching are those with the higher impact (with reinforcemer and feedback displaying around 0.50 correlations)[8].

d) The portion of variance in student achievement explained with these malleable independent variables at the school level is rather small, ranging from as low as 10 in developed to 40-50% in developing countries[9], while the between-school variance explained with the same variables is consistent (about 60%) (Brandsma, 1993 in Scheerens 2000). Another important element, among contextual factors, in explaining students' variance is their initial aptitude[10].

e) The author underlines the larger impact of factors close to the teaching-learning process *versus* school or environmental conditions, but then warns that training school principals on changing school factors could be more cost-effective than training many more teachers on classroom factors[11].

f) Scheerens cites Learning to learn as one of the emerging themes especially from th constructivist approaches, though he warns that the effectiveness of teaching and learning according to this principle is still to be established.

The lack of a structured theory behind these studies is what is most striking: in search for correlational factors affecting student performance, this literature produces long lists of items variably associated with student outcome measures, which differ among researchers, but it seems loose focus on learning and most of all, it does not seem informed by sound educational theory.

Scheerens (2000) along with Creemers & Kyriakides (2006) acknowledged these pitfalls a tried to propose theoretic standpoints, primarily from management studies. The international literature on organization and management identifies four primary models dealing with school effectiveness: the rational goal model (embracing also the school effectiveness models commonly referred to in educational literature); the open system model, the human relations model and the internal process model (Griffith, 2003; Quinn & Rohrbaugh, 1983; Scheerens, 2000).

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[8] It should be noted that terms such as reinforcement and feedback do not pertain to the same epistemological tradition, although they seem to be treated as such.

[9] This could mean that generally schools have not been successful in contrasting socio-economic and othe variables affecting student learning, but this does not automatically indicate that the schools cannot make a impact: it could well be that they did not find the right way to do it, not that it is not possible to do it, or it should not be done.

[10] This also should be regarded as a malleable aspect and not as an unchangeable precondition, at least with reference to student motivation affecting learning attitudes which in turn may influence aptitudes.

[11] This point is relevant not only for policy making, but also in actual research on school improvement and effectiveness. It seems this judgement has been influential in devising top-down reforms affecting school principals. However, no specific analyses have been found in literature on the costs incurred in such reforn to understand the competitive advantage of reforms working the other way around, i.e., training many teachers on classroom factors. From a mere economic standpoint, it should be noted that all major westerr countries seem to use in-service teacher training extensively anyway. Perhaps such resources could be monitored carefully to understand their usefulness.

When analysed in their components, however, these models either do not refer directly to the teaching-learning process, or they do it in a tangential way (Griffith, 2003). In other words, the hypothesis is that the low to medium explanatory power (with a R^2 ranging from as low as 2.7 of the rational goal to 18.9% of the open systems) of these models in terms of variance explained in school achievement progress can be attributable to the very items used to test such models: many variables are meant to operationalise factors not directly connected with student learning.

Influences on student achievement thus include several factors, which differ according to different models, and are multilevel, i.e., there's a need to consider what happens at the student/teacher level in the classroom, as well as at the school level and possibly at the wider systemic levels in order to explain variance in students' results. In addition, it is problematic to clearly establish relationships among different factors at the different levels, and relationships even seem curvilinear in nature, meaning - for instance - that only an "adequate" amount of teacher content knowledge is translated into better student learning, the level of adequacy being the question to answer. Moreover, factors are not one-dimensional, and this adds to the complexity of the measurement side of EER (Creemers & Kyriakides, 2006; Senge et al., 2000).

An example of factors and their relationships is pictured in Fig. 2, where the influences of individuals and groups of individuals upon the student-teacher-parents triangle at the classroom level is highlighted.

Figure 2 – Influences on learners from the learning environment (Senge et al, 2000, 17)
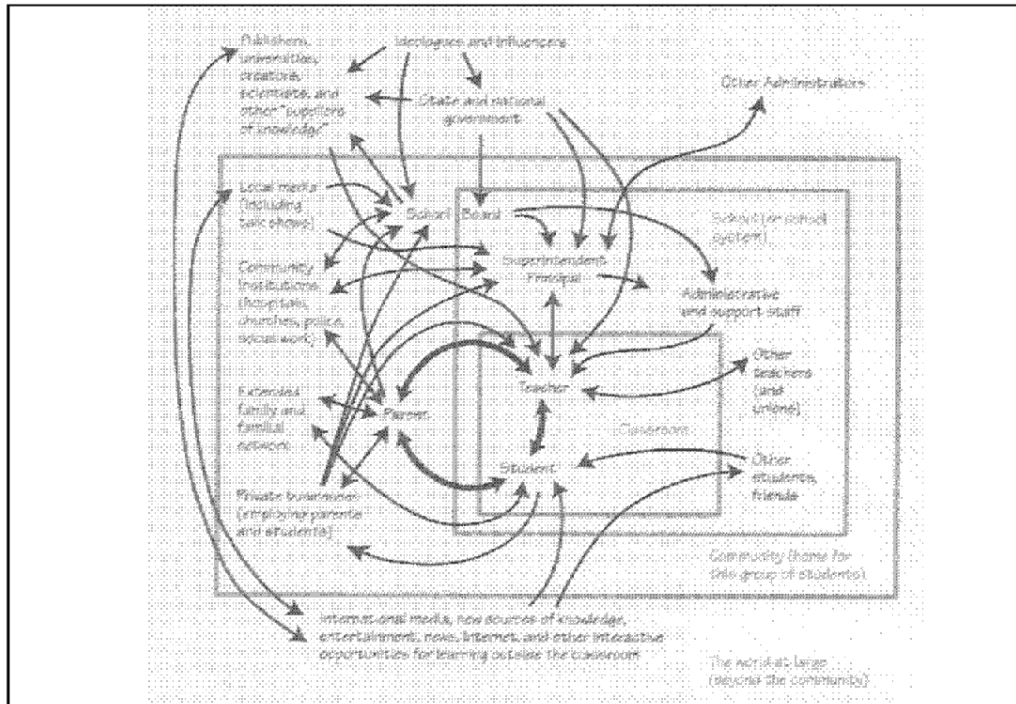
In this conception, it is worth noting that the human factor is key in the scholastic organization and the student level is the center, as it is the only actor within the model to see all school levels. However, students typically exert little influence on concrete improvement actions.

This web of factors, accounting for the diversity of each individual school, prevents generalizing best practices from one school to another and shows the highly contextual nature of improvement practices; in addition, this complexity is not entirely manageable for concrete large-scale interventions such as the one conceived under the ESF, and priorities should be identified wi tight focus on what Southern Italian schools could actually manage.

Another bias relevant to the human factor is concerning improvement leadership: for Elmore, accountability economic approaches to school performance will not lead to increased learning outcomes, unless they are coupled with human capital development for school improvement (Elmore, 2008). In accountability systems, typically based on combinations of standards, evaluations, classifications, supervision and sanctions, emphasis is placed on tests and normative control, while the competence needed from the actors in the educational system is ignored or underestimated. In such systems it is assumed that schools will do better simply becaus they are compelled to account for their actions also in comparative terms with the neighbouring institution[12]. Experience in Great Britain and elsewhere shows that this is not automatic, even whe schools are provided with information about their students assessments: indeed, competence in translating such information into improvement is needed.

In addition, again according to Elmore, the variability of effects among schools undergoing the same treatment is higher than that of schools treated with different intervention methods: the context prevails over the treatment and this would apparently discourage any attempt to modelling improvement practices for large-scale interventions.

The compliance of schools to externally prescribed improvement recipe is another key poir for the success of these programs and often a weak one: many CSR model providers even require up to 80% of teacher positive vote before bonding individual schools (Borman et al 2002; Buechle 2002). This introduces the general problem of top-down approaches, rarely effective also for the lack of adequate implementation at the classroom level. Also within ESF planning the participative nature of such interventions is advocated.

A wider approach to student learning as the focus of school improvement models is require (OECD, 2008a, 2008b), one that does not solely rely upon basic skills (Creemers & Kyriakides, 2006), but fosters what OECD terms as "central capacities" of learning to learn, creativity and innovation. However, there is a growing attention also from within OECD about the clash betwee these social-constructivist objectives and their relevant research approaches, still too heavily relian on "effect sizes", "best practice", "what works" and "evidence based" research concepts (OECD, 2008a). In addition, current reforms world-wide tend to be rooted in either managerialist or marke approaches which sometimes could even be at odds with the desired learning outcomes (Goldspinl 2007, Bentley in OECD, 2008a).

The most promising paths to improvement seem to show consistently common features: a) student-centred customised and deep learning, connected to previous knowledge and motivating

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[12] The ultimate closing of repeatedly failing schools is an extreme example of school-level sanctions in the USA. Merit pay of "good" teachers is a counter example of frequently used reward to impact student learning. According to Self-Determination Theory (SDT, Deci & Ryan, 2002) this is not the case.

diverse student populations yet not yielding to individualistic approaches; b) collaborative and group learning through inquiry-based activities; c) new learning environments for the exploitation of a wide array of learning sources (including international experts reachable through ICTs); d) assessment for learning and deeper understanding rather than rote and superficial fragmented learning; e) new emerging teachers role as learning facilitators (Goldspink, 2007; OECD, 2008b; Creemers & Kyriakides, 2006; Harlen & Deakin Crick, 2003). All these elements call into question a sociocultural-historical-constructivist epistemology[13].

Italian research on self-evaluation and quality improvement

The relatively broad knowledge base accumulated in Italy regarding school self-evaluations for quality improvement is synthesised in this paragraph[14]. Some studies according to the EER approach are developing in Italy as well[15]. None of these seems to test established models of school effectiveness with large data sets. For this reason, it seems useful to give priority to those research efforts which seem to have an impact at the school level.

The experiences here reported are either concerned with developing quality assurance mechanisms suitable for schools, or deal with self-evaluation at the school level. Examples of evaluations of the teaching-learning process have also been documented. In any case, the studies falling in this category have always a local development, and did not succeed in reaching a large-scale systemic approach[16]. Also in Southern Italy, school networks have been started with the aim to share self-evaluation tools and methods, but were not reaching the improvement implementation level, due to the complexity of the projects. It seemed as if the self-evaluation be an aim in itself, rather than the following improvement phase.

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[13] The discussion on such theoretical stand-point is beyond the scope of this paper. Reference is made here to post-piagetian and vygotskijan approaches calling into question individuals as principal actors of their own life trajectories. The author shares the view that education is a process of simultaneous enculturation and transformation, where societies and their individual members are mutually constitutive, both agents acting with mediational means. More specifically, in this perspective learning and development take place through active participation in purposeful and collaborative activity (Wells, G., & Claxton, G., 2002, 2-4; 7).

[14] It is not possible to provide a detail of all these attempts, and a selection is made according to the criteria specified in this paragraph. One very important study in Northern Italy is being carried out under the supervision of Jaap Scheerens, but results had not been published at the time of presentation of this contribution.

[15] If searched through Google or Bing Web, there seem to be no studies dealing with testing specific educational models within the Italian system. Only statistical analyses on factors contributing to student oucomes in different subjects have been located. To cite but a few of recent studies: F Alivernini, S Manganelli, E Vinci, I Di Leo (2010) An evaluation of factors influencing reading literacy across Italian 4th grade students. *Journal of US-China Education Review* 7: 5; F Alivernini, B Losito, L Palmerio (2010) Le differenze nelle prestazioni degli studenti italiani in PISA 2006 e l'equità del sistema scolastico italiano. [Differences in Italian Student Performance according to PISA 2006 and the Equity of the Italian School System] Armando Editore: Roma; F Alivernini, L Palmerio, E Vinci, I Di Leo (2010) An analysis of factors affecting pupils' science achievement in Italy. In: The fourth IEA (International Association for the Evaluation of Educational Achievement) International Research Conference. Gothenburg, 1-3 July. See also Bratti, Checchi, Filippin, 2007 for an analysis of Italian territorial differences in maths student performance. For an introductory volume dealing also with school effectiveness in Italy see Paletta A. & Vidoni D. (Eds) (2006). *Scuola e creazione di valore pubblico. Problemi di governance, accountability e management.* Roma: Italy. Armando.

[16] Recently, the Ministry of Education has launched teacher training programmes with wide National scope. They are primarily aimed at strengthening teachers disciplinary and methodological competencies in mother tongue, maths and science. The impact of such training is to be studied yet. Concerning the maths programme, INVALSI is carrying out a counterfactual analysis in Southern Italian schools.

Mario Castoldi is one of the Italian authors who deeply explored the concept of quality, through research and development projects with schools. His most recent work identifies the classroom as the hologram of the school, and takes an approach that could be considered of quality assurance through school self-evaluation for improvement (Castoldi, 2010). The proposed improvement path is divided in four phases: the first and last phase deal with quality mapping at th school level at the beginning and at the end of the process; the second and third phase, concentrate at the classroom level, are aimed at self-evaluation and improvement, through an approach which underlines differences between ideal and real / internal and external quality. The internal quality is assessed by teachers, while the external quality is judged by parents and student body, defined as "clients". This improvement path seems particularly useful when a negotiation of different points view is essential. It seems rather eclectic when attempting to take different views of quality into consideration, as quality means quite different things to the identified stakeholders (essentially parents, students and teachers). The approach seems to fall short in engaging the classroom level, a this does not appear to be the focus of the proposed interventions, though local adjustments might be possible.

Castoldi was the leading expert also in another self-evaluation initiative, carried out by the S.A.L.I.C.E. network in Northern Italy (Martini, 2006). The focus of this research was the teaching learning process from a teachers' self-assessment perspective, although students and parents have also been involved in teachers' assessment. The tools used by the research team have been more directly aimed at identifying specific methodological and didactic choices and behaviours, althoug one of the pitfalls has been the lack of tools whose data enabled an analysis of and reflection over metacognitive aspects of learning.

Another interesting experience has been carried out in Southern Italy (Sicily) with a school network named Pegasus (Sammali, 2006). The research-intervention project, based upon the CIPP model, was aimed at sharing a school self-evaluation scheme and empowering involved parties in contrast to external evaluations, seen as threatening in some environments. Worth of mention in th experience is the need (expressed by the network leader) of tighter focus on the teaching/learning processes, meaning that individual schools when confronted with improvement know where the actual focus lies and are willing to tackle this as opposed to more generic conceptions of schools quality emerging from teachers' focus groups. Another key finding is the need for schools to "own the process of self-evaluation and improvement, rather than rely upon models proposed by consultants.

Conclusions about International and Italian studies on school effectiveness and school improvement

This broad analysis of school effectiveness and improvement has led to the following conclusions:

1. The EER tradition seems addressing primarily either "what works" and the *de factu* situation found in schools, or hypothesis testing of improvement models. Such models are based not o the teaching-learning process, but also on a variety of epistemological traditions, sometimes possibly clashing. The first comment is thus to try and conceive a school improvement mode which is primarily rooted in learning and epistemologically consistent with catering for students' learning needs. In view of the fact that more than 40 frameworks for thinking and learning have been included in a recent handbook (Moseley et al, 2005), it seems necessary t consider also alternative models, not only Carroll's or Bloom's.
2. Even the most elaborate analyses of large data sets are not the key to improved learning on th student side, since a causal effect on learning is extremely difficult to trace. This is

particularly true in Italy where such knowledge base is just being fully implemented. A strong focus on theory building is thus needed to advance knowledge on improving learning, and also to improve data collection strategies.

3. Accountability studies are often focused on "variables search" impacting learning, producing a "statistical Sabbath" (e.g., overload of assessment of not for learning). Results point to so many priorities for schools that they become difficult to handle concretely: in tackling the complexity outside the classroom, where the actual teaching-learning cycle happens, the risk is to lose focus from student learning.

4. In addition, some school improvement recipes rely on intervention practices which use rewards and punishments as main solutions on students, teachers and schools. Such practices are not conducive to improved learning. The need for a coherent improvement approach to student learning is stringent.

5. The first question about the difficulty in obtaining improvements in student learning seems an easy answer, yet with uneasy consequences: it is such a complex task, involving so many factors and relationships among factors, that it can be viewed still more as an art rather than an established science with own methods and recognized epistemology. In addition, the high variability in improvement results among schools undergoing the same treatment confirms the highly contextual nature of improvement: therefore, there is a need to consider each school as a case of study, where causation should be investigated also through qualitative in-depth search for poor performance antecedents.

6. This complexity is not entirely manageable for concrete large-scale interventions such as the one conceived under the ESF, and priorities should be identified with tight focus on what Southern Italian schools could actually manage.

7. A very different research tradition has been found in Italy, with no strong focus on EER, but rather on schools attempting to find their own individual path to sometimes generic quality improvements at different levels and in different domains of school action (administrative, managerial and only marginally in the educational domain).

8. There is a risk of loosing focus in Italy: the emphasis placed on administrative/managerial quality control mechanisms (such as ISO) is taking too much time and effort of schools away from actual teaching/learning objectives. If the focus is not correctly identified, schools run the additional risk to place funds and human resources in activities that are not efficient.

9. Rather than a heal-all remedy, school improvement in Italy could be grounded in national objectives, such as those stated in the national curriculum. The need to focus more closely on teaching-learning process in the classroom and most of all on the drivers of students' performance seems the key for school improvement to actually develop. The question is actually how to do this in a way that is meaningful for students and teachers. Competence in translating student assessment information into improvement is also needed.

10. Within the Italian context, and given also the Audit objectives received from the Ministry, it seems necessary to take action in two directions: a) concentrate on malleable variables and factors at each classroom and school level; b) precisely identify and prioritize such variables and factors. In so doing, an inverted approach compared to EER is suggested: there seems to be a need to carefully look at what happens at the student-teacher level to improve learning in the long term. Another words, the educational effectiveness research has helped introduce a few core themes to the attention of researchers, policy makers and practitioners, but it seems necessary to further prioritize in order to efficiently guide an improvement project.

Learning to learn as key to improvement in Southern Italy

Almost a century ago, Maria Montessori, reflecting on the final scope of education, came to the conclusion that education is the active aid to the normal expansion of life (Montessori, 1999, 67). She observed that psychological development is self-organized around external stimuli, which

must be experimentally determined. (Montesssori, 2000, 63) She added that an innovative pedagogy must transform schools and directly act upon children and their teachers (Montessori, 1999, 66-67). For Montessori, the risk in not taking this approach is ultimately to keep studying children submitted to a traditional school which remains unchanged (33)[17].

These words appear strikingly up-to-date, even after the broad social transformations occurred since the Second World War. Maria Montessori's breakthrough work in kindergarten extended to primary and secondary schools with a constant attention to youth development. A unique feature in her pedagogy is that she did not translate any psychological principles into classroom practice. Rather, the observation of active pedagogical aids to "children's normal expansion" enabled her to enucleate psychological regularities, synthesised in her planes of development[18].

Nowadays, understanding of learning how to learn can be considered one of the key outcomes of Montessori's work. Her principles of autonomy, self-determination, biologically intrinsic learning motivation, self-evaluation and social learning lay the foundation of contemporary learning to learn theory. Ideally, this new theoretical framework is inspired by Maria Montessori's pedagogy.

Learning to learn: a definition and model

But what exactly is meant by learning to learn[19]? Authors have defined it as "*Homo Sapiens'* essential evolutionary task" (Henry in Smith, 1990), "the most basic knowledge of all"(Goleman, 1999), "an educational objective" (Tuijnman & Van Der Kamp, 1992), "a fundamental competence" (European Group on Basic Skills, 2003), "the ultimate life skill for the 21st century", (Burgogne, 1998 in Carr & Claxton, 2002) and even "most urgent point in the agenda together with educational reform for the development of people" (Candy, 1990). For the European Union, learning to learn is one of the eight key competencies needed for personal fulfilment and development, social inclusion, active citizenship and employment (European Parliament, 2006).

In spite of the general agreement about the salience of learning to learn to educational systems, there is no general consensus about its components. A recent attempt to assess this concept in European countries has come to the conclusion that more theoretical work is needed to ground assessment into a clear definition of learning to learn constituents (Kupiainen, Hautamäki, Rantanen, 2008).

The lack of consensus seems not a good reason to abandon this concept in educational settings: intelligence too is still a much-debated concept, yet this dispute did not prevent flourishing

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[17] There is a striking similarity with Montessori's learning principles and Self-Determination Theory.
[18] Historically, it seems that Piaget knew and appreciated Montessori's work even prior to the conceptualization of his own stages of development (Piaget J. , *Psicologia e pedagogia*, Torino, Loescher, 1970, 140). Montessori's pioneer attention for the individual learner is still much praised yet unfamiliar, misunderstood and largely unattended in Italy even by some of her followers. See Stringher 2009 for a comparison of Montessori and traditional education in primary schools.
[19] In this contribution, learning to learn, learning how to learn, learning metacompetence, strategic competence and relative abbreviations (L2L, LHTL) have been used interchangeably. Cheren also defines L2L as "learning management" (Cheren in Smith, 1990). For a theoretical update on learning to learn, see Stringher (2010).

of hundreds of studies on measurement of this trait, nor the application of such studies, sometimes with deep social consequences[20].

For the purpose of this framework, the following definition of learning to learn is provided: "Executive control of learning, of process nature, enhancing management ability of specific learning situations which bestows individuals with increasingly higher command over modes, time and spaces of their own learning experience situated in diverse contexts, with the ultimate goal of making sense of reality. It mobilizes different energies to produce knowledge and improvement on learning through variations in learning experiences and reflection upon them. Its lifetime functions are youth development, individual adaptability to working and domestic life up to the creation of balanced personalities and social well-being. Inherited assets, self-regulated learning (with cognitive and metacognitive dimensions), learning dispositions, affective-motivational social and active dimensions of learning contribute to it in a developmental and lifelong perspective" (Stringher, 2010)[21].

Crucially for this argument, Learning to learn deals with process variables at the student (and classroom) level. Indeed, it seems the focal process and the intended output for students, teachers and schools to achieve. Fig. 3 offers a schematic process and output model which is intended as a hypothesis of how learning to learn works according to its definition.

Fig. 3 – Learning to learn process and output model.
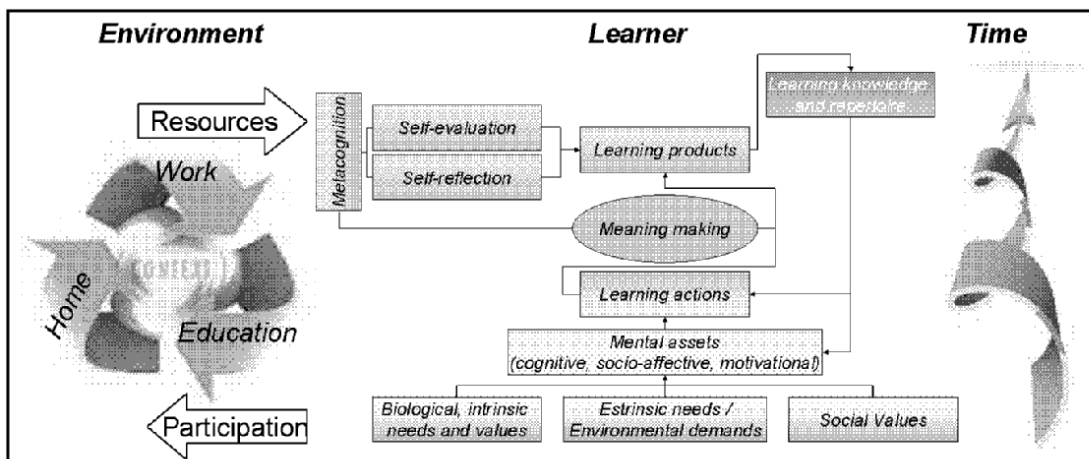
Biological needs, intrinsic needs[22] and values, extrinsic needs and environmental demands as well as social values seem to trigger learning and learning to learn processes in individuals. These drivers activate mental assets (socio-affective and motivational prior to cognitive ones) which lead to learning actions in a search for individual personal meaning. Up to this point, the learning

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[20] See for instance the manifesto called Mainstream Science on Intelligence. For an online version of the thesis therein contained, see Gottfredson, 1997. Retrieved at:
http://www.udel.edu/educ/gottfredson/reprints/1997mainstream.pdf.
[21] In this context it seems worth noting the semantic distinction of learning to learn (the lifelong process) from learning knowledge (its product).
[22] What Deci & Ryan termed as psychological needs of autonomy, relatedness and competence (2002). Recent developments in SDT have pointed to the importance of differentiating motivation in terms of its quality (poor/external/controlled vs good/internal/autonomous and amotivation) (Vansteenkiste et al. 2009).

process occurs yielding to learning "products" of various kinds. However, if metacognition takes place, through self-evaluation and self-reflection, and the learning process with its products is analyzed, learning knowledge can be acquired and the individual will develop a repertoire of learning strategies and tactics which can be employed in different contexts and occasions for further activation of the learning process, which thus results empowered.

In a continuous cycle of action, assessment and new action, the individual proceeds in learning at progressively higher degrees of self-determination; this cycle is displayed in a time trajectory that varies at individual level but can roughly follow life stages of development we all experience (Bateson, 1986; Deakin Crick, Broadfoot & Claxton, 2004; Deci & Ryan, 2002; Harlen & Deakin Crick, 2003). L2L in this acceptation can be defined as the malleable side of intelligence, thus subject to change over time with optimal pedagogic interventions.

As individuals do not function in a vacuum, this recursive process is both nurtured with environmental resources (from home, leisure, work and education) and participated by individuals contributing to their environment. The strength of L2L as a powerful tool for the individual can be extended to groups of individuals and whole settings, such as a school. The social aspects of L2L in this latter case result more evident and foster social learning to learn and awareness of a group's drives, motives, direction through social reflection.

To date, the key problem in the assessment of learning to learn has not only been to establish a list of agreed components, but also to understand how they interact in order to produce a L2L output, that is the efficient learning and application of learning to every-day life situations.

The answer to this problem is yet to be found. However, L2L components and basic relationships among components have been analysed elsewhere (Stringher, 2010) and are further being studied for their operationalization.

These features well apply not only to student learning, but also to teachers' professional development and more generally to schools as learning organizations at different stages of development. The emphasis here is not on a generic cybernetic process of evaluation → feedback → action, but rather in deep meaning structures of involved students, teachers and head teachers within a given school for their own transformation and empowerment (Mezirow, 1996; Taylor, 2008).

The situated nature of learning to learn is not to be underestimated, as it is influenced by historical social milieu and cultural background of individuals, in addition to biological inherited traits. For this reason it seems appropriate to consider a socio-historical-constructivist paradigm and mixed methodology to study this field of knowledge and to propose it as core concept for school improvement.

A framework for school improvement based on learning to learn

Considering the ESF initiative, which is trying to aid schools in improving student learning and contrasting drop-outs, two objectives have been previously identified: a) to concentrate on malleable variables and factors at each classroom and school level; and b) to precisely identify and prioritize such variables and factors.

An inverted EER logic will thus be applied: within the new proposed framework for Italy priority is given to such elements which foster cross-disciplinary methodologies to enhance student motivation and engagement, the objective being to place learning[23] and learning to learn at the core of classroom practices and of each school curriculum. This choice is depending on two contextual factors: a) within ESF activities, several projects already deal with disciplinary interventions aimed at enhancing teacher effectiveness through continued professional development; b) European funds also aim at empowerment of all students, and learning to learn is coherent with European policy on key competencies needed for the knowledge society.

Learning to learn is thus assumed as the pivotal nucleus of this action for a number of reasons:

- Factors close to the teaching-learning process *versus* school or environmental conditions are key to student learning and should be further investigated: there seems to be a need to open up the school black box and try innovative solutions to enhance student learning from within (Scheerens, 2000). This proposal starts from what actually happens at the student level in the classroom to detect what seems to be of paramount importance in single students' performance.
- Although aspects of structured (as opposed to "active" or "open") teaching are those with larger impact on student achievement, EER literature advocates learning to learn as cutting edge theme identified among new educational goals (Scheerens, 2000).
- According to the Effective School Improvement project, two factors are key at the classroom level: didactic objectives (what to teach, i.e., the actual curriculum taught) and didactic means (how to teach, i.e., disciplinary and cross-disciplinary methodologies). At the school level, groupings of students (by learning level) and time schedule are relevant in this context (Melchiori, 2001). Learning to learn pertains to both these categories, i.e., it is an aim as well as a methodology to achieve aims: it is not only a product of schooling but also a key process in enhancing student learning, hence its crucial importance for individuals and groups.

The resulting approach is schematised in Fig. 4 introducing the logic of improvement. As Claxton puts it, "it is the beliefs and priorities that are dissolved in the micro-'how' of the school that matters" (Claxton, 2002, 32). Along the line with Creemers's attention to deductive yet evidence-based models (Creemers, B. P. M., & Kyriakides, L., 2010; Creemers, B.P.M., & Kyriakides, L. 2006; Creemers, B. P.M., & Scheerens, J., 1994), the attempt is to delineate this new approach based on the need to initiate improvement from each student's learning potential and from a whole school approach which fosters Learning to learn practices.

Fig. 4 – The logic of improvement. Adapted from Hopkins D. (2008).

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[23] Reference is made here to learning the national curriculum, although there is not such thing as a true and proper national curriculum with relevant standards in Italy. Recently, National Indications on what learning goals pupils should reach at the end of primary and middle secondary education have been introduced in the Italian system. MIUR (2007). *Indicazioni per il curricolo per la scuola dell'infanzia e per primo ciclo d'istruzione*. Rome, Author. See also Presidential Decree n. 89 of March 20th 2009 and Minister's Atto d'indirizzo of September 8th 2009. Retrieved at:
http://www.edscuola.it/archivio/norme/programmi/ai_8909.pdf
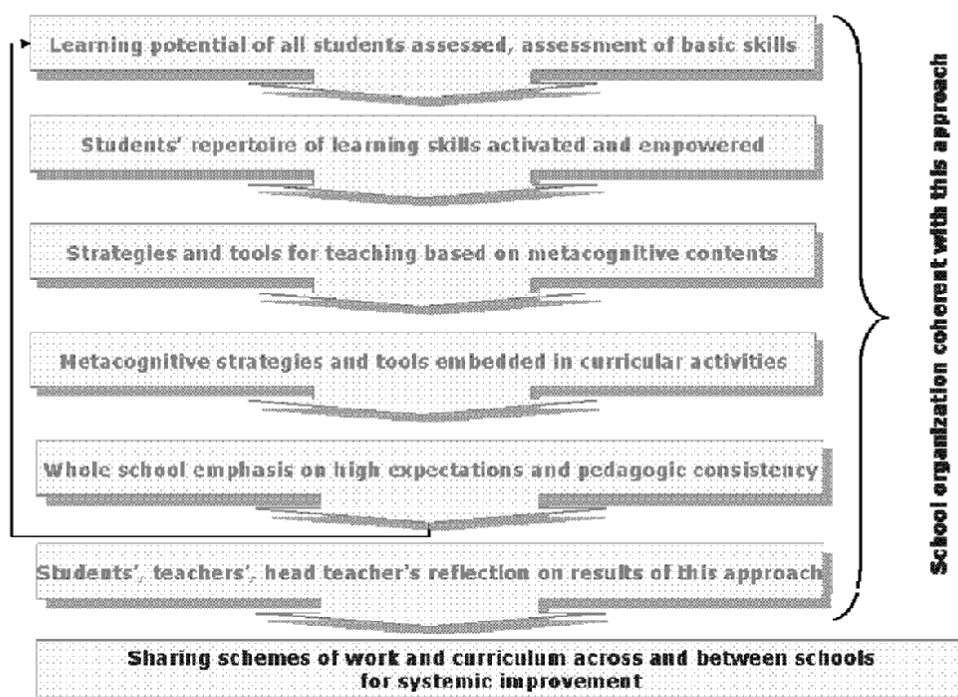
Student performance and learning to learn are both the starting and the end points of this recursive action based on student assessment[24]: preliminary to any discourse about performance is indeed student intrinsic learning motivation[25], which should become a goal of educational systems to pursue and measure in order to sustain educational attainment and discourage drop-outs. In addition, learning to learn empowers individuals for lifelong learning in a constantly changing knowledge society and it is considered a key factor both from a socio-economic and a civic viewpoint (Hoskins, & Fredriksson, 2008).

While content knowledge is embedded in activities to enhance the capacity of pupils to learn, viceversa, learning conversations can be used to enhance content knowledge and more specific skills (Claxton, 2007). If the school environment shares such priority, it will necessarily become conducive to learning, open and sensitive to the possibility and capacity of all children to improve their learning, which in turn creates a place where students can try out new ways of learning without fear or danger of failing. Regular reflection on this trajectory and on how each actor (student, teacher, head teacher, inspector) can improve and contribute to making a school a learning environment can yield systemic improvement when shared across different schools.

The underlying assumption is that improvement should be targeted to all students, not only to those with higher intellectual abilities or SES. The ultimate aims of ESF strategies are in fact: a) to improve the overall performance level of students in the four regions and b) to contrast drop-outs. This does not mean to achieve balance between equity and effectiveness at the expenses of the low

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[24] Hargreaves notes that *Experience and evidence need to be discussed in dialogue together without privileging one over the other. Data do not always give us the answer... Data-driven instruction can drive teachers to distraction and destruction. (Hargreaves, A., 2009, 95-96).*
[25] A fundamental component of L2L.

end of the achievement distribution: it means to aim high and set elevated expectations for all students, like in excellence programmes (Hopkins, D., 2008).

Professional teachers place individual students at the centre of the system and build upon their attitudes, believes, motivations and prior knowledge. This approach is thus very demanding in terms of teachers' personal resources needed to implement it, as most improvement strategies are. This could introduce one possible answer to the central thesis of this exploration: school improvement obtains uncertain results because it actually needs strong focus on the individual learner and this is only rarely achieved by teachers if they are unable to distance themselves from their usual "common practices". But there is also a systemic answer to note here: reforms not grounded in learning will be less likely to produce sustainable and long-lasting effects in students competencies. Nor the focus is solely on the managerial side of school improvement, as many governmental reforms have demonstrated up to now.

An improvement route for schools: principles of the Italian ESF improvement initiative

In this section principles for improvement rather than models to be followed rigidly will be provided, with the intent to summarize the main evidence collected and to offer schools a path to be personalised according to different contexts. The principles aim at theoretical coherence with the Learning to learn model of Fig. 3 (with its basis in Deci & Ryan's SDT) and the improvement logic of Fig. 4. The intended route is inspired by Fourth Way paths to educational change (Hargreaves & Shirley, 2009) in an attempt to avoid pitfalls identified in that volume (48)[26].

1. Innovation aims at the global improvement of an individual school and acts at every level (students, teaching staff, administrative staff, school head).
2. Such improvement is finalized and focused, not scattered or dispersed: it is intended as a set of actions and processes planned by and with an individual school constituencies, directed to elevating quality in terms of student competencies and contrasting drop-outs. Quality certifications as well as marketing approaches are excluded from this horizon, since they would frame a different concept of quality: the risk is to accept an administrative quality of procedures at the expense of actual student learning outcomes. Also, quality perception of some non-expert stakeholders, such as parents and families, does not necessarily mean quality of teaching-learning process and outcomes. The role of schools as communities of expert practitioners is thus strongly advocated.
3. At the centre of such improvement programme is the individual learner. High expectations can be placed on each learner within a school. These expectations are accurately communicated and shared among all school staff.
4. To significantly increase student learning outcomes, especially in highly disadvantaged areas or populations, the relevant pedagogical crossroads seems to be student learning to learn, of which motivation is a primary driver, impacting their regular school attendance.
5. Self-Determination Theory principles can be taken into consideration to develop improvement routes that are coherent with basic psychological needs of individuals, i.e., autonomy, relatedness and competence.
6. It is important to device a way to observe, appraise and start discussing with individual students their current status of both learning and learning to learn, as a foundation for

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[26] The main features of previous educational change models that the authors advise to abandon are: "teachers' inconsistency and professional license; weak development of teachers, leaders and communities; cut-throat competition and excessive standardization; persistent autocracy, imposed targets, obsession with data, effervescent interactions".

intervention[27]. The core of the intervention is thus a blend of INVALSI information on each student learning and learning to learn. A learning dialogue between individual teachers and students on student current learning levels and motivation is expected to open up creative solutions for learning enhancement.

7. A series of instruments developed to sustain the practice of improvement could be made available to participating schools (Elmore, 2008). Among such tools: a L2L test and procedures to benefit from test profiles in actual classroom environments; a teachers' guide to learning dialogues starting from INVALSI data on student learning and learning to learn; a procedure to initiate dialogue between experts and hosting schools; a planning guide for schools to deliver their own improvement project based on these principles[28].

8. The entire process is based upon the dialogic and participative interpretation of INVALSI data on student learning in national language and maths: INVALSI experts/inspectors and the teachers/school committee meet to discuss data and to spot critical areas in need of improvement. Student assessment data are not the only true and proper diagnostic tool, but they could be seen as a starting point for an evidence-based co-construction of the improvement project enabling benchmarking to National student outcomes Indications.

9. Pre- and post-intervention assessment measures will be taken at least on an annual basis. The entire improvement process will be accurately documented and monitored with simple yet frequent tools (ex.: monthly semi-structured teacher logs).

10. For broad effective interventions, however, it is not sufficient nor possible to act only at the student level: the culture of the school as a learning community, forged by teachers and head teacher, but also affected by administrative staff, strongly contributes to the environment where students develop their capacity to learn. The focus here is not dispersed on all the possible variables to be controlled at the school level, but is rather on those at the micro level, directly connected to the teaching-learning process. The choice of variables to accurately monitor is firstly based on this broad distinction: teachers' variables, students' variables (including knowledge of their SES and family background) and variables describing the classroom interactions. The intervention is of course based only upon malleable variables, although assigned ones such as SES are taken into account and not simply ignored.

11. The majority of the school community manifests its availability to improvement: a top-down approach is notoriously inefficient, therefore collegiality and trust in the possibility of change are fundamental.

12. The improvement here referred to is a product of an effective distributed leadership and of learning motivation of an entire school community: students, teachers, head teacher.

13. The head teacher's role is one of guidance and organizer of a professional learning community.

14. Each involved institution could create a light internal committee to develop capacity for change and improvement. Such capacity is made of professional strategies openly aimed at developing and utilizing knowledge, competence and commitment to improve student learning; however, the structural aspect of such community should not surpass the core task, i.e. the development of human capital for school improvement.

15. Sustainability of change is achievable only through a diffuse improvement culture within an institution, enabling continuity also in times of personnel relocation to other schools or leadership shifts, very common in Southern Italy.

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[27] It is beyond the scope of this article to describe how this can be achieved. Other contributions will address these topics in depth.
[28] These tools will be produced and discussed elsewhere within this project.

A modelling of these principles, translated into an improvement route, is provided in Fig. 5.

Fig. 5 – The proposed improvement route.
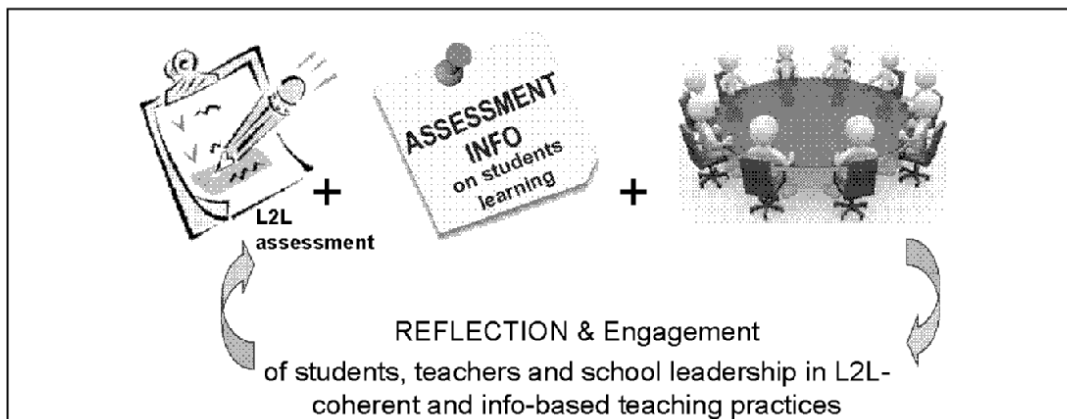
In order to achieve these goals, the core concepts of this proposal are assessment and reflection: assessment is the starting point for reflection of both students and teachers; reflective students improve their motivation based on their learning to learn competences; reflective teacher practice empowers practitioners; school self-evaluation and external evaluation triggers reflection and organizational learning.

L2L and data collection for improvement purposes

A data collection strategy, consistent with both Learning to learn theory and the proposed improvement route, is the core for this model's empirical validation. According to current understanding of L2L, Self-Determination Theory (SDT) seems to be a promising starting point to ensure consistency in the motivational approach at all levels (student and teacher but also the whole school). In fact, if improvement is the aim, it is relevant to create environmental and social conditions at the micro classroom level that are supportive of Learning to learn, for both students and for teachers[29]. In addition, SDT has an already established set of empirical scales measuring different aspects of the theory and which could be used also in this endeavour.

However, learning to learn assessment and development implies that several other factors be considered in data collection to enable analyses on relationships among factors, the ultimate goal being to explore if and how L2L in this broad acceptation is connected to learning improvement.

Another aim of data collection is to avoid the unnecessary statistical frenzy, ensuring at the same time to collect what is needed to validate the model in a parsimonious way. Thirdly, the data collection should enable a close monitor of the entire improvement action. Thus a focused data collection strategy is pursued in this effort and it will include the areas preliminarily identified in Table 3 below.

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[29] Teachers' incentive practices relying on monetary reasons to perform in a certain way are quite the opposite to SDT principles and in the long term produce the reverse result: through these incentives, teachers are externally determined, thus their need for autonomy and competence are thwarted. For this reason, teachers will tend to disengage when incentives stop.

Table 3 – Data collection strategy

Data collection area	Data collection timing
✓ National assessments of student learning outcomes	Pre and post intervention on L2L
✓ L2L assessment tool (currently being developed and including SDT motivation scales)	Pre and post intervention on L2L
✓ Student and school questionnaires for background variables (including student attendance/absenteeism measures)	Pre intervention on L2L
✓ Student SDT perceived support from teachers scale	Pre intervention on L2L
✓ Teacher SDT Motivation Scale	Pre intervention on L2L
✓ Teachers L2L/improvement logs/diaries	During intervention on L2L
✓ Student and teacher participation indicators to the L2L intervention	During intervention on L2L
✓ School heads interview	Pre and post intervention on L2L
✓ Participants focus groups and interviews	End of intervention on L2L

Conclusions and future research directions

To guide action in a coherent way, school improvement needs an epistemology even prior than funding. The need is intense for school reforms which are grounded in learning and relevant pedagogy. In fact, two speculative pitfalls of existing school effectiveness and improvement models have been identified through this analysis: the risk to loose theoretical focus during the operationalization process and simultaneously rely on behaviouristic practices such as rewards and punishments as main solutions to boost students' learning or teacher engagement.

Radical societal changes have been taking place since the inception of school effectiveness movements started in the 1980s. A useful analysis approach to change in educational reforms is that of Andrew Hargreaves and Dennis Shirley in their Four way (Hargreaves & Shirley, 2008; Hargreaves & Shirley, 2009, Hargreaves, 2009).

This essay takes into account the critiques posed by those authors when they warn against "statistic frenzy" and advocate the need to guide practice from consistent theoretical grounds. The theoretical approach of this proposal is thus rooted in Learning to learn as both the focal process and the intended output for students, teachers and schools (Deakin Crick, Broadfoot, Claxton, 2004; Goldspink, 2007; Stringher, 2006, 2008, 2010).

Based on the literature search, a series of principles have been extrapolated in order to plan school improvement actions. Self-Determination Theory and a socio-constructivist approach could

be the unifying theoretical background harmonising actual improvement routes for schools to implement.

The proposal is informed by a socio-cultural-constructivist epistemology which emphasises situational, transformative and organizational learning (Kolb, 1984; Resnik, 1987; Schön, 2006; Senge, P. et al., 2000; Taylor, E., 2008). It tends to move away from school effectiveness literature focusing just on statistical models and it departs also from EER tradition in that it inverts the logical approach: while EER usually analyses and compares large data sets in order to find factors affecting educational outcomes, this proposal starts from what actually happens at the student level in the classroom to detect what seems to be of paramount importance in single students' performance.

The novelty of this approach lies in the overarching socio-cultural-constructivist epistemology which attempts to inform all subsequent principles and actions, in search for priority and consistency. In addition, the resulting model is not one based solely on deductive reasoning, given that it makes full use of assessment for learning and outcome assessment as a basis for a reflective learning cycle. Implications for empirical quali-quantitative model validation have been also examined.

Future directions point towards two main areas: a) a detailed program action guide for schools wishing to attempt this route; b) the refinement of the operationalization in terms of actual factors and variables to be included in the model for the development of a L2L assessment tool and for model empirical validation.

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Quality Assurance on the Road:
a Comparison of Finland and Austria

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Quality in and of Higher Education

The main transformation trends in higher education are massification, diversification, privatisation and globalisation which have affected higher education worldwide and are still tackling the whole higher education scene. All transformation processes are expected to influence the strategic choices of higher education institutions to develop a functioning quality assurance system. Especially the OECD and the European Union are taking serious impulses into this area of research which is continuously under transformation:

– several political reforms are ongoing;
– further as well as new types of higher education institutions are established;
– quality assurance agencies are either newly developed as well as continuously adapted concerning their missions, procedures and scope of authority; and
– various international movements and initiatives are predominant.

In a historical perspective the coordination of higher education has shifted from a classical form of state-dominated regulation in parallel with professional self-governance to forms in which various actors at different policy levels govern the system (Leisyte, L., 2007: 15). An effect of this change in higher education governance was the ongoing demand for quality reforms and variety of studies on the impact and effects of quality assessments on the different areas within the academic world (at the individual, discipline, institutional or even sector level). Various authors have looked at the consequences of this increased autonomy, the upcoming of accountability mechanisms or the academic identity itself (e.g.

Brown, R., 2004; Kogan, M., 1989). New quality assurance approaches are at the forefront of discussions including all different kinds of stakeholders; governments, higher education institutions, quality assurance agencies, recognition bodies, students, employees, industry as well as the society as a whole. The changed purpose and aim of higher education have led to new and alternative ways to assure the quality of the different higher education providers in terms of teaching, research and administration.

Hence, quality assurance is on the main agendas of higher education policies throughout Europe and gains great importance in making judgements on the higher education institutions and their programmes. In the European context the call for more visibility, transparency and comparability of quality in higher education is tightly linked to the *Bologna Declaration* of the European Union Ministers of Education. This tendency continues to be one of the central themes in the whole Bologna process (ministerial conferences from Bologna in 1999 to Budapest/Vienna in 2010). The Bologna process implicates several changes in the whole higher education sector, such as; a European and a national qualification framework, a new degree structure, learning outcomes orientation and employability focus. All these changes have a high impact on quality assurance issues. Presently the setting up of a *European Quality Assurance Register for Higher Education* is highly discussed at the EU level as well as in all participating nations. The main aim and objective of this Register is to offer public access and availability to information on quality assurance agencies. To promote a European-wide quality assurance system, as focussed within Bologna, the recognition and comparison of higher education systems as well as degrees in terms of mobility and employability have to be facilitated. In most European countries, quality assurance agencies are autonomous and organized on a national or regional level. In the following the research design of this study will be described and the development of a quality assurance system in two European countries – Finland and Austria – is illustrated.

Research Design

Different transformation processes show the diverse dynamics and highlight the need of quality assurance in higher education. A variety of country reports and numerous comparative research projects on higher education issues have been carried out. Though, future scenarios of the ongoing transformation processes, a link between countries and their quality assurance systems as well as possible solutions to establish a functioning system by still considering the cultural, social and economic diversity of a country are missing. In this study, which is part of my doctoral thesis, the following research question is formulated: *What are the further developments of a respective higher education system and how will quality assurance emerge successfully in an international higher education area?*

Hence, I favour on case studies to gain a comprehensive understanding of multiple national higher education systems in terms of their quality assurance procedures. The development, the challenges as well as problems of two national quality assurance systems – Finland and Austria – are in the centre of this article (Germany, United Kingdom, United States of America and Canada are further observed countries within the doctoral thesis of the author). The selection criteria for these two case-studies are the following: both countries are rather similar in size and are quite contrary in their approach on quality assurance when looking at the historical development but are moving now into the same direction towards quality audit.

The methodology of this study applies analytical research of higher education literature (desk research) and expert interviews based on written questionnaires (partly conducted via email or via telephone). In first line, country reports are compiled relying on secondary analysis of the professional literature, review of national legislation and policy as well as content analysis of professional discourse in acknowledged journals and conferences in the field of higher education and quality assurance in particular. These reports shall give an explorative but selectively systematic overview of the reviewed countries by considering the scrutiny of terminology and usage of quality assurance. Existing literature on the use and extent of quality assurance in the selected countries will be the basis for the country reports. These reports are also reviewed by several national experts and have been corrected and adapted according to their comments

and remarks. Nonetheless, the reviewed reports can only try to highlight a given moment. To go beyond the descriptive reports I gathered expert interviews to get a more internal view of the prevailing object of investigation and to figure out additional information and hints of the situation in the observed countries. In total I have received questionnaires from eleven national representatives in quality assurance in higher education. Based on the country reports and the expert opinions I will compare and discuss the findings.

Finland – Evaluation and Audit

The first steps towards quality assurance in higher education in Finland are made in 1966 with the establishment of the *Higher Education Council* (*Korkeakouluneuvosto*, HEC), an advisory body to the MINEDU, that "conducted study field-specific evaluations to develop degrees, proposed the first Centres of Excellence in education and developed performance criteria" (FINHEEC, 2010: 17). Though, the arrival of the evaluative state (Neave, G., 1988) in Finland took almost two decades and was adopted principally in the 1990s during the deep economic depression of 1991-1993. After that period of transition the changes have occurred straightforward and nowadays Finnish higher education is regularly evaluated (Rinne, R., 2004: 115). The idea of systematic evaluation of higher education institutions (universities and polytechnics) was born by a committee deliberating university performance assessment, the so-called KOTA committee, in 1985 which recommended two different ways of evaluation: institutional reviews and national disciplinary evaluations of research and teaching. For that reason the national university data base KOTA was founded to publish quantitative data on the resources and performances of universities. The data base is organised under the MINEDU and contains information data from 1981 onwards (Liuhanen, A.-M., 2001: 12). With the establishment of a new higher education sector, universities of applied sciences (UAS), consequently the AMKOTA database has been created.

After several pilot studies in the 1990s the Finnish Government enacted that each higher education institution should undergo an evaluation by 2000. Since 1986

universities have to implement their own evaluation system "capable of producing sufficient and comparable information of the results of research and teaching and of their costs" (ibid.). With the new *University Act in 1998* a clear paragraph on evaluations was set up. Since then all higher education institutions are required to participate in external evaluations and publish the results of such evaluations publicly (Välimaa, J., 2004: 107; Omar, P.-L. & Liuhanen, A.-M., 2005: 40). External evaluation/quality assurance includes research, degree programmes, institutions as well as specific themes (admissions, student guidance counselling etc.). Although external evaluations and publications of their results are regulated by law the choice of evaluation is free to the institutions. To carry out these evaluations the *Finnish Higher Education Council* (FINHEEC) was established in 1995 as an independent expert body of the MINEDU to conduct evaluations and is seen as successor of HEC "to separate evaluation of higher education from the Ministry to ensure independent evaluation" (FINHEEC, 2010: 17). The Council assists all kinds of higher education institutions as well as the Ministry in concerning evaluation (MINEDU, 2005; Omar, P.-L. & Liuhanen, A.-M., 2005; Froestad, W. & Bakken, P., 2003) and is mainly financed by the government budget via the Ministry (Hämäläinen, K. et al., 2001: 20).

FINHEEC can set its targets and decide on the methods of evaluation independently within the resources. The aim of evaluations "is always to tailor the approach according to the special character of the theme or the institutions" (Froestad, W. & Bakken, P., 2003: 16). Currently three different types of evaluations are conducted by FINHEEC such as (1) audits of quality assurance systems of higher education institutions, (2) evaluations of Centres of Excellence in education (on both university and UAS sectors), and (3) thematic evaluations and evaluations of educational fields (FINHEEC, 2010: 21). These methods mainly focus on enhancement and improvement rather than on accountability or accreditation (MINEDU, 2005: 78; Hämäläinen, K. et al., 2001: 21) but "the latter is obviously an activity included in the overall system" (Danø, T. & Stensaker, B., 2007: 85) as accreditation still plays a minor role in the Finnish quality assurance system.

Additionally national and international benchmarking is applied. As FINHEEC emphasises on international members in their external panels and as an active and full member in the *European Association for Quality Assurance in Higher Education* (ENQA) the legitimacy of their work increases (MINEDU 2005, pp.78f). Evaluations initiated by the Council do not include positive or negative formal sanctions; simply the Ministry can base its annual performance negotiations on these results although there are some exceptions when the evaluation has a monetary impact (Omar, P.-L. & Liuhanen, A.-M., 2005: 40). Students are having an important function in the whole quality assurance system in Finland as student involvement is prevailing in all evaluations and in each phase. Furthermore, student representatives can be found in the Council as well as in various planning and steering groups and external panels (MINEDU, 2005: 79). These student representatives are traditionally from the National Union of Students (NUS).

Since the turn of the century FINHEEC is on the way to implement cyclical institutional audits (Danø, T. & Stensaker, B., 2007: 85). This new approach of audit of quality assurance systems follows the Berlin Communiqué and has been implemented in the last years. Since 2004 an audit procedure has been developed which concentrates on the quality assurance systems on higher education institutions (Wahlen, S., 2007: 12, 33ff) and will be undergone periodically after six years. A higher education institution can either pass the audit or show fundamental lacks in its quality assurance system "in terms of comprehensiveness, effectiveness and transparency" and consequently has to undergo a *re-audit* process. At the same time audits also comprise "an evaluation of strengths and development targets of the institution's quality assurance system and recommendations for the improvement of its quality" (Omar, P.-L. & Liuhanen, A.-M., 2005: 41). Till now already 18 audits have been conducted and the first audit cycle will be completed by 2011. Nonetheless, FINHEEC intends to work more focus-oriented on quality assurance of internationalisation, employability of students or research process (Moitus, S. & Seppälä, H., 2009: 71). One future perspective could be that audits will be obligatory for all higher education institutions.

Next to FINHEEC which performs most of the systematic evaluation in Finland there is another evaluator, the *Academy of Finland*, which is responsible for evaluating research since 1983 (FINHEEC, 2010: 17). The Academy's work includes general evaluation, evaluation of scientific disciplines and research programmes, developing research indicators and the evaluation of funding. The *Academy of Finland* evaluates researchers, research teams and entire institutions and research institutes according to the results they have achieved. Next to national evaluation also international evaluations of different fields of research as well as other evaluation activities are carried out (MINEDU, 2000: 30). Along the evaluation results different development projects are realised as these evaluations and assessments tie in closely with foresight efforts (FINHEEC, 2010: 17). In summary, Finnish external quality assurance is twofold: "first, a ministerial system of governance and recognition of new study programmes and, second, evaluations, audits and accreditations of certain courses carried out by the Finnish Higher Education Evaluation Council (FINHEEC)" (Danø, T. & Stensaker, B., 2007: 84f). Figure I illustrates the three main areas of quality assurance in Finnish higher education.
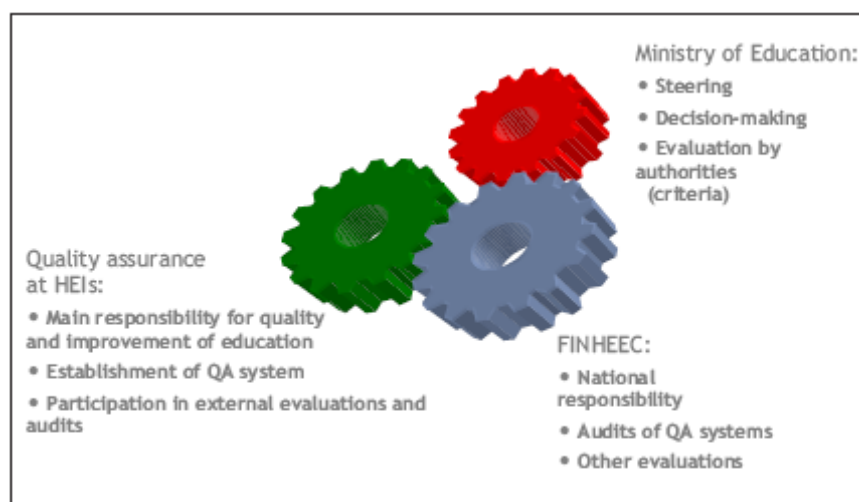
Figure I: Finnish Quality Assurance System (FINHEEC, 2010: 16)

Looking closer at the Finnish system some conflicts are visible. Although no higher education institution will deny participating in evaluations they are on a voluntary basis. To increase visibility and international competitiveness a change of this Finnish higher education policy would be needed. With an increased international approach the strong role of FINHEEC and the national coordination of quality assurance can be diminished.

A crucial problem to get international evaluators will be, of course, the Finnish language. Therefore, different approaches into a more international direction in the present legislation will be needed. Especially, due to the new *University Act of 2009* the fiscal responsibility increased as well as administration and internal steering changed that "[information] on good practice and useful solutions provided by FINHEEC's evaluations are likely to be needed more than ever in this transformative period" (FINHEEC, 2010: 14). In terms of the new *University Act* and the *Polytechnic Act* higher education institutions are free to choose any international organisation to perform quality assurance external audit. Despite the important assisting role of FINHEEC to develop higher education and quality assurance systems the primary responsibility for quality in all aspects rests within the higher education institutions themselves (ibid.: 16f).

Austria – Accreditation and Audit

The practice of quality assurance was introduced into policy discussions and reforms quite lately compared to other European countries. Discussions on quality assurance and strategies started not till the 1990s and were primarily linked "to enhance the efficient and effective use of public financial resources (i.e., accountability) and to the idea of loosening ties between state ministries and institutions (i.e., autonomy)" (Rhoades, G. & Sporn, B., 2002: 365). With the *management* reform through the UOG 1993 deregulation, decentralisation, effective planning and governance structures have been promoted as well as evaluation and quality control mechanisms have been implemented (ibid.). Hence, the first steps for a quality assurance system in Austria date back to the second reform cycle in higher education when the first systematic and comprehensive programme evaluations are stipulated by law. The Ministry can instruct a more detailed framework for quality assessment whereas universities have to develop their individual evaluation procedures according to this framework on their own (Beerkens, E., 2003: 42). First of all only the feedback of students has been collected but the findings have not been implemented most of the time. The *Austrian Rectors' Conference* (since 1st of January 2008 the Austrian Rectors' Conference was re-named Universities Austria, UNIKO) took part in a European

pilot project on quality assurance in the mid-1990s, where dramatic shortcomings even in basic data and analysis of student feedback compared to international developments have been figured out. Thus, the relatively rigid Austrian higher education system was forced to change from the outside in different ways (Konrad, H. & Fiorioli, E., 2007).

Regarding quality assurance the institutional differentiation according to a non-university and a private higher education sector is very important. Until 1999 there have been only public universities under the Austrian law (Pechar, H., 2001: 261). Firstly, continuous evaluations started with the establishment of the *Fachhochschule* sector (FH; universities of applied sciences) in the 1990s (Kottmann, A., 2008: 43). Secondly, with the development of a private higher education sector an accreditation process for private providers and their programmes was needed. These new sectors implicated transformation according to the quality assurance of the whole system because it was necessary to introduce at least the approval of institutions or academic programmes in form of an ex ante-accreditation. Though, these two segments are kept relatively small in the higher education system because they only count about 12 % of the whole student population (Konrad, H. & Fiorioli, E., 2007).

Due to the new national concurrence the public sector of higher education in Austria developed or adopted internal and external quality assurance. For public universities the UG 2002 initiated essential changes because universities became autonomous institutions. This goes in line with the concepts of neoliberalism and increased bureaucratic authority (Leitner, E., 2006: 8). The new university act also regulated that all universities have to build up an internal quality assurance system (Pechar, H. & Pellert, A., 2004: 325). This system shall assure the quality and performance of a university and all areas of evaluation have to be defined in the performance agreement (Wadsack, I. & Kasparovsky, H., 2004: 37).

At present the *Austrian Accreditation Council* (ÖAR) is responsible for private universities and the *Fachhochschul-Council* (FHR) for the FH-sector. Initiatives at the public sector have been made, however, to implement quality assurance procedures, coordinate evaluations and elaborate quality assurance standards with

the help of *Austrian Agency for Quality Assurance* (AQA). In table I the different scope of authority of the three Austrian quality assurance agencies is shortly summarized.

	ÖAR *Austrian Accreditation Council*	**FHR** *Fachhochschulrat*	**AQA** *Austrian Agency for Quality Assurance*
in operation	since 1999	since 1994	since 2004
legal framework	University Accreditation Act	Act on FH-*Studiengänge*	autonomous, non-profit organisation
scope of authority	re-/accreditation and supervision of private universities and their academic programmes at national level	accreditation, evaluation and re-accreditation of college degree programmes at national level	support and certification of quality management processes of different higher education institutions at national and international level
responsible board or council	*Accreditation Council* with 8 members who are acknowledged experts in the field of higher education (currently four of the members are from other European countries)	*Fachhochschulrat* (College Council, FHR) with 16 members (half with academic backgrounds and qualified university lectures and half from business and industry fields)	two executive bodies: the *General Meeting* (13 delegates) together with the *Board* (5 members), the *Scientific Steering Group* with mainly international members and the *Certification and Accreditation Commission* (3 academics, 1 member of the scientific steering group, 1 student and 1 representative from the business world)
important remarks	The ÖAR can be seen as gatekeeper in the private higher education sector as only 15 % applications for institutional accreditation have been accredited positively.	Since Fachhochschulen are founded and run privately a fast expansion is visible with presently more than 33.000 students. Nonetheless, most of the legal bodies (*Erhalter*) are under public ownership.	AQA mainly carries out quality audits for public universities and evaluation and counselling for all sectors as well as system and benchmarking analysis.

Table I: Austrian Quality Assurance Agencies

Despite the establishment of AQA quality assurance schemes at public universities are kept more flexible compared to the other higher education sectors. In terms of the FH-sector the FHR evaluates at institutional and accredits at programme level regularly as well as quality enhancement can be impeded with a strong impact of the regions or municipalities. The private sector is also quite regulated in through the ÖAR because not only institutions are to accredit also every single additional academic programme has to undergo an accreditation

procedure. At the international level all three quality assurance agencies play a central role and are members of various international networks in the field of quality assurance which shows their embedding and involvement into the international quality assurance community.

In conclusion the Austrian quality assurance structure has various approaches for their different types of higher education institutions and especially in terms of internal quality assurance there are no explicit specifications or parameters. Thus, various different quality assurance instruments are used by the institutions while evaluation and reporting are in the centre and the relevant steering instruments develop slowly. According to external measures the FH- as well as the private sector is already well developed while public universities whereas the public sector does not have to undergo any kind of accreditation process. Although the development of internal university quality management system is legally required for public universities there are no predefined parameters for the design of this system. It lies within the institutions to implement different processes. They can create their own systems and mechanisms but as there is no clear constraint for external quality assurance it is *largely avoided* (Hanft, A. & Kohler, A., 2008: 53). Though, since 2007 a network for quality management and quality development of Austrian universities (QM-Network) organises regular meetings to discuss issues on quality assurance, exchange information and experiences and starts co-operations through projects.

However, Austria has a short history in terms of accreditation and evaluation in higher education. While public universities are still on their way to find their suitable quality assurance models, the FH-sector as well as private universities have already implemented internationally recognised forms of accreditation and evaluation schemes (Pechar, H. & Klepp, C., 2004: 45). As in Austria there are various quality assurance agencies with different objectives it would be interesting to see the interactions between them and how these links will be developed. In this context Hackl (2008: 40) asks the following questions: "Will there eventually be only one quality assurance agency for all higher education? Will this put an end to the binary system? Will this be by accident or design?" The Austrian

framework on quality assurance in higher education shows the necessity of further discussions on quality assurance instruments at the international level.

Till now Austria has taken great efforts in its educational sector to make their population fit for future challenges and to develop as well as enhance their quality assurance systems continuously. At the beginning of 2007 the grand coalition decided on a mutual consent the reorganisation of AQA, further development of the ÖAR and the quality assurance of university continuing education (Bundeskanzleramt Österreich, 2007: 101). Till now nothing changed in all these aspects and in summer 2008 the grand coalition broke up. The new coalition (in effect since beginning of 2009) has emphasised the issue of quality assurance as well and is on the way to formulate a common law on external quality assurance for all higher education sectors (public and private universities as well as universities of applied sciences and other providers of higher education programmes) (Bundeskanzleramt Österreich, 2008: 216). In autumn 2009 the BMWF opened up a consultation process for a re-organisation of external quality assurance in higher education (BMWF, 2009) with the intention to create a common legal framework as well as one *Austrian Agency for Quality Assurance and Accreditation* (in short: AAQA). The legal and organisational changes will challenge the whole Austrian higher education sector although the effects on the quality assurance system are not clear. The need to enhance quality and to develop a more comprehensive quality assurance system is evident but the road Austria is going to take is not decided yet.

Comparison – Similarities and Differences

These two country reports are highlighting the different ways to implement and develop a quality assurance system. The following part concentrates on a comparison of both systems based on the country reports and the expert interviews. Table II shows the key actors and elements of both systems. At first sight the complexity of the Austrian system compared to the structured Finnish system is visible.

Looking at the situation in Finland and Austria, both countries started quite lately with policy discussions and reforms concerning quality assurance. While in Finland first discussions on quality assurance and strategies started in the mid-1980s (Neave, G., 1988), in Austria they started not till the 1990s. In Finland "quality assurance" is translated as "quality development". Accreditation is not widely discussed because a formal Finnish "government accreditation" already existed (Välimaa, J., 2004). However, a crucial point is the change towards assessment (Wahlen, S., 2007) with the development of an audit system. On the contrary, in Austria quality assurance was very input-oriented until 2004 which changed dramatically with the upcoming of university autonomy and the commitment to develop own quality management systems (Pechar, H. & Pellert, A., 2004). Though, since last year public universities are required to carry out an external audit procedure which is formulated within the performance agreements. Furthermore there is a strong tendency to make the system more transparent for all kinds of stakeholders nationally and internationally and to create only one quality assurance agency.

Indicator of comparison	Austria			Finland	
Legal framework for QA matters	University Act 2002/2009	FHS Studies Act 1993/2007	University Accreditation Act 1999/2006	University Act 2009 Polytechnics Act 2003	
Quality Assurance Agencies	AQA	FHR	ÖAR	FINHEEC	Academy of Finland
scope of authority	at national and international level for the whole HE sector	at national level for the non-university sector	at national level for private universities	at national level for the whole HE sector	at national level for the whole HE sector
approach	programme accreditation support and certification of quality management processes	institutional evaluation programme evaluation	programme accreditation institutional accreditation	Audit of quality assurance systems of HEIs evaluation of Centres of Excellence in education evaluation of educational fields	evaluation of research development of methods for evaluation
focus	teaching, research, administration			teaching	research
student involvement	partly			at all levels	
public report	No			Yes	
links with public funding	no direct connection			no direct connection	

Table II: Key actors and elements of the two national quality assurance systems

Next to the comparison of the country reports the outcome of the expert interviews (six experts of the Austrian and five of the Finnish system) will be

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elaborated. Table III provides a list of all experts and their affiliation as well as involvement into quality assurance matters.

Source	Name	Affiliation	Involvement
AUSTRIA			
Erichsen	Hans-Uwe Erichsen	University	Former/previous member/chair of a QAA
Fiorioli	Elisabeth Fiorioli	ÖAR	Accreditation Agency
Kohler	Alexander Kohler	AQA	QAA
Pellert	Ada Pellert	University	Expert in QA and QM
Sohm	Kurt Sohm	FHR	Accreditation Agency
Westphal	Elisabeth Westphal	UNIKO	Consultant for HE
FINLAND			
FINHEEC	Matti Kajaste/Helka Kekäläinen	FINHEEC	QAA
Harju	Juhana Harju	SYL, FINHEEC	Student union, QAA
Immonen	Helena Immonen	University	Quality specialist, member of audit groups
Saarinen	Taina Saarinen	University	Researcher of higher education assessment
Välimaa	Jussi Välimaa	University	Professor in higher education studies, QAA

Table III: Received questionnaires from the Austrian and Finnish experts

According to the experts the main challenges for the Austrian system lie within the diversity of higher education institutions and the different procedures to assure their quality. This mainly rests within the fact that there "is no compulsory accreditation for public universities but to establish quality management systems" (Pellert). Nonetheless, they see a high *acceptance of higher education institutions through a visible advantage of external assurance* (Kohler) as well as a way of collaborating between external quality assurance and the institutions (Sohm, 2010: 272f). The main keyplayers and stakeholders in both countries are the respective ministries and their quality assurance agencies next to the higher education institutions together with their staff and students (student unions). In the last years increasing care for student participation and involvement at each level of quality assurance has been taken. Finland has already realized to involve students at all levels whereas Austria lacks behind and is just on the way to involve students in review panels in their accreditation procedures (ÖAR, FHR).

The experts refer to benefits and failures of their quality assurance systems. Referring to the experts of the Austrian system the benefits are, for example, the creation of a feedback culture, consumer protection, the transparency of quality, the consequences of decisions or the self-report and assessment of external experts while the failures are seen in the *conflicts of expectations, demands and purposes* or the *tensions between the central perceptions of autonomy, accountability, trust and control* (Sohm, K., 2010: 265ff). Risks are also the bureaucracy of higher education steering and the multiplication of reporting commitments. The benefits of the Finnish system are the improvement aspect, the self-documentation and self-evaluation and the increased transparency. Especially, the audit system has strengths concerning its development orientation, the nation-wide approach and the learning process for all parties while it also leads to bureaucracy and an overload of evaluations and audits. Furthermore, the experts argue that there should be consequences on the results of the audit procedures. Furthermore, mainstream media sometimes mixes quality of results and quality of QA-system and creates *interesting discussions* (Harju). Internationalisation of quality assurance takes place rather rudimentary (Erichsen) and should be more linked to each other (Harju). Experts of both countries see the positive effects of internationalisation concerning an increased transparency of their quality assurance procedures. While Austrian experts see the challenges in protecting the students (Hénard, 2009) Finnish experts argue that as long international audits are not in place internationalisation is not reached (Immonen).

In terms of future transformation processes the two national systems are fundamentally different as the Finnish system already has undergone a transformation process towards audit procedures while the Austrian system is on the way to change within the next years. Presently the Austrian system is too segmented and there are too many different responsibilities and different rules for the sectors (Fiorioli). Of course, the diversified approach of the Austrian system can be kept but the there should be at least some standardisation or at least an exchange between the different sectors but they should not get "into a spiral of justifications which always lead to more bureaucracy" (Pellert). The future will bring crucial changes for Austrian public universities because till now "only the private and the FH-sector will have to underlie a compulsory quality control

(accreditation)" (Erichsen). The change of the Austrian system will take place in the following years, "shall provide a national framework for external quality assurance for all higher education sectors" and will have a "positive effect on the perception of the Austrian activities in the field of quality assurance in higher education" (Westphal). The FHR (2009: 2) argues that "the determination of a broadly accepted quality concept which is adequate for higher education as an important requirement for the efficiency and performance as well as efficacy of external quality assurance". The ÖAR (2009, p.4) also "supports the creation of 'one' quality assurance agency". This new system shall be based on already available and exchange of "know-how on quality assurance of the different sectors" (Kohler). For example, the future of private universities should be "slighter procedures (e.g. through voluntary audits) for the already developed and good situated private universities would be possible" (Fiorioli). The currently proposed concept is not supported by all important stakeholders, e.g. it "is seen as not sufficient to reach the intended improvements of the system" (ÖAR, 2009: 4) or it does not include "explicit information on the quality concept of the new organisation of quality assurance" (FHR, 2009: 2).

In contrast in Finland the next FINHEEC Quality Audit Manual will take place and Välimaa guesses that institutions "can suggest certain themes, functions or topics to be audited instead of the audit of the institutional quality assurance system, which has been the norm during the first round of quality audits". Currently it is in discussion that probably tuition fees for all students will be introduced in the future. Harju, a representative from the Finnish student union SYL, argues that this "will change the way students see" quality assurance. Finland should also demand more "for accreditation-type services, but not instead of audit because these approaches will complement each other" (Harju). Nonetheless, quality assurance *is on a high level* (Immonen), institutions will become "more severe than now, and good quality will be a big market asset" (Harju) in Finland.

At the international level the future of the Austrian system will be remarkable changed because of the creation of only one quality assurance agency which should make the system "more transparent and comparable both at national and

international level" (ÖAR, 2009: 4). This could be reached if the internal structure of this new agency shall involve "an international composed expert council (board) with comprehensive decision-making competence" (Fiorioli). In that sense, the system will be also become more "understandable" (Kohler) and this change will be also occur in the view "of international higher education areas" (FHR, 2009: 2). The Finnish system has taken great efforts to attract more foreigners (FINHEEC) and Immonen even argues that the system already emerged in an international higher education area. For the future a "competition between big international players and FINHEEC will take place because some institutions will temporarily end using FINHEEC's services" and consequently "FINHEEC will answer by becoming more dynamic, market-oriented and international" (Harju).

Both countries are facing numerous challenges. In the case of Finland they primarily lie within the different interlinkages of three key players: FINHEEC, the Ministry of Education and the higher education institutions itself. Although the participation in evaluations is principally on voluntary basis nobody stays out. Hence, an increased competiveness and visibility at international level concerning these evaluations and quality audit procedures would be needed. On the contrary, Austria is confronted with a complexity of different quality assurance agencies with their different scope of authority, their attitudes and treatments concerning quality assurance throughout the higher education sectors. But what is the common challenge of both countries? Of course, the fact that all institutions have to deal with an overload of quality assurance procedures and consequently with a huge amount of bureaucracy. Quality audits are claimed to be one solution to overcome this enormous additional workload that interferes with the primary responsibilities of teaching and research of higher education staff members. Hence, a balance between accountability and quality enhancement is claimed to be a main goal but also difficult to reach, especially as funding is in discussion as well.

Summarizing it can be stated that both countries integrated Bologna issues into their regular policy planning cycle although Finland can be seen as much more in line with these developments as Austria. Nevertheless both countries have taken

great efforts in their educational sectors to make their population fit for future challenges and to develop and enhance their quality assurance systems continuously. Looking at the current developments both countries are taking steps into the same direction – quality audit procedures. But what will happen in the future with quality assurance? Are both countries frontiers in forming a European Higher Education Area? Westerheijden (2007: 90) argues quite punctually and in the only possible way: "Whatever will happen to the landscape of the European Higher Education Area, it won't be what we expect now! Prediction of the future will remain difficult – that is the only safe prediction".

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Evaluating the Importance of Pupil Involvement in Transition

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Introduction

This paper examines the importance of involving pupils at the transition point from primary to secondary education. For the purposes of this paper the transition process is used as a term to describe the movement of pupils from primary seven to first year, in other words from their final year of primary education to their first year of secondary/high school education. This period is sometimes referred to as the post primary stage. This research is of interest internationally as children in many countries in the world undergo this transition event. Educationalists have recognised that transition is an important event for pupils and some schools in various countries have initiated 'scene setting days' where pupils from one sector visit the other to gain an insight in to what school will be like for them within this new environment. Little research has been conducted to examine or increase the actual involvement that pupils have in these transition events or transition processes. This research outlines clearly that pupils want to be more involved in their education and that this involvement, if designed and conducted in an appropriate manner could have benefits for pupils, teachers, and schools. The findings in this paper are worthy of further investigation as a means of engaging in debate about the ways that pupils can be involved in their learning and transition in a manner which aids as smooth a move as possible from one sector to another and helps to negate any negative impact on pupil progression, continuity of learning or on motivation.

Transition

Throughout this paper the term transition is employed for the movement from one educational setting or sector to another, it is educational transitions that are being examined. It should be noted however that this event does not occur in every country. Some pupils attend a single structure school where primary and secondary education takes place on the same shared campus whereas in Finland and Sweden, there is a tendency for 'all through' schooling which caters for children from the ages of 6-16 years old and where there is no formal demarcation of what is primary or secondary education.

There are as many different transition points in education as there are in life. From home to early years establishments, from nursery to primary education, primary to secondary education and from secondary education to either further education or the world of work. This study examined pupil views of being involved in this transition process through discussions and sharing information regarding their learning. Transition from primary to secondary education is, according to Measor and Woods (1984), Glaser and Strauss (1971) and Van Gennep (1960), a rite of passage and a beginning of the transition from child to adolescent. At transition points young people undergo a change of status from being the eldest and most knowledgeable year group in a school to once more being seen as the youngest and least knowledgeable in the school. Zeedyk et al (2003, p.67) described the transition from primary to secondary school as 'being the most difficult in pupils' educational career'.

This research was undertaken in Scotland, research into the effects of primary to secondary transition on pupils within this country is not extensive. There has however, been an increasing awareness among the education profession that the transition period from primary to secondary is an issue in Scottish Education and this has been highlighted by researchers such as Boyd (2005), and Zeedyk et al (2003).

At transition stages, it commonplace for primary teachers to transfer pupil based information to secondary schools. This information focuses on attainment levels, medical and family details as well as any additional support needs the child may require. This information is collected and collated by primary staff. Pupils are not involved in this transfer of data nor do they necessarily know that this occurs even though they are the ones that will be doing the actual 'transition'. McNally and Blake (2010) stated that children want to know that people in the school they are transitioning to know something about them. They state that pupils view this as a reassurance, this is obviously made more difficult if the pupils are unaware of information being passed from primary to secondary school as they are not involved in the transfer of the data. It can also be compounded by the fact that the child is unaware of what details the secondary school may or may not know about them.

This project used the concept of personal learning plans to involve pupils in their learning and discussions about their learning with their class teachers. The idea of personal learning plans was first raised in the New Community Schools (Scotland) documentation of 1999 and then in the *Assessment is for Learning* (AifL) programme, which began in 2001. The AifL programme was originally constructed through the use of ten individual projects. Two of these projects were based on the management and the development of personal learning plans.

Whilst the notion of personal learning planning and personal learning plans may have been new to Scottish teachers, they were not a new idea to education. The earliest report of Personal learning planning can be traced back to Dr Edouard Seguin in 1866, who issued a plea to include the notion of personalised planning into teacher training so that the uniqueness of the learner could be accommodated:

> *"Personalised planning will secure the sanctity of true originality against the violent sameness of that most considerable part of education the general training". (Seguin, E., 1866: 26)*

Personal learning planning and plans have been used in various guises in other areas of the world including South Australia and Vermont USA but all have the

same core aim: to help develop pupil involvement in learning, to help pupils assess their skills and development needs by making pupils active participants in their learning and in the evaluation of their progress.

A personal learning plan should be viewed as the documentary evidence and history of the personal learning planning process and is used to remind all parties (pupils, parents and teachers) of the discussions and decisions that took place. The process relates to the reflection, evaluation, discussion, negotiation and planning for the next steps in learning between the pupil and teacher. It is this process that is the key to pupil involvement.

To date, in Scotland, there has been no national initiative that not only encourages pupil involvement in discussing learning but also places an emphasis on dialogue between the pupil and teacher in relation to learning, evaluation and target setting. Personal learning planning is a means of involving all young people in their education. As Bullock and Wikeley (2004) state:

> "Personal learning planning supports individual students learning through a process of review and dialogue." (Bullock and Wikeley, 2004: 9).

It is this process of review and dialogue that ensures that pupils are active participants in their learning.

Pupil Participation

It has been argued by Deuchar, (2009) and Flutter and Rudduck (2004) that pupil involvement in decision-making within schools can have a positive impact on pupils, specifically their attitudes and behaviour. The United Nations Convention of the Rights of the Child emphasise in Article 12 that children have the right to have their views heard on matters that affect them. Education is certainly a matter that affects children and teachers need to take this right into account when making judgements about pupil learning and when transferring information about pupils between the educational sectors.

The use of the personal learning planning process as a means of involving pupils in discussing, reviewing, evaluating and reflecting on their learning could aid the reversal of the disengagement with learning that Galton, Gray and Ruddock (2003: iv) report on being reversible if 'pupils feel that significant others in the school are able to see and acknowledge some of their strengths'. The personal learning planning process gives pupils the strategies and tools necessary to not only record their strengths but to enable them to discuss these with others, this process also ensures that pupils are involved in decision making about their learning.

The research study

This study aimed to explore pupil involvement in the transition from primary to secondary education and to gain an understanding of pupil views regarding this involvement. The research involved three primary schools and two secondary schools in Scotland and 169 pupils. The primary schools were of different sizes, one was a single stream school – with one class at each stage, one was a large school with multiple classes at each stage and the final school consisted of a composite class where pupils from different stages were in the same class. This meant that the pupils had different expectation and experiences during their primary school education. The secondary schools were of a similar size with approximately 900 pupils in each school.

Pupils were issued with four questionnaires over the life of this study. The aim of the questionnaires was to gain an understanding and insight into pupils views of their involvement in their learning in both primary and secondary school and to discover if this involvement or their views had changed in anyway over the research period.

The personal learning planning process had been embedded within the local authority involved in this research and staff from all sectors trained, by the

authority, on how to take forward the personal learning planning discussions and agenda with pupils.

Participants

A total of 169 pupils from three different primary schools, were involved in this research over a two-year period. Pupils were involved in their last year of primary school (P7) and the same cohort in the first year of secondary schooling (S1). The children involved all had previous experience of discussing their learning with class teachers and their peers, as it had been a focus of the primary school education. The pupil split per primary school is as follows:

> School A – 2 primary 7 classes = 62 pupils
> School B – 3 primary 7 classes = 95 pupils
> School C – 1 multiple –composite class = 12 pupils.

The questionnaires were issued in December and May each time and the same questions used each time as this allowed the tracking of views and feelings from the cohort. Permission was gained from all participants and their parents/carers prior to each questionnaire being issued. Each school set aside a pre-defined time for the researcher to distribute the questionnaires to the pupils in class, for the pupils to complete them and for their researcher to collect them in. This approach ensured all questionnaires were completed.

Data Analysis

Collected data was analysed both qualitatively and quantitatively in a mixed methods approach (Tashakkori and Teddlie 1998, 2003). The data was analysed qualitatively using a form of content analysis where the codes were determined first, each data source was then analysed using this coding and then these codes were pulled together to form themes. Once the initial coding and the construction

of themes were completed the themes from each data source were pulled together. The terms PP, and SP were added to demonstrate if the codes were from primary pupils (PP), or from secondary pupils (SP). The data was analysed quantitatively through basic statistical analysis such as determining percentages of responses for each theme e.g. the number of positive responses about involvement in learning and also numerical analysis of the recurrence of similar phrases such as the number of times pupils used the term 'sharing' in a positive manner.

Findings and discussion

The findings presented within this paper are from the pupil viewpoint.

Table1 below presents an analysis of pupil responses based on basic statistical analysis of positive and negative statements from the last questionnaire of primary school and the final questionnaire of secondary school. These responses focused on their opinion on being involved in their learning and demonstrate that an overwhelming majority of primary pupils (81.7%) felt positively towards their involvement in learning whilst this changed drastically when the pupils entered secondary education and fell to (39.6%). Interestingly the data also demonstrates that 9 primary pupils (5.3%) stated that they 'were not bothered' about discussing their learning, in other words it did not appear to affect them if they discussed it or not – this changed to 2.4% within this category in secondary school.

Table 1: Pupil views of their involvement in learning
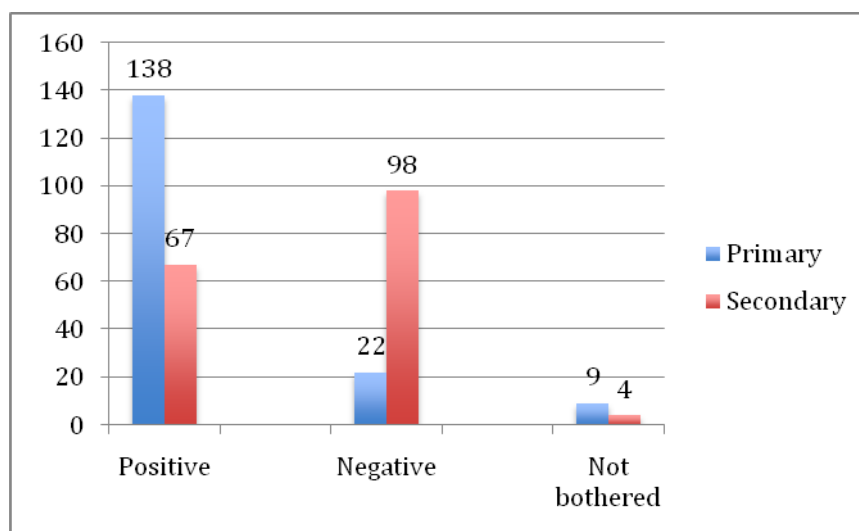
The findings in this 'not bothered' category are interesting and on further analysis demonstrated that in primary school the pupils were equally happy to discuss or not discuss their learning – they did not have any issue with discussing their learning. In secondary school the students reported that they did not see the point in this. Further examination of the questionnaires revealed that these pupils felt that the people that asked them, be it teachers or school assistants, were not really interested and were only asking as they had been instructed to do so – not out of a genuine interest. These pupils felt that there was no point, as they were not really listened to.

Further analysis from all four questionnaires issued to pupils over the life cycle of the project demonstrated that the questionnaire responses fell into 7 main categories, these being:

- People listen
- Sharing
- Involvement
- Personal
- Does not matter
- Confidence
- Rights

The statistical results based on the raw responses are shown in Table 2 below.

Table2: Emergent themes from pupil responses.
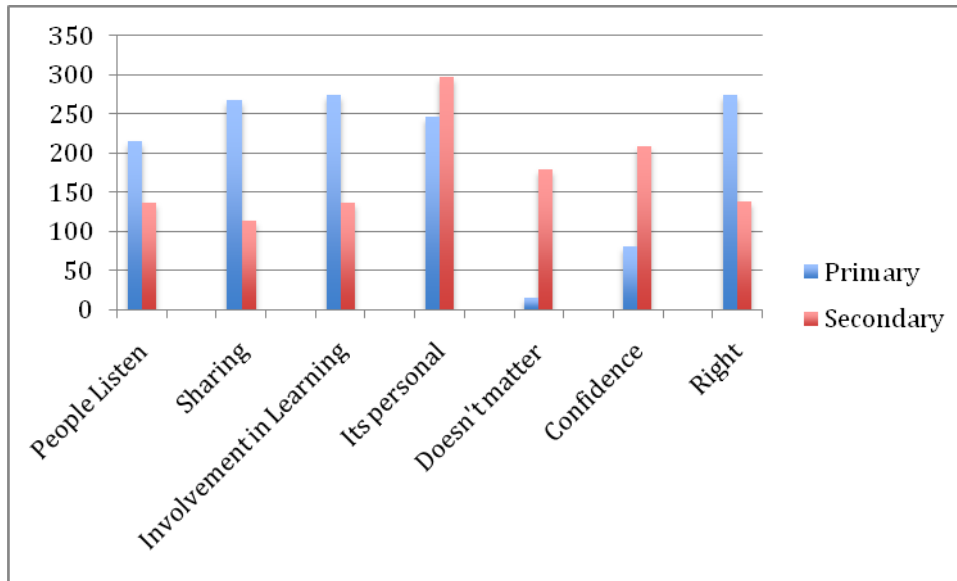
These 7 groupings were examined in greater detail, and from this 4 key themes emerged. These themes are as follows:

1. **Learning** – when the pupil, in their response, had indicated that they felt that being asked their opinion on their learning aided their learning.

'Because we have difficulties we don't know about and this helps to talk about them so they are not difficulties' (PP)

2. **Consultation** - responses from pupils indicated that they wanted to be consulted about their learning.

'So I can have my say about my learning and if I am doing well or not'. (SP)

3. **Rights** – Pupil responses stated that being involved in their learning was their right.

'You have a right to give your own opinion about your learning'. (SP)

4. **Opinion** - pupil responses highlighted that they wanted to share their opinion or view of their learning.

'Then I know they care about my opinion' (SP)

Out of the 169 pupils that took part in this research, when in primary education, 81% indicated that they liked to be asked their opinion on their learning. This figure decreased during the first year of secondary education with only 40% of pupils indicating that they felt positive about being asked their opinion on their learning. Therefore 50% of the pupils who had indicated that this was something they liked being involved in whilst in primary school had changed their opinion within the first year of secondary education. This is a significant change in pupil opinion and one that is worthy of further investigation.

From the comments that emerged, 19% of primary pupils did not like to be asked their opinion on their learning. In secondary school this changed from 19% to 58% of pupils who felt that this was something they did not enjoy participating in, an increase of 39%. Why the change? Analysis of the comments from both sectors indicated that there are clearly issues of self-esteem and confidence that need to be addressed during the transition from primary to secondary education. Other issues included the fact that pupils are now in mixed classes with other children that they

do not really know and with teachers that they are only beginning to form a relationship with. There also appeared to be a lack of understanding or knowledge of the language used to talk about learning. This is best illustrated through the following quotes:

'I don't like being asked my opinion in case I don't know what I am talking about'. (PP)

'My opinion might be wrong'. (SP)

'I don't want to give my opinion because I might think I have done well but someone else may thing I did badly with it'. (SP)

'The teacher should know it'. (PP)

This provides interesting information in regard to pupil involvement in learning and the strategies and support provided for pupils to be involved in discussing their learning. It prompts further questions such as:

- Why do pupils feel they should not be involved in discussing their learning?
- Are pupils supported to discuss their learning?
- Are pupils provided with the language to discuss learning?

Through the language of learning, pupils need to feel confident in how to reflect, evaluate and discuss their learning with others, they need to be practiced in using the terms relating to success criteria and learning, these should be built on and developed with teachers and pupils.

Analysis of the collected data highlights the fact that pupils who had indicated they liked to be asked their opinion when in primary school did not like to be asked in secondary school. This change may be due to reasons such as a different setting, different teachers, new peers etc. These areas along with the questions above are ones that need further investigation but, were at the time, out with the scope of the research conducted, although McNally and Blake (2010) allude to much of the same topics in their research.

As previously stated, the same cohort of pupils were involved twice in this research. The research analysis demonstrates that although the majority of these pupils would openly discuss and expect to be involved in discussions regarding their learning and progress during their final year of primary school, for a majority of the pupils this changed dramatically during their initial secondary school experience. Whilst in secondary school there were 209 comments from pupils indicating that they did not feel as confident in discussing work and any difficulties that they may have as opposed to 71comments indicating a lack of confidence in when the pupils were in primary school.

> *'I don't like teachers talking about it when there is other pupils in the class'.* (SP)
>
> *'I don't want to say the wrong thing.'* (PP)
>
> *'I don't like being asked on my work or how well I work. People know what good work I do and they don't need me to tell them how good I work they should check my work and find out for themselves instead of embarrassing us into telling everyone what we are rubbish at.'* (SP)
>
> *'I used to like talking about my work, but now it is embarrassing as you have to tell her in front of everyone.'* (SP)

Through the analysis of the responses from pupils, the research highlights the fact that for the majority of pupils involved in this project, the transfer between primary to secondary education is one in which self-confidence and self-esteem can falter. The reason behind this apparent dip in pupils self confidence and self esteem may be due to the 'rite' of passage between primary to secondary education as discussed by Glaser and Strauss (1971), where pupils have to undergo the change from being in the eldest group of pupils in the school to being within the youngest group in the new setting. Other pertinent factors may also contribute to this dip in both self-confidence and self esteem such as being in unfamiliar surroundings with unfamiliar staff and peers, and also different teaching methods and pedagogies.

Involvement in learning

The majority of pupils who participated in this research stated in their responses that they felt it was their right to be involved in their learning. Table 3 below presents an analysis of pupil responses focusing on their involvement in learning as a right. When in primary school 87% stated that involvement in learning was their right whilst only 67% of pupils felt this way when in secondary education. This is a 20% decrease in pupil views within one year of secondary education; this figure is something that needs to examined in future research.

Table 3: pupils responses focusing on their involvement in learning as a right
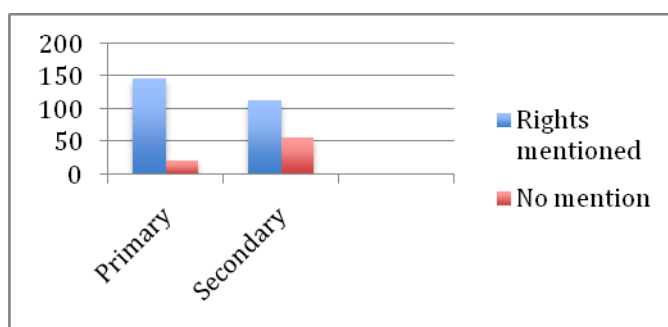
The majority of the pupils involved in this research stated that they believed that learning targets should be transferred between primary and secondary school. The pupils, as was evident in their responses, felt that they should be fully involved in the discussions and the setting of these targets. The majority of the pupils once more stated that they felt this involvement was their right. Such a process would allow pupils to make the links between the progression of knowledge and skills from primary to secondary education. The successful implementation of pupil participation at transition cannot be completed by one educational sector alone. Consideration must be given by each sector to the transition stages in education to ensure that the processes and targets set are appropriate and meet the curriculum plans of the sector to which pupils are transferring. Whilst it can be seen that the use of pupil targets can be a means of aiding both continuity and progression from primary to secondary education, this continuity and progression is only possible if the staff from both sectors are engaged in dialogue regarding the kinds of learning

experiences the pupils have had and will also receive. This finding is in keeping with the suggestion made by Gorwood (1991) who stated that the problem of continuity between the sectors was due to a lack of communication between teachers. Secondary staff need to ensure that primary colleagues are aware of the areas and topics that will be covered in the first few weeks of secondary education to ensure that the targets set by the pupils and transferred from primary school are achievable by pupils within their first year of secondary education.

The visits that primary pupils make at the end of their primary seven year to the secondary school they will be attending can be said to aid transition as the pupils will have a better understanding of the school they will be attending and will have met some of the staff and pupils that they will be with in their first year. These transition events do not, as a rule, involve the pupils planning and preparing for the event as they are more often than not designed and planned by secondary staff. These visits are in some respects scene setters for pupils and do not address the issues of continuity or progression although, it could be argued that they can hep reduce the fear of the 'unknown' for some pupils.

Conclusion

This research demonstrated that pupils want to be involved in discussions about their learning – they feel it is their right to do so. It also clearly highlights that transition is a time of change and uncertainty for pupils and one that can be challenging for the majority. The findings demonstrate clearly that self-esteem and self-confidence, for some children, dips during initial secondary education. This project only focused on the final year of primary education and the first year of secondary education therefore we cannot at this stage indicate how long the dip in self- esteem and self-confidence may last for.

The completion and transfer of targets from primary to secondary school will aid some pupils, staff and parents to see that education is continuous and highlights the important contribution of previous experiences and knowledge. This will aid all involved recognise the knowledge, experience and skills that children have

developed in their primary careers will be taken into account and built upon within the secondary sector.

The subject of continuity is extremely important in education. During this research a striking point for this researcher was that whilst both sectors were following the national curricular guidelines which were underpinned by the principles of breadth, balance, coherence, continuity and progression there appeared to be a tokenistic view taken towards continuity between the sectors.

From the data collected, there appears to be little communication between the teachers in these sectors regarding the areas or topics within a subject that the pupils may be working on at the start of the first year of secondary education or the areas and topics that were covered in each subject at the end of their primary education. This does not help to ensure continuity or progression of learning. This notion of shared communication is one that needs further investigation both nationally and internationally to examine what information schools share with each other and how this is shared and who decides on these issues.

Ensuring pupils are involved in discussing and providing an opinion on their learning is a right that children have under Article 12 of the United Nations Convention on the Rights of the Child which states clearly that:

> *'You have the right to say what you think should happen when adults are making decisions that affect you, and to have your opinions taken into account.'*

If schools continue to 'do transition' to pupils by transferring information about them and not involving them, it could be said that they are not meeting the rights or needs of their pupils. It is the pupils that are involved in the physical transfer of moving from primary to secondary education, they should also be involved in the 'cognitive' aspect of this transition and not have the feeling that transition is something that is 'done' to them and does not really involve them.

Young people, appear from this research, to want to be involved in their education and educators need to ensure that they do all that they can to ensure that this happens. However, the majority of these young people suffered a lack of self-confidence and self-esteem during their first year of secondary education. The young people who took part in this research demonstrated that they placed a value on being involved in their learning, but also indicated that at times they did not feel as if the staff they were involved with placed a value on this involvement. This is an area that needs to be examined in greater depth. If schools are not involving pupils in these discussions or valuing pupil opinion especially at the transition stage in education, then they are not, in this researchers opinion, meeting the needs of their pupils and are in fact doing them an injustice.

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The Perspective of Teachers, Parents and Students about the Educational Treatment of Diversity in Mexico: a Qualitative Approach.

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Introduction

The growing importance in modern societies that the proper educational treatment of diversity is acquiring is derived from the dynamics of these societies, in which there is an extended and strengthened sensitivity to recognize the right of everyone to be have respect of their fundamental rights and to have access to common goods, including education which occupies a prominent place.

The tendency to treat together in the same educational situations and with their own reference group (age, environment, etc.) of all students regardless of their academic performance has been consolidating: the term that seems to be gaining more and more force is "inclusion." In this regard, Snell, ME (1998: 78) states: "Inclusion means that students with disabilities attending schools in their environment, and individualized accommodations, curriculum adaptations and other support accompany students on regular classrooms and in all school activities (dining, transportation, meetings of students and others)".

The appearance of the concept of inclusion occurs within a broader social concern, and not only emphasizes the teaching performance, but also it introduces elements that surround and make integration possible .In this sense, the inclusion would refer to the "creation of environment and environmental situations in which the total integration may be possible." Scruggs, TE and Mastropiero, MA (1995: 231) state that: "Inclusion is a policy that suggests that students are in school primarily to be with their peers, and not primarily to learn".

Meanwhile Arnaiz Sanchez, P. (2005: 31) states that "inclusive education is a process to respond to different students' educational needs, through changes in the school environment. This requires modifying the curriculum instruction and classroom organization, to serve all students. "

Some of the demands or requirements raised by inclusive education can be as follow (Arnaiz Sanchez, P., 2005, Booth, T., 1998, Carrion, JJ, 2001: 52, Dyson, A., 2001, Graden y Bauer, AM, 1999: 103; López Melero, M., 1999, Sandoval, M., 2002, UNESCO, 2005; Wang, M. Reynolds, M. and Walbeg, H., 1995):

a) *Change in attitudes and beliefs* of society as a whole;

b) Grounding in the principles of equality and fairness for all, with special attention to those living in vulnerable situations or suffer any other form of discrimination;

c) Insertion of educational action *within a social, cultural and economic large-scale plan* with a strong school-society interaction;

d) *Increased awareness of the diversity* of all members of the educational community, especially faculty and staff more directly in contact with students;

e) *Teacher training,* including the option of training in the schools;

f) *Accurate allocation of support* aimed to students, teachers and school center;

g) *Curriculum adaptation* to the needs of each student, trying to maximize what can be learned;

h) *Application of enrichment programs for* more advanced students;

i) *Participation of students and all members of the educational community*, as the inclusion takes place on the basis of professionals working together to promote education for all students;

j) *Coordination and collaborative work of all teachers,* to exchange experiences and disappearance of the sharp separation between classes isolated from each other;

k) *Dynamization of collaborative learning* among students, with peer support;

l) Establishment of practical strategies to achieve *quality education for all students;*

m) Having *collaboration of parents* as indispensable actors in the education of their children: joint work of teachers (special education and ordinary) with parents of students.

As remarkable aspects that support and justify the educational treatment of diversity in inclusive situations for all people (including in those with special needs), we refer the following:

a) The incidence of international organizations;

b) The trends that are consolidated into geopolitical areas nearby.

The purpose of this study is to explore, in different sectors, both attitudes toward inclusion as the methodological process, more suitable conditions and resources to promote the educational treatment of diversity under a regimen of inclusion.

Our research questions are:

What are the attitudes toward inclusion?
How do teachers, parents and students perceive educational treatment of diversity?
Which are the obstacles that hamper educational inclusion?

Method

The methodology design of the project is based on a conceptual, documental and empirical study. The last one includes reality's analysis, in relation with the educational treatment of diversity in Mexico. Even though in this project the approach is quantitative (survey) and qualitative (focus groups), by this moment we are working with se second one.

During 2010, we have systematized and interpreted the information gathered by means of focus groups, carried out with 164 participants, 24% teachers, 23% parents and 52% students of different school levels (primary, secondary, high school and college) in different localities of the State of Sonora (México). In each group, we have explored the perceptions about educational treatment of diversity.

A discussion guide was drawn up, based on a previously elaborated Questionnaire-Scale about the integration and inclusion of people with diverse educational needs. The following aspects were assessed:

1) Attitude Integration and inclusion

2) Inclusion regime for students with special needs

3) Integration or inclusion type more convenient

4) Advantages of inclusion in educational settings

5) How to improve the inclusion

       - Providing adequate personal resources

    - Material resources necessary
    - Use of appropriate methodology
  6) Positive attitudes of the groups

  7) Organization and planning.

After carrying out each focus group, we systematized the information obtained in each one, by means of Atlas-Ti software. Then, we analyzed all the ideas expressed, considering both, differences and similarities in each group and between all of them. By the analysis process, representations and subjectivity of teachers, parents and students about educational treatment of diversity were identified.

Results

Parents have a favorable attitude towards inclusion on all educational levels, noting that inclusions best wars depend upon the especial needs students will and school grade in question.

For parents, in order to achieve inclusion it's needed:

· *Methodology* a curriculum adaptation, promotion of teamwork among students with and without special needs, and student activities.

· *Personal resources* a need of teachers convinced of the desirability of integration, support personnel for special needs.

· *Material resources* required to have adequate facilities for special needs.

The advantages of inclusion according to parents:

· Acceptance of society in general

· Acceptance of students without special needs

· Acceptance of parents of children with and without special needs

· Improving affective and emotional development of students with special needs

· Improved social development of students with special needs

· Better academic performance of students with special needs

· Improved intellectual performance of students with special needs

· Human quality improvement in society

The *teachers* talk about a classroom in all educational levels, with a regular teacher capable of managing students with and without special needs.

In order to achieve inclusion teachers say this is needed:

· *Organization and planning,* providing adequate information about diversity for society in general.

· *Personal resources:* teachers convinced of the desirability of integration, specialized personnel, small groups of students with and without special needs.

· *Methodology of work:* a diagnosis is required to determine on what level of education inclusion is possible, acceptance of the knowledge that students with special needs have curricular adaptations, constant training, collaborative teamwork of students, student participation in all phases of teaching and learning.

· *Material resources:* it is required to have facilities, classrooms, furniture, teaching materials, appropriate for the student with special needs. Also a fair wage (pay) from the increasing labor demand for teachers.

The advantages obtained with inclusive education in ordinary schools:
· Acceptance of society
· Acceptance of their parents
· Improving the affective and emotional development of students with special needs
· Improved social development of students with special needs
· Better academic performance of students with special needs
· Improved intellectual performance of students with special needs
· Human quality improvement in society

In the case of *students* of all educational levels, they propose an all-time ordinary classroom and regular teacher served by a specialist for support, having specialized care based on the need of students.

Students say that in order to achieve inclusion is needed:
· *Material resources:* required to have facilities, classrooms, furniture, teaching materials, appropriate to the special needs.
· *Methodology of work:* requires a diagnosis to determine in what level of education inclusion is factible, acceptance of the knowledge that the student with special needs has, collaborative teamwork of students and teacher training.

·   *Personal resources:* the school needs teachers convinced of the desirability of integration, specialized staff, assistant teachers, as well as small groups of students with and without special needs.

·   *Organization and planning:* in where adequate information about diversity is provided for the society in general.

The advantages of inclusive education in ordinary schools:

.   .Acceptance of society in general

·   Acceptance of their parents

·   Improvement in the affective and emotional development of students with special needs

·   Improved social development of students with special needs

·   Improvement of intellectual of students with special needs

·   Human quality improvement in society

Conclusions

In general, we found that the three sectors explored (teachers, parents and students) have a positive perception toward educational treatment of diversity (may be due to social desirability). As can be seen in figure 1, we have found significant information about subjectivity and representations of teachers, parents and students when they reflected on educational treatment of diversity that show subtle differences concerning the topics they value.
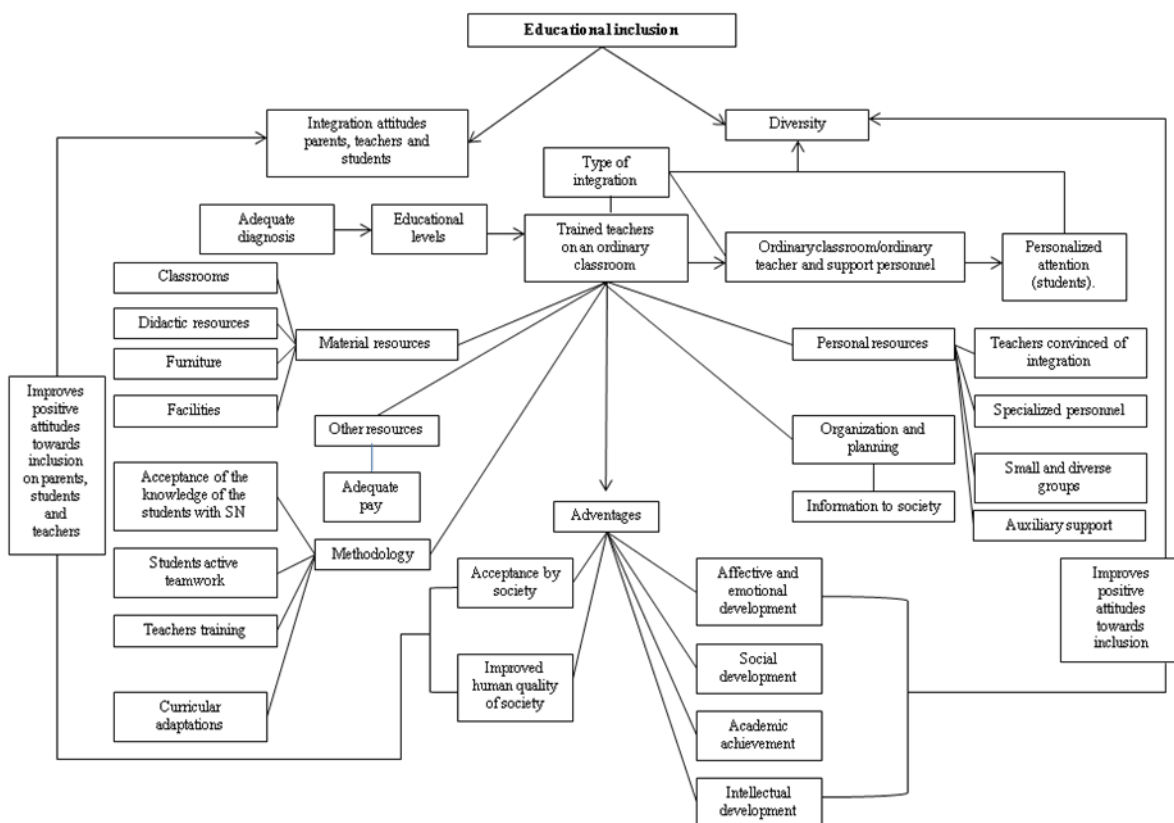
Figure 1. Qualitative educational inclusion model.

From the results above, we can conclude that parents, teachers and students show a positive attitude at all levels of education to integration and inclusion of people with special and diverse needs, the type of integration proposed by faculty is classes in regular classrooms by a trained teacher. By teachers and students, the more favorable type of integration would be all the time in the ordinary classroom served by a regular teacher and specialists for support, as well, students propose personalized attention by specialists. To implement the inclusion in regular classrooms to have material resources, personal resources, appropriate methodology, organization and planning (information society in general) are required. The advantages of integration and inclusive education would be the acceptance of society in general, improved human quality, improves in the affective and emotional development, social development, and academic and intellectual achievement in students with special and diverse needs.

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The Emergency of Problems against Coexistence and Tolerance at the Educational System

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1.- Theoretical proposal

Previously to an empirical study of what is the real situation in our schools, we thought about possible fields where causes of problems of coexistence and tolerance proceed from: such problems are referred here as the ones of discipline. But in order to complete the panorama in our schools, we also studied causes that could determine learning problems. Although usually the most disturbing situations are determined by lack of discipline (that attempts against coexistence and tolerance), problems causing lack of learning are also very relevant for an effective education and may also be factors against coexistence and, sometimes tolerance. So we included them in our own study.

After intense theoretical contrasts, profound reflections and discussions, we put forward, as basic fields where causes of problems of disciple (that attempt against coexistence and tolerance) and learning could proceed from, the following ones (Gento, S., 2003):

❖ The educational system approach
❖ The curriculum design

❖ The personal problems of students

❖ The social anti-educative context

❖ The problems proceeding from the family

❖ The teacher as source of problems of discipline and learning

2.- Empirical study

In order to empirically contrast our theoretical proposal and to obtain opinions of possible causes that, in the suggested fields, bring about problems of discipline and learning, we designed a strategy to obtain information from education professionals and involved people. To implement this study we were helped by teachers participating in teacher ´s training courses and doctorate students in our University. The used strategy included qualitative and quantitative techniques and instruments

❖ Through *qualitative approach*, we submitted to some sectors a draft instrument for the production of a questionnaire that we would -afterwards- use to obtain systematic information of fields and causes of problems. Also through qualitative approach, we collected information by using two different techniques: the cause and effect diagram of Ishikawa and the Pareto analysis.

❖ Through *quantitative approach*, we collected data by using the questionnaire we had previously elaborated and submitted to validation.

3.- The Questionnaire on "Problems of Discipline and Learning"

The Questionnaire on "Problems of Discipline and Learning" has been made up throughout four consecutive years. The theoretical bases of such instrument are the ones made explicit as theoretical proposal. We initially made up a first version of the questionnaire. But, in order to elaborate a valid instrument, we successively submitted it to validation processes such as the following ones:

❖ *Immediate or face validity.* This validity is the one obtained by the opinion of those who are going to fill in the instrument or those who are going to take decisions related to the results produced by such instrument (Bertone, A., Poggi, M. & Teobaldo, M., 1995; Gento, S., 1989, 1989: 103).

In order to receive the corresponding information given by the people immediately involved in the questionnaire content, we asked different sectors such as teachers, parents and students.

❖ *Content validity.* This validity is obtained by opinions of authority given by external judges expert in the instrument contents and, if possible, in the kind of instrument. The authors who made up the instrument can also intervene in this content validity. In a similar way as in the face validity, this one tries to show if the instrument includes all the necessary aspects to be considered in order to guarantee the attainment of the questionnaire goal. This way, content validity, wants to demonstrate that the instrument "measures what it tries to do as there is a logic base, and in the ideal empirical situation, to collect the instrument real content" (Fox, D.J., 1981: 421).

To obtain information on this content validity, we asked some University Professors about the content of the questionnaire. We also had the participation of some Collaborator Professors who throughout four years participated as Tutors in the Teacher ´s Training courses on "Problems of Discipline and Learning" and on "Therapeutical Pedagogy". As instrument ´s author we also thought about and reflected on such questionnaire with the intention of improving it.

❖ *Construct validity.* A "construct" means an abstract conception that cannot be directly measured, but that has evident physical manifestations or practical activities we can use to measure its content (Best, J.V. & Kahn, J.V., 2003: 7). This kind of validity, also named as "propositional validity", tries to show the adaptation of the instrument components and contents to the theoretical conception and to the manifestations of the studied theme (McCormic, R., James, M., 1995).

Such construct validity can be produced by the instrument author or authors, who implement the instrument evaluation by contrasting it with the instrument archetype to the practically elaborated one, thus comparing the theoretical conception with the evident reality of what they made. For such purpose, authors revise the instrument to check its adjustment to the conceived model. The questionnaire author implemented the process involved in this validity, by considering not only the instrument format, but also its content in relation to the theme to be studied.

❖ *Contrast validity*. This validity tries to obtain an assessment of the instrument authenticity by contrasting or comparing it with other ones of similar approach or with data previously obtained on the same theme. This way, the instrument is submitted to comparison with an external criterion that can be a similar instrument. As we did not know of the existence of a totally equal instrument, we compared ours with other ones made up to collect opinions from diverse sectors in relation to problems of learning performance and of students´ behaviour.

❖ *Validity by reaction to the instrument*. This validity estimates the effect produced on those who fill in the questionnaire or those who express opinions on the kind of questions, time given to fill it in, general level of difficulty, etc. or who expressed doubts, proposed suggestions etc. (Casassus, J., 1996).

In order to obtain information that can be used to show this validity, we included at the end of the questionnaire some questions that people who had filled up the questionnaire could answer. Information given by this answers was successively used to re-elaborate our questionnaire.

By the processes of questionnaire validation of the just described types, we obtained very valuable information that was used to successively assess and re-elaborate it. As a product of these processes and information, we made up the

fourth edition of the questionnaire. As part of this study, we will present the obtained results.

3.1.- Data on questionnaire validation

The people who answered the questionnaire filled in its last page, where some questions on its validation were included. We insert and briefly comment next the results of its validation, with mention of answerers who chose each category.

3.1.1.- Questionnaire utility

Data of answers in relation to the categories of useful and useful are the following ones (Fig. 1)

Utility of the questionnaire	Nº of answers	%
Useful	314	49,6%
Un-useful	100	15,8%
Without answer	219	34,6
Total answers on proposals	633	100%

Fig. 1.- Questionnaire utility

The highest percentage corresponds to the answer that the questionnaire is useful (49,6%). Nevertheless, by considering that there were some people who did not estimate the questionnaire as useful and, by looking at their observations and proposals, we have been revising the instrument.

3.1.2.- Questionnaire clarity

Data of answers about clarity or un-clarity of the questionnaire are included at the corresponding table (Fig. 2).

Clarity of the questionnaire	Nº of answers	%
Clear	248	39,2%
Un-clear	130	20,5%
Without answer	255	40,3%
Total answers on proposals	633	100%

Fig. 2.- Questionnaire clarity

The above data show up that the highest percentage corresponds to the category of clarity (39,2%). However, this percentage is lower that the one obtained for the category of utility. This could be interpreted as a signal that, although a number of answerers considered the questionnaire as useful, they did not estimated it very clear. Most probably, on this estimation intervened the fact that some expressions of the questionnaire are not familiar to people who answered it (particularly, non professional educators, such as parents and students).

3.1.3.- Questionnaire amenity

In order to obtain information on the questionnaire amenity, we suggested filling in the categories of "interesting" or "un-interesting". Data obtained for those categories are the ones of the following table (Fig. 3).

Amenity of the questionnaire	Nº of answers	%
Un-interesting	170	26,8
Interesting	166	26,2%

Without answer	297	47,0%
Total answers on proposals	633	100%

Fig. 3.- Questionnaire amenity

The amenity of the questionnaire is a feature that, very probably, is related to its clarity for non professional educators: this has, undoubtedly, had influence on these non professional people ´s answers. But, moreover, most of the professional educators very probably considered the questionnaire useful (here we find the highest positive assessment), but not necessarily interesting for themselves to fill in it. As a probable consequence of those aspects, the category of interesting is lower (26,3%) than the one of un-interesting (26,8%). Anyhow, subsequent editions of the questionnaires have been changed in order to increase its clarity and, if possible, its amenity.

3.1.4.- Questionnaire completeness

Although each item of the questionnaire included an open question, where answerers could express other aspects, the last part of in-process validation included two questions related to completeness: one asked if the questionnaire exceeds or not something; the other one asked if it lacks something. The results on these questions are in the following tables (Fig. 4, Fig. 5).

The questionnaire exceeds on something	Nº of answers	%
No	469	74,1%
Yes	47	7,4%
Without answer	117	18,5%
Total answers on proposals	633	100%

Fig. 4.- Questionnaire excess of questions

The questionnaire lacks for something	Nº of answers	%
No	257	40,6%
Yes	66	10,4%
Without answer	309	48,8%
Total answers on proposals	633	100%

Fig. 5.- Questionnaire shortage of questions

According to the answers collected in the first table, most of the participants 74,1%) considered that the questionnaire did not have exceeding questions or, in other words, that the questions formulated are necessaries to obtain the information we are looking for. But did the questionnaire include all the necessary questions?.

The following table offers the answer to the just formulated question, because it shows that the highest percentage of answers corresponds to the alternative that there is not shortage of questions (40,6%): in other words, that there was no need of inserting other questions. Notwithstanding, content validation and opinions of experts have suggested the opportunity of incorporating aspects not initially contemplated, which we did in subsequent editions of this questionnaire.

3.2.- Sectors who filled in the questionnaire

Throughout three years, we have used the questionnaire on "problems of discipline and learning at schools". Our University students of Special Education (from the Psycho-pedagogical studies) and teachers participating in in-service training courses have used such questionnaire. We have received the questionnaires filled in by the mentioned students and teachers, and we have processed data obtained from these questionnaires. At the moment, we have processed data obtained from 633 questionnaires used in different parts of Spain.

The Spanish Autonomous Communities (Regions) where these questionnaires proceeded from are the following ones (Fig 6):

Autonomous community	Nº of questionnaires	%
Madrid	95	15,0%
Murcia	91	14,4%
Castilla La Mancha	87	13,7
Andalucía	78	12,3%
Cantabria	47	7,4%
Aragón	22	3,5%
Valencia	16	2,5%
La Rioja	12	1,9%
Castilla y León	10	1,6
Extremadura	6	0,9%
Cataluña	1	0,2%
Without identification	168	26,5%
Total questionnaires	633	100%

Fig. 6.- Spanish Autonomous Communities where questionnaire have been used

From the total of 633, a number of people answering the questionnaire (168, representing 26,5%) did not filled in the square corresponding to the Spanish region. Apart from that, the region with higher representation is Madrid (95 questionnaires, which represented 15% of the total number), followed by Murcia (91 questionnaires, 14,4% of total number), then Castilla La Mancha (87 questionnaires, 13,7% of total number) and then Andalucía (78 questionnaires, 12,3% of total number). The area with lower representation was Cataluña (1 questionnaire, 0,2% of total number). There was not representation of the Autonomous Communities of Asturias, Balearic Islands, Canary Islands, Galicia, Navarre and Vasque Country.

The higher number of questionnaires was answered by female representatives, although there is also a representation of male gender, as it can be seen in the following table (Fig. 7). Apart from other reasons, it is obvious that in our educational system there are a larger number of female teachers than of male ones. This is reflected in our sample.

Gender	Nº of questionnaires	%
Female	415	65,6%
Male	215	34%
Without identification	3	0,5%
Total questionnaires	633	100%

Fig. 7.- Distribution of questionnaires by gender

Most of the representatives answering the questionnaire proceed from public schools (totally depending on public administration); but there is also a representation of private aided (or subsidized) schools and of private non aided schools, as it is showed at the following table (Fig. 8). The highest representation corresponds to participants from public schools: this is, most probably, due, not only to the fact that there are in general most public than private schools all over Spain, but also to the fact (partly related to the previous one) that most of the teachers participating in University studies and in in-service training courses also proceed from the public sector of education.

Type of school	Nº of questionnaires	%
Public schools	508	80,3%
Private aided (subsidized) schools	74	11,7%
Private non-aided schools	15	2,4%
Without identification	36	5,7%

Total questionnaires	633	100%

Fig 8.- Distribution of questionnaires by type of school

The questionnaires have been used with people working on, being involved or related with different levels or stages of our educational system. This can be seen at the next table (Fig. 9). At this table it can be seen that the total number of questionnaires proceeding from our educational levels or stages exceeds the total number of filled in questionnaires. This is due to the fact that some of the people who answered the questionnaires marked more than one level or stage (this could have happened, for example, with parents having some children attending different levels or stages; or perhaps teachers working on different levels or stages: for example on Primary and Lower Secondary levels).

Educational level or stage	Nº of representatives	%
Lower Secondary Education	250	39,5%
Primary education	200	31,6%
Pre-school education (kindergarten)	115	18,2%
Higher Secondary Education	80	12,6%
Vocational Education	44	7,0%
First University cycle	24	3,8%
Second University cycle	11	1,7%
Third University cycle (Doctorate)	1	0,2%
Post-grade training	6	0,9%
Other level or stage	30	4,7%
Total representatives	761	120,2%

Fig. 9.- Distribution of questionnaire by educational level or stage

As this table shows, the highest representation corresponds to the Lower Secondary Education stage (called in Spain, "Obligatory Secondary Education", in Spanish, "Educación Secundaria Obligatoria" -in short, ESO-, with students from 11/12 to 14/15 years). This is followed by the representation of Primary Education (from 6 to 11/12 years), and then by Pre-school education or "kindergarten" (in Spain now called "Infant Education", in Spanish "Educación Infantil", to 5/6 years). The lower representation corresponds to the third University cycle or Doctorate: only one person following this cycle answered the questionnaire.

Our questionnaire obtained also information on membership of diverse sectors, such as students or pupils, teachers, school heads, parents, psychological team members, inspectors or supervisors, and teacher´s trainers. Apart from that, a space was reserved to be filled in with "others". Data related to the number of participants who were members of such sectors are the ones included here (Fig. 10)

Sectors who answered the questionnaire	N° of questionnaires	%
Teachers	380	60,0%
Students/ pupils	114	18,0%
Others	55	8,7
Psycho-pedagogical members	38	6,0%
School heads or principals	18	2,9%
Parents	17	2,7%
Teacher´s trainers	4	0,6%
Inspectors/ Supervisors	0	0,0%
Without identification	7	1,1%
Total questionnaires	729	115,2%

Fig. 10.- Sectors who answered the questionnaire

The highest representation was the one of teachers (60%), followed by the one of students or pupils (18,0%, most of them older than 14 years, meaning that they were students from Lower or Higher Secondary Education), and then psycho-pedagogical members. There is not representation of School Inspectors or Supervisors. 8,7% of the people who answered the questionnaire did not filled in the square corresponding to this aspect. By joining all participants working as educators, we obtain a total of 440 participants (this representing 66,36% of all the people who filled in the questionnaire).

3.3.- Emergency of Problems of discipline and learning in our schools

People answering the questionnaire had to fill in the corresponding square to mark problems existing at a school. The number of answers is collected next (Fig. 11). As there was no limit in the number of answers, people could mark as many squares as s/he considered appropriate: as a consequence, as we can see in the corresponding table, the number of answers exceeds the number of questionnaires filled in, because some people chose more than one square.

Problems in our schools	N° of answers	%
Students/pupils lack of interest	525	82,9%
Students/pupils lack of respect to teachers	385	60,8%
Students do not make educational activities at home	384	60,7%
Lack of coordination between parents and teachers	321	50,7%
Absenteeism or un-attendance	302	47,7%
Conflicts between teachers and students/pupils	250	39,5%
Misbehaviour not appropriately sanctioned	234	37,0%
Vandalism by students/pupils	206	32,5%

(materials destruction)		
Teachers lack of enthusiasm	181	28,6%
Ill-treatment between students/pupils	175	27,6%
Other problems	103	16,3%
Sexual harassment	31	4,9%
Total answers on problems	2131	336,6%

Fig. 11.- Problems of discipline and learning in our schools

If we consider that most of the people answering the questionnaire were teachers (60%) and -even- mostly educators (66,36%), we can deduce that opinions expressed about problems of discipline and learning were mostly proceeding from such teachers and educators. Nevertheless, other sectors also participated.

One immediate interpretation of the data included in the previous table shows that the most important problem is the one of "*students/pupils lack of interest*" (82,9% of participants chose this problem). This has to be interpreted as lack of interest in things made at school, whose main purpose is to promote education and learning. This initial interpretation of this index needs a profound consideration and analysis of what would be the causes of such lack of interest and how important are these causes. Most probably this would require a particular study and research.

Other important problem that people who answered the questionnaire marked is the "*students/pupils lack of respect to teachers*". The large number of people who considered this is a very relevant problem (60,8%) show up the today´s crude reality of the situation in a number of schools. As a consequence of that, teachers feel very frequently highly disappointed and, possibly, this determines their lack of enthusiasm. And, most probably, students/pupils lack of respect of teachers is a source of "conflicts between teachers and such students/pupils". It appears, then, clear that this lack of respect is also a very worrying problem that,

no doubt, demands a profound study and research that could produce information on how to solve it.

Quite close to the previous problem is the one expressed as "*students do not make educational activities at home*". Although not in all the cases it is obligatory that students and, particularly, pupils, make "homework" at home, a very important group of participants (60,7%) considered that the fact that students and, perhaps even, pupils do not make any educational activity at home is a problem that highly influences educational and learning performance. Probably this feature is, partly, influenced by the "lack of coordination between parents and teachers" and by parents lack of interest and, mainly, commitment in education.

The fourth most important problem chosen by the answerers (50,7% of them) is the "*lack of coordination between parents and teachers*". This is, certainly, a very relevant problem, because if teachers are the suitably prepared professionals responsible to promote education and learning at schools, parents are the main, inevitable and initial responsible source of education. When parents renounce their fundamental responsibility on their children ´s education, it is very difficult that they can coordinate with teachers and really appreciate what teachers are doing for their children (Die Zeit, 2005, October 20th). And, when teachers do not accept parent's participation and -even- intervention in educational activities, the atmosphere of mutual distrust or, at least, of mutual ignorance distorts the whole educational process and prevent satisfactory educational performance.

All the other problems of our educational system (all of them chosen by less that 50% of the answerers) can be seen at the previous table (included as Fig. 11). Although they are each other interrelated, each one of them is worth a profound consideration and, most probably, further studies and researches to intensify the knowledge of factors determining them and to look for possible solutions to be implemented.

3.4.- Main sources of discipline and learning problems

As we have indicated when we referred to the theoretical proposal, we structured, all around 6 fields, causes that could produce problems in our schools. Although the questionnaire did not include the relevance evaluation of each one of these fields as cause determining problems of learning and discipline (perhaps it would have been convenient to do it), the answerers estimated the relevance of deficiencies of each one of this fields to determine problems of discipline and learning. We comment next, such deficiencies, grouped around each field.

3.4.1.- Deficiencies proceeding form the educational system

Deficiencies from the educational system, number of people who chose them as factors determining problems, and percentage on total number of questionnaires is included next (Fig. 12). You will see that there are less mentioned ones than the ones included in the questionnaire. This is due to the fact that such questionnaire is a subsequent edition that incorporates other categories not included in the previous one.

Deficiencies of the educational system	Nº of answers	%
Student/pupil´s effort is not stimulated	360	56,9%
Moral or ethical values are not imbued	333	52,6%
Schools are just thought as day nurseries	250	39,5%
Working method and discipline is not demanded	36	5,7%
Disciplinary measures are to tolerant	18	2,8%
Other deficiencies	64	10,1%
Total answers	1061	167,6%

Fig. 12.- Deficiencies from the educational system

According to the collected opinions, the main problem of our educational system (56,9% of the answers) is that "*students/pupils effort is not stimulated*". This is probably a very relevant problem, although around it there is a very polemic debate. Probably most of teachers and educators are in favour of reinforcing the student´s effort in order to guarantee better performance education. But, by contrary, there are some other opinions (probably with a gravitating political component) that prefer a more social approach that would promote equality of all students, and that would propose that students would not be faced to a very demanding academic approach asking for a strict evaluation of their performance.

It is also necessary to stress that the second more important problem of our educational system, according to the people who answered the questionnaire (52,6% of them), is that "*moral or ethical values are not imbued*". This is also probably a very polemic question, because some people (particularly many

educators and parents) ask for the reinforcement of traditional moral values. But, on the other hand, a number of other people prefer a more tolerant educational approach, where freedom would be the most important value to be promoted.

A number of people answering the questionnaire chose as a relevant deficiency of our educational system the approach that "*schools are considered just as day care nurseries*", not as educational centres (39,5%). This is a frequently heard complaint from teachers, who consider that their main task is to promote education, particularly intellectual development; but that schools should not be responsible of other basic problems (sometimes physical and, some other times, emotional ones) and must not be considered just as day care centres. Although there is an important part of reality on these statements, sometimes the family´s traditional role change determines problems whose solution cannot be solved in any other place better than in schools.

Although there are also other problems showed up by he participants who answered the questionnaire, the percentage of answers is considerable lower in the latter ones. Nevertheless, it also would be worth more profoundly studying these problems and to intensify research on them, as on the two other mentioned before. But it would perhaps be interesting to stress the importance of the fourth showed up problem, which is that "*working method and discipline is not demanded*". The relevance of setting up a true working discipline in the classroom and of imbuing appropriate working methods are, undoubtedly, of high importance for the quality of educational processes and of the authentic educational product.

3.4.2.- Deficiencies proceeding from the curriculum design

Is the curriculum design we use in our schools appropriate to have an education of authentic quality?. In order to obtain information of people working in education and of people committed to it, a question related to that was formulated in the questionnaire. The number of answers and percentage in relation to the number of answered questionnaires is next (Fig. 13).

Deficiencies of the curriculum design	Nº of answers	%
Basic contents are not treated with intensity enough	379	59,9%
Themes are very superficial	46	7,3%
Emotional intelligence is not educated	4	0,6%
Other anti-educative curricular aspects	46	7,3%
Total answers	475	75,1%

Fig. 13.- Deficiencies from the curriculum design

Probably related to the problem that obtained the higher number of answers in the question of problems proceeding from the educational system approach ("the student/pupil ´s effort is not stimulated), the problem that received more answers in relation to curriculum design (59,9%) is the one enunciated as "*basic contents are not treated with intensity enough*". The logical conclusion to be reached is that, as students do not need a big effort to be promoted, the curriculum themes are not worked out with intensity enough. Anyhow, it would be highly convenient to identify what are really the basic themes (in general and in relation to each level or stage), and to discover what of them are not really treated with the necessary intensity.

The problem that occupies the second post, by the number of answers, received a quite low number of them (7,3%). Apart from that, it would probably be stressed that this problem, enunciated as "*themes are very superficial*", seems quite similar to the previous one of low intensity of basic contents. For such reason, this problem has been reformulated in subsequent editions of the questionnaire.

Although it does not obtain a quite high number of answers, probably it is worth considering the problem expressed as "*emotional intelligence is not educated*" (0,6% of questionnaires chose it). Perhaps some authors would indicate that this reference to "emotional intelligence" is a today´s fashion. Nevertheless, the appropriate education of the emotional dimension of people is a permanent need, and it seems that the curriculum designs must incorporate the pertinent treatment of values of the physical-emotional dimension of human beings.

3.4.3.- Deficiencies proceeding from students/pupils

Quite frequently, problems of discipline and learning are caused by pupils or students themselves, as they behave in a particular not appropriate way or because they are in a particular phase or circumstance with repercussion on processes involved in learning and education. For such reason, we included student's personal problems in our theoretical study and we inserted in our questionnaire an item related to this student´s/pupil´s personal field. The answers on this field are included in the corresponding following table (Fig. 14).

Deficiencies caused by pupil/student ´s problems	N° of answers	%
Students are on a critical development stage	432	68,2%
Students do not accept teacher ´s advice	294	46,4%
Students do not have habits of studying and intellectual work	69	10,9%
Students do not show interest for studying	69	10,9%
Students make little effort	49	7,7%
Students do not respect teacher ´s authority	34	5,4%
Other students/pupils ´	122	19,3%

deficiencies		
Total answers	1069	168,9%

Fig. 14.- Deficiencies proceeding from pupils/student ´s

According to data of this table, the main problem proceeding from this field is that "*students are on a critical development stage*" (68,2%). When we commented the distribution of collected questionnaires by educational level or stage (Fig. 9), we indicated that most of the students proceeded from lower secondary education (39,5%). As a consequence, people answering on pupil/student ´s problems are mainly thinking of students following this low level of secondary education, which coincides with the beginning of puberty and adolescence. These are certainly very critical development phases that quite frequently show, apart from a reinforcement of teenager ´s personality, their opposition to adult's rules and ways of organization.

By following this student ´s problems, questionnaire answerers marked as the second problem proceeding from this field the fact that "*students do not accept teacher ´s advice*". Although the percentage of answers is lower here (46,4%), it is probably partly due to the critical students ´ situation, as we have just mentioned; but the family approach of education (its interest for it and its respect to teachers and intercommunication with them) are also influencing this student ´s problem.

Quite relevant, too, are deficiencies following after, by decreasing importance: "*students do not have habits of studying and intellectual work*", and that "*students do not show interest for studying*" (both of them with 10,9% of answers in relation to the number of answered questionnaires). Probably the fact that they do not have studying and intellectual working habits influences their lack of interest for studying. Also the fact that "working method and discipline is not demanded by our educational system" (see Fig. 12) is another cause determining that "students do not have habits of studying and of intellectual work".

We need to remember that the "*student/pupil ´s lack of interest*" is the problem of discipline and learning most important that participants answering the questionnaire marked (Fig. 11). But, apart from other possible external factors affecting both these aspects (for example the attraction of television, video-games, etc.), these two problems would need a profound study and reflection by educators in order to use methodologies, techniques and materials that could attract student ´s attention.

That "*students make little effort to obtain rewards*" (marked by 7,7%) is also something implicit in their lack of interest. But this is something that would need a profound consideration, not only by teachers and educators, but, particularly, by political leaders and authorities. Although it seems difficult to solve, it would be necessary to put in action measures that could combine "equality of opportunities for everybody" with the necessary effort of trying to reach excellence.

The deficiency that "*students do not respect teacher ´s authority*" (chosen by 5,4% of participants) was also mentioned among the problems existing in our educational system (Fig. 11) by 60% of participants answering the questionnaire (60,8% of them). Although it may be difficult to differentiate if "students´ lack of respect to teachers" is a problem of the educational system or a deficiency proceeding from students, this repetition is something to be considered.

3.4.4.- Deficiencies proceeding from the social context

It is a recurrent expression that the social context surrounding educational institutions is quite frequently contrary to a true education, particularly because values predominant in such context are quite frequently contrary to those that the school is trying to promote. Collected deficiencies proceeding from this field are at the corresponding following table (Fig. 15).

Deficiencies caused by the social context	Nº of answers	%
Negative influence of mass-media	507	80,1%
Drogue abuse expansion	254	40,1%
Alcohol abuse	254	40,1%
Society propagation of superficial life models	82	13,0%
Society lack of appreciation of effort	47	7,4%
Other social context deficiencies	104	16,4%
Total answers	1248	197,1%

Fig. 15.- Deficiencies from the social context

In relation to this anti-educative social context, it is particularly relevant the high percentage of answers that marked the "*negative influence of mass-media*" (80,1% of filled in questionnaires). As we can frequently see on television, movies, magazines and other mass-media, they frequently offer scenes and information that incite to violence or to moral degradation. It is also appropriate to mention here the pernicious influence of some web pages that propagate noxious very negative information, sometimes especially directed to teenagers. Politics directed to rectify these malicious influence are particularly necessary these days.

"*Drogue abuse expansion*" and "*alcohol abuse*" received both the same high number of answers (40,1%). Freedom given to teenagers and also to criminal organizations trying to infiltrate themselves into this fragile population are factors determining the expansion of drogue abuse. It is also quite obvious that drogue and alcohol abuse are quite related. And, although alcohol abuse does not create so strong dependency as does drug abuse, teenagers starting to drink alcohol go on consuming drogues in many cases, after a while if not immediately.

Although not many people answered the deficiency that "*society propagates superficial life models*" (13,0%), this is another social feature that, mainly in the long run, will produce a superficiality in the whole approach of life, inducing people enjoy as much as possible to present pleasures without thinking of the necessary effort to build up a valuable personality and to accumulate non material assets that will guarantee personal true satisfaction, social acknowledge and transcendent projection.

The deficiency following by number of elections states that "*society does not appreciate effort*" (7,4%). Although the number of answers is not very high, it is a feature highly related to the previous one, because a society that proposes superficial models cannot postulate effort, as this is contrary to such models. But the necessary use of effort represent a moral asset that our society should re-establish to guarantee its future as a civilized human community.

3.4.5.- Deficiencies proceeding from the family

Family is the first cell where a person comes to when he/she comes to this world. Without a family, a child would not physically survive. And, in order to survive and to develop him/herself as a rational and spiritual being, a child needs a family that will promote these rational and spiritual values. But, quite frequently, we those days see that some families act in a quite contrary way to what is supposed to be a true valuable education. But, what are the main deficiencies we can find out in today ´s family?. Answers to this question are collected in the table following next (Fig. 16).

Deficiencies proceeding from the family	Nº of answers	%
Parents are not interested in their children ´s education	305	48,2%
Parents do not have the necessary training	268	42,3%

Parents do not concede importance to their children ´s education	242	38,2%
Parents do not communicate with their children ´s school	135	21,3%
Parents do not dedicate time enough to their children	92	14,5%
Parents do not have authority over their children	47	7,4%
Family is broken or un-structured	37	5,8%
Other deficiencies from the family	118	18,6%
Total answers	1244	196,5%

Fig. 16.- Deficiencies from the family

The first important family deficiency chosen was the fact that "*parents are not interested in their children ´s education*". This is probably a very absolute statement that would need clarification, possibly meaning that parents just delegate education to professional teachers and do not consider that their active involvement is a very important factor for a good educational and academic performance. This is quite probably one opinion mostly spread among teachers and educators, because the representation of parents in the sample of people answering the questionnaire is only 2,7% (as it can be seen in Fig. 10).

The first just mentioned family deficiency is very much related to the one with the third post by decreasing number of answers, which is that "parents do not concede importance to their children´s education" (38,2% of elections). Because of the similarity of both deficiencies, in further questionnaire editions we have put them together as just one. But a reasonable interpretation of answers we are commenting here implies that this lack of importance parents give to education is a clear manifestation of parent's ´ lack of interest in their children ´s education.

That "*parents do not have the necessary training*", chosen as second deficiency (with 42,3%) is also a statement quite frequently heard, particularly from professional educators, psychologists and advisers. On the other hand, many programmes of training parents (in Spain usually called "parent ´s schools or "escuelas de padres") are generally quite successful, not precisely because there are many parents attending them, but because they intensely modify the relationship between parents and teachers and they intensify parents ´ commitment and involvement in education.

It is also relevant the deficiency that "*parents do not communicate with their children ´s school*" (chosen by 21,3% of people answering the questionnaire). Although this percentage is not extremely high, it refers to a feature that is worth attention and, possibly, actions directed to rectify it. It is progressively more and more clear the evidence that the relationship between parents and teachers is extremely important to coordinate their educational role and to involve both sectors in practical tasks of promoting education.

The fact that "*parents do not dedicate time enough to their children*" (deficiency chosen by 14,5% of participants) could be, partly, due to the way of living in our societies. Fathers are frequently too dedicated to their work and do not have time to be with their children. And also mothers most frequently work outside home, and their working day is usually too long to give them time for being with their children. Anyhow, the importance of being some time with their children is an imperative need for children to have a good personal development.

The transformed role of each family member and, particularly, the extension of more horizontal relationship among family members is, progressively, transforming children in the very authoritarian members, who impose their will even on their parents. Although the percentage of answers is not very high in this deficiency, it is worth mentioning the family deficiency that "*parents do not have authority over their children*" (chosen by 7,4% of the participants). It does not seem suitable to wake up the role of and imperative parent or mother; however, parents need to have the necessary "autoritas" to lovingly but firmly bring up their offspring.

Finally, some of the participants answering the questionnaire (5,8%) chose the deficiency that "*the family is broken or unstructured*". The transformation of society is changing the traditional composition and stability of family niche. More and more frequently, children are members of a family formed by a separate wife or husband, live with a step mother or father, or with other children who are not the natural siblings, etc. This radical change of the traditional family structure affects children ´s psychological and, even, physical development. Some strategies to compensate problems produced by those mentioned and other similar situations are needed.

3.4.6.- Deficiencies proceeding from the teacher

Quite frequently, we can see problems appearing at school whose cause is the teacher ´s way of acting or his/her attitude or feelings. In most cases, problems of discipline and learning who are caused by teacher ´s activity and his/her emotional attitude are not teacher ´s responsibility; but the way they are seen and felt by children or youngsters can cause real problems. Some features of teacher ´s behaviour and attitude were chosen by the people answering the questionnaire as deficiencies causing problems of discipline and learning. We include, next (Fig. 17), the ones collected with such instrument.

Deficiencies proceeding from teachers	Nº of answers	%
The teacher does not motivate pupils/students	245	38,7%
The teacher adopts an authoritarian attitude	196	31,0%
The teacher adopts an un-empathetic attitude (of emotional contact)	161	25.4%
Legislation has produced the teacher ´s lack of authority	74	11,7%

The teacher feels him/herself isolated	72	11,4%
The teacher adopts a too tolerant attitude	50	7,9%
The teacher cannot punish pupils/students	20	3,2%
Other deficiencies from teachers	75	11,8%
Total answers	793	125,3%

Fig. 17.- Deficiencies proceeding from teachers

The deficiency chosen by the maximum number of people answering the questionnaire is that "*the teacher does not motivate pupils/students*" (38,7%). Certainly, motivation is a very difficult task for a teacher, particularly when "students do not show interest for studying" (see Fig. 14), when "mass media have a negative influence on education" (see Fig. 15) and when "parents are not interested in their children ´s education" (see Fig. 16). Nevertheless, a true professional teacher with a very good pedagogical and didactic training must look for strategies to promote in his/her students the interest for acquiring knowledge and for promoting their education.

Although schools have been transformed into institutions where students enjoy high levels of freedom and where organization usually adopts a democratic approach, a considerable number of participants considered that one teacher ´s deficiency is that "*the teacher adopts an authoritarian attitude*" (31,0%). By contrary, some participants (7,9%) considered that "*the teacher adopts a too tolerant attitude*". Although both extreme attitudes are not considered suitable for a good education of quality, by considering the number of answers in one and the other deficiency we must conclude that most people considered that the predominant attitude is the authoritarian one.

Important for a good emotional relationship between teacher and students is the existence of an empathetic attitude, particularly on the teacher ´s part. Nevertheless, a number of participants considered that a deficiency proceeding

from teachers is that "*the teacher adopts an un-empathetic attitude*" (25,4%). Undoubtedly, this lack of empathetic attitude can cause problems of discipline and learning, because students could feel that the teacher does not consider him/herself a true student ´s/pupils ´s friend.

Although other deficiencies proceeding from teachers were chosen by a lower number of participants, all of them are worth thinking about, in order to look for ways of inverting the negative tendency they seem to indicate. One of the expressed deficiencies is that "*legislation has produced the teacher ´s lack of authority*" (chosen by 11,7%). Another one is that "*the teacher feels him/herself isolated*" (chosen by 11,4%). And the last one is that "*the teacher cannot punish pupils/students*" (chosen by 3,2%).

3.5.- Proposals to improve discipline and learning in our schools

The used questionnaire includes a section dedicated to collect proposals that could be put into action to improve discipline and learning in our schools. The answers to questions of this section and the corresponding percentage of answerers are inserted in the following table (Fig. 18).

Proposal to improve discipline and learning	Nº of answers	%
Communication between teachers and parents be increased	377	59,6%
Teachers self-commitment to students/pupils´ problems	353	55,8%
More effort be demanded from students/pupils	353	55,8%
Themes as drogues, alcohol, sex, etc. be discussed with parents	276	43,6%
Sanctions to students be accomplished at school, not at	163	25,8%

home		
More intense support to teachers by education authorities	137	21,6%
Total answers on proposals	1659	262,1%

Fig. 18.- Proposals to improve discipline and learning

According to the offered data, the highest percentage of answers put forward is "*that communication between teachers and parents be increased*" (59,6%). It is, certainly, a very relevant index that, on the one hand, expresses the intense wish of reinforcing the impending relationship between parents and teachers to promote a good education; on the other hand, it is an indirect expression that such relationship was not good at the moment the questionnaire was answered.

The second proposal by decreasing number of answers corresponds to two of them. One is "*that teachers commit themselves to students/pupils ´problems*" (55,8%); the other is "*that more effort be demanded from students/pupils*" (also 55,8%). Reality quite frequently shows up that teachers, particularly those of Secondary Education (with students from 11/12 years on), consider themselves as specialist of a specific subject or knowledge area; but they do not easily accept that they need to consider the emotional and personal circumstances of their pupils. This frequently creates problems, because teenagers -particularly at the beginning of Secondary Education- not only need to be taught, but mainly to be personally oriented and emotionally cared.

The other proposal with the same percentage of answers represents a permanent demand, particularly stressed these days, when there are too many attractive offers outside the school causing that teenager students do not care very much about formal learning. On the other hand, it was mentioned (fig. 12) that our system of education does not seem to stimulate very much student's effort, as such students are promoted without a strict assessment of their academic performance. National and international reports claim that our educational system

academic performance is quite low and must be improved. And that cannot be done without effort.

The fourth proposal states "*that themes as drogues, alcohol, sex, etc. be discussed with parents*" (43,6%). This seems a very useful initiative, because in today´s too tolerant societies, where parents and -even- schools, allow teenagers to go alone and to enjoy plenty of time with friends but without parents´presence, the alcohol consumption and drogue abuse are too extended: partly due to this much freedom given to teenagers, and partly because there is a very active black market trying to spread drogues, particularly among teenagers. As a consequence of too tolerant societies and of much freedom given to teenagers, early practice of sex activity is also extended, sometimes with dangerous risk for boys and girls. Discussions with parents and, sometimes with parents and teachers seem a good strategy to eliminate or -at least- reduce risks proceeding from those aspects.

The fifth proposal is a surprising one, probably typical of teachers´ approach in relation to accomplishing sanctions. The answerers put forward "*that sanctions to students must be accomplished at school, not at home*" (25,8%). Although, perhaps, behind that proposal is a certain lack of trust in parents´ responsibility, it seems that it would be worth studying it with more intensity in order to clarify if it is more effective the accomplishment of sanctions at school than at home.

Finally, the last mentioned proposal is "*those education authorities should more intensely support teachers*" (21,6%). This is evidently a quite repeated demand: very frequently teachers feel that education authorities (who, in the end, are political authorities) are more interested in satisfying superficial massive demands than in promoting an education of authentic quality. But, apart from teachers´ feelings, recent important reports (national and international) show up that not an effective and improving reform of education can be done without active intervention of teachers well trained and with an enthusiastic attitude.

4.- The Cause and Effect Diagram

The cause and effect diagram is also known as "fishbone diagram" or "Ishikawa ´s diagram", due to the fact that this is its inventor ´s name, the Japanese Kouru Ishikawa, who elaborated it in 1953 (Ishikawa, K., 1985). The use of this technique has been widely extended in institutional quality management and it can effectively be used to make an institution and problems diagnosis and to promote its members ´ team working. Such technique facilitates the vision of a problem as a whole and to see all possible options; it also allows the definition of tasks or fields on which to obtain information; although for such purpose, other techniques can also be used.

The cause and effect diagram or chart technique implementation is somehow similar to the "brainstorming" one; but the cause and effect diagram is a more structured technique and more centred in the contents; furthermore, the graphic representation adds a plastic attraction to the obtained results. It can be used to *identify causes of a problem* (to show them up, to structure them and to show their mutual relationship), to *study a particular process* (by considering factors that are problematic for such process), to *examine effects* produced by some aspects, or to offer solutions to a specific situation or deficiency (in this case, the theme is such situation or deficiency).

Anyhow, the cause and effect diagram is a technique useful to represent inputs that affect quality (Greenwood, M.S. & Gaunt, H.J., 1994: 96-97), which means, to set up in a plastic and structured way the elements that determine some aspect we want to improve or a difficulty we try to overcome. Its use seems recommendable in cases where we look for solutions to a problem, and for such reason we want to know its basic causes. The basic tasks that this technique requires are the following ones (Ishikawa, K., 1985):

❖ Identification of all problem causes
❖ Distinction of causes from symptoms
❖ Analysis of causes relative importance
❖ Offer of data for other techniques.

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Some of the advantages of this technique are:

❖ It shows the relationship between one outcome and its possible causes in an organized clear, precise and global way

❖ It offers possible cause-effect interrelations, by allowing a better understanding of the studied phenomenon, even in complex situations

❖ It concentrates the participant's ´attention in a particular problem that is treated in a structured and systematic way.

The technique can be particularly useful to an educational institution, in the following cases:

❖ The institution tries to have problem diagnosis, by looking to more than one cause

❖ Such institution wishes to change some processes and wants to profoundly know them before beginning the corresponding activities

❖ Members of a particular institution team, group or sector are trying to know inter-connexions between their work and the one others do.

4.1.- Implementation phases

This technique is more effective when used with a stable group that already has a coordinator. But, in any case, its implementation phases could be the following ones:

❖ Theme presentation
❖ Identification of causes and factors
❖ Ratification
❖ Adjustment of cause proposals
❖ Suppression of irrelevant factors
❖ Drawing the diagram

We comment next such phases

4.1.1.- Theme presentation

After a brief exposition of what is this technique, the problem or theme is presented with a brief but significant enunciation. Afterwards, we can initiate the diagram representation on a blackboard, poster or transparency: to such purpose, we can draw the axis that will form the central fishbone of the problem or theme to be considered. This axis or fishbone will be represented by an arrow directed towards the right side. At the end of this arrow right side we will draw a rectangle, where we will put into the words expressing the problem or thing.

4.1.2.- Identification of causes and factors

In order to identify causes and factors, the big group can probably be divided into small groups, where all its members suggest causes or factors determining the effect or problem. In each one of these small groups, a coordinator or other member acting as secretary can write down all the members' suggestions that will -afterwards-be presented to the big group.

After the necessary discussion in small groups, the big one will try to choose the basic causes that will form the fishbone ribs: it seems convenient that he number of basic causes will be from four to six, no less no more. If there were too many causes, it would be necessary to synthesize and structure them: this task should be done with all members´ intervention and the final selection should be accepted by consensus. Each one of the main causes will be included into a square, drawn at the end of each rib.

Once the fishbone ribs have been drawn up, the factors corresponding to each cause can be chosen: also this time, it may be necessary to select the most suitable factors and to include them in the corresponding cause. These factors can be drawn up as transversal short ribs departing from the larger ones.

4.1.3.- Ratification

During this phase, the big group moderator or coordinator checks that all the group members have understood the process and the causes and factors put forward and represented on the fishbone. For such purpose, he/she presents and comments the collected proposals and ask the group for possible rectifications, suppressions, changes, etc. At this moment, the group members need to consider that what we are looking for are the true causes and factors determining a problem or theme; it would be, then, necessary them to avoid simple superficial symptoms or just theories about the considered theme or problem. The group must, in the end, ratify the collective proposal and its systematic structure.

4.1.4.- Adjustment of cause proposals

With the moderator ´s or coordinator ´s leadership and with all members´ intervention, the draft diagram representation must be submitted to analysis and critical discussion. At this moment, it would be useful to check if there are repetitions, ambiguities, or mistaken locations of causes of the considered problem or theme. Would it be necessary, the suitable rectifications will be made, with all members´ intervention. Once the consensual acceptance is assumed by the group, causes can be definitely represented in their place.

4.1.5.- Suppression of irrelevant factors

Once the causes have been completely accepted, the person coordinating or moderating the session will ask the group members for them to identify the most relevant or determinant factors and to suppress those factors less important or less significant to the effect. It would be appropriate that each cause, represented at its rib, will have approximately the same number of factors, in

order to have a balanced fishbone representation: four to six factors per cause would be a reasonable number.

4.1.6.- Final drawing of the diagram

Once the group has reached the suitable consensus about the most determinant causes and the most relevant factors, the diagram may be finally drawn up. In order to obtain a clear representation with a proportionate plastic sight, the fishbone need to have the appropriate number of causes and factors we have mentioned above. With all the expressed requirements, once the representation is complete the group will contemplate the plastic picture of the collective thinking in relation to the real causes and factors that determine or produce a particular problem or theme.

Obviously, the represented fishbone will not completely exhaust the whole composition of the problem or theme. But, in other subsequent use of this technique, each one of the causes (and, successively, even factors) can be considered and a new fishbone elaborated on them.

4.2.- Graphic representation of problems of discipline and learning

As an example of a "cause and effect diagram" representation of problems of discipline, we insert a graphic produced by a group of teachers participating in an in-service training program (Fig. 19). We also insert a diagram representing causes and factors of problems of learning (Fig. 20). Both of them refer to a general sight of the problems. For more specific analysis of particular components, other more explicit representations will be needed.

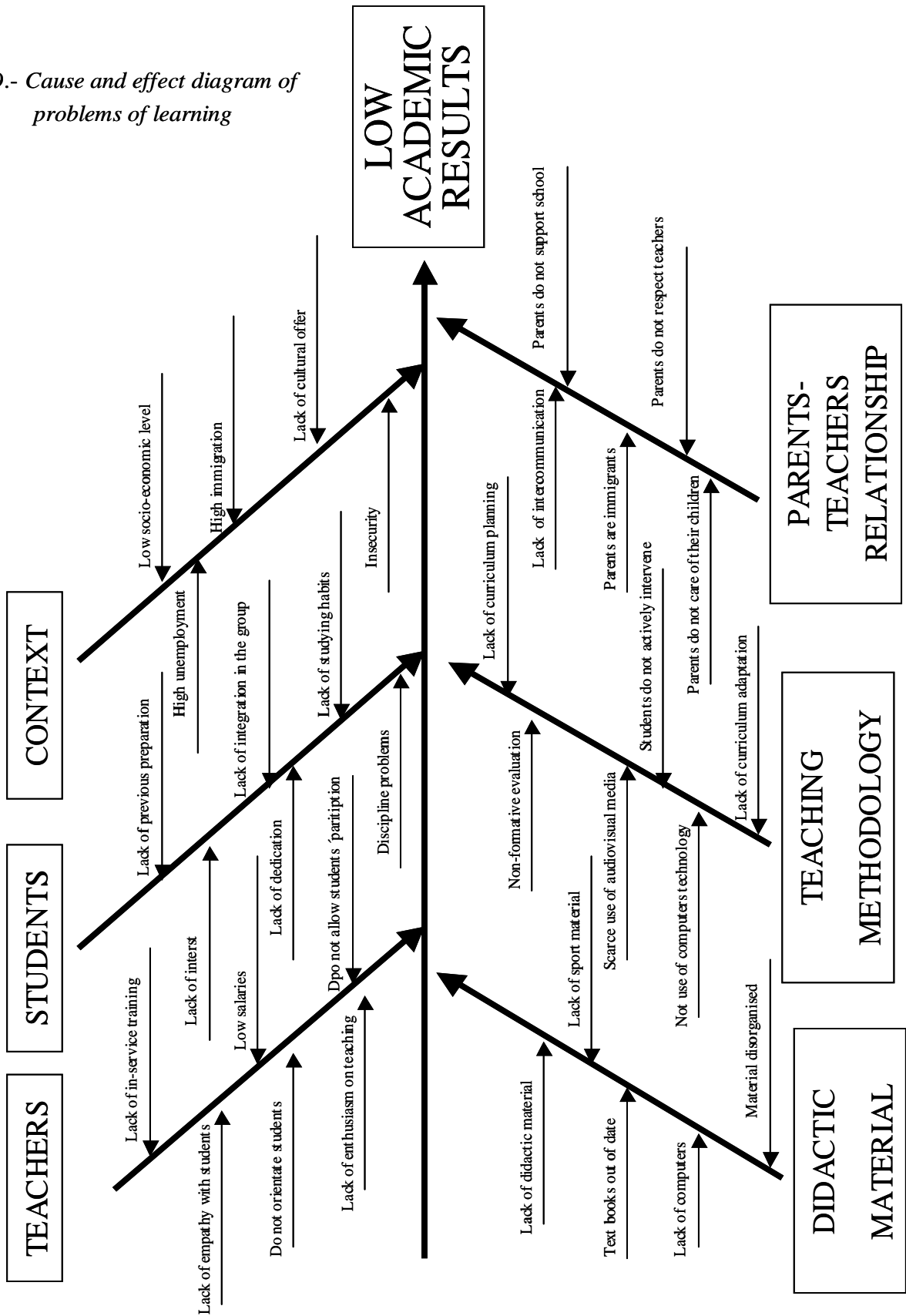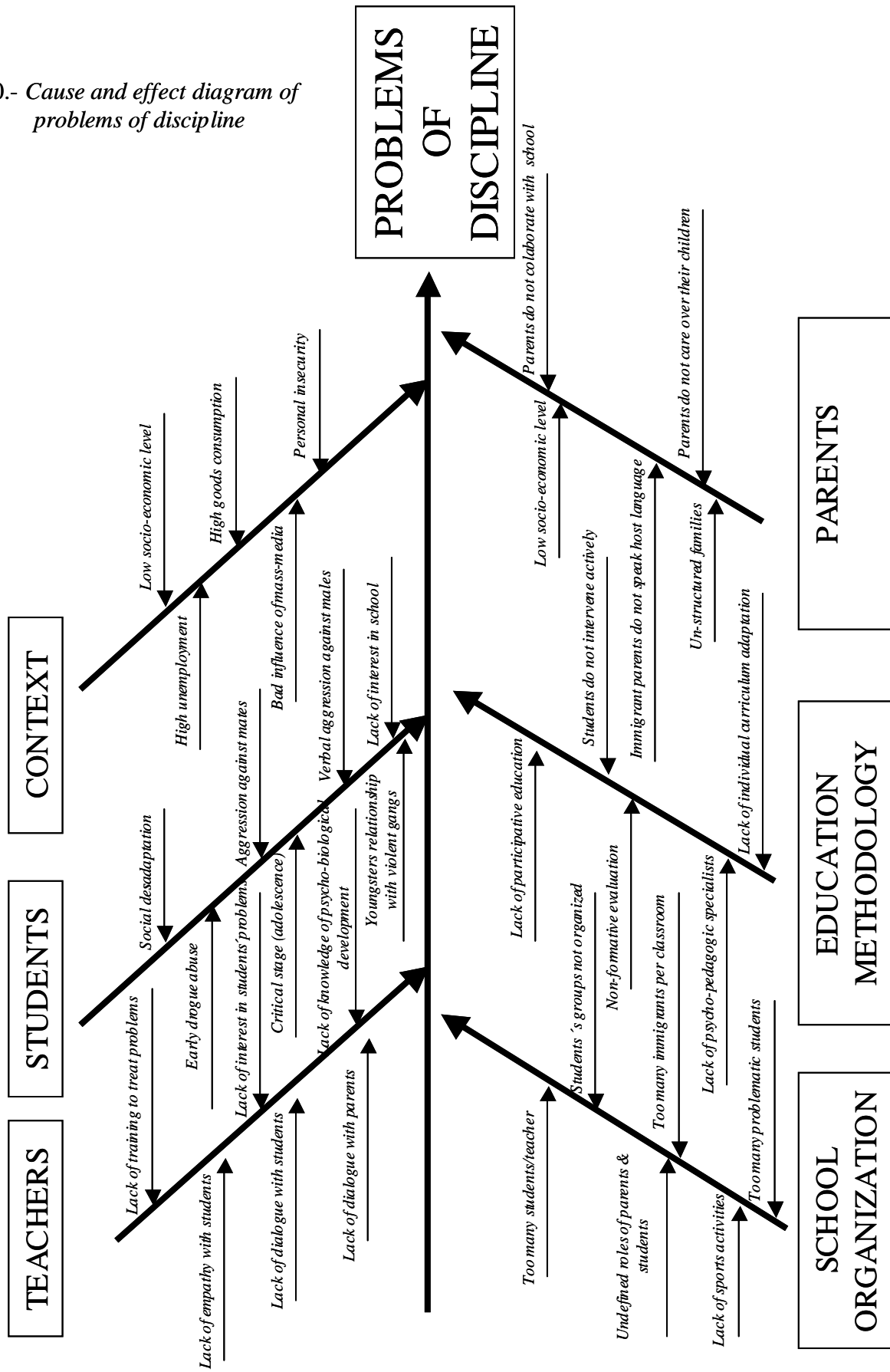**Fig. 19.-** *Cause and effect diagram of problems of learning*

LOW ACADEMIC RESULTS

CONTEXT

STUDENTS

TEACHERS

PARENTS-TEACHERS RELATIONSHIP

TEACHING METHODOLOGY

DIDACTIC MATERIAL

Low socio-economic level
High immigration
Lack of cultural offer
Lack of previous preparation
High unemployment
Lack of integration in the group
Lack of studying habits
Insecurity
Lack of curriculum planning
Lack of intercommunication
Parents are immigrants
Parents do not support school
Parents do not respect teachers
Parents do not care of their children
Lack of in-service training
Lack of interst
Low salaries
Lack of dedication
Dpo not allow students´partiption
Discipline problems
Non-formative evaluation
Students do not actively intervene
Lack of curriculum adaptation
Lack of empathy with students
Do not orientate students
Lack of enthusiasm on teaching
Lack of didactic material
Lack of sport material
Scarce use of audiovisual media
Text books out of date
Lack of computers
Not use of computers technology
Material disorganised

Fig. 20.- *Cause and effect diagram of problems of discipline*

PROBLEMS OF DISCIPLINE

CONTEXT
- Low socio-economic level
- High goods consumption
- Personal insecurity
- High unemployment
- Bad influence of mass-media
- Verbal aggression against males

STUDENTS
- Social desadaptation
- Aggression against mates
- Early drogue abuse
- Critical stage (adolescence)
- Lack of interest in students problems
- Lack of knowledge of psycho-biological development
- Lack of interest in school
- Youngsters relationship with violent gangs

TEACHERS
- Lack of training to treat problems
- Lack of dialogue with students
- Lack of empathy with students
- Lack of dialogue with parents

PARENTS
- Parents do not colaborate with school
- Parents do not care over their children
- Low socio-economic level
- Students do not intervene actively
- Immigrant parents do not speak host language
- Un-structured families

EDUCATION METHODOLOGY
- Lack of participative education
- Non-formative evaluation
- Too many immigrants per classroom
- Lack of psycho-pedagogic specialists
- Lack of individual curriculum adaptation

SCHOOL ORGANIZATION
- Too many students/teacher
- Students's groups not organized
- Undefined roles of parents & students
- Too many problematic students
- Lack of sports activities

5.- The Pareto Analysis

This technique receives its name from the Italian economist Vilfredo Pareto who, in the beginning of the XX century, launched the hypothesis of "80/20". According to that, 80% of world resources are accumulated by 20% of its population, while 80% of population only have the rest 20% of world resources. Such theory has been afterwards used in studies of organization, to set up that 80% of problems are produced by 20% of causes determining a particular process; while 20% of problems are produced by 80% of causes.

By accepting this hypothesis, the Pareto analysis tries to identify the *important real causes* of a problem, in order to solve it and, particularly, it looks for the more important causes that influence on the studied effect or problem. But, in order to clarify the more important causes, *participation of all the involved people* is required. This technique can be used when a team or group of people wants to know causes that produce a problem and, particularly, to determine the most important causes to eliminate or to reduce the problem. It is also very useful to promote and use people ´s participation to take decisions.

5.1.- Implementation phases

The implementation of the Pareto analysis technique requires some phases oriented to discover, by the participant members of a particular group of people, the most important ones producing a specific result. Such phases can be the following ones (Greenwood, M.S. & Gaunt, 1994: 94-96; West-Burnham, J., 1993: 62-64):

- ❖ Identification of causes
- ❖ Data collection and organization
- ❖ Statistical treatment of data
- ❖ Graphic representation

5.1.1.- Identification of causes

The session director or coordinator will present the theme or problem to be treated: this must be presented in a way that facilitates the analysis of elements or causes producing it. Afterwards, the group will work to identify causes that bring about a specific problem or process. For this purpose, the group can use another suitable technique, such as "brainstorming", "cause and effect diagram" or any other one. Anyhow, it has to be guaranteed that causes or elements be independent each other and that there is a clear difference among them. In order to facilitate a good graphic representation, it would be necessary to have a reasonable number of elections of causes or elements (at least, 80 to 100 of them in total).

5.1.2.- Data collection and organization

At this stage, the group, oriented by its moderator or coordinator, tries to obtain the frequency of elections, to collect data and to determine the frequency corresponding to proposed causes. For this purpose, we can make a statistical table: at its left side there will be a column with the name of the proposed causes; other column will include the frequency each cause has been chosen with.

5.1.3.- Statistical treatment of data

During this phase, we will make up a statistical table, by organizing all the proposed causes in a decreasing order of frequencies. To make up this table, we will insert at the left side a column with the name of each cause (the complete name or a code representing them), in a decreasing order by number of received elections. Then, we will include the percentage of each cause. Afterwards, we will insert the accumulated percentage of each cause (the last will be 100%). Next column, to the right side, will include the corresponding absolute frequencies of

each cause. The next one will have the percentage in relation to the total elections of all the chosen causes. The next one will show the accumulated percentage of each cause, formed by adding up the percentage of the previous category to the following one (the one of the first category will correspond to its relative percentage; the last one will be 100%).

5.1.4.- Graphic representation

Once we have structured the statistical data, inserted into a table according to what we have expressed in the previous phase, we will make up the histogram or chart of the graphic representation. To such purpose, we will place at the horizontal axis the causes or elements of the considered problem or theme, all of them placed in a decreasing order from left to right side. At the left side of the vertical axis we will place the scale of absolute frequency corresponding to each cause. At the right side of the vertical axis we will place the scale corresponding to the *accumulated percentage* of all the chosen causes or factors.

Afterwards, on this histogram we will draw a bar diagram or chart corresponding to the absolute frequency of each cause (according to the scale placed at the histogram left side), in a way that all of them will be in a decreasing order from left to right side. Afterwards, we will draw the line diagram or chart corresponding to the accumulated percentage, placed at the histogram right side, in a way that all causes will be placed in an increasing order from left to right.

The interpretation of this graphic representation will allow us to distinguish those causes that obtained higher absolute percentage -that may be considered as "vital" causes-, from those that obtained low absolute percentage -that may be considered as "trivial" or unimportant ones. The practical consequence of this technique and its graphic representation is that activities to improve results or processes corresponding to the studied problem or thing will start working with causes that received the highest percentage of elections.

5.2.- Graphic representation of problems of discipline and learning

The graphic representation of problems of learning with the Pareto Analysis histogram or chart corresponds to data obtained by teachers participating in in-service training courses offered by our University and working in Lower Secondary Education schools of a low socio-economic areas: this information about causes of low academic performance of such school students was obtained by asking other teachers working in the same school. The collected causes and the statistical data corresponding to this representation are the ones in the following table (Fig. 21)

CAUSES OF LOW LEARNING (Lower Secondary Education)	Frequency	Percentage	Accumulated percentage
D: Students´ low previous preparation	77	38,5%	38,5%
H: Students´ lack of interest	39	19,5%	58%
F: No active methodology	24	12%	70%
G: Students´ lack of studying habits	16	8%	78%
E: Family problems (drogues, alcohol)	15	7,5%	85,5%
B: No formative evaluation	12	6%	91,5%
C: Too many students per teacher	10	5%	96,5%
A: Divorced parents	7	3,5%	100%
Total of causes	200	100%	100%

Fig. 21.- Statistical table of low learning (example)

Data included in this table and the corresponding representation of the Pareto Analysis show up that the "*previous students´ preparation*" was chosen by the highest number of participants (38,5%), as cause of theses students´ low academic performance. This cause, added up to the "*students´ lack of interest*", would represent 58% of failure, according to obtained data. And these two main causes together with the third more important one, that is "*no active methodology*

is used", add up to 70% of causes determining academic failure, according to empirical data (Fig. 22).

As a consequence of the obtained data, setting up an intense programme of improving the basic preparation of these students should be a priority. Such program could be implemented in the same school or, if the students came from another primary school, it would be necessary to contact with this school in order to set up coordinated programs of students ´ basic education. The second cause, that the school should try to work on, would be its student's ´s lack of interest. For such purpose, it would be very appropriate to study ways of waking up student's ´ interest. Probably a more active methodology (third main showed cause) could contribute -with some other strategies- to improve student's ´ interest.

Fig. 22.- Pareto Analysis of problems of learning
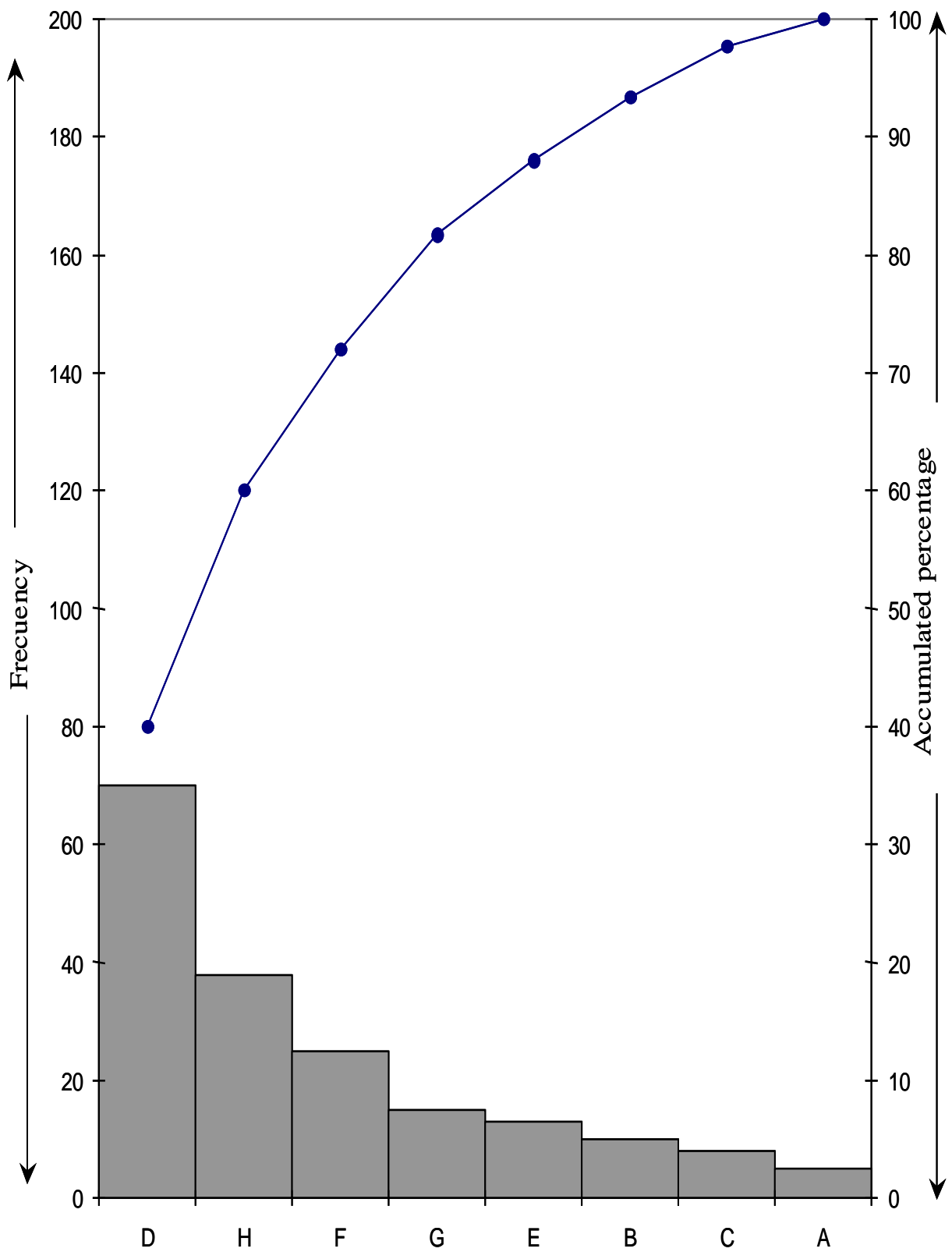
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Crisis of Cltural Values and Teachers' Attitude to Discipline.

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Introduction

The educational indiscipline is as a major concern for teachers, administrators, and the public (Hardman & Smith, 2003), and indeed a major reason for job dissatisfaction (Liu & Meyer, 2005). Moreover, as noted by Pierkarski (2000), teachers' aggression towards students is one of the most common stressful school situations for students, that causes serious consequences against them. Therefore, there are a violence' spiral; then, the school's interactional problems are growing up more and more, but it's being morest incident in the secondary education (Zanten, 2001). Serious and very serious lacks and misbehaviour are verified.

School culture refers, from an operational view, values of guiding beliefs, and norms as well, and daily behaviours and practices of all people interacting in school (Patterson & others, 1986, 97-98). These elements (economic, rule, aesthetic, moral, ethic, scientific, life, religion or moral, etc.) interact with each other. The result of that product is a globally, that is different than the sum of each part. If we add the characteristics of the subjectivity of secondary students: selfish, idealism, criticism, etc. (Eccles & Brown, 2007), and the multicultural reality of classrooms, the product is very complicate. Then, shall culture be a factor that impedes the cohesion? If we make the culture from a general way, should we be oppressive or discriminatory respect other sub-cultural or other individual ones from other cultures?

For these reasons, we ask such questions that guide this work. These are: About the social and cultural critical situation, what teacher's model is the most appropriate? Is there some kind of teacher who takes a different climate for an implementation of a peaceful coexistence? What is the best valued teaching style? What values define the style for critical situations?

1. Understanding the relationship between misbehaviour and school culture

In this process of cultural change, teachers require understanding the students culture, the ethos of the educational institution can be materialized in the learning climate. The management of school discipline is a key to understand the problem. This is linked with student achievement. The educational discipline results of a web of factors impacting on staff and students. The task consists of to detect the variables of misbehaviours and the values linked with these. Shipman (1973) states on the dimensions of the school culture: instructive (scientific components of the curriculum: in some sense are non-ethical issues such as languages, methodologies, terminologies...), pattern regulations (referring to the educational values, the rules and what is believed and considered good, beautiful and true to good living) and expressive (set of attitudes, nonverbal language, ways of teaching, etc.). The latter is usually designed, though it has a strong influence, it is as an enzyme that encourages or hampers the learning of the previous parts. For this, we also should keep in mind the reasons given by the occult in the latter (hidden curriculum), mentioned by Dufrenne (1972) as basic personality groups and institutions.

When this happens the systematic state school system between the nineteenth and twentieth centuries, the cultural reality school was similar to the exterior, there is a convergence of values, requirements, etc. This would be the reason that there is a crisis. But today we find that neither the attitudes nor the standards are converging, there is a crisis[1]. If this happens in a culture, we shall

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[1] Prairat, E. (2003) L'indiscipline scolaire aujourd'hui : éléments de déscription. The author is Professor of the Université dè Nancy 2 (France). He publiet two books about this subject :

think of the reality of today's classrooms in the presence of a plurality of subjects from a wide ethnic range [2]. Some research has found that the development of adolescent problem behaviors may be related to acculturative stress (both adaptation strain and marginality strain). Differential acculturation between parents and children may lead to a reduction in parental monitoring, thus increasing the likelihood of delinquency (i.e., early alcohol use). Gil and colleagues (2000) have noted that the acculturation process is multidimensional and may involve the acquisition of values and behaviours[3]. Certainly it would be to multiply the above, in it already complex by a factor corresponding to the number of distinct cultural identities in the classroom and learning. Multiculturalism multiplies mentioned in the previous paragraph, affecting far more in terms of the normative and, in response, emphasizing the expressive dimension curriculum.

The expressive dimension of the curriculum, resulting in a more focused approach of the legislation is expressed in the teaching-learning environment. This is not just for our cultural context, has also been found to be valid for other cultures such as Australia, Israel, and China[4]. It should clarify the errors of modernity, arguing that there is no school without discipline. This dimension allows curriculum students learn Western values such as responsibility, obedience, self-control, etc. But, unlike what has been said before, the school is not only pluralistic in relation to the culture that has generated, but that schools have become multicultural realities. This complicates the culture, pushing for each school has to create conditions for the institution to function (Prost, 1995: 34).

Questions de discipline à l'école (Erès 2002, 2e édition) & La sanction en éducation (PUF, Coll. Que sais-je? n°3684, 2003).

[2] The role of differential acculturation within families and educational performance and behavior has shown that parents who are less acculturated than their children often are less involved in the child's schooling (Loeber & Stouthamer-Loeber, 1986; Plunkett & Bamaca-Gomez, 2003; Vega, Zimmerman, Khoury, Gil, & Warheit, 1995).

[3] GIL: Acculturation Level, Family and Student School Involvement, and Educational and Behavioral Outcomes. Paper. American Society of Criminology (ASC). http://www.asc41.com http://www.allacademic.com/meta/p126668_index.html

[4] Lewis, R. & others (2007) Students' reaction to classroom discipline in Australia, Israel, and China. http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VD8-4P53RMW-1&_user=1595673&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1039891765&_rerunOrigin=google&_acct=C000053936&_version=1&_urlVersion=0&_userid=1595673&md5=83d8ee89d17da8d243f86659d53a091b This study investigates the extent to which students report that their teachers' classroom disciplinary behaviour affects their attitudes towards schoolwork and the teacher.

Purkey (1986, 4ss) affirms the school discipline is most likely to be genuine improved by comprehensive approaches rather than by disciplinarian methods that treat only the symtoms of the problema (…). This rechercher proposes new forms of student's work and human relations that engage both students and staff. So, for to make more concrete those, it's important to insert the attitudes, values, etc.

2. **Discipline, values and school peaceful-coexistence: to educate to be a good civic man.**

The students' pro-social behaviours constitutes one of the objectives that should complete the educational environment (Muñoz, Carreras & Braza, 2004). For it, it is considered the discipline like one of the most important and difficult pedagogic aspects of trying (Kiridis, 1999), because without the positive climate, the teaching will be ineffective (Dreikurs and other, 1982). In this sense, according to Parker (1995), the most significant indicator in success in the teaching makes reference to the behaviour disciplined in the classroom. Today as much common people and as most of the teacher's group have a distorted vision of what is really the discipline, as well as a deceiving concept we lack her in the educational environment of why (Dreikurs and others, 1982) [5].

The good discipline spreads to promote globally the personality; this bears to do self-regulation, interpersonal relationships based on social abilities, team work, taking of decisions… Here the self-concence is basic to make mature trials. This presupposes to exercise the critical trial. The criticality promotes in the fellow attitudes and capacities of being interrogated, to question facts, to value explanations and valuations, etc. with the purpose of to accept or to reject those alternatives with relationship to its participation in the democratic process. But this depends on the values with which it has been formed and the use that he or

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[5] The "Centro de Investigaciones Sociológicas" -Center for Sociological Researches- (Spain) said that Spanish citizens think (65%) there is not enough discipline in schools and that teachers must be able to discipline their students. See LP 25 April 2002. This view has been reiterated in subsequent years before.

she knows how to make with them to be a correct citizen. This implies that we meditate about the attitudes about citizenship values.

The man behaves as what he believes, that it is and according on his referential social group (Ajzen, & Fishbein, 1980). And if one believes a mere product and nothing else, one can ignore their own dignity and that of the other ones. If he goes on this way, consequently, it could exclude the fundamental values that constitute the human nature and that they have given consistency to the communities where one is instaled. Due to the dynamics of the civilization, there is cultural waste, for that that one "forgets" certain values. To compensate that, it urges to throw a new program more responsive (UNESCO, 1999[1], highlighting the programs centred in promoting a culture of the peace. In this thought system, I already explained values are the key to dealing with the macro and micro crisis (UNESCO, 1999[2]).

To exercise the citizenship implies to participate in an active way in the matters of the city. The city is a social, cultural, economic, political space, of peaceful-coexistence that is not excluding of anybody. A citizen is who he participates in what happens and he could give bill of it. The democratic societies need citizens… reflexive regarding the big topics that in these they are raised, manufacturers of their own opinion. These mean they are conscious and active members of their society, experts of their rights and duties (Marco Stiefel, 2002, 11-13). They are social competences, but in the environmental educational system we would call pedagogic, as long as they promote growing levels of good citizenship. Such dexterities can look at themselves in a double perspective: to) Formal, that is: to be informed, to communicate, to advance, to invent, to negotiate, to decide, to imagine, to cooperate, to evaluate, to assume risks, to confront the complexity, to analyze necessities, to carry out projects, etc. b) Axiologicals: courtesy, affability, cordiality and the corresponding gratitude, indulgence: before defects of the other ones; kindliness: to judge and to try to other and their acts with fineness; respect: to look to the other ones at looking and valuing the positive thing that they would give a prosocial called tolerance that is our topic. Nevertheless, if teacher wants himself to achieve a school climate to

become optimally of the good citizenship, it would be necessary to introduce other two human habits: friendship and affection (Pieper, 1974).

But, to teach the peace is not identical to enjoy a positive peaceful climate. This last is a way to establish some positive human relationships and to practice the tolerance. Nevertheless, to get this some more human conditions they must be given. I refer to live the understanding, the generosity, the patience, etc., some people with the other ones. I understand the interdependence that there is in the real life between human virtues and democratic habits. Then, if the school, like we said, prepares for the citizenship, in the curricula it will be necessary to integrate both axiological dimensions[6].

From the perspective of the disciplinary problems, does one owe to wonder about how the axiological dimension is summed up in the school institutions. It is necessary here to mention my research of 2003[7]. In that compares the attitudes of the normal students with those who are shown conflicting, undisciplined, etc. Making similar studies in other latitudes, we have two graphics. These refer some "case study" in the state of Zacatecas (Mexico) and the city of Buenos Aires (Argentina, 2005), and in some schools of State of Carabobo (Venezuela, 2008) as wel. Of all the above-mentioned we could affirm

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[6] This model was presented by the signatory in the following events: A) I National Symposium of Education for the Tolerance. Speaker: Concepto, características y finalidades de la educación multicultural en el marco de la tolerancia. University of Granada-UNESCO, 13 a 15 de marzo de 1996; it was imprinted as: *Educación multicultural para la tolerancia y la paz.* 1996. Granada. GEU (Grupo Editorial Universitario), pp. 45-71. B) *Antropología y educación*. Paper: Tolerancia y educación en contextos multiculturales. Madrid, 10 a 14 december, 1996. Actas del III *Congreso Internacional de Filosofía de la Educación.* Pp. 409-420. C) *XVIII SITE.* Paper: Centros con multiculturalidad y sentido de algunas competencias morales básicas que concretan la tolerancia en la formación de los ciudadanos. Universidad de Extremadura, del 21 al 24 de noviembre de 1999. D) *XII Congreso Nacional y I Iberoamericano de Pedagogía*. Hacia el tercer milenio: cambio educativo y educación para el cambio. Madrid, SEP, del 26 al 30 de septiembre del 2000. Paper: Valores y educación en situaciones multiculturales. Sentido globalizante de "educar en la tolerancia", explained in section two: Educación social y cambio de valores. Educación en la tolerancia para la paz. Enfoque transdisciplinar. E) IV *Congreso Internacional de Filosofía de la Educación: Educación, ética y ciudadanía*. Organizate by UNED. Madrid, del 21 al 25 de noviembre de 2000.

[7] The questionnaires to induce data can be analyzed entering in the place following web: http://violencia.dste.ua.es; then, it is punctured on one of the lapels located in the superior part of the main web page: "Indisciplina y violencia en educación" (The study of the indiscipline & violence in education). Pressing enter on the "questionnaire" in the title "school violence", you will look for every questionnaire. The key is not operational to see each questionnaire is p_estudio, that is o.k. only to see and not to operate with the instruments.

that the relative attitudes to the integration of human and social values define the peaceful climate of the educational centres.

So, the pedagogic question consists on knowing what and how teachers should make to do for integrational values. Plus concretely, what relationship are there between the peacefully achievements and the teacher's projection like motivating of human relationships? We locate this way ourselves in the teaching's disciplinarian models. The problem is not as "what works"? But, what attitudes must implement teacher to envelop techniques, rules, values for to improve the student's selfcontrol. That is a problem of teacher's style.

3. Discipline and styles of teachers

Violence prevention is based on achieving a convivial discipline because the discipline is a factor for such ills listed (Debarbieu, 2005 & 2007). To address this problem, we have tested different models with the aim of establishing peaceful coexistence in schools. It is traditional to cite the early experiences laboratory type, testing models like: authoritarian, democratic and negligent (K. Lewin, R. Lippit, & R.K. White, 1939). Other more recent, experimental studies: strengthening (Canter & Canter, 2002; Swinson & Cording, 2002); dialogic (Vitto, 2003); confering responsibility for participation (Johnson & Johnson, 2006). But, in front of these, we can say: are these the only possible alternatives? At what aspect of the global education relate?

The teaching style creates a climate because there is vicariance on the students. As stated the ATEE, the educational system and school structure should aim to involve teachers, students, parents and other local stakeholders to create an ethos of shared responsibility. The school system should support and stimulate schools, teachers and pupils to seize opportunities and to turn ideas and ambitions into action. All stakeholders should be aware that they are role models to youth. The system within the school and the people involved all define the hidden curriculum that is presented to pupils or students[8].

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[8] The response of the Association for Teacher Education in Europe (ATEE), in front to the public consultation on schools for the 21st century. ATEE, December, 2007.

One of the causes of outlining simple solutions on the part of the teachers, and other staff members, consist on the authoritarian way of exercising their teaching responsibility. Before that, which we wonder for the causes of such practices? There are some reasons that it gives us by mere participatory observation: tendency to make what has been suffered as student (mimicry), copying their old teacher. Such ways are also used because they demand less time. Many times it happens that they act without meditating sufficiently, with reactive dispositions before that makes the student. Another reason is the lack of professional self-criticism, by way of revising the designs and systems in a periodic way (Heckhausen, 1972).

Therefore, all that composes the educational unpeaceful-coexistence is not violence and pursuit. It is not appropriate with such premises what proposes governed by the antinomic outline: old school versus modern; authoritarian v participative; etc. Understanding that, it is a fallacy that doesn't help to centre us in the optimization of the school system. The reason is that not all teachers develop uniformly an educational way in an educational institution; neither oneself in an evenly continuous way. With the purpose of promoting the critical reflection regarding the own educational practice, it would be necessary to offer a reflective conscience with the purpose of that each professor their own model structures.

Before the reflexive lack related with the own authoritarian model, we have that a growing cycle of indiscipline, this are the trend to the serious and very serious lacks is structured. It is lacking situations of social skills for both parts of the human relationship of the educational process. With the purpose of promoting the reflection on the own practice, it is convenient to use these models. Recently (Wolfgang, 2008) explains a large models concerning to disciplinarian school. These are: supportive style, communication, clarification of values, social discipline, reality model, behaviour's modification, assertiveness, punishment, interaction, eclectic decision making, social development decision making, decision making based on seriousness of development's students, and decision making focused on teachers' team. In this way, Uhl (1997) mentions thecnics and

models to educate on moral, and he presents its valuation. But, is there an accurate technology, or method?

Working with adolescents, so much of secondary as of university, we have the construct style of interaction in the class-room. This is convenient to synthesize the object of our research. This concept of style refers to: 1). The combination of methods (Hoyt & Lee, 2004);. 2). Characteristic behaviours in the promotion of the learning (Conti, 1989); 3). Persistent behaviours not relative to the contents (Kaplan & Kies, 1995); 4). Relative behaviours to the philosophy of an teacher one. It is more than behaviour or method (Zinn, 1990); 5). They are not only systems of beliefs, also behaviours and necessities that a teacher can exhibit in the classroom (Grasha, 1994). In short: philosophy with pedagogical theory into the practice.

There are researches, like Schwarz and others (1987) that only examines three contrasting teaching styles in a middle-class junior high school. But, this work is interesting for us because reflects performance expectations of the school's culture often conflict with the developmental needs of early adolescents to integrate expressive, peer-oriented behaviour into classroom activities. It shows how teachers' responses to this tension determine their teaching styles.

As for teacher's models, from this perspective, we find with Grasha (1994) the following types: expert, formalized authority, personnel influence, facilitator and delegation of functions and tasks. Such they are correlative to the proposal of Tomal (1998), who mentions the supporter, negotiator, compromising, negligent and demanding. What we should know in this respect it is the definition of such models with relationship to the unpeaceful-coexistence variables and the scholars' axiological attitudes. Other metaphorical version is: teacher as gardener, mechanic, doctor and pioneer in the cultural tradition (Peiró, 2000; Esteve, 2003).

Seeing that we have the means and instruments by hand, it is necessary to approach the study of the casuistry of the disciplinary educational styles once and for all. On this line, Matsagouras (1999) found that the behaviours of the students in class-room were related with the teaching methods used by a teacher, being the

authoritarian models the main predictors of undisciplined behaviours. On this view, Brophy and Rohrkemper (1981) developed an approach centred in the predictor of undisciplined behaviours with respect to the teacher's characteristics, indicating elements of the context to keep in mind to make the control of the behaviours: the intensity of the bad behaviour and the cause of the appearance of the disruptive behaviour attributed by the professor. Kennedy (1982) added a third dimension: react manifested immediately after the incorrect behaviour of the students, one or some. Villar (1993) stated an appropriate educational attitude diminishes the discipline problems, this axiological curricular aspect allows the control of the group and it grants to the teacher more time for the correction and feedback to the students, increasing the participation and the effectiveness of the same ones in the classroom, and consequently, the learning, being favoured all these factors for a climate linking to the task.

With the purpose of taking a short cut this indisciplinarian educational phenomenon, and their growing antisocial derivations, we have thought about diverse programs. One seeks to prevent the violence in a proactive way, based on the security of the teacher one and, then, of the students. In this model, among other gets the attention that teachers are always classified as victims[9]. These strategies and plans leave of the apriorism that the students proving the control limits on the part of the teacher one are always, they are aggressive and disagreement (Canter's, 1994, 9). But, the school discipline is a structural problem that overflows the search for a one best technic or strategy. This focus reminds us the student's experience concerns the whole school; and it should be valued by the congruence with the norms and the values guide its.

To understand this, it is a solution that doesn't deepen enough in the integral sense of the education. It is necessary to know what relationship presents the values and the styles that are more present in the school practices and its effectiveness, with relationship to the educational projects of the school

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[9] Canter's. L. (1994) *Scared or prepared. Violence prevention for educators. Preventing conflict and violenece in the classroom.* Santa Mónica, Lee Canter & Associates, p. 26. Knowing how to respond to disruptive, noncompliant behavior. The goal of this program is to present to you proactive violence-prevention strategies you can use to reduce the potential of your becoming a victim-so you can be prepared each and every day at school-not scared (p. 8).

institutions - PEC -. But, how we don't have a certain PEC, let us pass to study their relationships from the main humankind perspective.

4. Relationship among disciplinary styles, peaceful-coexistence behaviours and values.

Teacher quality is an overall concept that comprises not only knowledge and skills, but also personal qualities (respect, care, courage, empathy, etc.) and personal values, attitudes, identity, beliefs, etc. The way in which these characteristics are implicitly or explicitly included indicators of teacher's quality reflects the dominant social, cultural, economic and educational views and concerns about the quality of teachers (ATEE, 2007: 3-7). Before the situations of interactive class-room, following Tomal (1998) who mentions five style's teaching, each one generate its proper climate, by the implementation of their attitudes. We shall see:

Backer or *supporter*: It demands little and he helps to students. It looks for harmony. He has some difficulties in summing up strict strategies. But, at the same time it projects attitudes: hesitance, evasive… Although, a teacher is implied in the feelings of the students, offering high empathy, but practicing little assertiveness. As consequence, the classroom is something disruptive. Perhaps be due to that, he cares more the students in opposite of the norms, the yield and the forms.

Who follow the pattern of *compromising*, they present a moderated grade in direction. It projects as inconsistence: it is manipulated and confused, faded and not very firm in the disciplinary administration of the classroom. Their creativity is limited. The interaction with the students is characterized to make a pact. In general it treats to be peace among students. The results of this model are the following effects: The students seem confused, and they classify to the teacher one as vane. The frustrated students go to the search of a balance between their behaviours and the teacher's expectations. There are resentments and rivalry among students. Their attitude usually generates conflicts among students.

The *negligent* don't make anything before the indisciplines. It manages the classroom poorly, being their attitude the one of avoiding problems. It is projected as confined, ignoring the students and scorning the confrontation; It is also seen apathetic, displeased professionally. The teacher doesn't have interest for the students and only thinks of the hour of exit. In them the effect is noticed of teacher burnt effect: he or she thinks of going into retirement or in changing to another work. He derives the conflicts toward the director. The consequences are clear: the students show little respect toward the teaching. As for the learning, there is dismotivation student, with poor academic achievements. The discipline shows disruptions in the classrooms

The model *tolerance "0"* pays little attention to the student's personal circumstances. It is projected as *controller*, threatening… Before the made shortcomings, the teacher apologizes. In general their professional character is appreciated as dictatorial, demanding obedience to its norms. Before this, the students show a distancing, so this way there is great difficulty in arriving to educational personalization. There are generation of a banish climate and hypercontrol in the classroom.

Who *negotiates* with the students emphasizes the support with the demand. For this ones look for solutions before any type and conflict level. They demand norms and they practice the surveillance. Their style to discipline consists on win-winning for all and each one. It balances empathy and assertiveness, paying attention to the students. The teacher doesn't neglect to the families, organizing conferences for parents and relating these with the professor, or beginning discussions with parents for telephone, or developing tutorships with the relatives or with the students. The learning climate that they cause is the one of seeking the excellence. Its trial before the facts is objective. He practices values characterized by such habits as responsible, committed, collaborator. Of all the models, this is the one that presents less disciplinarian problems, acting without to reject or to intimidate the students. The *negotiator* teacher pays high support grade to the students but without lowering the demand level.

5. Empirical study by survey (province of Alicante, Spain)

We haven't't conducted sampling processes, because these issues are not welcome, either by administration or by the teachers, because taken as a possible complaint of its effectiveness. Proceed according to chance, similarly as in other research problems (Polit & Humgler, 1995: 238). The population of the teachers surveyed are divided into the following cycles of the education system, shown by figure number 1:

Figure number 1

Higher secondary school	9
Compulsory Secondary	13
Preschool	348
Primary School	607
TOTAL:	1.017

The survey was addressed with paper questionnaires, then they were transferred to a database through computerized processes, on a website. To reflect about the reality of the randoms (see figure 2), the disciplinary styles of the staff and the attitudes concerning values that imply their chore, we must appeal to some data[10]. From the database we take out the following thing:

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[10] Of the relative data to the questionnaire Lickert climbs that can consult you in http://violence.dste.ua.es

Figure number 2

Teachers' styles % to manage the peaceful-coexistencial climate in class-room.

Province of Alicante (Spain), 2008-09.

NEGOCIATER	78,86
CONTROLLER	50,56
COMPROMISER	44,26
NEGLIGENT	25,16
BACKER	71,8
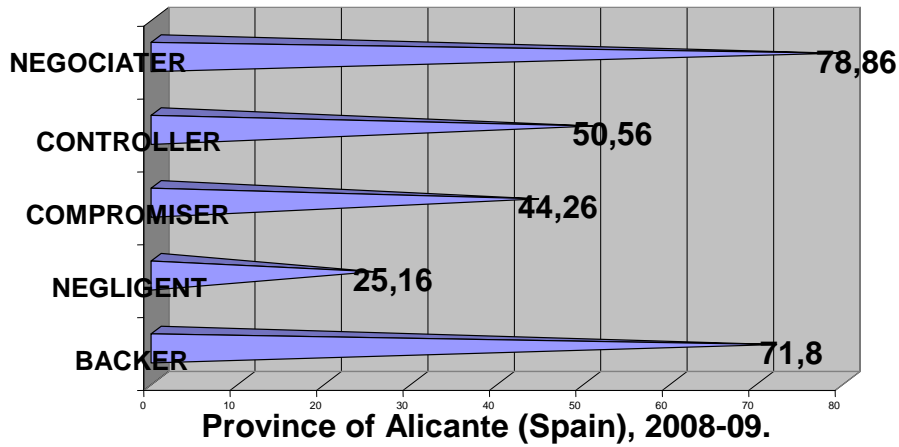
This means: teachers are very plural. Neither overwhelmingly one stands out on the remaining ones. A) The calculation of the stocking relative apparent two predominant styles: the *backer* (78,86%) and the *negotiator* (71,8%). B) The *negligent* ones are less, but there are them in a fourth part of teachers (25,6%). C) The *controler* and the *compromising* one usually locate in half of the options, with 50,56% and a 44,26, respectively.

This you dog verify that by means of the figure 3, that represents the factorial analysis between the two highest rated styles.

Figure number 3

Observaciones (ejes F1 y F2: 29,20 %)

145
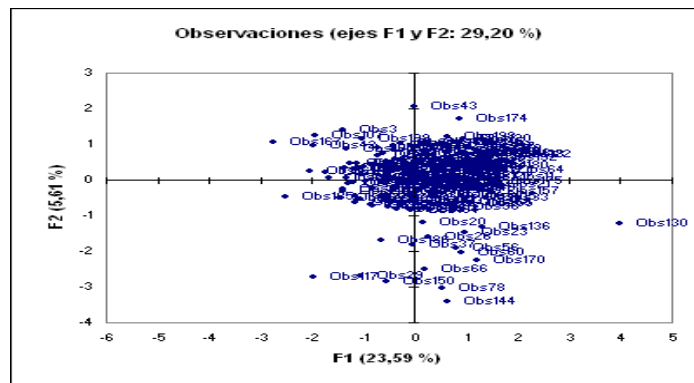
It points out, in fact, the two groups outstanding factors and how they agglutinate the relationships environment to such styles: F1 (*negociater*) and F2 (*backer*). Therefore, both are intricately interrelated.

It is important to consider the correlations (Kerlinger, 1975, 142ss) emong styles through this figure number 4:

Figure number 4

	BACKER	COMPROMISER	CONTROLLER	NEGLIGENT	NEGOCIATOR
BACKER	1,0000	0,0699	0,0246	- 0,2254	0,4318
COMPROMISER		1,0000	0,4893	0,3288	- 0,1491
CONTROLLER			1,0000	0,2753	- 0,0735
NEGLIGENT				1,0000	- 0,3867
NEGOCIATOR					1,0000

The models "compromiser" and "controller" are quite related, similarly "negotiator" and "backer". On the other hand, are somewhat conflicting, "negligent" and "suporter", and in the end "negotiator" with the following: "compromisert", "controller" and, above all, with "negligent." From this we infer that *negligence is not widely accepted* and *there is some reconciliation of styles*.

Of such data, you can conclude that there is not a pure style, because some variables of each of them are assumed by the other, there are exclusion of negative variables, as well. This is confirmed if we sum the percentages of the stocking, this couldn't be equivalent to 100%, it's much more. That which indicates, teachers refer elections in diverse models. That is to say that each professor is not only different and it doesn't act in pure state, but rather one varies as the progress of the educational process, the circumstances, etc., and this is of common sense.

For our research, one of the principals subjects consist on verify the links between misbehaviours and styles. The correlations with its effects in the misbehaviour in classrooms shows these data in figure number 5.

Figure number 5

	Indiscipline	Disruption
BACKER	- 0,1352	- 0,1015
COMPROMISER	0,0138	0,0032
CONTROLLER	0,0143	0,0367
NEGLIGENT	0,2753	0,0820
NEGOCIATOR	- 0,0735	- 0,1319

The possible explanation of the above correlations may concern the relations of each style with indiscipline and disruption. The question we ask is: what promotes more miscoexistence' style? The most highly implemented are the least links shown with disruption and indiscipline, its correlation is more negative. The most damage the teaching-learning relationship is negligence. The interrelationship among these misbehaviours and the other three models exists, but is almost irrelevant.

6. Discussion, conclusions and proposals

a). Due to the cultural crisis is morest outstanding by values than economic, coupled with greater demand for democracy, and the impact of multiculturalism, and so on, are mixing with antisocial attitudes of people- students and teachers as well. All these cause an unbalanced normative and an expressive dimension of school culture, so the educational climate becomes problematic. Then, the normative dimensions can not be unifying like on modernism (XIX & part of XX centuries), wich laws was insufficient. Therefore, we must negotiate of certain aspects of the educational project –PEC- and its norms and values.

b). Studies have been adduced that point out marked differences among students' attitudes "normal" with regard to "problematic students". Such attitudes manifest certain immaturity of the seconds, with lack of pro-social values (EERA, 2003). One of the reasons is the criticity lack that they should exercise before making their behaviour. This is because they don't have "nested" some clear values (EERA, 2007). In this sense, the education for the citizenship is suffering.

One of the reasons of this failure is to confuse knowing notions of value with to be and to make acts according to such values (it is not the same thing to remember about tolerance that to be tolerant).

c). The interaction among students and of teachers bears the make of civic skills that are in the education curriculum for the citizenship - EpC -. This aspect has some conditions. It is not to develop the topics in abstract, it is necessary to work such capacities of EpC being implied teachers and pupils, incorporating real citizenship situations. It will also be necessary to use all the possible and available resources, contributing creative solutions. Before analytic and tight curricula, we postulate a flexible curriculum. Also, appropriately with the PEC, the skills are traverse, what implies to transcend the mere teaching of notions.

d). There are several models that address issues concerning values and norms. These embody in human relationships. Before that classification mentioned, it is necessary to avoid its politic attitudes. Enough time has already passed from the dictatorships, like to avoid the political contamination on the typologies of educational relationship. More than to outline democratic versus authoritarian, it is necessary to reflect inside the last one and to deepen in it. The school climate is intimately related with the ethos of the centre, since it generates a syntality that motivates toward a *modus faciendi*.

e). The integration of values, pedagogic skills and habits can be made in the teacher's style of disciplining. This is because each model bears consequences in the academic, social achievements and values them. The conclusions of some researches are not clearly valid for any teaching-learning situation. Let us remember that each educational centre possesses a project with values - PEC -; consequently, for each institution, the socio-cultural context has a womb that directs aprioristically the majority style of educational relationship. It's necessary to do an hermeneutic interpretation of it.

f). This empirical study has more opportunity to be in the nursery and primary cycles, which we take very provisional these results. The practice of teachers is done more with the negociator and backer models. Those both show a

estimable correlation, so we infer they are not applied separately, aspect confirmed by factorial analysis of the variables, that is quite positive. The correlation of styles and situations of indiscipline and violence brought us such styles as the best.

g). Verifying the best style to avoid the indiscipline and violence scholars is the negotiator. We have the values of teachers, reflect by that, that imply authority with tolerance, but demanding limits, effectiveness, optimism, promoting the community education and putting in action the effort. Inside this environment they must locate a wide spectrum of human habits that must refer to other so many of citizenship.

It is also certain that to improve the educational results of the pupil, it is necessary to strengthen the relationship peaceful-coexistence of the educational centres, so much the aspects relate them between students and pupil-teachers, and this last towards the families as well. That means to solution is aiming to the community education.

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Methodological Strategies for the Reduction of Stress Levels in University Students

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Introduction

The analysis of stress levels in university students is part of a wider research project concerning the teaching method strategies for the management style changes in competence learning, developed by the University of Granada.

Within this research, we have studied the effects of the use of a methodology focused on the student as the builder of his/her own learning and the main factors which generate students´ anxiety.

Stress is the physiological, psychological and behavioural answer of a person trying to adapt and readjust to pressure –whether inner or external-, to situations that mean an everyday effort. When we find ourselves in these situations, the hypothalamus sends a number of impulses to the nervous system and the bloodstream, which produces the liberation of hormones. This, in effect, increases blood pressure, accelerates breathing, increases perspiration and blood-sugar level, it produces skin alterations ….

Stress is present in everybody and, for regular people low stress levels do not necessarily entail contrary reactions. Furthermore, stress is not completely unwanted: experts consider that a mild quantity boosts performance. The problem

arises when the person receives an overload of stressful situations, which provoke a reduction in his/her competence level.

Stress management strategies

All university students have at some time seen their emotional state, their health or interpersonal relations altered. The immediate and most evident consequence is the progressive reduction of their concentration, attention levels, and, as a result of this, the reduction in their academic performance.

There are many and diverse reasons for university stress and they are related to every day required activities, like taking exams, going through readings, projects, studying …. These activities raise their anxiety levels. To this, we should also add other factors like biological (age, sex, etc.), psycho-social (behaviour patterns, facing/confronting/managing strategies, social support, etc.), psycho-socio-educative (academic self concept, kind of studies, year, etc.) and socio-economic.

Although there is a lot of research about academic stress, there is few concerning how to reduce stress through class implementation. From our approach, we understand that this is the ideal context to study the problem. It is necessary to set a methodology that integrates the achievement processes of the subject-specific competences being developed with actions leading to the reduction, even disappearance, of stress.

The university students´ academic stress is usually introduced descriptively at three times:

> - First: the student complies, in educative contexts, with a number of demands which are considered as stressful by the students.
> - Second: these stressful factors provoke a systemic unbalance (stressful situation) becoming apparent in a number of symptoms (sings of unbalance).

- Third: this systemic unbalance forces the student to take actions in order to restore the systemic balance.

Therefore, there are three systemic-procedural components of academic stress: stressful stimuli, symptoms (sings of systemic unbalance) and management strategies. Our research is based from these three elements.

Mechanism to manage stressful situations and academic anxiety

Each participant, from his/her own experiences, will develop guidelines that will help him/her to manage academic stress in a more or less efficient way. If he/she was not able to overcome it, the result would be school-leave. Thus, there is not only one solution to the problem but many adaptable approaches. This implies the need to provide a wide range of tools of transversal character that the student will be able to integrate and make his/her own by adapting them to the specific competences he/she should master for different subjects.

University students should have formative support so they get to know themselves and their possibilities, to be able to establish empathic relations toward the others, have control over their learning and use effectively those resources available to maximize time and efforts.

Getting to know oneself

The first resource in order to control stress is getting to know the signs of alarm that our body sends. We must consider that a basic source of stress is oneself and that some people that, due to their personality, are more likely to be tense than others under the same pressure. It is necessary, then, that the person gets to know him/herself as a first step toward setting goals of change. In this sense, it is essential that the person learns to control his/her thoughts and be persistent.

Getting to know others

Personal relationships are an important source of stress. University students should know their classmates and their teachers; this is, to those with whom they share every day class activities. In many occasions, our perception of how a reality or a person is, builds in us an unreal image of what surrounds us. Getting to know the others can be done by working on different group activities that promote collaborative communication and boost an amiable atmosphere.

Control over learning

We understand that reaction toward the unknown is a very important component of stress. Therefore, if university students manage their own learning with the aid of an advisor/professor, then the achievement of control will lead them to a reduction in their stress levels. Precisely, learning through competences, as proposed by European models, intends to the transfer of the role from the teacher to the student, making the student be engaged in the construction of his/her own learning and internalizing contents in a natural manner, while at the same time, developing those enabling skills for the transmission of knowledge.

Likewise, it is very important to engage the students in assessment processes; even more when most of the research covering university stress indicates that this aspect is one of the most important stress factors. We must engage the students in assessment processes, since being able to assess/evaluate a reality means knowing and mastering it. The student will be less stressed, will feel more able to control the situation if he/she is involved in it, for example, in the processes of making the assessment tests –both for him/herself or for classmates.

Efficient study techniques

A meaningful source of stress among university students is the lack of study techniques, specific for the education they are receiving and which, at the same time, are efficient so as to answer their needs. A university student must carry out many tasks, many basic aspects like skimming reading, underlining, jotting down notes, memorizing, ways of preparing or making an exam..., all will reduce stress levels.

Time management

The lack of practice in timing the available time is one of the most important sources of stress for the university student, even more in periods about to take their final exams. It is fundamental that the student is aware of how to manage his/her time, of the need to organize and prioritize. Aspects like designing a chronogram, putting tasks in order according to the complexity of contents, reviewing before and after class, establish recesses, … will reduce the tension produced by the lack of time and, thus, reduce stress levels.

Method

Sample

The research was made in the University of Granada, Spain, during the year 2009 - 2010, with 5 groups of students from the following degrees: Psycho-pedagogy, Pedagogy, Speech therapy and Teaching.

The invited sample was made by 220 participants, of which, finally, 180 participants reported valid data. The average age of the participants was 23 years-old and, as can be checked in the charts below, the total number was mainly made by women, a 78,9%, versus the 21,1% of the men. By degrees, the sample ranges from 37,8% from teachers to 13,9% of students belonging to Speech Therapy.
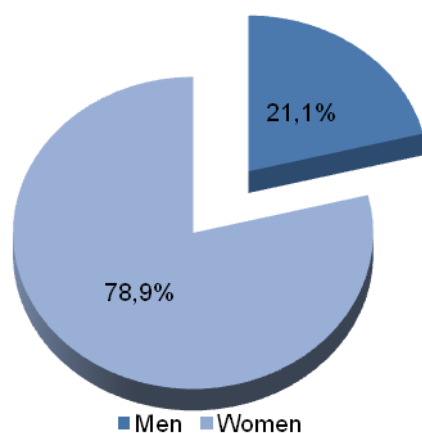
Graphic 1. Gender
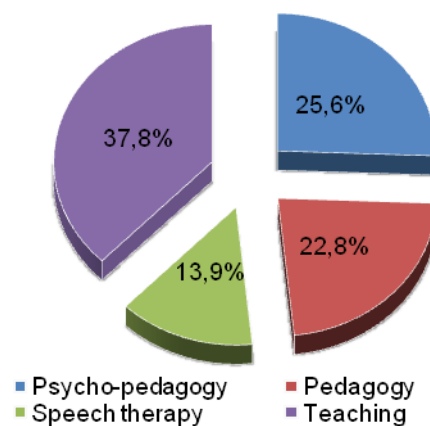
Graphic 2. Degrees

Procedure

The process of collecting the information took place at two different times. The first compilation of data coincided with the beginning of the semester and the second was made just before its end. The tool was implemented to all the participants.

Between these two periods of data compilation, a number of methodological strategies generically designed were implemented, but adapted to each of the subjects for its integration in the everyday class activities. We posed a number of teaching strategies leading to the student's control over his/her own learning and consequently, to reduce their stress levels at three times: before, during and afterwards:

- At the beginning of the year, a group activity was implemented so students and teacher would know each other by name and would have some basic information about them. From here on, each time a block was introduced, everyone was informed of the most relevant contents to be dealt with and of the most effective techniques to work with them. A chronogram also established the required work time, the study and assessment of such.

- During the work sessions, the teacher was in charge of introducing the topic, contextualizing it with examples about its usefulness in everyday life implementation. Next, the students used the provided learning material and checked the new information to elaborate learning material for their classmates. This material was to be presented by the students to the rest of the class.

- At the end of each of the sessions there was a space for the exchange of problems, this is, the students´ and teacher's difficulties are put in common and the group shares its opinion about them, providing solutions. To finish, an assessment test with these materials was proposed.

The tools

The tool used to measure the participants´ stress levels is "The Sisco Inventory of Academic stress" with which stressful situations, reactions and strategies to face it are valued. It is made up by 29 items, where students answer through a Likert style scale of 5 values, distributed in the following manner: 8 items where stressful stimuli are valued; 15 items referring to symptoms or reactions to the stressful stimuli (6 about physical reactions, 5 psychological and 4 behavioural) and 6 items referring to management strategies.

The validity of this tool was established by factorial analysis, inner soundness analysis and contrasted group analysis. Results confirm the three-dimensional constitution of the SISCO Inventory of Academic Stress (Barraza, 2007b). Such questionnaire has a Cronbach alfa liability of 0.90.

Results

a) Environmental stressful stimuli
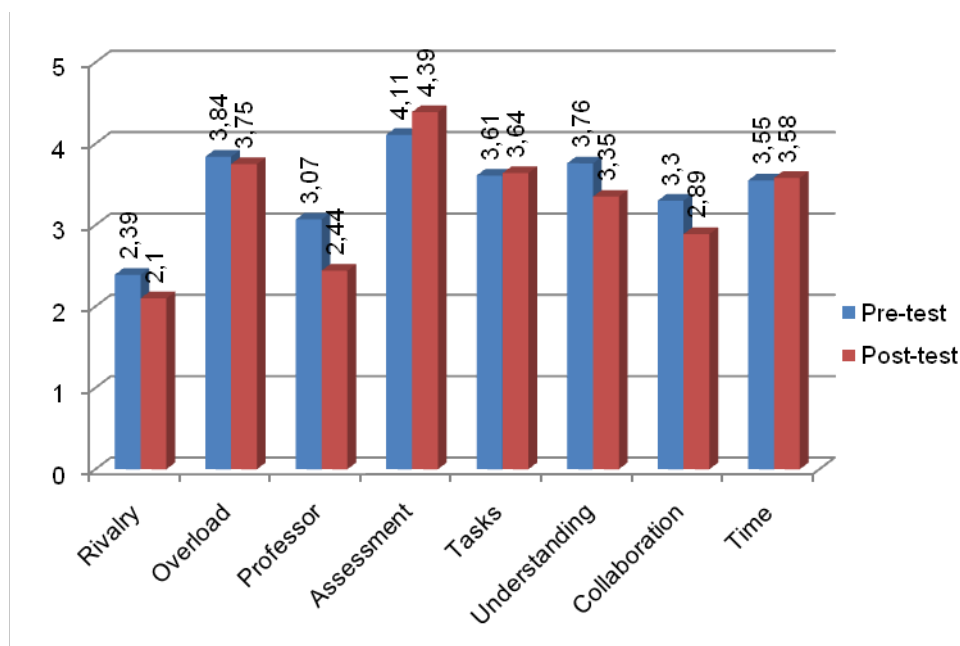
Graphic 3. Environmental stressful stimuli

The most stressful factor for the students are those situations related to assessment, finals most of all. This is a time when there is an average increase of the grading (averages 4,11 and 4,33). This is followed by concern for overload in tasks and projects (averages 3,84 and 3,75) which displays a slight decrease and the understanding of topics dealt with in class (average 3,76). This aspect moves down from third to fifth position (average 3,35) at the end of the year. The other environmental elements considered as stressful would be ranked, according to their importance, as: type of tasks required in class (averages 3,61 and 3,64), restricted time to make projects (average 3,55 and 3,58), class collaboration (3,30 and 2,89), the professor's personality and character (media 3,07 and 2,44) and finally, the competence of the classmates in the group (2,39 and 2,10).

If we analyze the answers, distinguishing among those of the men and those of the women, we can observe that the latter ones are those which suffer stress the most in each of the eight aspects we are studying.

	Pre-test		Post-test	
	Men	*Women*	*Men*	*Women*
Competence	2,27	2,35	1,97	2,11
Overload	3,56	3,91	3,09	3,90
Professor	2,98	3,10	2,12	2,52
Assessment	3,68	4,22	3,12	4,71
Tasks	3,41	3,66	3,09	3,76
Understanding	3,63	3,79	2,85	3,48
Collaboration	3,12	3,36	2,68	2,92
Time	3,27	3,62	3,15	3,66

Table 1. Environmental stressful stimuli

Comparing men and women in the pre-test, we find meaningful differences in the sections "task overload" (Z=-2,200; sig.: 0,026) and "assessment" (Z=-3,819; sig.: 0,000). In the post-test, differences are found among "task overload" (Z=-3,402; sig.: 0,001), "professor's personality and character" (Z=-2,141; sig.: 0,032), "assessment" (Z=-4,255; sig.: 0,000), "type of task" (Z=-2,290; sig.: 0,022) and "lack of understanding" (Z=-2,283; sig.: 0,022).

According to their importance, both groups establish a similar classification of stressful aspects in the university degree. The difference -apart from the degree- resides in that men place understanding and task overload in second and third position respectively, while women consider task overload and understanding the most stressful aspects –in the previously mentioned positions.

The analysis of the sample demonstrates that the treatment produces a drop in almost all stress levels in both groups. We find an exception in the women's group, where there is an increase of stress in three aspects: assessment, tasks and time. Globally, we find statistically meaningful differences between the first and second measures in half of the proposed stressful factors.

Stressful stimuli	Global		Male		Female	
	Z	Sig.	Z	Sig.	Z	Sig.
Rivalry to classmates	3,371	0,001			3,263	0,001
Overload of tasks and projects			2,310	0,021		
Professor's character and personality	5,167	0,000	3,359	0,001	4,057	0,000
Assessment (exams, projects,…)			2,505	0,012		
Kind of task required			2,218	0,027		
Lack of understanding by others	2,9	0,0	2,5	0,0		

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	24	03	04	12		
Class collaboration	3,515	0,000			3,001	0,003
Restricted time to make something						

Table 2. Stressful stimuli

From the gender point of view, the statistically meaningful differences are more accentuated in those men whose answers in the questionnaire display meaningful situations for 5 out of 8 aspects. In women, this is only expressed in three sections. The only aspect in which men and women display meaningful differences in a conscious way would be in the reduction of stress levels, provoked by the professor's personality and character.

b) Reactions to the stressful stimuli

The displays of stress have been studied in three aspects: physical reactions, psychic and behavioural.

The physical reactions to stressful stimuli of the students participating in this research display intermediate answer positions according to the scale, this is, answers are around value 3.

As can be seen, if we compare the averages of the two grading series, the answers to all sections slightly decrease.
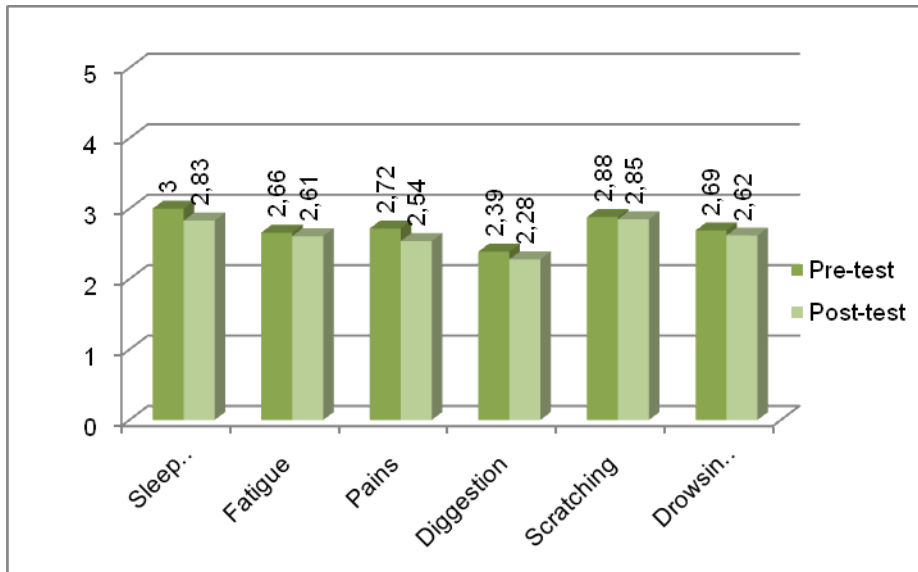
Graphic 4. Physical reactions to the stressful stimuli.

According to its importance, physical response to stressful factors would be, for the first value, sleep disorders, scratching or biting one's nails, head-aches, drowsiness, chronic fatigue and digestive disorders. In the second measurements, the positions change, finding that the most relevant physical response is scratching or biting one's nails, followed by sleep disorders, drowsiness, chronic fatigue, head-aches and digestive disorders. These differences can only be considered as statistically meaningful under the section of sleep disorders (Z=-2,042; sig.: 0,041).

As it happened when we dealt with the stressful factors, women display physical responses in greater intensity than men.

	Pre-test		Post-test	
	Men	*Women*	*Men*	*Women*
Sleep disorders	2,53	3,13	2,39	2,93
Chronic fatigue	2,27	2,77	2,18	2,70
Head-aches	2,22	2,86	1,67	2,76
Digestive disorders	1,90	2,52	1,97	2,35
Scratching...	2,54	2,96	2,36	2,94
Drowsiness	2,51	2,74	2,52	2,64

Tablae 2. Physical reactions to the stressful stimuli.

In the pre-test, men and women show meaningful differences between the groups for pre-test grades in these sections: "sleep disorders" (Z=-2,898; sig.: 0,004), "chronic fatigue" (Z=-2,472; sig.: 0,013), "head-aches" (Z=-2,890; sig.: 0,004) and "digestive disorders" (Z=-2,825; sig.: 0,005). In the post-test, we can find differences among "chronic fatigue" (Z=-2,082; sig.: 0,037), "head-aches" (Z=-4,326; sig.: 0,000) and "scratching, nail-biting" (Z=-2,025; sig.: 0,043).

The psychological reactions to those stressful factors also experiment a slight decrease in the participants´ average response in the five studied aspects. We found meaningful differences "in the feelings of being depressed/low or sad" (Z=-2,192; sig.: 0,028) and in "concentration problems" (Z=-2,110; sig.: 0,035).
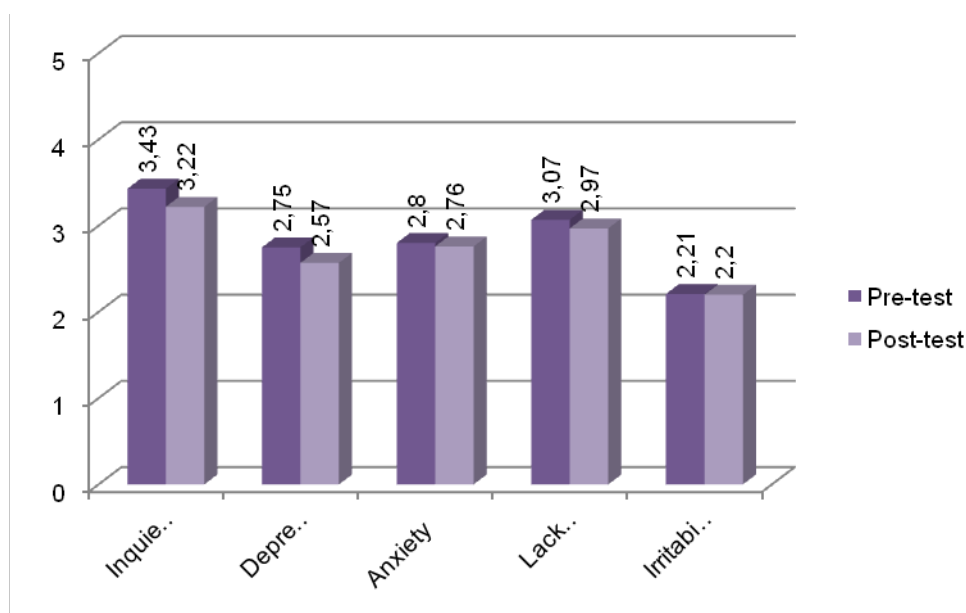
Graphic 5. . Psychological reactions to the stressful stimuli

In the chart, we can observe that restlessness and the lack of concentration are the two problems that students feel as the most relevant. These are followed by anxiety, depression and, finally, irritability.

Among the psychological aspects, women also demonstrate higher values than men in the five elements, providing meaningful differences in four out of the five sections of the pre-test: in restlessness" (Z=-2,491; sig.: 0,013), "depression" (Z=-2,485; sig.: 0,013), "anxiety" (Z=-3,681; sig.: 0,000), "lack of concentration" (Z=-2,575; sig.: 0,010).

	Pre-test		Post-test	
	Man	*Woman*	*Man*	*Woman*
Restlessness	3,02	3,54	2,62	3,33
Depression	2,34	2,86	2,18	2,64
Anxiety	2,20	2,97	2,12	2,89
Lack of concentration	2,71	3,17	2,79	3,01
Irritability	2,15	2,23	2,00	2,25

Table 3. Psychological reactions to the stressful stimuli.

Men's and women's answers to the post-test are meaningfully different in "restlessness" (Z=-2,808; sig.: 0,005), "depression" (Z=-1,998; sig.: 0,046), "anxiety" (Z=-3,105; sig.: 0,002).

With respect to the behavioural conducts which stressful factors provoke, we find those most intense are those of increasing or reducing food food-taking (average 2,78 and 2,57), unwillingness to make the activities (average 2,50 and 2,44), having conflicts or arguments (average 2,31 and 2,18) and, finally, being isolated from the others (average 1,94 and 1,79).
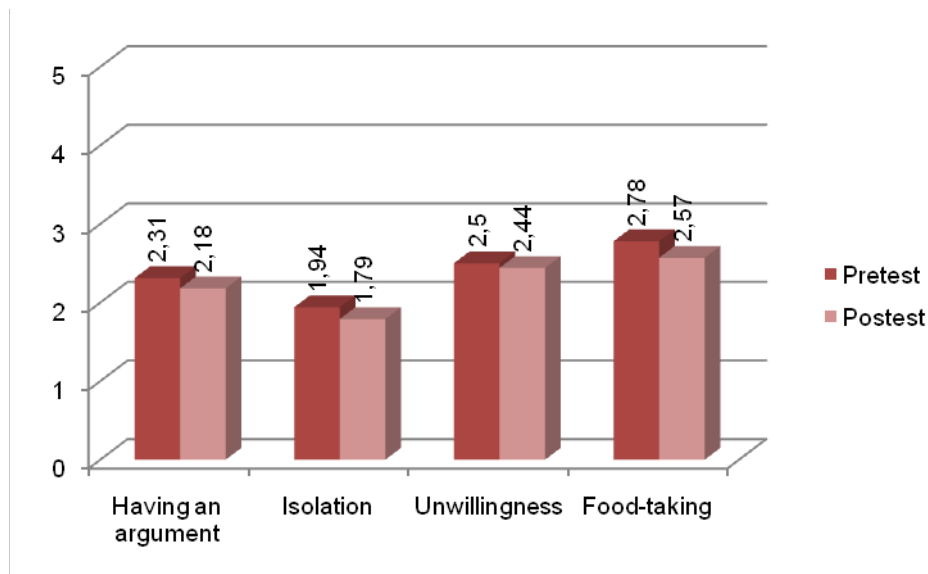
Graphic 6. Behavioural conducts.

Compared to the physical and psychological effects, behavioural effects are the least relevant, according to the participants´ answers to the scale. However, the treatment effects are present and meaningful differences can be found (Z=-2,190; sig.: 0,029) in the behaviour related to the increase or decrease of food-taking.

By gender, the analysis of the data maintains the tendency which happened in previous sections. It is women who grade more highly, even though when considering "unwillingness" roles are inverted and men display, for the first time, a higher grading (2,78 compared to 2,44).

	Pre-test		Post-test	
	Man	*Woman*	*Man*	*Woman*
Arguments	2,05	2,36	1,66	2,27
Isolation	2,05	1,92	1,70	1,82
Unwillingness	2,78	2,44	2,94	2,32
Food-taking	2,39	2,87	1,94	2,71

Table 4. Behavioural conducts.

If we compare the groups, in the pre-test there are meaningful differences in eating disorders (Z=-2,141; sig.: 0,032). In the post-test, differences are found between the tendency to having an argument (Z=-3,765; sig.: 0,006), unwillingness (Z=-3,150; sig.: 0,002) and eating disorders (Z=-3,010; sig.: 0,003). It is in this last section where we also find meaningful differences in the treatment effects within the group of the men (Z=-2,944, sig.: 0,003).

c) Management strategies

The research demonstrates that the strategies that students implement in order to reduce stress levels are mainly three: making a plan and carrying out tasks (average 3,43); assertion (average 3,42) and talking about the situation that worries them (average 3,41); and the least used, religiosity (average 1,74).
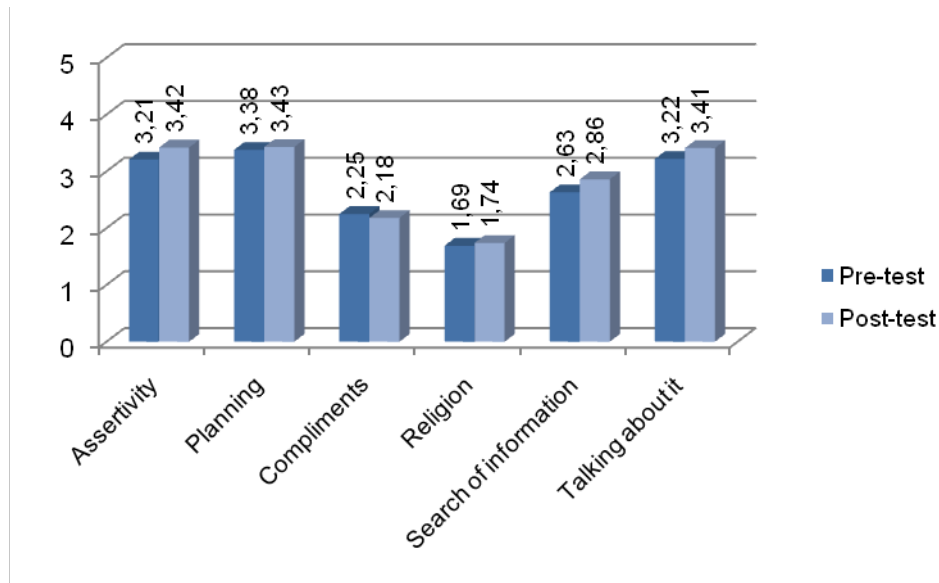
Graphic 7. Management strategies.

The information provided by gender demonstrates that men practice assertion, self-complimenting and information search slightly more than women, whereas women tend toward planning, religiosity or talking about their worries.

	Pre-test		Post-test	
	Man	*Woman*	*Man*	*Woman*
Assertivity	3,25	3,20	3,56	3,39
Planning	3,33	3,40	3,28	3,46
Self-complimenting	2,58	2,17	2,44	2,12
Religiosity	1,64	1,71	1,56	1,78
Search of information	2,73	2,62	3,20	2,79
Talking about their	2,5	3,3	3,1	3,4

worries	8	7	7	7

Table 5. Management strategies.

In spite of the previous data, these differences are only underlined as meaningful differences when comparing men and women responses in the post-test values. There we can find differences in talking about their worries (Z:-3,207, Sig.: 0,001).

In the following chart, the gradings are compared in order to check the treatment effects, at a global level both in the men's group and the women's group.

	Global		Man		Woman	
	Z	Sig	Z	Sig.	Z	Sig.
Assertive capacity	2,477	0,013			2,479	0,013
Planning and carrying out tasks						
Self-complimenting	2,419	0,016	2,228	0,026		
Religiosity						
Search of information about the situation	2,6	0,0			2,4	0,0

	4	0		1	1
	7	8		1	6
Talking about the situation that worries you	2 , 2 6 6	0 , 0 2 3			

Table 6. Management strategies.

As it can be observed, the implemented program has globally produced improvements, statistically meaningful in the assertive capacities, self-complimenting and the search of information about the situation. If we individually analyze the two groups of data in the men's group we can observe that the results are exchangeable in the search of information and self-complimenting. The effect in the women's group demonstrates meaningful improvements in their assertive capacity and in the search of information.

Conclusions

The present research project aims to know the effects of the introduction of a number of teaching methodological strategies on the university students´ stress levels. Consequently, those elements of the university routines that mean a source of stress for the student are identified, its physical, psychological and behavioural consequences are analyzed and the strategies used for its decrease are valued.

With respect to the stressful stimuli that affect university students the most, we can conclude that the most relevant are related to the assessment of their projects and exams –this is an aspect that would support discoveries by other research projects (Barraza, 2007; Celis et. al., 2001; De Miguel & Lastenia, 2006), task overload (Barraza, 2007b; De la Cruz et. al., (2005); Rodríguez, (2004); Solórzano & Ramos, 2006) and the restricted time to make an activity (Barraza, 2007; Solórzano & Ramos, (2006). In this sense, we can conclude that the implemented methodology has produced statistically meaningful tasks in the rivalry to other classmates, professor's personality and character, lack of understanding topics and the class collaboration.

From the gender point of view, women have higher stress averages (Barraza, 2009; González et al., 2009) in all sections and they have proven a higher inflexibility to change than men (Moreno et. al, 2006) with respect to the implemented program. While in the latter there have been changes statistically meaningful in 5 out of the 8 considered stressful factors –task and projects overload, professor's personality and character, assessment, the kind of required task and the understanding of topics-, the former group only display it in 3 out of the 8 –rivalry among classmates, professor's personality and character and class collaboration. As can be seen, both groups coincide in just one aspect.

With respect to the stressful stimuli reactions, we can indicate that the program effects have been limited since, although there has been a decrease in the behaviours, in some cases, the differences among the two series of gradings have

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been centesimal. Indeed, we can find statistically meaningful changes within some physical effects, improvements in the decrease in the sleep disorders (Barraza, 2007; De la Cruz, et. al., 2005), in the psychological problems: concentration problems and the feelings of sadness and depression decrease, and in behavioural problems where are reduced. We want to emphasize that in this section women provide higher averages than men in the diverse sections.

Concerning management strategies, we can conclude that men and women display differences in the use they make of them. The tendency among men is to use assertivity, self-complimenting and search of information more than women; women tend toward planning, religiosity and talking about their worries (Massone & González, 2003). The program implementation has had statistically meaningful effects in the improvement of the use of assertive capacities, self-complimenting and search of information, and, in the men's case, talking about the situation that worries them.

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Practical Actions for the Improvement of University Students' Motivation towards Study

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Introduction

The present project is part of a wider research project concerning the methodological strategies for teaching aimed toward the change of styles of competence-learning attitudes as developed by the University of Granada.

Within this project we have carried out a research about the practical actions that would help to improve the university students´ motivation toward study. This occurs from the necessity to work with the cognitive components related to learning's well as with those motivational components in order to increase the student's output and the academic learning.

The present research focuses on studying the existing links between motivational aspects and the use of learning strategies on the behalf of university students. We consider that, with the adequate motivation and a revision of the implemented assessment methods, the students´ meaningful learning can be boosted.

Competence learning and motivation

The acquisition of competences requires an involvement on the behalf of the student in his/her own learning process and that he/she applies the adequate cognitive strategies. Some elements, like the image he/she has of his/her own abilities, will make a difference in the aimed goals and in the planning, effort and persistence of the actions to be taken in order to reach such goals. Consequently, we can state that, when developing any activity, if the student feels that he/she has higher competence levels, he/she will devote more time and the motivation to such activity will be higher.

We can distinguish two kinds of motivation: intrinsic and extrinsic. Generally speaking, we can say that the intrinsic motivation is drawn from the activity itself, considering the activity as a goal itself. The student with this motivation will be prone to implementing an important mental effort during the making of this task. In the extrinsic motivation, the reasons to carry out the action are not motivated by the activity itself, but in an effort to attaining other goals which, in the educative field, are usually related with reaching recognition, avoiding failure, earning rewards, etc.

From a constructivist teaching point of view, university teacher must change the direction of his/her function. Instead of being an expert in a particular field, he/she must become a mediator of learning, placing the learning task to the student. The professor's job must rest in making all his/her best to:

- Facilitate his/her students´ intellectual access to the discipline contents and internships.
- Develop the "self concept"/self-image to boost the student's autonomy and the feeling of control and competence.
- Encourage empathy.
- Transmit the meaning of learning and the inner satisfaction it can generate.

Motivation improvement actions

In order to improve the motivation of the students, the teacher must integrate in his/her everyday routine a number of motivating strategies to be implemented before, during and after work, these must have specific subject contents.

From our approach, some of these actions of improvement could be:

- **Motivating strategies at the beginning of the sessions**. In order to promote work in the classroom it is necessary to encourage a creative atmosphere, ideal to transmit knowledge. In this sense, it is essential that teachers maintain a positive attitude toward the contents and students, and that they are able to provide motivating speeches for students to feel encouraged, giving the best of themselves and support them when they achieve success by congratulating them. The main actions to develop would be:

- Recognize the students´ previous knowledge; this will allow the teachers to get to know the students´ level and contextualize adequately the educative environment of each of the sessions to be developed.
  - Introduce the sessions, making a motivating activity for the student. The teacher can bring up some situations to attract the student's curiosity and attention. An example would be providing information not connected with the student's previously-acquired knowledge; this would make the student check the information so as to come with the solution to the contradictions, internalize and readapt his/her mental schemes.
  - Focus the student's attention, not in the rewards that he/she can achieve through the aimed task, but in the learning process.
- Before beginning each thematic block, the student is made aware of its usefulness, its possible applications, needs, etc. of mastering those contents, competences and attitudes.

- **Motivating strategies during the sessions**: During this period, the teacher must be aware of the need of changing the elements and contents of the tasks and student's strategies in order to hold their attention.
- This would be done by transferring the role of the teacher to the student, by making him/her be engaged in his/her own learning-building process and internalize, in a natural way, the contents, at the same time as he/she develops the skills to transmit knowledge. Making research projects and presentations, both individually and within a group, allow the students to build their own knowledge and exchange opinions, points of view, etc., consequently, these are

essential to reach this aim. These are also mediators in the teaching-learning building processes.

- It is vital to provide interesting examples where the students can check the usefulness and application of this knowledge and the social reality where they belong to.

- ***Motivating strategies at the end of the sessions.*** This is the moment of sending messages that encourage the student's self-confidence and to guarantee the continuity of the effort produced. Assessment here becomes a motivation element/tool by which the teacher can get to know the learning process carried out by the learner; it provides information concerning the levels of achievement in the students´ learning process, problems he/she found, etc. in order to introduce improvement measures.

- It is important to make the students get involved with the assessment processes. To be able to evaluate/assess a reality implies knowing and mastering it. The student will be more motivated and will feel to be mastering the situation if he/she elaborates assessment tests both for him/herself and his/her class-mates.

Method

Sample

The group of people used for reference from which the sample was selected is made up by students from the University of Granada who were studying during the academic year 2009-2010 some of these 4 degrees: Psycho-pedagogy, Pedagogy, Speech Therapy or Teaching.

The invited sample was made by 250 participants, of which, finally, 219 reported valid data. The students´ average age is 22 years-old of which, as can be followed in the chart, 80,4% are women mainly, and a 19,6% of men. The percentage among degrees ranged from 21,9% of Pedagogy, the group with the least number of representatives, and a 27,9% from Teaching school, the most numerous group.
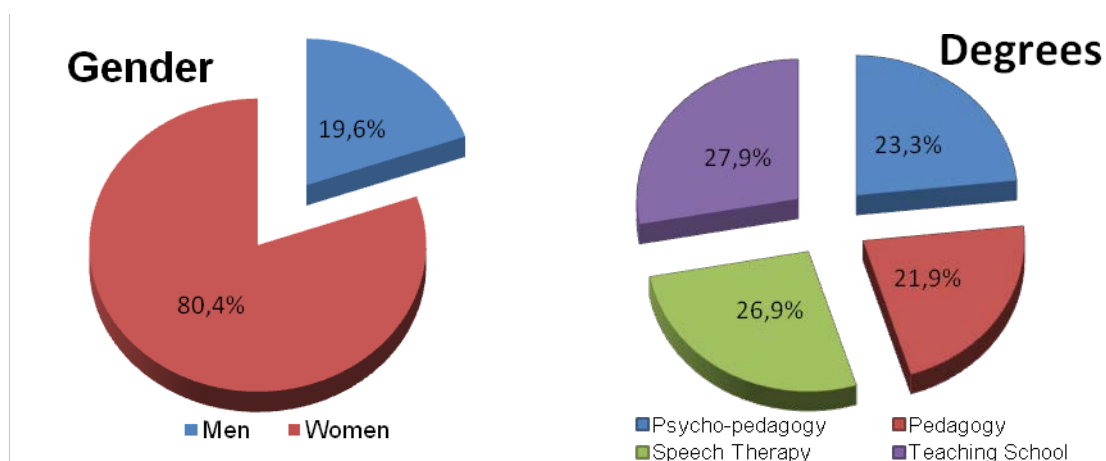
Procedure

We planned our work as a research of experimental character in which we considered measuring the students´ motivation at two different times: at the beginning of the academic year and at the end of it. We used the MSLQ scale.

Due to the wide number of degrees that the students were studying, we elaborated a methodology that would embrace all of them. This was afterwards adapted to the different subject, according to those contents and competences to be developed. We considered motivating strategies at three times/points: before, during and afterwards.

- *Motivating Strategies at the beginning of the sessions*: Sessions would be introduced by a problem (a text or a video), related to the subject studied, where the need and usefulness of the topic to be developed was displayed. Students had to reflect, individually, and afterwards, debate about the introduced material.

- *Motivating Strategies during the sessions*: The teacher would introduce the topic, contextualize it through examples about its usefulness in everyday situations. From this point on, students used the given material and spotting new information, they elaborated learning material for their classmates. They must present this elaborated material to the group.

- *Motivating Strategies at the end of the sessions*: Groups of students created an assessment test concerning the topics that they had studied. This test meant a percentage of the final grade.

Once the academic year had finished we collected the information about the students´ motivation using the MSLQ scale. The information was gathered in a post-test.

Tools

The given questionnaire has 31 items and it is a part of the *MSLQ Motivation Scale (Motivated Strategies Learning, Pintrich et al 1993)* used to evaluate the motivational orientation in university students. Those 31 items are grouped in 6 subscales, referred to the different motivational aspects, of the type Likert of 7, in which students tick their agreement/disagreement with the expressed statements in each of them. The lowest values indicate less agreement; the higher values indicate an agreement with the information in that item/ point.

These six subscales which refer to the different motivational aspects are: (1) intrinsic orientation goals, (2) extrinsic orientation, (3) task value, (4) self-efficacy belief, (5) belief of control over acquisition and (6) anxiety.

Subscale	Items
Intrinsic orientation goals	1, 16, 22 y 24
Extrinsic orientation goals	7, 11, 13 y 30
Task value	4, 10, 17, 23, 26 y 27
Self-efficacy belief	5, 6, 12, 15, 20, 21, 29 y 31
Belief of control over acquisition	2, 9, 18 y 25
Anxiety	3, 8, 14, 18 y 28

- *(1)* **Intrinsic orientation goals**. The four items that form this scale refers to the making of tasks by the sole benefit of the interest that the activity itself reports the students, perceiving it as a goal itself, and not as a means to reach other goals. It is understood that the intrinsically-motivated student will more likely select and make activities moved by interest, curiosity or challenge. In fact, the subject's literature happens to agree in considering intrinsic motivation or motivation toward learning as related to adaptable and boosting learning cognition and motivation patterns (Pintrich, 2000a).

- (2) **Extrinsic orientation goals**. This scale is made by four items that refer to the making of an activity for reasons that are not related with the activity proper, but to the reaching of other goals –of the kind: getting high grades, achieving recognition, avoiding failure, earning rewards, etc. (Pintrich & García, 1993; Pintrich*et al*., 1991; Pintrich, 2000a; Reeve, 1994).Consequently, it is more likely that an extrinsically-motivated student will be engaged in certain activities only if he/she is granted the possibility of obtaining external rewards. Furthermore, it is likely that he/she chooses easier tasks that can be solved providing the student with the sought reward or helping him/her to appear competent enough in front of other classmates.

- (3) **Task value**. The six items of the present scale refer to the assessment of the student considering how interesting, important and useful are those activities and materials of the course (Bong, 2001; 2004). The higher the grading of the activities, the higher the engagement and engagement in learning (Pintrich*et al.*, 1991) and a better academic performance (Bong, 2001; Pintrich, 1999);while these also imply the use of cognitive strategies which lead to a deep reasoning of the information and quality of the learning experiences (Schiefele, 1991).

- (4) **Self-efficacy belief**. This scale is made up by eight items which make reference to the belief of the students in their own ability to make those required tasks for the course. The fact of perceiving themselves as efficacy increases the intrinsic motivation, while believing oneself as not competent for a task decreases or reduces it (Huertas, 1997).

- (5) **Belief of control over acquisition**. The four items that are part of this scale refer to the students´ belief in the degree of control over their own learning and the obtained

results (Pintrich*et al.*, 1991; Pintrich & García, 1993). Control can be considered by the participant as an internal or external factor –external, like fate, received help,

- (6) **Anxiety**. *The five topics that make this scale prove the cognitive and emotional components of anxiety.* Worries, concerns, or cognitive component, refers to the students´ negative thoughts which can affect his/her performance by worsening it or emotionally blocking him/her.

Results

After collecting the information from the 31 items of the MSLQ scale, this was analyzed depending on the 6 subscales in which they are organized.
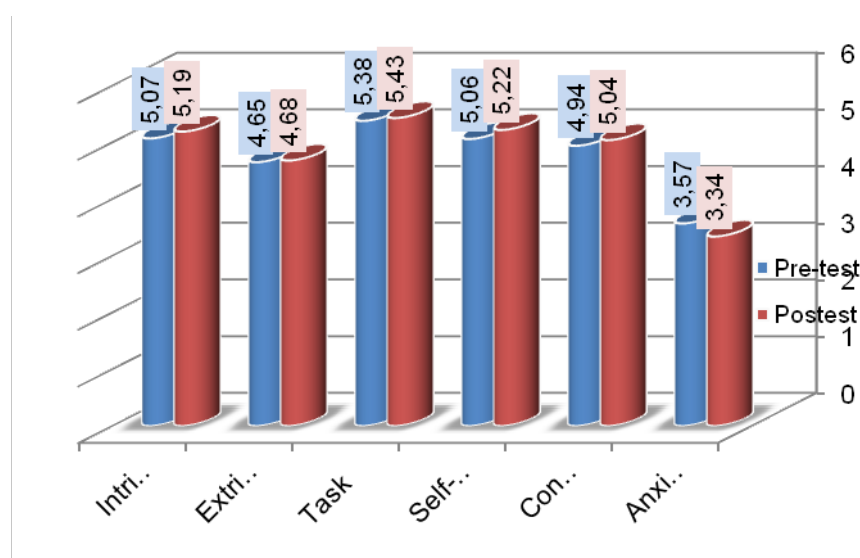
As detailed in the above chart, if we compare the pre-test values with those of the post-test, in all the cases there has been a slight increase of the grading. In the intrinsic orientation goals, values increase a 0,12; for the extrinsic orientation goals, it increases a 0,03; task value increases in 0,05; self-efficacy belief improves in 0,12 points; belief of control increases a 0,1. The last subscale, anxiety, is measured in reverse numbers, thus, the lower the values, the lower will be the anxiety: it falls down to 0,23 points.

From the inferential point of view, implemented to the test of Wilcoxon, we can observe relevant differences exclusively affecting the Anxiety subscale.

Subscale	Z	Sig
Intrinsic orientation goals	1,126	0,260
Extrinsic orientation goals	0,134	0,893
Task value	0,403	0,687
Self-efficacy belief	1,511	0,131
Belief of control	0,297	0,766
Anxiety	3,053	**0,002**

Even though, globally speaking, only relevant differences are found in just one subscale, if we analyze it individually there are more topics where we can appreciate the effect of the implemented program.

a) Intrinsic orientation goals

Intrinsic orientation goals	Pre-test	Post-test	Z	Sign
Session contents are challenging	5,13	4,84	2,675	**0,007**
Contents promote my curiosity, although these may be difficult to learn	5,02	5,35	2,235	**0,025**
Satisfaction in grasping the contents	5,33	5,91	4,624	**0,000**
I prefer tasks where learning is done	4	4	1	0

independently from the grades	,81	,67	,410	,159

In this subscale we find meaningful differences in 3 out of 4 topics that make it. Intrinsic motivation has increased in a way that students value more highly those contents which are challenging (significance: 0,007) and promote their curiosity (0,025). For them the fact of trying to grasp contents is satisfying (0,000). Also clear is that the grading obtained by the students for a particular subject is a relevant element. In the post-test, which was passed days before the finals, there is a clear decrease in 0,14 points.

b) Extrinsic orientation goals

Extrinsic orientation goals	Pre-test	Post-test	Z	Sign
Satisfaction in achieving a good grade	4,70	4,54	2,103	**0,035**
Main interest in achieving a good grade	4,93	5,11	0,32	0,74

	Pre-test	Post-test	Z	Sign
			2	8
Achieving better grades than other classmates	4,61	4,49	0,847	0,397
Display my skills to family, friends...	4,33	4,61	2,139	**0,032**

Extrinsic motivation has also displayed an improvement, statistically meaningful when demonstrating others those abilities the participant possesses (0,032). This aspect as we can appreciate in the first item, does not have to be exclusively related to good grades, a fact that, in this case, receives lower punctuations in the post-test.

c) Task value

Task value	Pre-test	Post-test	Z	Sign
Ability to use what has been learned in other fields	5,60	5,73	0,825	0,410

Importance of learning the contents	5,45	5,73	2,278	**0,023**
Interest in the contents	5,14	5,15	0,347	0,729
Usefulness in learning the contents	5,73	5,80	0,196	0,845
Liking the subject	5,29	5,08	2,707	**0,007**
Importance of understanding the subject	5,08	5,15	0,472	0,637

The task value is the subscale where we find less meaningful differences when analyzing the topics. It is worth stressing the outstanding growth when noticing the importance of mastering the subjects´ contents. The comparison of the average ranks shows a difference of 0,28 points, which would be related to the usefulness of learning certain contents (0,007).

d) Self-efficacy belief

Self-efficacy belief	Pre-test	Post-test	Z	Sign
They believe themselves able to achieve excellent grades	4,46	4,80	2,0440	0,0041
Being sure of understanding the most difficult readings	4,76	4,42	3,0556	0,0002
Confidence in learning basic concepts	5,71	5,98	1,7336	0,8330
Confidence in understanding the most complex contents	4,99	4,53	3,7144	0,0000
Confidence in making class projects and excellent exams	4,8	5,2	2,1	0,0

	8	3	80	**29**
Confidence in making a good performance	5,47	6,25	6,222	**0,000**
Being sure of mastering the learned skills	5,01	5,18	1,211	0,226
Good results taking into account the teacher and possessed skills	5,20	5,38	1,047	0,295

The intervention implemented produced an improvement in the students´ confidence with respect to their efficacy when carrying out the activities they can do. This increases 0,78 points. During the academic year, the students have understood that they were able to perform more difficult readings (0,002) facing more complex contents (0,000) and to manage difficulties associated to carrying out class projects and exams (0,029).

e) Belief of control

Belief of control	Pre-test	Post-test	Z	Sign
An appropriate study enables to learn the contents	5,31	5,86	4,237	0,0000
Self-blaming for not learning	4,70	4,57	1,221	0,2222
With enough effort, contents are understood	5,52	5,79	2,467	0,014
Not understanding the contents with little effort	4,22	3,98	2,856	0,004

With regard to the control over the own learning, this research displays the existence of meaningful differences in 3 of the 4 items which make the subscale. With the implemented treatment, the students have consolidated their belief in that the learning of certain knowledge is related to his/her efforts in studying it (0,000) and that, with the appropriate investment of time, any content can be grasped (0,014). Their way of thinking has also changed: before they believed that the fact of not understanding certain contents was due to little efforts employed in it; now, they take into account that this can be due to other elements (0,004).

f) Anxiety

Anxiety	Pre-test	Post-test	Z	Sign
Poor performance as compared to others	2,94	2,88	0,249	0,803
I think of the questions I couldn't answer	4,52	4,80	1,723	0,085
Thinking of the consequences of failure	4,2	3,8	2,2	**0,0**

	5	6	0 2	**2 8**
Feeling anxiety in class	2,58	1,99	2,467	**0,014**
Feeling anxiety during exams	3,58	3,11	2,448	**0,014**

As mentioned above, the anxiety of those students who have worked with this methodology has been reduced. Levels of anxiety have been reduced and meaningful differences appear in three basic aspects: the perception of anxiety in class (0,014) and in exams (0,014) and in the lower value of the consequences of failure (0,028).

Conclusions

The conclusions presented in this research have deep implications for learning, mainly in the removal of the focus of the educative process from the teacher to the student. There was a progressive recognition of the role held by the motivational and affective variables in the performance of the cognitive tasks. Learning not only depends on the knowledge of strategies required in order to carry out the task, but also on the student's motivation.

Positive motivational beliefs like high levels of intrinsic motivation, task value and self-efficacy would be associated to a greater cognitive engagement and self-regulation on the behalf of the students. This fact affects directly in an improvement of the grading and in a greater task performance. However, when the students are not motivated to

achieve certain learning, the reaching of the aimed goals is reduced and the construction of the students´ own knowledge is damaged.

Students who possess this intrinsic orientation of the learning contents claim that the success and failure in their studies is attributed to the invested effort; while those students with extrinsic orientation, who are worried about demonstrating their skills, attribute their success to their ability, not to their efforts.

In our research, we observe how students value more positively those contents that are challenging for them and promote their curiosity. This was previously stated by Csikszentmihalyiin 1973, stating that intrinsically-interesting activities are highly challenging.

Concerning *the task value*, students value class-programmed activities and the materials with which they work (García & Pintrich, 1996; Pintrich & García, 1993; Pintrich*et al*., 1991). Whether students confer importance and consider activities and materials adequate or not, resides in the fact that valuing a task highly could lead the students to be more engaged in their own learning (Pintrich*et al.*, 1991).

We can state that, for the students, the learning of contents is very important and this is why they value the aimed task so positively, conferring an outstanding importance to mastering the subject contents. On the other hand, the fact that the students are interested and value the aimed tasks seems to have positive consequences on the results of the learning process, the use of cognitive strategies and the quality of the learning experiences (Schiefele, 1991).

Academic tasks become compulsory in order to hold the students´ interest and motivation. If a student does not know the purpose of a task and he/she cannot relate such purpose to the understanding of the implicit task and with his/her needs, the student will difficultly be able to carry out such activity successfully.

The *self-efficacy for learning* is associated to the belief in the skills that the students deal with.

The group general tendency has proven positive after comparing the pre-test and the post-test. The process of intervention before, during and after the sessions´ development has produced an improvement in the students´ beliefs with respect to their efficacy when carrying out the activities adequate for them. For example, they were able to make more difficult readings, facing more complex contents and those difficulties associated to making projects and exams.

With respect to the *belief of control* over the own learning, this research demonstrates the existence of differences that, although globally they do not seem meaningful, if we value item by item, we observe that at the beginning of the course students have less control over their own abilities and the teacher is who controls the subjects course. As the subject progresses, students take control of their own actions, consolidating their belief in that learning a particular content is related to the study efforts and that, any content can be mastered, given that enough time has been invested in its grasping. If this does not occur, there are other –external- factors that can be affecting the learning process.

The students´ *anxiety* was reduced, comparing it before and after the intervention. This was due to the meaningful decrease of the anxiety levels, not just at a general level, but also at three of its basic components: the feeling of anxiety in class, during exams and the drop of the feeling of failure. This can be explained in an effective manner, by analyzing the used methodology along the year and by modifying the idea that students have of the exams, through their self-assessments and by knowing the procedures to follow when asking questions; these make them more able and efficient when facing them. For all these, anxiety levels happen to be meaningfully reduced.

In short, we must take into account that, in topics related to the university performance, it would be ideal to promote the students´ use of tools, tools which encourage the development of motivational patterns. These patterns are characterized by a high intrinsic interest in the task, focusing on the efforts, using effective strategies, becoming actively engaged in their own learning process and, as a consequence of their self-assessment of knowledge, which would lead to encouraging academic performance and the acquisition of contents.

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Effectiveness of Student Evaluation of Teaching from the view point of University Teachers and Students: Results from Iranian Higher Education Settings

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Introduction

In this era of standards and accountability, institutions of higher education have increased their use of student rating scales as an evaluative component of the teaching system (Seldin, 1993). Virtually, all teachers at most universities and colleges are either required or expected to administer some type of teaching evaluation form to their students at one or more points during each course being offered. (Dommeyer, Baum, Chapman, & Hanna, 2002). There are thousands of articles and books dealing with the extremely complex research on SET (SET). The quantity of research is indicative of the importance of SET in higher education. While some studies have found that using SET is generally a valid method of assessment, others have found it to be flawed (Steiner et al., 2006). In spite of these inconclusive results and concern about them shared by many in academia, SET is still the most common measure of teaching effectiveness in use today in Iranian higher education system. In short, SET is an integral part of higher education practices in most countries. One of the most important benefits of student ratings worth mentioning here is that the process of designing or filling out the forms encourages teachers and students to reflect on their educational experiences, and as a result, develop clearer conceptions about what efforts they

must make in order to achieve better teaching and learning results. There are basically two types of evaluation: summative and formative. *Summative evaluations* occur usually at the end of the teaching of a course and are used to calculate a final assessment. *Formative evaluations*, on the other hand, are nearly always immediate feedback to bring about changes while a course is being taught. Despite the perceived importance of SET, there are some concerns related to the assessment of teaching effectiveness that are yet unresolved. The primary concern about the use of SET is the issue of whether or not they actually measure teaching effectiveness. There is little agreement as to what constitutes effective teaching. The second major concern entails bias. A further problem concerns the validity of the results that are drawn from SET data due to the lack of statistical sophistication in the personnel committees that may use the information (McKeachie, 1997). Overall, research on the effects of extraneous variables on the validity of SET suggests the need for caution in the interpretation of this data.

Usually, it is assumed that student ratings serve three main purposes (Howell & Symbaluk, 2001). The first is to aid administrative evaluations by measuring teaching effectiveness, which is an important criterion for decisions on matters such as pay increases, promotion, and tenure of college faculty (Carter, 1989). The second purpose of student ratings is to help students select courses and instructors. Most students consider student ratings a valuable resource for such decisions, though faculty members often raise concerns about the publication of these evaluations (Coleman & McKeachie, 1981; Howell & Symbaluk, 2001; Wilhelm, 2004). The focus of the present article lies on the third purpose of student ratings of teaching, which is to help teachers improve their teaching by providing them with feedback. Several authors have pointed out that both short and long-term effects should be taken into account when considering the impact of student ratings on the improvement of teaching (Armstrong, 1998; Greenwald & Gillmore, 1998). Long-term effects are particularly important because the majority of teachers remain in higher education institutions for several years and receive regular feedback in the form of student ratings. Nevertheless, previous research has focused almost exclusively on the short-term effects of feedback from student ratings; empirical research on the long-term effects is very limited. This prompted Greenwald and Gillmore (1998) to call for new research on the

long-term effects of feedback from student ratings. In response, we conducted a study to investigate systematically the effects of regular student feedback on the effectiveness of university teaching over a period of several semesters. The main purpose of the research was to examine effectiveness of SET from the views of faculty members and students of the three universities in west of Iran. Research questions are as follows:

1. Is there any significant difference between students' and faculty members' view regarding effectiveness of SET?

2. Is there any relationship between students' demographic variables and their view regarding effectiveness of SET?

3. What are faculty members' views on applying different sources of evidence of teaching effectiveness?

4. Does SET affect on teaching quality improvement from the faculty members' view?

5. Does SET affect on teaching quality improvement from the students' view?

6. Is there any relationship between faculty members' demographic variables and their views regarding effectiveness of SET?

Methods

For the current study, the descriptive method of research was used. This quantitative investigation employed the survey method as its research design.

Sample

Higher education institutions included in the data collection consists of three universities, University of Kurdistn, Razi University and Buali Sina University. For the current study, the sample was comprised of two groups:

1) Faculty member sample consisted of those teachers who were working at the universities of (Kurdistan, Razi and Buali Sina. A total of 300 questionnaires were distributed to all concerned faculties for collecting the data. For ease of the

comparison similar departments and faculties from all universities were included in the study. Two hundred and sixty questionnaires were returned, of which 3 were discarded because of missing data. Therefore, the number of usable questionnaires was 257 and the response rate was 83.25% (246 males and 11 females).

2)   Student sample included undergraduate students who were staying in the aforementioned universities. Stratified random sampling technique was used for the selection of the sample *and totally 600 students were chosen as* the second group of the research sample (293 males and 307 females).

Instruments

Theoretically based, reliable and validated instruments were used to measure faculty members and students' perceptions of the effectiveness of evaluation of teaching. The instruments were pilot tested on samples to assess the internal reliability of each dimension. The results indicate that internal consistencies (based on Cronbach's alpha) are very high and ranges between .86 and .88.

Both questionnaires began with a demographics section to examine any demographic factors that might have influenced participants' responses. It included gender, age, and for faculty members the professional position and years of work experience in Universities were taken into account. Following the demographics section, in the students' version questionnaire, instructions about how to complete items were provided along with a definition of teaching effectiveness variables. The questionnaire consisted of items measuring instruction effectiveness subscale that participants had observed in courses, as well as faculty members' general opinions about sources of evidence of teaching effectiveness. A total of 30 items made up the questionnaire. The responses for items questionnaire were based on five-point Likert scale anchored with strongly agree and strongly disagree. The first 17 items inquired general opinions regarding the effect of students evaluation of teaching on instruction effectiveness and the next 5 inquired creating (developing) a total quality system. Afterward, eight items allowed participants to report their view regarding some factors that work as *hallo effect* in evaluation process. Finally, a set of 16 questions were

asked of faculty members regarding the sources of evidence of teaching effectiveness. SPSS® version 17 for Windows was the statistical software program used to perform all procedures. For the data analyses exploratory data analysis, descriptive statistics, independent sample t-test and ANOVA were employed.

Results

Relatively high response rates were achieved. The results from the 30- item survey's are grouped below based on six primary research questions which they addressed.

The first question asked "Is there any significant difference between students and faculty members' view regarding effectiveness of SET?" For this purpose, means scores of faculty members and students' views regarding teaching effectiveness sub-scales were compared using the independent samples t-test. The results are highlighted in Table 1.

Table 1.

Comparison of Faculty Members and Students' View Regarding Main Variables

Main Variables	Faculty Members(N =257)		Students (N=600)		t-value (df =855)
	M	SD	M	SD	
Instruction effectiveness	3.44	.69	3.10	.65	6.84**
Hallo effect	3.65	.31	3.61	.30	2.85**

Note: *$p < 0.05$ and **$p < 0.01$

Table 1 shows descriptive statistics and *t*-values for variables in the study. This test analysis indicates that the 257 faculty members have a mean of 3.44 and 3.65 on the research scale (with two subscales), while the 600 students have a mean on 3.10 and 3.61. The two-tailed significance test indicate (*t*= 6.86 and *t*= 2.85, *df*= 855, P<.01) that there is a significant difference between faculty members' and students' view. Our overall conclusion is that faculty members were more agreeable with effectiveness of students teaching evaluation than students.

The second question asked "Is there any relationship between students' demographic variables and their views regarding effectiveness of SET?" For this purpose, at first means scores of female and male students' views regarding teaching effectiveness sub-scales were compared using the independent samples t-test. The results are highlighted in Table 2.

Table 2.

Comparison of Male and Female Students' View Regarding Main Variables

Main Variables	Females (N=307)		Males (N=293)		*t*-value (*df*=598)
	M	*SD*	*M*	*SD*	
Instruction effectiveness	3.11	.66	3.10	.64	.033
Hallo effect	3.14	.49	3.02	.41	3.02**

Note: *p* < 0.05 and **p* < 0.01

Table 2 shows descriptive statistics and *t*-values for variables of the study. This test analysis indicates that 307 female students have a mean of 3.11 and 3.14 on the two research subscales, while the 293 male students have a mean on 3.10 and 3.02. The two-tailed significance test indicates (*t*= 3.02, *df*= 598, P<.01) that there

is a significant difference between male and male students' view regarding hallo effect subscale. Our overall conclusion is that female students were more agreeable with this notion that some factors like teachers' charisma and leniency of/ affect on students perception of effectiveness of teaching evaluation than their male counterparts.

The third question asked respondents: "What are faculty members' views on applying different sources of evidence of teaching effectiveness?" To rank sources of evidence of teaching effectiveness from the faculty members' view, the Freidman nonparametric test was applied. Mean ranks for each source and test statistics are shown in the Table 3.

Table3.

The Rank of Sources of Evidence of Teaching Effectiveness

From Faculty Members' View

Sources			Mean	X^2r	df.	Sig.
	Mean	SD	Rank			
1. Student rating	3.48	1.11	9.63	522	15	.000
2. Excellent students	3.84	1.06	11.3			
3. Alumni rating	3.92	.886	11.7			
4. Peer ratings	2.88	1.06	6.83			
5. Department head	3.07	1.15	8.12			
6. Administrator rating	2.74	.974	6.32			
7. External experts	2.99	1.25	7.71			
8. Self-evaluation	3.26	1.03	8.84			
9. Videos by self	3.13	1.2	8.48			
10. Videos by peers	2.80	1.22	6.91			
11. Students interviews	3.28	1.07	9.17			
12. Employers	2.78	1.03	6.63			
13. Teaching scholarship	3.03	1.15	7.69			
14. Teaching awards	3.51	1.05	9.97			
15. Learning outcomes	2.89	.962	7.20			
16. Entrance exams	3.35	.990	9.56			

Table 3 shows that the ranks are not randomly distributed across the sources and mean rank for each approach is not similar to each other. The level of agreements regarding sources of evaluation from the Iranian faculty members' view were significantly different (X^2r=521.98, *df* =15 *p*<0.001). The highest and lowest mean ranks belonging to "alumni rating" and "administrator rating", respectively.

It should be noted that, in respect to other students' demographic variables results showed that there were no significant relationship between age, semester, major and university variables with their view regarding effectiveness of SET.

The Fourth question asked: "Is there any relationship between faculty members' demographic variables and their view regarding effectiveness of SET?" Results indicate that faculty member' demographic variables (designation, type of

recruitment, major, years of teaching experiences and university) have no significant relationship with their view regarding effectiveness of SET.

The Fifth question asked: "Does SET affect on teaching quality improvement from the faculty members' view?"

Table 4.

Faculty members' View Regarding Main Variables

Main Variables	N	M	SD	t-value	df
Instruction effectiveness	257	3.44	.69	79.29**	256
Total quality system	257	3.97	.70	67.49**	256
Hallo effect	257	3.67	.58	102.01**	256

Note: *p* < 0.05 and **p* < 0.01

The means of faculty members' point of view in all cases were greater than the population value of 3. A one sample t-test showed that the t-values were significant P<.01. These results reveal that faculty members reported that the results of teaching evaluation have impact on their instruction effectiveness, and on developing a total quality system in universities. In addition, they were agreed with this statement that some teachers' personal factors throughout the evaluation process could work as a hallo effects.

Moreover, the final question asked respondents: "Does SET affect on teaching quality improvement from the students' view?"

Table 5.

Students' View Regarding Main Variables

Main Variables	N	M	SD	t-value	df
Instruction effectiveness	600	3.10	.65	116.30**	599
Hallo effect	600	3.008	.46	163.66**	599

Note: *$p < 0.05$ and **$p < 0.01$

The means of students' point of view in both two conditions were greater than the population value of 3. A one-sample t-test showed that these were significant, $P<.01$.

These results reveal that students reported that results of teaching evaluation have impact on their instruction effectiveness, as well as developing a total quality system in universities. In addition, they were agreed with this statement that some teachers' personal factors throughout the evaluation process could work as a hallo effects.

Conclusion

The importance of the quality of learning and teaching is a primary objective of every university and is a precondition for achieving and maintaining excellence in teaching. Evaluation as a critical element plays an important role in this regard. It serves unique professional development purposes as well as border purposes involving comparison. Both purposes are legitimate and both kinds of evaluation are to be encouraged by universities. One of the most important benefits of

student ratings worth mentioning here is that the process of designing or filling out the forms encourages teachers and students to reflect on their educational experiences, and as a result, develop clearer conceptions about what efforts they must make in order to achieve better teaching and learning results.

Based on the results of this investigation it appears that SET has some significant effects on effectiveness of teaching from the faculty members' view. This results is consistent with Burojeredniya (2003), Arabkharadmand & Hajiaghajani (1997), Shakorniya *et al*., (2000) findings. In addition, the results show that SET has some significant effects on establishing a total quality system teaching from the faculty members' view. On the other hand, faculty members reported their agreement with this notion that some hallo effects like teachers' charisma and leniency affect the result of teaching evaluation.

Most of the teachers reported that it is necessary to organize some briefing sessions regarding goals and philosophy of teaching evaluation for students. It is interesting that most of students showed that that they need to attend justification sessions before completing teaching evaluation forms. Totally, only a low portion of faculty members satisfied with the current strategies to measuring teaching evaluation in Iranian universities. Both faculty members and students' demographic variables, in general, could not show any significant effect on evaluation of teaching effectiveness. Faculty members ranked administrator and alumni rating source were in the lowest and highest levels, respectively. Overall, the most favourite approaches for faculty members were excellent graduates and excellent student.

The study presents a challenge to the use of SET in higher education system in Iran and, in particular, raises questions about fairness if such ratings are to be used in decisions relating to employment issues. The findings suggest that SET should be applied cautiously in faculty performance evaluation. Finally, it is recommended that a more extensive study be completed to examine more comprehensively the question addressed in this investigation.

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Factors Contributing to the Learning Achievement of College Students

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In this study the researchers tried to explore factors that could effectively differentiate the high achievers from low achievers of college students. As the growing numbers of colleges and decreasing birth rate, it became much easier to be admitted into a college in Taiwan. In the past decades, the number of colleges as well as the number of college students increased rapidly in Taiwan, that about 72.07% of young adults aged between 18 to 21 were attending colleges in 2005, and only 9.83% in 1981 (Hwang, 2006). As a result, some of our colleagues complained that the academic performances of college students drop rapidly in recently years. It urged the researchers to study factors that contributed to learning achievements and to find out the ways to improve the academic performances of college students.

Factors related to students' learning achievements can be classified into two categories, namely situational factors and personal factors. Situational factors refer to the nature of curriculum and the evaluation processes. For examples, studies have shown that how teachers teach could have effects on students achievements (Ali, Tariq, & Topping, 2009; Shaftel, 2005). Personal factors referred to demographic backgrounds (Feng, Pan, & Chen, 2007; Jansen & Bruinsma, 2005; Luh & Lu, 2011; Yen, Liu, Liu, Lai, Huang, & Huang, 2006; Wei, Hou, Yang, 2005; Williams, 2010), the cognitive abilities (Ginsburg, 1997; Hegarty, Mayer, & Monk, 1995; Jordan & Montani, 1997; Lu, 2002), achievement motivation (Bandura, 1977; 1997 ; Chen & Zimmerman, 2007 ; McKenzie, Gow, & Schweitzer, 2004; Schiefele & Csikszentmihalyi,

1995 ; Schunk, 1984 ; 2000), learning strategies (Cassidy & Eachus, 2000; Haynes, Ruthig, Perry, Stupnisky, & Hall, 2006; Lindblom-Ylanne, 2004; Peniston, 1994), and so on. In the present paper, different aspects of personal factors would be investigated.

Most of studies have shown that the factors listed above could have effects on learning achievements. In addition, the factors are inter-correlated in some way. Therefore, it triggered the researchers to explore the key factors that could have effects on learning achievements when various aspects factors were counted. In this paper, researchers would like to explore how the personal factors, including demographic backgrounds, perceived cognitive abilities, learning strategies, and motivation could differentiate the low achievers from high achievers. Factors of personal background referred to the college entrance systems that the students were admitted. Perceived cognitive abilities referred to abilities of self-monitoring, memory, and pre-requisite knowledge for learning. Learning strategies referred to any behaviour that could enhance ones' learning achievements. Motivation referred to students' interests in the courses and how much they involved in the course works. All of the factors were measured with a self-report questionnaire designed by the researchers.

College Entrance Systems and Academic Achievements

In Taiwan, students can be admitted to a college by various different systems. At the university this study was conducted, most students were admitted through any of the five systems, namely conventional, recommended, applying, athlete excellent and transferring. Over 50% of the students were conventional and took a joint-examination held in each July and were admitted based on their performance in the examination. Their admissions were based on their performances on the joint-examination exclusively. About15% of the students were recommended and had to take High School Basic Subjects Exam (HSBSE) held in February. For the recommended students, limited numbers of applicants in each department were allocated to each high school, and students were

recommended with their performances at high school as well as their performances during the interview, in addition to their performances in HSBSE. About 20% of the students applied for the university by themselves and followed similar procedure as the recommended, except that they were not recommended by their high schools. Less than 2% of the students were admitted based on their excellent performance as an athlete. About 5% of the students transferred from other universities at the sophomore or senior grade. Students of different admissive systems could have different prior knowledge before entering the university, and could perform differently academically as a result.

One of the factors explored in this study was the college entrance system. Students who entered the college through different systems were recruited by different standards. For example, the recommended students have to present their performances of various aspects during three years at high school, whilst the conventional students were admitted base on the performance on the joint-examination exclusively. The differences in the standards could have effects on students' academic performances at college.

The effect of entrance systems could also interact with the disciplines or schools. Researchers have found that students admitted form different systems might perform differently of different disciplines at different universities (e.g. Feng et al., 2007; Luh & Lu, 2011; Yen et al., 2006; Wei et al., 2005). Fen et al. (2007) analyzed the academic performances of students of the department of health administration of different entrance systems and found that the academic performances were not related to the entrance systems, while the affective domains toward learning were related to the entrance systems, that the recommended students scored higher than the conventional students. Wei et al. (2005) analyzed the academic performances of medical students and found that the recommended students performed better than the conventional. Both of these two studies revealed that recommended students could perform better than the conventional students either in the academic or affective domains. However, study of a tourism college showed that the conventional students performed better than the recommended students (Chiu & Shu, 2011). Results of these studies showed that students of different entrance systems could perform differently at

colleges and the recommended students were not necessary outperforming the conventional peers at all schools.

The differences in their academic performances could be related to their family backgrounds. Tien & Tien (2008) applied multinomial logic models to analyze the data of Taiwanese Higher Education Database and found that college freshmen admitted from different systems differed in their family backgrounds, personal characteristics and achievements at high schools. That is, students of different entrance systems differed in their demographic backgrounds before they entered a college. Students' demographic backgrounds related to their academic performances (Flere & Lavrič, 2005; Lareau & Wieninger, 2003; Rangvid, 2007; William, 2010). Therefore, students of different entrance systems could differ in academic performances based on their demographic backgrounds. In addition, other personal factors, such as students' self-efficacy or learning strategies could relate to their demographic backgrounds (Bandura, Barbaranelli, Caprara, Pestorelli, 1996; Leutwyler, 2009; Lynch, 2008). As a result, the effect of entrance systems could inter-correlate with other strategic or motivational factors. In the present study, the researchers would like to explore how the entrance systems could have effects on students' academic achievements while the other personal factors were counted.

Perceived Cognitive Abilities and Academic Achievements

Researchers had found that academic achievements related to cognitive achievements. The cognitive abilities relating to academic performances include ones' self-monitoring skills, memory, pre-requisite knowledge, and other information processing abilities (Ginsburg, 1997; Hegarty, Mayer, & Monk, 1995; Jordan & Montani, 1997; Lu, 2002). Most of the studies measured students' cognitive abilities with some ability tests. In the present study, we tried to ask the participants to evaluate their cognitive abilities for college course works. The perceived cognitive abilities might not as objective as the ability measures to reflect the true cognitive competences of the participants, but could reflect some of their perceived self-efficacy of learning. Perceived self-efficacy referred to

ones' belief about the effectiveness of completing a task. According to Bandura (1977; 1997; Bandura et al., 1996), perceived self-efficacy was influenced by ones' previous achievements and could have effects on ones' performances in the area domains. Therefore, the researchers of the present study hypothesized that students of different achievement groups could perceived differently in their cognitive abilities related to learning, although there were not necessary causal relationship between perceived cognitive abilities and academic achievements. In the present study, we would like to explore how the perceived self-efficacy differentiate the high achievers from the low achievers when other factors, such as entrance systems, were counted.

Learning Strategies and Academic Achievements

Learning strategies refers to any behaviour that could enhance the acquisitions and retrievals of knowledge (Weinstein & Underwood, 1985). Researchers classified learning strategies into various aspects. Weinstein & Underwood (1985) content that there were four aspects of learning strategies, namely the information processing strategies, the support strategies, the active study strategies, and the meta-cognitive strategies. In their study, Sorić & Palekčić (2009) categorized the learning strategies into cognitive, meta-cognitive, and resources management strategies. In this study, we investigate the aspects of general learning strategies and resources management strategies. The general learning strategies related to college learning included the strategies to enhance one's cognitive and metacognitive processes, note taking strategies, exam preparation and test taking strategies (Cassidy & Eachus, 2000; Lindblom-Ylanne, 2004). Resources management strategies included time management strategies, managing the social support, and managing external resources (Peniston, 1994).

Studies have shown that training in learning strategies could promote academic performances, especially for low achievers (Atkinson & Rough, 1975; Shimmerlick & Nolan, 1976). Application of learning strategies could improve individuals' learning achievements. Meyer, et al. (1980) found that those who performed better in reading applied useful reading strategies. Shimmerlick &

Nolan (1976) found that training with the note-take strategies could enhance the low achievers' performances but not the high achievers. The results indicated that the high achievers could have acquired their own learning strategies and won't be benefit from the learning strategies instructions. Therefore, general learning strategies could effectively differentiate the high achievers from low achievers when other factors are counted.

The relationships between time spent in academic related works and academic performances were controversial. Some of the researchers found that the time spent in academic activities outside the classes related to academic performances significantly (e.g. Ackerman & Gross, 2003; McFadden & Dart, 1992). Others found that there was no significant relationship between studying time and academic performances (e.g. Mouw & Khanna, 1993; Zhang and Johnston, 2010). How well students managed their time was investigated through the self-reported questionnaire.

Another related issue was the relationship between the working hours and academic performances. Gose (1998) indicated that American college students spent more hours working than their counterparts were before. According to a survey, 40.4% of college students had part-time jobs in Taiwan (CLA, 2007). In addition, the number of college students with part-time jobs increased ten times from 1996 to 2011 in Taiwan (CLA, 2011). Some might wonder if the more time students spent on their part-time jobs, the less they spent on their academic work outside the classes, ant their academic performances dropped as a result. The survey done by the Council of Labour Affairs in Taiwan showed that most of the students didn't think their part-time jobs have any negative effect on their academic performances (CLA, 2007). Nonis and Hudson (2006) found that neither the study time nor the working time had significant effects on academic performances, but those factors interact with personal ability to have effects on academic performances. As the report of CLA (2007) indicated that most college students in Taiwan reported that they have to work for financial reasons. As review earlier in this paper, the entrance systems related to students' social economical backgrounds. Therefore, the researchers of this study content that it is important to clarify the effects of working hours after controlling for the effects of

entrance systems. In addition to working hours, extracurricular activities occupied much of college students' out-side class time. In the present study, the researchers would like to explore how the time students spent on works and extracurricular activities have effects on students' academic performance when other personal factors were counted.

Another category of learning strategies investigated in this study was resource management strategy. The researchers asked the participants to check if they would ask their peers, tutors or instructors for help with learning difficulties, and that were categorized into the social support strategies. The inter-personal networks might have effect on college students learning (Eggens, van der Werf, & Bosker, 2008), but the relationship was not consistent among students of different characteristics. Ullah (2007) found that peer relationship could have positive effects on females' academic achievement, but negative effects on males'. It strikes the researchers to explore how social support could have effect on learning achievement of the participants. Another set of resources management strategies was the availabilities of learning resources, such computers. Sorić & Palekčić (2009) found that, rote learning, organization, and time planning could predict learning achievements significantly while all of the three aspects of learning strategies were counted. In the present study, the researcher treated rote learning and organizing as the same factor as general learning strategies, and time planning were indicating by the working time and time for extracurricular activities.

Motivational factors and Academic Achievements

It has been believed that achievement motivation related to ones' learning achievements (Fadlelmula, 2010; Haynes, Daniels, Stupnisky, Perry, & Hladkyj, 2008; Hayne et al., 2006; Lynch, 2010). Achievement motivation is a complex concept that some researchers focus on students' interests in learning (Sorić & Palekčić, 2009), some focus on the achievement goal setting (e.g. Fadlelmula, 2010), and some researchers, such as Bandura (1977; 1997) content that individuals' motivation was influenced by their perceived self-efficacy and motivated the learners to get involved in learning. In the present study, two

motivational factors were investigated, namely the interest and involvement. Interest refers to the relationship between individual and objects characterized by the value commitment and positive emotions (Sorić & Palekčić, 2009). Individual interest toward a subject is stable and could have effect on one's behaviours (Krapp, Hidi, & Renninger, 1992). Sorić & Palekčić (2009) found that the effect of interest on learning achievements interact with learning strategies, that the inter relationship between interest and learning achievement was significant, but the contribution was not significant when the contribution of learning strategies taken into account. In the present study, we want to explore how interest and involvement could have effect on learning achievements when the demographic backgrounds, perceived cognitive abilities, learning strategies were counted.

Research Questions

In the present study, the researchers would like to explore the following questions:

1. How did students of different achievement groups differ in terms of entrance systems, perceived cognitive abilities, learning strategies, and motivation of learning?

2. How much can the entrance systems explain for the differentiation of achievement groups?

3. How much can the perceived cognitive abilities explain for the differentiation of achievement groups after controlling for the entrance systems?

4. How much can the different aspects of learning strategies explain for the differentiation of achievement groups after controlling for the perceived cognitive ability and entrance systems?

5. How much can different aspects of motivational factors explain for the differentiation of achievement groups after controlling for the learning strategies, the perceived cognitive ability and entrance systems?

Methods

The study was conducted in Fall 2009 at a university in Middle Taiwan. There were about 10,000 students at that university; most of them were college students. All of the participants took a questionnaire of maladjusted learning behaviours designed by the researchers individually.

Participants

A total of 425 college students participated in this study, including 244 high achievers and 181 low achievers. The low achievers were those students who failed more than 1/2 of the credits she/he took in previous semester, and the high achievers were their peer students who rank at the top 10% of the class. The numbers of male and female subjects in each group are shown in Table 1. It is not surprising to find that female outnumber male in the high achievement group and vice versa for the low achievement group ($\chi^2 = 90.32$, df = 1, p < .01). Jansen & Bruinsma (2005) reported that males are more likely to fail in the first year of college than females.

Table 1. The number of male and female participants in each achievement group.

	Gender		Total
	Male	Female	
High achievers	75	169	244
Low achievers	140	41	181
Total	215	210	425

Measurement

A Questionnaire of Maladjusted Learning Behaviours designed by the researchers was applied in this study. The questionnaire was designed to serve as quick check of self learning behaviours for those low achievers. The participants have to check on a list of 39 maladjusted learning behaviours, including the perceived learning abilities, learning strategies (general learning strategies, time management, social support, external resources), and motivational factors (interest and involvement). Students' entrance systems, working hours, and hours spent for extracurricular activities were investigated in the background section. The numbers of items and the contents of each factor are depicted in Table 2. Since the items depicted the maladjusted learning behaviours, the higher the score, the less effective the learning behaviours.

The internal consistency of the full scale was .865 (a total of 39 items). The correlation between this questionnaire and another standardized questionnaire – The Questionnaire of Learning Strategies of College Students (Hung, 1990) was -.66. The results showed that the contents of this questionnaire were fairly consistent and the results were related to students' learning behaviours.

Table 2. The factors in the questionnaire.

factors	Number of Items	Chronbach's alpha	Descriptions
Cognitive Abilities	7	.671	Attention distributions, memory, self monitoring, prior knowledge, English reading ability
Learning strategies			
General Learning Strategies	6	.643	Preparation, note taking, test preparation, other learning strategies
Time Management	4	.519	Time managements for academic activities and recreations
Social Support	3	.570	Social network supporting their learning
Resources Deprivation	3	.612	Non-academic activities or lack of learning resources
Motivational factors			
Interest	10	.570	Value, affects, expectances of the courses, attribution of failure
Involvement	6	.686	Class attendances and class involvements

Results

The purpose of the present study was to explore how entrance system, perceived cognitive abilities, learning strategies, and motivational factors could differentiate the low achievers from the high achievers. The researchers would compare the distributions in entrance system, working hours, and hours for extracurricular activities of both groups. In addition, the researchers would compare the means of perceived cognitive abilities, learning strategies, and motivational factors between the two groups. Finally, the researchers would investigate how the entrance systems, perceived cognitive abilities, learning strategies, and motivational factors could interact with each other and differentiate the two groups.

The differences between high achievers and low achievers

The distributions of the entrance system were shown in Table 3. There were 5 major ways of how the students were admitted into the college, namely Recommended, Applying, Conventional, Athletic Excellences, and Transferring. As shown in Table 3, the distributions of the two groups differed significantly ($\chi^2 = 36.65$, df = 4, p < .01). The percentages of recommended and conventional students of high achievers were higher than the low achievers, while the percentage of transferring students was lower for the high achievers. One of the possible reasons could be that transferring students usually transferred from some other less prestige universities or failed in other universities before, that their prior knowledge might be less adequate than their classmates. However, there were no differences in the ratio of low achievers between recommended and conventional students.

Table 3. The distributions of the way students were admitted into the college.

	Recommended	Applying	Conventional	Athletic Outstanding	Transferring	Total
High achievers	43	48	147	0	5	243
Low achievers	17	34	97	5	28	181
Total	60	82	244	5	33	424

The distribution of the working hours is shown in Table 4. As shown in Table 4, most of the participants reported that they did not have a part-time job. However, the low achievers were more likely to spend more time on part-time job each week than the high achievers ($\chi^2 = 18.34$, df = 6, p < .01). 16.57% of low achievers reported that they worked over 10 hours per week, while 5.3% of the high achievers worked over 10 hours per week.

Table 4. Distributions of the time students spent on part-time jobs each week.

	none	1~5hr	6~10hr	11~15hr	16~20hr	21~25hr	26hr and over	Total
High achievers	188	28	15	4	6	2	1	244
Low achievers	126	14	11	7	8	5	10	181
Total	314	42	26	11	14	7	11	425

The distribution of the hours for extracurricular activities of each group is shown in Table 5. The result of chi-square analysis showed that the two groups did not differ significantly in the time they spent on extra-curricula activities (χ^2=7.10, df=4, p=.131). As shown in Table 5, most of the students reported that they spent over 15 hours each week in extracurricular activities.

Table 5. Distributions of the time students spent on extra-curricula activities each week

	over 15hr	8~14hr	less than 8hr	none	total
High achievers	161	61	15	7	244
Low achievers	110	41	23	7	181
Total	271	102	38	13	425

The mean scores and standard deviations of high achievers and low achievers in each factors were shown in Table 6. Results of multivariate analysis of variances (MANOVA) showed that the two groups differed significantly (Wilks' Lambda=0.66, F=31.42, df=7, 417, p < .01), and the follow-up tests of between-subject effects showed that the low achievers scored significantly higher on all factors of the maladjusted learning behaviours.

Based on the results, we found that the two groups differed in the way they were admitted into the college, the working hours, and all of the factors of maladjusted learning behaviours. Since all of factors were inter-correlated, the researcher will apply canonical discriminant analysis step by step to explore the most significant factors differentiate the low achievers from the high achievers.

Table 6. The means and standard deviations of each group in each factor of maladjusted behaviour.

	High N=244		Low N=181		Total N=425	
	Mean	SD	Mean	SD	Mean	SD
cognitive abilities	0.45	0.28	0.56	0.28	0.50	0.28
General Learning strategies	0.40	0.26	0.62	0.26	0.49	0.28
Time management	0.32	0.24	0.51	0.31	0.40	0.29
Social Support	0.26	0.32	0.39	0.34	0.31	0.34
Resources deprivation	0.03	0.10	0.14	0.26	0.07	0.20
Interest	0.37	0.20	0.55	0.20	0.45	0.22
Involvement	0.12	0.17	0.42	0.28	0.25	0.26

Factors differentiate the low achievers from the high achievers

In this section, the researchers would like to explore how entrance systems, perceived cognitive abilities, learning strategies, and motivational factors could differentiate the low achievers from the high achievers with several steps. At first the researchers would do 4 separate canonical discriminant analyses to test the contribution of entrance systems, perceived cognitive abilities, learning strategies, and motivational factors in differentiating the two groups. Then the researchers would start with the entrance systems and add one set of the factors into the analysis to find out how the later factors would covariate with the previous added factors to differentiate the two group. All of these factors were served as the predictors in canonical discriminant analysis with stepwise regression. The purpose of disciminant analysis was to differentiate two or more

group member based on a linear combination of a set of variables. Those categorical variables such as gender and the entrance systems were recoded into dummy variables. Some of the students did not respond to all of the items in the questionnaire, therefore, the data of 231 high achievers and 172 low achievers were put into the analysis.

The results of canonical discriminant analyses of each set factors were shown in Table 7. As shown in Table 7, among the entrance systems, only the transferring can differentiate the two groups effectively. Perceived cognitive ability could differentiate the two groups effectively per se, but the canonical correlation was not high enough that only 3.5% percent of the variance between the two groups can be explained by the perceived cognitive ability. Among the learning strategies, General Learning Strategies, External Resources, and time management strategies (Working Hours, Hours for Extracurricular Activities, and Time Management) could explain for the differentiation between the two groups. The canonical correlation was .460 which was moderate. Both of the motivational factors could differentiate the two groups effectively, and the canonical correlation was the highest among those correlations.

Table 7. The results of canonical discriminant analysis for each factors as predictive variables.

Factors	Canonical Correlation	Tolerance	F-value if deleted	Wilks' Lambda	χ^2
Entrance Systems (4 dummy variables, recommended, applying, conventional, and transferring)					
Transferring	.248	1	27.71	.931	26.81
Perceived Cognitive Abilities					
Cognitive Abilities	.187	1	15.31	.965	15.02
Learning Strategies (working hours, hours for extracurricular activities, General Learning strategies, Time management, social support, and external Resources)					
General Learning Strategies		.786	26.99	.839	
External Resources		.893	9.30	.806	
Working hours	.460	.916	8.59	.804	100.09
Time management		.766	6.89	.801	
Hours for extracurricular activities		.995	3.91	.796	
Motivational Factors (Interest, and Involvement)					
Involvement		.868	105.01	.845	
Interest	.568	.868	11.93	.696	164.70

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In the following section, the researcher would try to explore how adding in other factors could have effects on the canonical correlations. As shown in Table 8, as we added the perceived cognitive abilities in the analysis, both of the transferring and perceived cognitive abilities could contribute significantly to differentiate the two groups, and the canonical correlation increased to .309 from .248. At the second step, the learning strategies factors were added and the effect of perceived cognitive abilities diminished at this step. The canonical correlation increased to .498 when general learning strategies, transferring (entrance system), external resources, working hours, time management skills, and hours for extracurricular activities were counted. At the final step, two of the motivational factors were added in. As a result, factors that could effectively differentiate the two groups were involvement, transferring, general learning strategies, interest, and working hours.

Discussions and Suggestions

Results of the final section showed that when motivational factors were counted, the entrance system (transferring), general learning strategies and working hours could still effectively predict the differentiation between the low achievers and low achievers. As shown in previous sections of this paper, the high achievers were less likely to be transferring students, working less hours per week, and reported less maladjusted learning behaviours. The result did not show differences in the distributions between two groups among recommended, applying, and conventional students, that was congruent with the result found by Fen et al. (2007) that the recommended students did not differ from the conventional students in term of academic achievements. In addition to previous findings, we found that the transferring students should be a group of students that college instructors should pay more attention to.

Table 8. The results of canonical discriminant analysis after adding in more factors.

Factors	Canonical Correlation	Tolerance	F-value if deleted	Wilks' Lambda	χ^2
Step 1: Adding in transferring and perceived cognitive abilities					
Transferring		.999	28.21	.965	42.31
Cognitive Abilities	.309	.999	15.82	.939	
Step 2: Adding in Learning Strategies (working hours, hours for extracurricular activities, General Learning strategies, Time management, and external Resources)					
General Learning Strategies		.786	26.57	.799	
Transferring		.989	20.32	.788	
External resource		.893	9.45	.769	119.90
Working hours	.498	.912	6.51	.763	
Time management		.764	5.46	.761	
Hours for extracurricular activities		.990	4.95	.761	
Step 3: Adding in Motivational Factors (Interest, and Involvement)					
involvement		.839	74.16	.734	198.74
transferring	.614	.992	18.02	.650	

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General Learning Strategies	.852	8.50	.636
interest	.801	7.06	.634
working hours	.993	6.44	.633

Although some researchers content that working hours did not have significant effects on individuals' academic achievements (Nonis and Hudson, 2006). The survey done by the CLA in Taiwan (2006) also showed that most college students did not think their part-time jobs having any negative effects on their learning. In this study, we found that the low achievers did work more hours than the high achievers per week. The effects remains as the other learning strategic and motivational factors were counted. Therefore, we should pay more attentions to those students who work excessive hours.

Applying of general learning strategies was one of the factors that could effectively differentiate the two groups when other factors were counted. Congruent with most research findings, acquisition of learning strategies could have positive effects on learning achievement (Hegarty et al., 1995; Lindblom-Ylänne, 2004; Meyer, et al., 1980). It could improve the low achievers' academic achievements to teach them adequate learning strategies (Shimmerlick & Nolan, 1976). Therefore, the college instructors should try to incorporate learning strategies into their lecturing.

Although Sorić & Palekčić (2009) found that the effect of interest on learning achievement dropped when learning strategies were counted, we found that interest and involvement could effectively differentiate the two groups even when the entrance systems and learning strategies were counted. It might imply that the college instructors should try to promote students' interest and get them more involved in course works. Helping students to set mastery goals could have effects on promoting students motivation (Keys, Conley, Duncan, & Domina, 2011). Another issue the college instructors should take care of was students'

emotion (Lipnevich & Roberts, 2012). Linnenbrink-Garcia & Pekrun (2010) content that emotional factor correlated with students' engagement in academic works. Therefore, to improve college students' academic achievements, the instructors could try to help the students set mastery goal and pay attention to students' emotional aspects.

Although this study provided some practical suggestions for the college instructors. There were some limitations of this study. The study was based on self-report checklist of maladjusted behaviours. Due to the binominal nature of checklist, the internal consistency of each factor was not stronger enough to guarantee the reliabilities of the measures. In the following study, the researchers would modify the measure into 5-point scales to improve the reliabilities. In addition, we compared two extreme groups of achievers in various factors and apply the canonical discriminant analysis to explore the factors that could differentiate them. In later study, the researcher would like to explore the relationship between the factors and learning achievements with larger and more diverse groups, that could give us more information about the relationship between these factors and learning achievement among general students.

Finally, the study was conducted at single university in Taiwan. Students of different university could differ in their learning, and the factors contributing to learning achievement could differ as a result. Following research with larger group of college students could help us with clearer picture of the relationship between these factors and learning achievements. In addition, educators in other countries should be aware of the limitation while apply the findings of this study.

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Innovation in the University and in the Enterprise in Galicia: Human Resources, Financing and Marketing

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1. Introduction

In recent years, innovation has become an instrument to combine the need for change and sustainability, while regarded as an indispensable element in the smooth running of national economies in the global competitive environment.

Nowadays the importance of this issue has been emphasized. In this regard the Massachusetts Institute of Technology clearly is an important institute which has contributed to the scientific innovation and the economic development. The Cambridge MIT Institute also represents a new way to promote the university-industry cooperation when trying to promote through education innovation as stated D. Good (2007) "CMI's goal was to develop educational programs and practices that would enhance the capacity of graduates to work more effectively than their predecessors at the university-industry interface" (p. 10). Similarly J. P. Olsen and P. Maassen write: "universities should [...] be better integrated into society, in particular into industry and the business community" (p. 4).

The innovation concept is complex and can be analyzed from different perspectives. In a broad sense, innovation is some change that creates value. On

the other hand, an approach from the field of economic theory leads us to pick one of the internationally accepted definitions, which includes the *Oslo Manual* (OECD, 2005), which states: "An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (p. 46).

Since 2005, the World Economic Forum collects, through the *Global Competitiveness Index*, the microeconomic and macroeconomic foundations of competitiveness in different countries. This index includes innovation as an essential component of competitiveness, together with the institutional framework, infrastructure, macroeconomic stability, health and primary education, higher education and training, goods market efficiency, market efficiency labour, financial market sophistication, technological readiness, market size, and finally, business sophistication (World Economic Forum, 2010a).

If we analyze the rate of innovation capacity in 2009-2010 through the latest report, *Global Competitiveness Report 2010-2011* (World Economic Forum, 2010b), we find that 7 European countries are among the top 10: Germany (1º), Sweden (3º), Switzerland (4º), Finland (5º), France (8º), Denmark (9°) and Netherlands (10º), while Spain is ranked 42, below other European countries.

We note Spain still has a long way to reach the position of other developed countries in innovation capacity. In this regard, the OECD, through the document *The OECD Innovation Strategy: Getting Start on Tomorrow* (2010), raises several lines of action to overcome the gaps in the factors that directly or indirectly affect the development of innovation, among which are: (1) empowering people to innovate; (2) unlocking the potential for innovation, a need to promote a safe and open to competition and innovation; (3) create and apply knowledge led to the establishment and adequate funding of public research system; (4) apply innovation to address social and global challenges, improving the international scientific and technological cooperation and technology transfer; (5) improve governance and indicators for measuring innovation policies, encouraging local and regional actors to promote innovation, ensuring the necessary coordination.

It is important to indicate the necessary technology transfer between university and industry and adequate funding are included among them.

2. The importance of investing in research and development (r & d)

As the *European Innovation Scoreboard 2009* indicates that one of the main drivers of growth is funding and supporting research and innovation. In fact, it is understood that some of the technological innovation capacity of a country lies in its effort to invest in research and technological development and human capital dedicated to R&D.

In this sense, the World Conference on Higher Education recently held, *"The New Dynamics of Higher Education and Research for social change and development"* (UNESCO, Paris, 5-8 July 2009), revealed the importance of investing in Higher Education as an important medium for building a knowledge society and to advance research, innovation and creativity. Similarly, in this conference insisted given that many countries need to have experience more funding for R&D, in which the institutions must find new ways to increase research and innovation through joint ventures between public and private sector, covering small and medium enterprises, thus emphasizing the need for collaboration between higher education institutions with their environment, including the business sector.

On the other hand, the European Union (EU) has recently promoted in the year 2009, the *European Year of Creativity and Innovation*, leading to *Innovative Manifesto* (Eur Activ 10/11/2009) which states that "to move forward, Europe must increasing investment, both public and private, in knowledge" (p.1). At the same time it includes, as the first line of action the investing in knowledge, in order to strengthen Europe's competitiveness; so it states: "we need new budget principles that give high priority to investment in people and knowledge" (p.3) and "the scale and ambition of the European Structural Funds should be expanded, focusing on investing in research and development..." (p. 3).

The Commission Communication *Europe 2020. Strategy for smart, sustainable and inclusive growth* remember that Europe need a strategy to help us come out stronger from the crisis and turn the EU into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion. To this end the Commission proposes several objectives, including achieving the

3% of Gross Domestic Product (GDP) on R&D, focusing on the need for both public and private sector to invest in R&D.

3. Methodology: Instruments and Sample

We have developed a research in order to know and to identify the innovation indicators in the Autonomous Region of Galicia (Spain). In our research we have collected information –through two questionnaires and other documentary sources– about indicators and matters of great importance for innovation and transfer areas. To prepare these instruments and to collect information we have taken into consideration current bibliography and contributions of different research reports to state, European and international level (*European Innovation Scoreboard 2008*, *Community Innovation Survey 2006*, *UK Innovation Survey 2007*, *Survey on Technological Innovation in Business* - INE 2006).

Both questionnaires –for research groups and enterprise managers– were sent in two formats: postal and electronic (online).

On the one hand, we obtained reply of 123 research groups that ranges from 1 to 48 members. Of the total groups, 48 belong to the Universities of Vigo and Santiago de Compostela respectively, and 27 to the University of A Coruña.

On the other hand, the enterprises sample is made up of 801 Galician firms that are placed principally at provinces of A Coruña and Pontevedra (40,9% and 31,6%, each one), and regarding its size it is composed of micro-enterprises (49,3%) and small enterprises (42,6%) basically.

4. Results

4.1. Results of the research groups

4.1.1. Human resources

With regard to R&D activities, these are carried out mainly in stable groups (86.2%) which are composed from 1 to 10 researchers in the 74.5% of cases. The majority, 86.2%, develops their activity in university departments.

Related with R&D staff of research groups of the sample, we can appreciate that there is a relatively high number of people working in R&D, and it is important the amount of people with student grants and contracts to research projects.

4.1.2. Financing

To fund R&D activities the directors request grants to: regional programmes of the Xunta de Galicia (R&D Galician Plan), 71.5%; national programmes (R&D National Plan), 69.9%; and European programmes (14.6%). The analysis of these data shows the gap between the European projects with regard to the regional and national projects; so it is necessary to carry out actions to promote an increase of participation of research groups in European programmes.

Figure 1. Public programs which fund R&D projects to research groups (period 2005-2007)
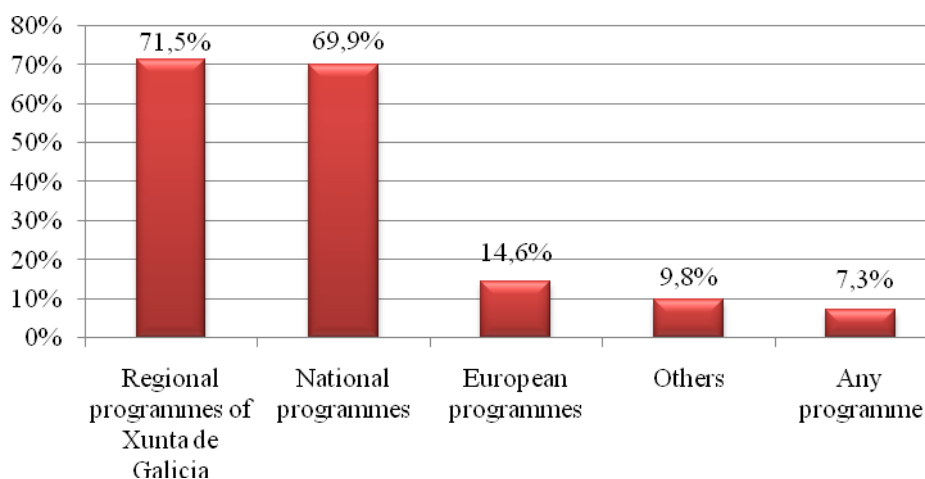
In connection with the R&D annual approximate budget in the period 2005-2007, we observe that:

- Regarding the public financing, the most part of groups uses amounts between 6.000 and 30.000 € (22.0%) and between 30.000 and 90.000€ (24.4%), followed by 15.2% that is situated between 90.000 and 300.000 € and just the 3.2% exceeds 600.000 €

- As for the private financing, the 17.9% handles between 6.000 and 90.000 €

In a matter of contracts, reports, agreements and courses that were signed by research groups with enterprises, civil services and other entities. Of them it is worth noting the number of contracts, a total of 290 (37.8%), followed by reports (18.1%), training courses (17.6%), agreements (16.6%) and, to a small extent, advice activities (9.5%).

According to the different entities with which groups establish connections, enterprises have higher percentages than other organizations as for contracts (24.0%), reports (11.3%), training courses (9.8%), agreements (8.0%), and advice activities (7.3%). Although, also it is relevant the agreement signature and the training courses with civil services (7.8% and 7.4% respectively).

4.1.3. Marketing

Relating to production and marketing, we observe the 55.3% says that it has achieved transferable results in the short to medium term during the period 2005-2007. In fact, the research groups polled point out they have made inventions referred to new or improved products, new or improved procedures, industrial models and software. Of these, the 31.9% refers to the creation of new procedures and the 19.4% alludes to the improvements in already existing procedures. On the contrary, the industrial models just mean the 1.7% of the total inventions.

The groups mention that in the period 2005-2007 they requested the following Intellectual Property Rights: copyrights, patents, utility models and trademarks. With regard to patents, these are national mainly.

Besides, the 30.9% of the directors indicates they do not market their inventions, those who do it, the 6.5% does it in Galicia, the 5.7% in national level and 2.4% internationally.

4.2. Results of the enterprises

4.2.1. Human resources

During the period 2005-2008 it is checked that 123 companies (15.4% of the total sample) carried out R&D activities. Of these, 42 have R&D department, composed from 1 to 3 workers in the 64.3% of cases and over 3 just in the 35.6%; the maximum number of workers for department is 27.

In the rest of the enterprises in which there is not a specific area to develop such activities, the responsible is the manager, for the most part of cases.

4.2.2. Financing

Of the enterprises that carry out R&D activities, over half (60.2%) does not have annual budget for this, whereas the 33.3% has a specific sum (a total of 41 companies). Of these, the most part, 41.5%, uses an amount under 5% of its enterprise' budget and the 34.1% invests between 5% and 10%.

The financing sources of innovation are fundamentally own funds (17.5%), loans (7.1%) and grants from the regional government (6.4%).

Figure 2. Main financing sources by enterprise
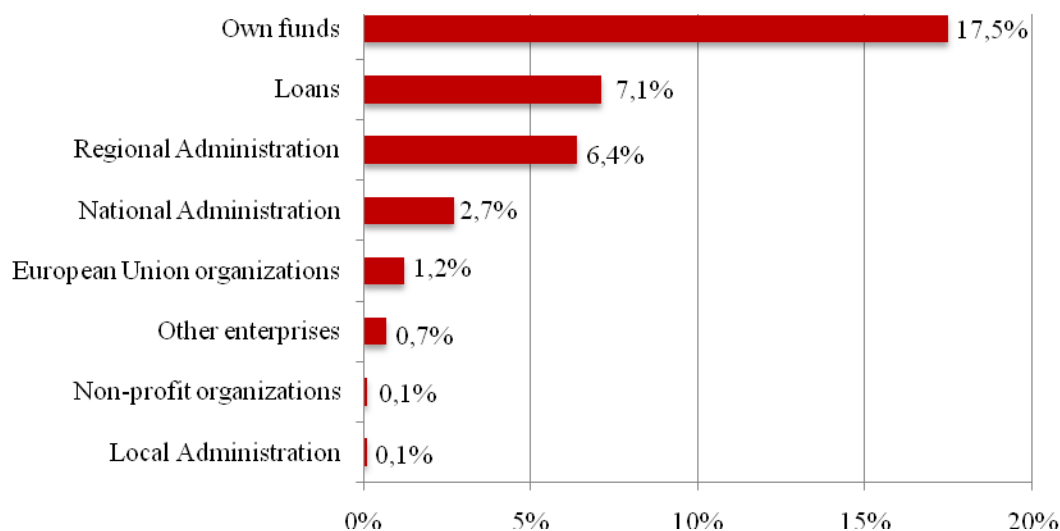
In connection with the knowledge that the enterprises have about public grants to carry out innovation activities, we obtain the 70.7% of the total sample (566) indicates it does not know them. Of the 26.2% (210) that knows some type of grants, it is important to say that the number of R&D projects predominates among the R&D activities processed.

4.2.3. Marketing

Regarding to production and marketing, the 10.6% of the total companies indicates it has obtained transferable results in the short to medium term in the period 2005-2008.

In this sense, referred to Intellectual Property Rights, trademarks were the most processed, followed by the number of national patents, as well as utility models.

4.2.4. Technological innovation

According to the enterprises the level of technological development is average (51.2%) basically. Also, the 78.4% (a total of 648 companies) considers they innovate to some extent, although just the 12.1% asserts they are enough or very innovative.

With reference to information sources about innovation activities that enterprises use to develop innovations, we emphasise the 64.7% uses internal resources. Next, it is followed by information sources such as: suppliers (56.0%), clients (35.9%), competitors (24.5%) and consultants and laboratories (21.3%). They not often use institutional sources as: civil services (15.1%), universities (7.4%), technology centres (6.5%) and public research organizations (4.2%). The 2.3% indicates other resources, for instance Internet, fairs and business associations.

The most utilised support services to innovation are the Galician Institute of Economic Promotion (IGAPE) (32.6%) and the Business-University Galician Foundation (FEUGA) (6.3%), whereas other organisations do not exceed 5% (University of Coruña Foundation, FUAC; Research Result Transfer Office, OTRI; Galician Technological Institute, ITG; BIC Galicia; Technological and Logistic Park of Vigo; and Galician Technological Park). The enterprises use them basically in order to obtain information about public/private grants (32.9%) and to receive support in economic/administrative management (15.6%). However, it is important to say they hardly use these services for negotiation of contracts (4.2%) and search of groups to cooperate (3.8%).

During the period 2005-2008, among the enterprises that introduced different types of innovations, the 79.7% mentions organisational innovations (it emphasises the introduction of new or improved methods in work organization); followed by the 56,9% that points out product innovations (so much new goods or services as significant improvement of existing products), the 49.8% of marketing (with predominance of the creation or modification of sale channels) and the 41.3% of process (it is notable the significant improvement of production or distribution processes). In general, the enterprises say that these innovations are developed sometimes (60.5%) and not so much frequently.

The enterprises decide to carry out innovative activities for several reasons, for instance: demand of clients and/or markets (57.4%) and increase the quality level (51.4%). In contrast, the least influential reason to decide to innovate is search for diversification of the activity (19.5%).

Figure 3. Reasons to innovate
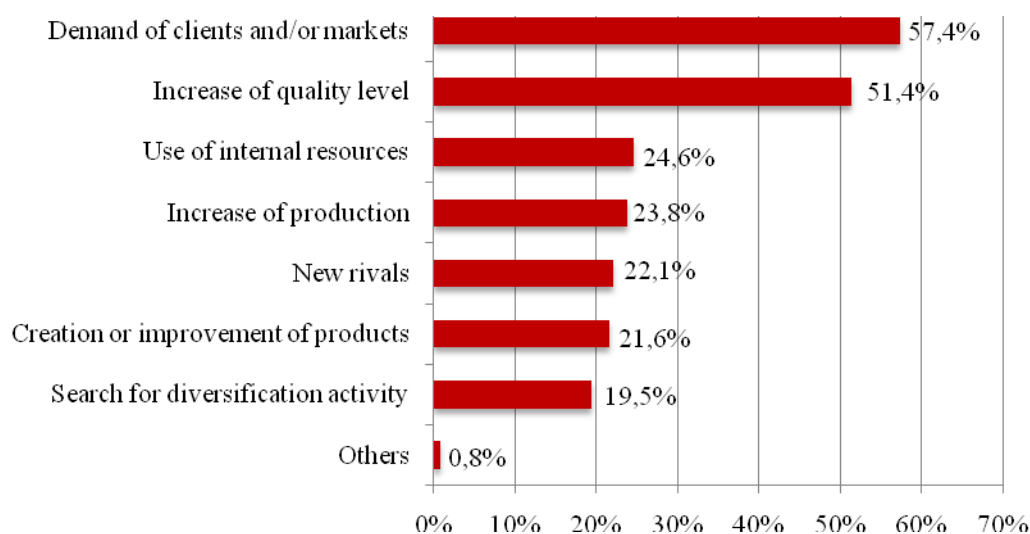
On the other hand, the companies that do not innovate point out as principals reasons: lack of own funds (35.4%), uncertainty regarding the demand for innovative goods and services (34.9%) and lack of qualified staff (22.9%). On the contrary, low level of cooperation with universities or research centres is not according to them an obstacle to innovate (just the 8.3% points out this difficulty).

Figure 4. Difficult to innovate
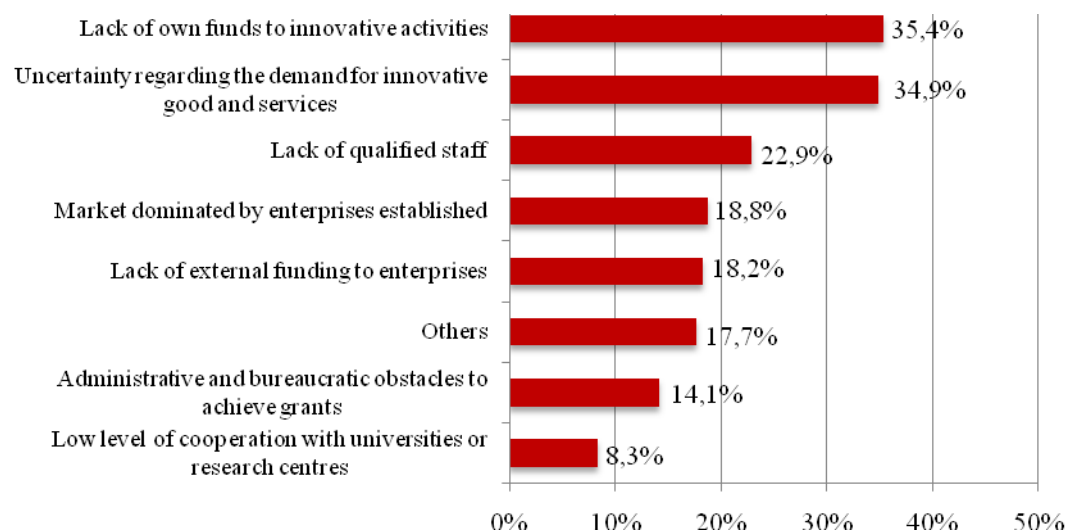
Apart from this, the managers of enterprise say some actions can promote the innovation in Galician companies, so public financing is considered the principal measure for the 42.2% of the sample, besides promotion and use of new technologies (36.8%) and further training of company staff (35.7%). Nevertheless, the least mentioned actions are: introduction of evaluation systems in enterprises (6.3%) and collaboration between enterprise and university/research centres (12.4%).

Also, it is important to indicate, according to the opinion of the most part of the managers of enterprise (74.0%), the R&D policy of the Autonomous Region of Galicia promotes innovation processes in enterprises. Unlike this, the 17.5% says that it does not influence and just the 0.9% believes it harms it.

Anyway, the 72.3% thinks that R&D is being enough and highly affected for the current crisis; the 13.6% offers an assessment of "regular", whereas the 7.4% points out it affects little or nothing.

5. Conclusions

The resources dedicated to R&D activities and the results marketing are basic indicators that allow evaluating the activity and the skills of the innovation system. On this respect, although a progressive increase is observed in the last years in Galicia as for the R&D expenditure and personnel, besides a slight

increase with regard to the protection of intellectual property, the Galician average is still less than the Spanish and the European average. For this reason, this is one aspect that should be improved to enhance research and innovation at university and enterprise.

Regarding our research, we see, related to human resources, the research groups carry out R&D activities mainly in stable groups which are composed from 1 to 10 and the majority develops its activity in university departments; while of the enterprises that have R&D department, this is composed from 1 to 3 workers basically.

To finance R&D activities, the directors of research groups request funds to regional and national programmes to a great extent; so it is necessary to carry out actions to promote an increase of participation of research groups in European programs. In connection with the financing sources of enterprises, these are essentially own funds, followed by loans and grants from the regional government.

With regard to research results production and marketing, around half of the directors of the research groups assert to have achieved transferable results in the short to medium term during a period of three years, whereas a low percentage of companies indicate to have obtained it. So, the data derived from our research as regards the Intellectual Property Rights processed and licenses executed are low in both sectors, and that is why it is necessary to increase efforts of marketing.

Apart from this, according to technological innovation in the enterprises, we see their technological development level is average basically. Also, the majority considers they innovate to some extent, although a few asserts they are enough or very innovative.

The most utilised support services to innovation are IGAPE and FEUGA. The enterprises use them essentially in order to obtain information about public/private grants and to receive support in economic/administrative management. However, it is important to say they hardly use these services for negotiation of contracts and search of groups to cooperate.

During the period 2005-2008, the enterprises introduced different types of innovations; these were organisational innovations basically, followed by product,

marketing and process innovations. In general, the enterprises say that these innovations are developed sometimes.

Moreover, the managers of enterprise say some actions can promote the innovation in Galician companies, so public financing is considered the principal action, besides promotion and use of new technologies and further training of company staff. Nevertheless, collaboration between enterprise and university/research centres is one of the least mentioned actions.

Regarding the main results of the present study as well as consulted documentary sources, we suggest some proposals:

- To carry out a great diffusion of available public grants for R&D.
- To facilitate the transfer of staff from university to enterprise and the other way round.
- To promote the organisation of events such as congresses, seminars… as meeting points between university and enterprise.
- To create an incentives scheme which promote the cooperation between both sectors (tax relief, remuneration, etc.).
- To improve the absorptive capacity that means an enterprise mechanism that allows adopting external knowledge, to assimilate it and to exploit it; to promote the productivity of enterprises and to respond to social needs.
- To promote the university-enterprise consultancy that includes support or advice services, access to equipments and facilities (computers, OTRI...), support to implement innovative ideas (spin-off, start-up…).
- To develop specific training actions directed to emphasise the importance of abilities to use technology, to develop management skills to exploit it, etc.

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Transformation of the University Academic Staff Understanding of Future-Oriented Competences: Quality Assurance in Continuing Education for Professional Development

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Introduction

In the context of creating common European higher education and research space, the question of quality assurance in higher education is of great current interest at the level of the state's education policy and at the university level. The report on Standards and Guidelines for Quality Assurance in the European Higher Education Area of the European Association for Quality Assurance in Higher Education (ENQA, 2009) insists on the fact that the most important and accessible learning resource for students is the teacher. Therefore the professional development of university teachers is one of the essential factors of study process quality. The opportunities of qualitative continuing education for university academic staff professional development at workplace are not sufficiently used in the contemporary university in Latvia. There is a need to improve quality of the continuing education culture in order to facilitate the

acquisition of the future-oriented competences of university academic staff in Latvia.

The objective of the paper is to present the research findings of the study conducted in 2006 in Latvia (the first phase) and compare them with the results gained in 2009 (the second phase) and in 2010 (the third phase) during the repeated research on university academic staff future-oriented competences and opportunities of qualitative continuing education for university staff professional development at workplace.

1. Theoretical framework

Higher education institutions have to become more open and need to offer their potential – teaching staff, infrastructure – to any member of the society, especially emphasising the necessity to knowledge and practical skills and therefore organising work-based learning. (Koķe, 2008) According to the European University Association (EUA, 2006) staff development is a major requirement for increasing the quality of the staff and embedding quality culture. It should be noted that in nowadays environment, all aspects of learning are gaining importance and expanding the knowledge of self. An ultimate task for university teaching staff is to promote quest for innovative approaches in the aspect of how to teach, in order to shift the focus from reproductive to innovative exchanges of experience. (EUA, 2006; Vroeijenstijn, 1999).

The educators' activity should be future-oriented but their experience is based in the past. This creates an apparent contradiction. This contradiction may be eliminated to some extent by implementing academic staff continuing education in accordance with the trends for the development of study quality. Such concepts as learning by teaching, learning from experience, which are recommended in academics' and students' work, should also be used in academics' continuing education. Jody Daniel Skinner (1994) emphasizes that learning by teaching is not an exclusively modern didactic concept because Seneca wrote more than 2 000 years ago that we are learning if we teach (in Latin *docendo discimus*: "by teaching we are learning" or "we learn by teaching"), at the end of the 20th century Jean-Pol Martin did considerable research on a teaching technique he had developed and named *Lernen durch Lehren* ("learning through teaching"). (Skinner, 1994) Originally it was students' learning by teaching based on the assumption that students are particularly well

motivated, if they are regularly allowed to take on teaching assignments thus complementing their traditional student's role. Then Martin's work has been well received in teacher training as teachers' learning by teaching. Martin's model consists of two components: human-oriented (anthropological) and subject-oriented. Learning occurs through providing personal contribution thus enabling people's self-actualization and self-awareness. (Martin, 2009) .

Dieter Kirchhöfer (2004) emphasizes that studies have to use the real practice and its learning context as well as the activities promoting learning. Moreover, learning occurs in the very work process. Workplace learning is individual learning in the work settings, mostly considered as informal learning, but involves also deliberate and conscious learning activities. Workplace learning as informal everyday learning, being a specific learning context, includes also a hidden and tacit dimension of knowledge. (Kirchhöfer, 2004; Elkjaer, Wahlgren, 2006).

Continuing education of the university academic staff is oriented on the principles and tendencies of the adult education. By Agniezka Bron and Peter Jarvis **"**Adult education is a discipline which studies adults' opportunities and conditions for learning and fostering, as well as for their development, so that through the process of learning, people will develop themselves, change their lives and possibly influence each other". (Bron, Jarvis, 2008:35) Jack Mezirow points out that transformative learning is "the essence of adult education". He concluded that "the goal of adult education is implied by the nature of adult learning and communication: to help the individual become a more autonomous thinker by learning to negotiate his or her own values, meanings, and purposes rather than to uncritically act on those of others". (Mezirow, 1997:11) But how do adult individuals adapt, commit, and grow in an environment of discontinuous change? A review of the works of Mezirow,

Brookfield, and Freire shows that four phases in transformative learning are common to all three:

1. Some disruptive event occurs in the learner's life that challenges his or her view of the world.
2. The learner then critically reflects on beliefs, assumptions, and values that shape the current perspective.
3. The learner develops a new perspective to deal with the discrepancies surfaced by the triggering event.
4. The learner integrates the new perspective into his or her life. (Henderson, 2002:203).

The potential of transformative learning opens up new forms of fostering change in the university staff understanding of the future-oriented competences as well as professional development at workplace. There are various definitions of competence in the literature. For instance, "Competence is the capacity to realise 'up to standard' the key occupational tasks that characterise a profession. A competent professional shows a satisfactory (or superior) per-formance." (cf. Hager, Gonzci, 1996 cited in van Dellen, van der Kamp, 2008:68) According to Mark Bechtel "[…] competence combines knowledge, skills, and abilities needed […] to fulfil specific tasks in a defined field of activity (e.g. teaching) or job […]". (Bechtel, 2008:45-46) In the document "Proposal for a Recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning" presented the European Commission proposes the following definition of the term 'competence': "[…] competence means the proven ability to use knowledge, skills and personal, social and/ or methodological abilities, in work or study situations and in professional and/or personal development. (European Commission 2006, p. 16f).

The increasing emphasis on quality of teaching and learning has placed new demands on staff development, and the search for models and methodologies which are promising for the professional development of academic staff has become an important agenda in itself. (Ho, Watkins, Kelly, 2001:143) Academic staff development in the pedagogical applications of new technologies is fundamental to the transformation of teaching and learning in tertiary education settings. (Spratt, Palmer, Coldwell, 2000:455) Susanne Lattke and Ekkehard Nuissl concluded "Continuing education programmes for staff needs to be improved, systematized and made available on a broader basis. Existing initial training programmes for adult learning staff are often too weakly linked to continuing education programmes. The Bologna Process offers an opportunity to reflect upon and further develop the relationship between initial and continuing training for staff in adult and continuing education in a more systematic approach." (Lattke, Nuissl, 2008:17) Geoff Goolnik emphasizes that "Successful programmes of continuing professional development are those that acknowledge staff wants, interests, hopes and varying amounts of availability". (Goolnik, 2006:9) According to Barbara Conroy continuing education are the "learning opportunities utilized by individuals in fulfilling their need to learn and grow personally and professionally, following their preparatory education and work experience". (cf. Conroy, 1977 cited in Snyder, Sanders, 1978:145).

Continuing education of academic staff for their professional development can be improved, systematised and made available in the following way:

- Applying the approach of conceptual change to staff development (Ho, Watkins, Kelly, 2001), viewing communication from the transformative perspective, so not only students but also teachers are transformed as learners by means of their communicative activities (Pea, 1994); providing

the experience of being a transnational teacher and working in a culture very different to one's own forces reflection which can lead to 'perspective transformation' (Smith, 2009);

- Creating an accessible high quality learning environment which is innovative, challenging and enterprising (Fleming et al., 2004); using the reflective processes, allowing to shape practice in an informed fashion within the workplace settings of the staff (Kahn et al., 2008); reflecting on tasks, analysing activities and promoting the establishment of respective competences in a systematic manner (Lattke, Nuissl, 2008).

2. Methodology of the research

2.1. Research design and methods

There is a need to improve the pedagogical professional development programmes of university staff at national and international levels, to create teacher training programmes in order to improve European higher education. The international research project "Evaluation of Spanish co-operation and international teacher training programmes: the model for the development of future projects in the common European education space" (Medina Rivilla, 2006; Dominguez Garrido, Medina Rivilla, Cacheiro Gonzalez, 2010) was carried out by the Ministry of Education of Spain (*Ministerio de Educación de España*) for the purpose of resolving the abovementioned issues. From February to September 2006, the University of Latvia participated in this project. Alongside the University of Latvia, five other universities took part in the project: National University of Distance Education, Vigo University and Oviedo University (Spain); University of Tübingen (Germany); and Algarve University (Portugal).

The objectives of the project were the following:

- To elaborate and write a report, which would reveal the homogeneity of the obtained data and their correspondence to the criteria set, thus contributing to future projects.
- To create the framework for an international teacher training programme in order to improve European higher education.
- To promote experience exchange and the exchange of ideas among several countries involved in the creation of a new education programme for the development of students' professional qualifications.
- To design the quality analysis matrix for the new programme, based on the Delphi method.

During the first phase of the international research project from February to September 2006, one survey and two focus group interviews were conducted in Spain, Latvia and Portugal. The intentional cluster sample in Latvia consisting of 94 representatives of the academic staff from various universities of Latvia. Continuing education programmes for the educators of higher education institutions in Latvia and a continuing education programme for young professors in one German state were analysed as well. Quantitative data were processed applying SPSS software and qualitative data were processed applying AQUAD software.

During the second phase (January-June 2009) and during the third phase (January-August 2010) in Latvia, the interpretive paradigm was chosen for the study with the intentional cluster sample consisting of 36 (in 2009) and 46 (in 2010) representatives of the academic staff from various universities of Latvia. Its choice was determined by the use of qualitative and quantitative approach. Theoretical and empirical methods of the research – data obtaining methods (online survey, analysis of information from the e-platform: chat rooms, forums, students' questionnaires, etc.) and methods of

qualitative and quantitative data processing and analysis (frequencies; descriptive statistics; Mann-Whitney U; K Independent Samples Test, Kruskal-Walis H; pedagogical interpretation) have been used during the study. Quantitative data were processed applying SPSS software and qualitative data were processed applying AQUAD software.

An e-mail invitation to participate in the web-based study was sent to 150 academics (in 2006), 165 academics (in 2009) and 180 academics (in 2010) (see *Table 1*).

Table 1. The intentional cluster sample

Characteristics	In 2006	In 2009	In 2010
Potential sample	n=150	n=165	n=180
Real sample	n=94	n=36	n=46
Response rate	≈ 63%	≈ 22%	≈ 26%

Each potential respondent received a letter of invitation together with the link to the online survey on the home page of the Institute of Pedagogical Sciences of the Faculty of Education, Psychology and Art of the University of Latvia. The letter of invitation gave details of the purpose of the study, use of information and an assurance of confidentiality and anonymity. Two reminders were sent by email, and surveys were accepted up to one week after the requested due date. The participants were asked to complete the online evaluation survey (username and password were provided):

- firstly, to assess the content of the continuing education for the development of university academic staff's future-oriented competences (see *Table 2*), evaluating the importance of the contents on a 6-point Likert scale ranging from 1 ('not at all important') to 6 ('very important');

- secondly, to rate the priority of each competence using an 11-point Likert scale ranging from 1 ('not at all important/necessary') to 11 ('very important/necessary'); and

- thirdly, to describe the existing opportunities of continuing education for professional training, which promote the development of the competences of university academic staff in the common European education space.

Table 2. The list of the academic staff's future-oriented competences

I	The competences listed in the research
N	Acquisition of professional identity
N	Choice and organisation of scientific content
N	Language competence
N	Tutorial competence
N	Development of methodological strategies
N	Design and implementation of didactic materials
N	Evaluation of teaching-learning processes
N	Application of principles oriented to the model of
N	Didactic innovations
N	Construction of approaches to educational research
N	The challenges of the information and knowledge

2.2. The sample of the research

Demographic data were collected in order to provide a profile of the respondents (see *Table 3*).

Table 3. The profile of the respondents

Characteristics	In 2006 (n=94)	In 2009 (n=36)	In 2010 (n=46)
Gender: 1) female 2) male	77% (n=72) 23% (n=22)	83% (n=30) 17% (n=6)	83% (n=38) 17% (n=8)
Work experience: 1)≤ 10 years 2) more than 10 years	31% (n=29) 69% (n=65)	39% (n=14) 61% (n=22)	46% (n=21) 54% (n=25)

Average seniority	The work experience of the respondents ranged from 0.5 to 44 years and the average seniority was ≈ 13 years.	The work experience of the respondents ranged from 1 to 47 years and the average seniority was ≈ 17 years.	The work experience of the respondents ranged from 1 to 26 years and the average seniority was ≈ 12 years.

2.3. The research questions

1) How did the university academic staff understanding of the future-oriented competences change during the research (2006-2010)?
2) Which of the below mentioned factors (university academic staff gender, work experience, quality of continuing education opportunities for professional training) had an impact on the transformation of the understanding?
3) Could the interuniversity Master's programme „Educational Treatment of Diversity" (Gento, 2007) be used in the future as an effective informal continuing education programme for university staff professional development at workplace?

3. The findings of the research

3.1. Change of the university academic staff understanding of the future-oriented competences during the research (2006-2010)

In this presentation, the results of prioritising the Latvian academic staff's future-oriented competences and the descriptions of the existing continuing education programmes for the professional training of academic staff in Latvia are analysed. Comparing the results gained in 2010 with the research findings of the studies conducted in 2006 and in 2009 the following similarities were found: competence no. 10 was the most important one in the studies of 2006 as well as 2009, competence no. 5 as the most important one in all three research stages (see *Table 4*).

Table 4. The three most important competences for Latvian academic staff

	6 (n=94)	9 (n=36)	) (n=46)
s	ition of professional identity (no. 1)	uction of approaches to	ment of methodological
n	pment of methodological strategies (no. 5)	allenges of the information	competence (no. 4)
r **d**	uction of approaches to educational research (no. 10)	opment of methodologi-cal strategies (no. 5)	and implementation of didactic materials (no. 6)

The comparison of the statistical data of 2010 and the research results of 2006 and 2009 revealed the following tendencies: competences no. 6 and no. 4 were the least important ones in the studies of 2006 as well as 2009 and the most important ones in 2010. The three least important competences in 2010 haven't any

similarity with the research findings of the study conducted in 2006 and in 2009 (see *Table 5*).

Table 5. The three least important competences for Latvian academic staff

Posisition	In 2006 (n=94)	In 2009 (n=36)	In 2010 (n=46)
1st	Design and implementation of didactic materials (no. 6)	Tutorial competence (no. 4)	Application of principles oriented to the model of the European space of Higher Education (no. 8)
2nd	Tutorial competence (no. 4)	Design and implementation of didactic materials (no. 6)	The challenges of the information and knowledge society (no. 11)
3rd	Evaluation of teaching-learning processes (no. 7)	Choice and organisation of scientific content (no. 2)	Didactic innovations (no. 9)

3.2. Some factors impacted on the transformation of the university academic staff understanding of the future-oriented competences during the research (2006-2010)

Regarding the differences between younger and older academics in 2006, we found a significant result (p=0.047, see *Table 6*) showing that younger academics rate their need for *language competence* (no. 3) lower than older academics, probably because they have a greater language proficiency. There is no significant

difference between younger academics' and older academics' rankings of the priority of future-oriented competences in 2009. Taking into consideration the results of the empirical research in 2010, we found a very significant result (p=0.005, see *Table 6*) showing that younger academics rate their need for *development of methodological strategies* (no. 5) lower than older academics.

Table 6. Significance of the differences between younger and older academics' rankings of the priority of future-oriented competences (Mann-Whitney Test statistics)

The list of competences	Asymp. Sig. (2-tailed)		
	i	i	i
Acquisition of professional identity	0	0	0
Choice and organisation of scientific	0	0	0
Language competence	0	0	0
Tutorial competence	0	0	0
Development of methodological strategies	0	0	0
Design and implementation of didactic materials	0 .	0 .	0 .
Evaluation of teaching-learning processes	0	0	0
Application of principles oriented to the model of the European higher education space	0 . 2	0 . 9	0 . 7
Didactic innovations	0	0	0
Construction of approaches to educational research	0 .	0 .	0 .
The challenges of the information and knowledge society	0 . 0 6 1	0 . 3 3 9	0 . 2 1 4

Differences are not significant if *Asymp.Sig.* > 0,05

* Differences are significant if *Asymp.Sig.* ≤ 0,05

**Differences are very significant if *Asymp.Sig.* ≤ 0,01

***Differences are the most significant if *Asymp.Sig.* ≤ 0,001

In 2006 we found three significant results (p=0.046; p=0.045; p=0.043, see *Table 7*) showing that the male academics rate the need for *choice and organisation of scientific content* (no.2) and *tutorial competence* (no. 4) lower than the female academics, but the need of *application of principles oriented to the model of the European higher education space* (no. 8) higher than the female academics. Regarding differences between male and female academics in 2009, we found one significant result (p=0.020, see *Table 7*) showing that the female academics rate the importance of *construction of approaches to educational research* (no. 10) lower than male academics. In 2009 the answers of female academics showed a tendency – although not statistically significant – towards higher rankings of *acquisition of professional identity* (no. 1), *language competencies* (no. 3), *tutorial competence* (no. 4) and *development of methodological strategies* (no. 5) than their male colleagues' rankings, probably because male academics are more oriented to communication, support and augmentation of social relationships among people by fostering a sense of relationship among them. Regarding differences between male and female academics in 2010, we found one significant result (p=0.041, see *Table 7*) showing that the male academics rate the importance of *application of principles oriented to the model of the European higher education space* (no. 8) lower than female academics.

Table 7. Significance of the differences between male and female
academics' rankings of the priority of future-oriented competences
(Mann-Whitney Test statistics)

The list of competences	Asymp. Sig. (2-tailed)		
	i n p	i n p	i n p
Acquisition of professional identity	0	0	0
Choice and organisation of scientific content	0 .	0 .	0 .
Language competence	0	0	0
Tutorial competence	0	0	0
Development of methodological strategies	0	0	0
Design and implementation of didactic materials	0 .	0 .	0 .
Evaluation of teaching-learning processes	0	0	0
Application of principles oriented to the model of the European higher education space	0 . 0	0 . 2	0 . 0
Didactic innovations	0	0	0
Construction of approaches to educational research	0 .	0 .	0 .
The challenges of the information and knowledge society	0 .	0 .	0 .

Differences are not significant if *Asymp.Sig.* > 0,05

* Differences are significant if *Asymp.Sig.* ≤ 0,05

**Differences are very significant if *Asymp.Sig.* ≤ 0,01

***Differences are the most significant if *Asymp.Sig.* ≤ 0,001

The results of the online survey conducted in order to determine the existing opportunities of continuing education for the professional development of Latvia's academic staff in the common European education space during the international research project (in 2006-2010) are summarized in the table below (see *Table 8*).

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Table 8. The continuing education forms that promoted the
professional development of the academic staff of Latvia's higher
education institutions in the common European education space (2006-
2010) (according to the opinion of academic staff)

Forms of continuing education	In 2006 (n=94)	In 2009 (n=36)	In 2010 (n=46)
Formal continuing education programme for the professional development of academic staff	20% (n=19)	25% (n=9)	11% (n=5)
Participating in international projects, conferences, academic staff mobility programmes, etc.	14% (n=13)	44% (n=16)	35% (n=16)
Learning at workplace, learning by teaching and collaboration with students and colleagues	4% (n=4)	19% (n=7)	17% (n=8)
No answer	66% (n=62)	31% (n=11)	50% (n=23)

The main findings of the survey: in 2006 most of the respondents
pointed at the opportunities of formal continuing education
programmes for academic staff of higher education institutions,
but in 2009-2010 most of the respondents pointed at the
opportunities of participating in the international projects,
conferences, academic staff mobility programmes, etc. The

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increasing rate of learning at workplace, learning by teaching and collaboration with students and colleagues was significant. Serious considerations are caused by the fact that a great deal of respondents have not answered about the form of their continuing education.

There is a significant difference between academics' rankings of the priority of future-oriented competences depending on continuing education opportunities for professional training in 2009. We found one very significant (p=0.008) and two significant results (p=0.051; p=0.042, see Table 9) showing that the academic staff of the programme "Educational Treatment of Diversity" rate the need for *design and implementation of didactic materials* (no. 6), *evaluation of teaching-learning processes* (no. 7) and *didactic innovations* (no. 9) lower than the academics from other programmes. Probably because the academic staff of the programme "Educational Treatment of Diversity" have more opportunities to develop their future-oriented competencies. On the other hand, the academics of the programme "Educational Treatment of Diversity" rate the importance of *the challenges of the information and knowledge society* (no. 11) higher than the academics from other programmes. Probably because the academics of the programme "Educational Treatment of Diversity" have more needs of support to meet the challenges of the information and knowledge society. There is no significant difference between academics' rankings of the priority of future-oriented competences depending on continuing education opportunities for professional training in 2010.

Table 9. Significance of the differences between academics' rankings of the priority of future-oriented competences depending on continuing education opportunities for professional training (Kruskal-Wallis Test Statistics)

The list of competences	Asymp. Sig. (2-tailed)	
	in 2009	in 2010
Acquisition of professional identity	0.949	0.072
Choice and organisation of scientific content	0.511	0.459
Language competence	0.123	0.371
Tutorial competence	0.513	0.951
Development of methodological strategies	0.506	0.897

Design and implementation of didactic materials	0.050*	0.237
Evaluation of teaching-learning processes	0.042*	0.673
Application of principles oriented to the model of the European higher education space	0.517	0.086
Didactic innovations	0.008**	0.357
Construction of approaches to educational research	0.697	0.346
The challenges of the information and knowledge society	0.918	0.342

Differences are not significant if *Asymp.Sig.* > 0,05

* Differences are significant if *Asymp.Sig.* ≤ 0,05

**Differences are very significant if *Asymp.Sig.* ≤ 0,01

***Differences are the most significant if *Asymp.Sig.* ≤ 0,001

3.3. The interuniversity Master's programme „Educational Treatment of Diversity" as an example of effective informal workplace learning for the academic staff professional development

Opportunities of learning at workplace, learning by teaching and collaboration with students and colleagues have been analyzed as

a case study during the implementation of the interuniversity Master's programme "Educational Treatment of Diversity" (2008-2010). The programme is being developed and implemented in four European universities: National University of Distance Education -UNED- (Spain), Charles University in Prague (Czech Republic), University of Latvia (Latvia) and Ludwigsburg University of Education (Germany). The successful graduates are awarded a joint Master's degree of educational sciences in pedagogy. The competences of the Master's graduates in all participating universities correspond to the requirements of EQF lifelong learning level 7.

The joint aim of the programme is to develop students' competences in the field of educational treatment of diversity which is characterized as profound knowledge and critical understanding of specialized facts/theory; highly developed abilities that show the understanding of study course and innovation ability that would help to work out creative solutions to complex and unforeseen problems at work or in studies; the responsibility for selected professional fields of complex activity or project management in unpredictable work or learning contexts as well as the responsibility for individual and group activities. The main focus of the programme as an informal education for the professional development of university staff at workplace is to help experienced academic staff to understand and implement the shift of paradigms in higher education, to join European common education space and implement the Bologna process in the classroom (Gento, 2007). Work experience and continuing education of the academic staff are combined in this programme (learning at workplace). The main focus of the programme is to initiate and extend the use of telecommunication by computer and audiovisual technology, by using e-platform technologies, in order to facilitate mutual intercommunication between students and academic staff and among students themselves; and to

facilitate the students' and academic staff mobility into different countries, which helps in understanding the paradigms of higher education in the context of the European common education space.

According to new tendencies in higher education and following the European Community regulations, the Master's programme particularly focuses on "student's and academic staff learning" more than on professors' teaching: such student's learning considers how s/he learns and what s/he should learn, not only individually, but also in a group. As a consequence, the credit system (ECTS) is based on student's performance, particularly estimated in terms of competences. By using such competences, students use and create knowledge to generate solutions in diverse projects or situations: generic, basic and specific competences. For academic staff the main focus to be observed in tutoring students is the contribution to clarify the students' needs, to help them solve their doubts and problems and to orientate them to obtain the necessary successful result (Gento, 2007).

In order to facilitate students' academic success, meet challenges and facilitate the students' competence various forms of individual counselling and support are implemented in all participating universities. Supportive social climate and clearly defined aims significantly influence widening of students' experience acquired during the studies. In its turn the challenge of academic staff is connected with coordinating of each new study activity with the students' previous experience, potential, and motivation. The Interuniversity Master's programme "Educational Treatment of Diversity" is designed as an inter-disciplinary programme, integrating sub-branches of the general, social, psychological, pedagogical and special pedagogy in one unity. It focuses on students' preparing for lifelong learning as an inclusive promotional pedagogical activity: from pre-school to old age. As

the programme is designed to be imparted at full time or part time interactive self-organised e-learning models there are not obligatory regular face-to-face lectures for students. To substitute the presence of regular lecturing, the transformative study materials (e-materials, video and audio aids, etc.) have been prepared with the necessary structure and reinforcement to be used by students in an independent way. The transformative study materials do not have a single meaning but multiple meanings, like multiple perspectives, that foster greater critical reflection. Modern information and communication technologies-mediated and enriched learning environment (chat rooms, e-phone (Skype), e-mail, phone, forums, online discussions, teleconferences, etc.) provides the possibility of attracting students to the flexible study form, activating studies of ICT and providing an opportunity to study for everyone. The real (non-virtual) learning environment of the Master's programme is based on face-to-face communication (for instance, lectures, seminars, workshops, conferences, etc.). Virtual learning environment is based on computer-mediated communication (for instance, chat rooms, e-phone (Skype), e-mail, forums, etc.). The online spaces such as News forum, Social forum, Forum about Educational Treatment of Diversity, Forum about problems in use of computers, e-platform and other ICT, Forum about study process, Forum about each module, Chat room about organizational questions, Chat room about each module, etc. are transformative spaces where students and academic team members interact with each other, learn through a dialogue based upon collaborative opportunities, authentic experiences, interpretation, and reflection of them. Both students and academic staff have an opportunity to design the enrichment of their experience of learning and teaching in virtual and real (non-virtual) environment by making use of varied sources of information, new technologies, and several languages to reach a personally important goal.

The interuniversity Master's programme „Educational Treatment of Diversity" could be used as an example of effective informal workplace learning for the professional development of academic staff because it provides:

- modern information and communication technologies-mediated and enriched learning environment where students and academic staff interact with each other, learn through dialogue based upon collaborative opportunities, authentic experiences, interpretation, and reflection of them;
- communication from the transformative perspective, therefore both students and teachers are transformed as learners;
- academic staff mobility into different countries, which helps in understanding the paradigms of higher education in the multicultural and transcultural context of the common European education space.

Conclusion

Comparing the statistical data of the three phases of the research (in 2006, 2009, and 2010) the following tendencies were noticed: *tutorial competence* and *competence in design and implementation of didactic materials* were the least important ones in 2006 and 2009. This seems to be typical for the traditional role of an academic "teacher", who understands himself/herself as an expert in his/her academic field, and whose task is to "transmit" this knowledge to the students. Another interesting tendency was found in 2010 – the same competences (*tutorial competence* and *competence in design and implementation of didactic materials*) are rated as the most important ones – indicated the transformation of the university academic staff's understanding of the future-oriented competences.

Such factors as university academic staff's gender, work experience, quality of continuing education opportunities had an impact on the transformation of the academics' understanding of the future-oriented competences. There are the significant differences between younger and older academics' rankings of the priority of future-oriented competences in 2006 and 2010. The statistical data of 2006, 2009, and 2010 in Latvia showed the significant differences between male and female academics' rankings of the priority of future-oriented competences in all three phases of the research. The statistical data of 2009 in Latvia showed a significant difference between academic staff's rankings of the priority of future-oriented competences depending on the quality of continuing education opportunities for professional development.

The analysis of the data of online survey on determining the existing opportunities of continuing education for the professional development of Latvia's academic staff during the international research project (in 2006-2010) showed that in 2006 the formal education opportunities were preferable, but in 2009-2010 academic staff has given priority to non-formal and informal education opportunities.

The continuing education opportunities in Latvia meet the academics' subjective and objective needs for training. However, not all the important competences listed in our research instruments are covered by the existing training curriculum in Latvia. The programmes in which work experience and opportunities of qualitative continuing education are integrated (learning at workplace) promote the transformation of the university academic staff's understanding of the future-oriented competences more intensively as well as facilitate the acquisition of the university academic staff's future-oriented competences. The research findings confirm that the forms of the organisation

of the studies as well as the methods for their realisation have an impact on the development of the competences of academic staff. In order to promote the learning of students and academic staff and to develop their future-oriented competences, there is a need to improve not only the content of the continuing education programmes but also the forms of the organisation of the studies and the methods for the realisation of these programmes providing the opportunities for learning in the workplace:

- modern information and communication technologies-mediated and enriched learning environment where students and academic staff interact with each other, learn through dialogue based upon collaborative opportunities, authentic experiences, interpretation, and reflection of them;
- communication from the transformative perspective, therefore both students and teachers are transformed as learners;
- academic staff mobility into different countries, which helps in understanding the paradigms of higher education in the multicultural and transcultural context of the common European education space.

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Quality Evaluation in Preschool Education: a Collaborative Process

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Introduction

Developing quality in preschool education has come to assume great relevance in our days. It has been demonstrated that a high quality preschool education can have significant long term effects in various dimensions of a person's life, including the actual learning of the children: improved results during the schooling period, development of more adaptive social behaviours and more productive citizens. (Sylva, 1993; Schweinhart & Weikart, 1993). Moreover, as Oliveira-Formosinho (1998) points out, another pressing issue, verified by empirical data from research is that some educators attribute much importance to the observation and evaluation of children and educational contexts in spite of the difficulties faced in the collect of daily information, both in the systematic organization of information, making it difficult to reflection, evaluation and curriculum development.

In the context of preschool education, the quality movement has become present, either by creating quality prospects on organizing a set of conceptualizations, issues and criteria to consider the quality (Zabalza, 2001), or by developing formats for collaboratively develop and evaluate the quality (Pascal & Bertram, 1999), or via instruments to measure quality, or designed as part of a curriculum framework, such as PIP (High / Scope, 1995) or designed in isolation as a scale

for assessing the overall quality of early childhood education contexts, as in Portugal the scale ECERS (Harms, Clifford, & Cryer, 1980) cited by Oliveira-Formosinho & Araújo (2004) that was revised and published in Portugal last year.

The publication of the Law no. 5/97 (Framework-law of preschool education) in Portugal determines preschool education as the 1st stage of basic education as being a role essential in the educational success of children, complementing the education received at home and seeking the full inclusion of children in society. The quality of what is offered to children in preschool centres begins to be part of a reflexive process carried out by several investigators.

Recent studies have shown that the impact of early childhood education in the results obtained by children is more profound when there are long-term involvement and high quality early care and education programs (Spodek, 2002; Vasconcelos, 2006). Thus, regarding to decision making in the field of educational policies, the role of early childhood education can be defined as strategic (CNE, 2002; OECD, 2001), as investment in quality of early childhood education is a factor in educational success and more broadly a factor in preventing social exclusion. The need for enhancement of quality in preschool education is again highlighted in the report resulting from the National Debate on Education (CNE, 2007) as a factor to guarantee a continued investment in education and training.

Moreover, the Curriculum Guidelines for Preschool Education (DEB / ME, 1997) reported that evaluating the educational process and its effects involves becoming aware of action to bring the process to the needs of children and groups and its development. In addition, also state that the evaluation of children is an educational activity, and is also a basis of assessment for the teacher.

It is within this framework that follows the study presented in this article. This is a study that aims to contribute to the development of an effective strategy for assessing and improving the quality (and therefore effectiveness of learning for children) in contexts of preschool education, being developed under an initiative of the Directorate General Curriculum Innovation and Development (DGIDC)

which seeks to implement the methodology of evaluation and quality improvement project proposed by EEL / DQP (Effective Early Learning / Developing Quality Partnerships). We will then make a brief theoretical context and end with the description of the case study conducted in the context of preschool education.

1. The assessment of quality in preschool education: the Effective Early Learning Project / Developing Quality in Partnerships Project (EEL / DQP)

Despite the relativity attributed to the concept of quality, refers Bairrão (1998), there is a strong consensus to accept, at least in the countries of Europe and the United States that has to do with quality: the characteristics of people who work in these contexts, with the characteristics of programs, educational policies and research findings. We are now going to introduce some considerations about the quality evaluation that are followed on EEL / DQP Project as it is supporting the case study of our research.

Pascal, Bertram & Ramsden (1994) point out that studies have come to call attention to the fact that the process of quality development is, itself, developmental, and therefore an ongoing process. They find it useless to establish an accurate and unchanging definition of the concept of quality. The process of review and implementation of practices thus becomes part of the definition of quality (Pascal et al., 1995), mostly because it aims to support the various stakeholders of an educational context and to analyze and explain what they consider the quality of the learning process. The authors consider that assessment is more accurate and valid from a perspective shared and agreed among all those who are closest to the experiences in evaluation - "democratic approach" to assess the quality (Pfeffer and Coote, 1991 (cited by Pascal, Bertram & Ramsden, 1994). The concept of quality is defined by shared reflections and the agreement between professionals of early childhood education experts, parents and children. They consider, despite this dynamic perspective and contextualized of quality, there are

aspects of practice and the educational content that provide a core set of conditions favourable to the learning experiences of preschool quality.

The project EEL / DQP had a great influence on the quality of educational practice in the UK and it is very relevant in the collaborative work with institutions and staff. Recognizing its merit, and after one or two attempts this process started in 2007 through the Direction of Innovation and Curriculum Development of the Ministry of Education who made invitations to several institutions of higher education for developing projects of characterization and quality evaluation in preschool contexts through the implementation of the methodology for evaluating and improving quality proposed by EEL / DQP. The case study we are presenting grew out of this invitation that was done as well to the Educational Sciences Department of the University of Aveiro to Dr. Gabriela Portugal my supervisor on my master thesis. This higher process has as its ultimate objective the adaptation of *Effective Early Learning Project (EEL)* to the Portuguese context as *Developing Quality in Partnerships Project (EEL / DQP)*.

Essentially based on the work of Vygotsky (1986) about the importance of social context for children's learning, EEL / DQP underlies the notion that children's learning at any time involves three levels or areas of development, the zone of actual development (ZDR) zone of proximal development (ZPD) and future development zone (ZDF). The development area will then be the next essential element for effective learning. It is the area where the child is continually faced with challenges. Learning has at its disposal but has not acquired jurisdiction. While acting within their capacities the child is taken to overcome its current state of knowledge, understanding and capabilities of things. This is where the child often needs help from an adult or a pair that you can make the leap to the new stage of learning. Educators are efficient and able to recognize when children are operating in this area and act to support and extend their knowledge whenever it seems appropriate.

The project EEL / DQP has two main objectives: 1) developing a strategy to evaluate and improve the quality and effectiveness of children's learning in a variety of contexts of preschool education and 2) implement a collaborative,

systematic and rigorous self- evaluation that is supported and validated externally, leading directly to the planning and improvement of the action. The project EEL / DQP adopts, therefore, an inclusive model (Moss & Pence, 1994, cited by Pascal, Bertram & Ramsden, 1994) since the evaluation process is considered to be conducted with the participants and not for them.

It stands as a flexible system which allows for individual interpretation, but is built around a clear set of "parameters" of an educational practice of quality that makes it possible to establish comparisons and internal cohesion of the project as a whole. The theoretical framework of quality developed in EEL / DQP project took into account the views of many educators, parents and children as well as an analysis of research on the learning of young children.

The project thus gives a great emphasis on the concept of involvement, developed by Laevers (1994) as a quality of human activity characterized by the persistence and concentration, a high level of motivation, openness to stimuli and an intensity of experience both at the physical and cognitive level, and a deep satisfaction with a strong flow of energy. This author argues that children who reach this state of involvement are making use of a lot of mental energy, responding to his exploratory impulse, and this kind of mental energy leads to changes in the fundamental skills of the child. The work of this researcher suggests that, over time, this level of experience leads the child to be able to operate at a higher level, that is, meaningful learning occurs which can be demonstrated by superior performance on tests of learning.

Because education and teaching are developed through a relationship between people, Portugal (1996) reports that the enrichment and the suitability of the context (in terms of spaces, materials, available activities, routines, etc.) are not sufficient to establish a quality educational practice. The different interactions with the child throughout the day are a fundamental requirement. This dimension was called by Laevers (1997) as "adult style", having conferred an essential role in achieving the educational goals of the childhood. This dimension is then also valued within the EEL / DQP.

In its approach to quality assessment, the EEL / DQP takes into account a contextual approach, process and results, thus:

a) *evaluation of the context* that encompasses aspects of the educational establishment which define the environment in which the activity takes place, focusing on the ten dimensions of quality: Aims and objectives; Learning experiences /curriculum; Teaching and learning strategies; Planning, assessment and record keeping; Staffing; Physical environment; Relationships and interaction; Equal opportunities; Parental partnership, home and community liaison and Management, monitoring and evaluation.

b) *evaluation of the process* that focuses on what is experienced in the educational establishment and is assessed by two scales: *The child involvement scale* developed from *The Leuven Involvement Scale for Young Children (LIS-YC)* (Laevers, 1994) which comprises five levels of involvement in the activity: Level 1 - no activity; level 2 – frequently interrupted activity; level 3 – mainly continuous activity; level 4 - continuous activity with intense moments, level 5 – sustained intense activity, to be read together with the indicators of involvement (concentration, energy, creativity and complexity, facial expression and posture, persistence, precision, reaction time, language, and satisfaction) and the Adult Engagement Scale based on Adult Style Observation Schedule for Early Childhood Education (ECE-ASOS) (Laevers, 1996) that includes three categories of analysis, each marked on a scale of 1 to 5: sensitivity (the adult attention to the feelings and emotional well-being of children and includes indicators of empathy, sincerity and authenticity), stimulation (how the adult encourages the child) and autonomy (degree of freedom which the adult gives children to experiment, give opinions, choose activities and express their ideas)

c) *evaluation of the results* that focus on the products and the effects of learning in educational contexts.

2.- Project phases

In pursuing its objectives, the development of EEL / DQP takes place over four phases (Pascal et al., 1995)

2.1 - Evaluation phase

The researchers and participants work together to *document* and *assess* the quality of preschool learning in this context. This phase begins with the *Quality Documentation* using a context proforma, documentary analysis, photographs, physical environment observation proforma, professional biographies and interviews with manager, staff, parents and children. The process of *quality assessment* is best carried out using the two scales mentioned above: The Child Involvement Scale, which measures the level of involvement of children in activities and The Adult Observation Scale, which measures the qualities of a proper education evident in the style of the adult in terms of sensitivity, stimulation and autonomy. Pascal and Bertram, the project coordinators, consider these two techniques central to the action of the project.

2.2 - Action Plan Phase

Participants meet to set priorities and outline a plan of action. Children, parents, community members and local colleagues, they all have something to contribute, so they should be given the opportunity to do so.

2.3 - Improvement Phase

The plan of action to improve quality is implemented and monitored.

2.4 - Reflection Phase

Participants are encouraged to reflect on the process of evaluating and improving the quality and make a critical of the impact of the action plan.

We believe we have clarified the points underlying the EEL / DQP and the study we conducted. We will then focus on this case study.

3. Quality Assessment: a case study in a preschool context

This research has two main objectives which we are guided by: (1) evaluate the quality on their contextual and procedural aspects and (2) Identify the advantages and disadvantages of the Project Developing Quality in Partnerships (DQP) in a public context of preschool education.

Because the time available for conclusion of the dissertation, which fits the study was limited, we could only develop the first two phases of the project EEL / DQP (evaluation and action planning). Thus, the last two phases of the project (quality improvement by implementation of a proposed action and its final evaluation and reflection) are not developed in this study. Essentially, it aimed to attend the quality of children's experience and quality of the educational relationship between children and adults, helping professionals in early childhood education to look to learning and teaching in a critical, reflective and informed way.

During the investigation, statements and instruments designated by the Project EEL / DQP were used in a way as faithful as possible to the original such as one of the objectives defined for the research was to understand the sustainability of its implementation. Thus, we have collected data per institutional documents, interviews and questionnaires. In addition to the four early childhood teachers and four auxiliary staff performing functions in the preschool were also interviewed five parents and seven children. Participant observation was also conducted in four activity rooms, selected at random for observation, six children in each room, 5, 4 and 3 years, of both sexes. The observation was made with support from the Observation Sheet Educational Opportunity for Children in the Operating Project EEL / DQP (C. Pascal, Bertram, A., Ramsden, F., 1994) and the evaluation procedure was carried out by the Child Involvement Scale and Adult Observation Scale, referred to earlier and the Child Observation Sheet. The aim of the last one is to provide an overview of the child's experience within the day.

3.1 General characterization and results

a) Physical context
On the ground floor there is an entrance hall which gives access to the dining room and kitchen, rooms for activities, a total of five, and the bathrooms: two for children, one disabled and one for staff. On the ground floor there is also a multipurpose hall, a room with some stuff (games, toys) that could serve as a dormitory but that doesn't have these functions at the time being just a support room for non-teaching component, and an office. All rooms have direct sunlight and space is all of it with large windows and glass doors. On the first floor there is an entrance hall, a meeting room, two offices, one

support room and two bathrooms. Outside, in the front there is a playground equipped with swings and a slide. Four of the rooms are occupied by teachers and related groups and a fifth room is used for gymnastics, and any supporting materials directed to that end. All rooms have glass doors with access to an outdoor area with benches and room for plantations.

b) Staff

In the preschool there are 4 early childhood teachers. The teacher in the classroom 1 is also the coordinator of the preschool and the one in classroom 2 has additional functions of the Coordinating Council of Teachers. There is also a teacher who gives support to a group of preschools, while exercising functions of Vice-President of the Executive Council. Two of the teachers belong to the Board of Educational Zone (QZP) and 3 to the School Board, one of which is highlighted by specific conditions. In this preschool, there are 4 auxiliary Educational staff and also 3 auxiliary services staff.

In this preschool we find four classrooms with a number of children per group between 19 and 21. Each group is accompanied by an early childhood teacher and an auxiliary Educational staff. The groups formed are heterogeneous aged 3 to 5 years. The distribution of children per classroom does not belong to any particular factor beyond the number of children who remain in the previous year and the number of entries available in the current academic year.

Table I shows data from the population that frequents the preschool by sex and age.

Classrooms	Children's	Sex		Age (years old)		
		Male	Female	3	4	5
1	20	5	15	3	10	7
2	21	12	9	5	8	8
3	19	7	12	7	7	5
4	20	11	9	9	5	6
Sum	80	35	45	24	30	26

Table I: Groups characterization

We verified the existence of a higher percentage of children aged 4 years (38%) followed by 5 years (32%), being the lowest number in three years (30%). The number of female children (56%) is slightly higher than the number of male children (44%), the difference being situated at the level 4 years of age. We can see that the number of children aged 3 years is higher in classroom 4 (38%) compared to the number of children under three years in classroom 3 (29%), in classroom 2 (21%) and in classroom 1 (13%), also in classroom 4 there is a greater disparity between the number of children aged 3 years (45%), 4 years (25%) and 5 years (30%). The first classroom stands out from others because of it has a higher number of children under 4 years (50%) compared with those of 5 (35%) and especially with the 3 years (15%).

It is also one in the classroom we found a group consisting of a fairly large number of female children (75%) compared with 25% male, not noticing this distinction in other rooms.

Generally, the analysis of interviews and documents provided by professionals who collaborated on the study found that the teachers expressed agreement on the need for an environment that makes children happy (aware of the wellbeing), to give them enriching experiences (stimulating and mobilizer of situations of high involvement), which is the starting point for establishing the successful relationship and a balanced development of the child. They mention also developing competences as essential for successful integration of children in society.

The content are developed with the underlying curriculum guidelines and the general objectives of the Curriculum Project of the Institution, which is in accordance with the Education Project and the Annual Plan of Activities of the schools Grouping, which are essentially thematic. Learning objectives are set by each teacher in the classroom curriculum, taking into account children's ages and characteristics of the group as well as curriculum guidelines for preschool education. They are mostly described by teachers as objectives of social development and language development. But it also emerged a major concern, with the acquisition of learning concepts and pre-academic, worked primarily by

the completion of worksheets (characterized by much repetition). On the walls there is a preponderance of work performed by children in as free or oriented worksheets which include painting.

The classrooms are organized by areas that remain throughout the year. It was possible to find some common areas in the four classrooms, game area, area of buildings, area of information technology; area of meeting / conversation; area of artistic expression; area of the house, library. There are also some distinctive spaces, according to the projects that are being developed at the moment and with the options of teaching professionals, particularly the area of mathematics (one classroom) and the writing area (another classroom). The areas most required after are the constructions (two classrooms), to the house of artistic expression and information technology (two classrooms). He was also a feature common to all contexts, the absence of sciences area. Some of the teachers attributed the lack of economic means to organize. Most teachers said that they would have more material and more diversified and it does not happen for economic reasons. The areas that are less deprived are the house and expressions. The areas of greatest need are the libraries, large buildings (except one classroom) and games (except one classroom).

Although the routines are similar, the way teachers behave in the classroom is quite diverse from classroom to classroom. It is unusual to have a systematic sharing, the team agreed on ways of action and activities to be undertaken. All considered it important to share the objectives outlined for the auxiliary activities with the education but only two do. Likewise, do not have the habit of sharing the Curriculum Project Group nor the Education Project at the nursery assistants with whom they collaborate.
None of the teachers takes notes of the activities in spite of all they say make their evaluation (just mentally) through predefined objectives and feedback from children.

This analysis around general ideas, values and objectives behind the educational practice developed in the preschool, we proceed with the presentation of some data collected through observation of the processes occurring in this context,

considering the Child Observation Sheet and the Scales of Child Involvement Scale and Adult Observation Scale.

The child observation sheet allow us to evaluate the level of child initiative; organization of the group; interaction, learning experiences and involvement.

An important difference in the models of early childhood education, especially for children from three to five years, lies in greater or lesser centrality of the child's initiative in the conduct of the educational process (Oliveira-Formosinho, 2000). The initiative was observed with the child observation sheet of educational levels ranging initiative between Level 1 (no choice for the child. He/she is obliged to do the activity) to Level 4 (child has free of choice).

We could verify through data presented that the percentage of observations to the level where there is a choice given to the child who has to make the proposed activity, was highest (55%), followed by the percentage of observations at level 4, where it is given total freedom of choice (34%). Levels 2 (7%), offering a limited number of choices between certain activities and 3 (3%), where there are some activities that can not be chosen - were seen less often. The situation of complete freedom of choice was mainly observed in free play situations, which arise mainly when the teacher is busy with other tasks and less attentive to the ongoing activities.

Regarding the organization of the group, another of the dimensions assessed, the situation with the highest prevalence and distinguish itself from others is the time in large group (48%), followed by individual activities (25%) and the small-group activities (19%). The situation depreciated is pair (8%).

If we articulate the times of "obligatory activities" (55%) and the operating times in "large group" (48%) we can conclude that the most common, in terms of educational dynamics is that children's work in large group in obligatory activities, and in times when the teacher is occupied with other tasks is when the children have the opportunity to choose freely and play (34%).

These data make us think the results published by (Montie, Xiang, & Schweinhart, 2006) that highlighted the importance of activities initiated by children and activities in small groups at the expense of large group activities in classrooms for children at 4 years. We found a positive association between the possibilities of free game and the results of children in terms of language and cognitive level at age 7. These authors consider that free activities provide children the opportunity to talk informally with other children, assigning roles in dramatic play, setting rules for the games, making plans for the buildings with blocks, and provides educators an opportunity to involve children in conversations related to their games, introducing new vocabulary relevant to the interests of children. The activities in large group, by contrast, are not defined taking into account the interests and skills of each child and may be too difficult or too easy, which makes learning less likely. To learn, children need to engage in problem solving and exploration of materials, a situation that is more likely to occur when the child plays. As pointed out by Portugal (2009), "in playing / free activity children are fully involved in their activity, acting on their own level of development and challenge in control. The enthusiasm and concentration in which children are involved in these activities indicates the value of these highly developmental experiences. When children play they solve problems, make discoveries, express themselves in various ways, using information and knowledge in meaningful context (...) It is the task of engaging children in adult activities, seeking to understand what really mobilizes them, what issues is up to them, what is really important to them, which give direction to activities. In children, the play, as several authors point out (e.g. Bruner, 1972; Moyles & Adams, 2001) is a form of learning and sensitive and knowledgeable teachers can through stimulating interactions and interventions ensure children's learning and curriculum development. This role in the adult watching the child's natural impulse evident in his play, mobilizes high levels of involvement or engagement in activities, creating zones of proximal development, and ensures learning, requires indeed the highest competence of the teacher (Laevers, 1996, 2006).

In the graph I shown below we can see the results of an assessment with the scale of involvement.
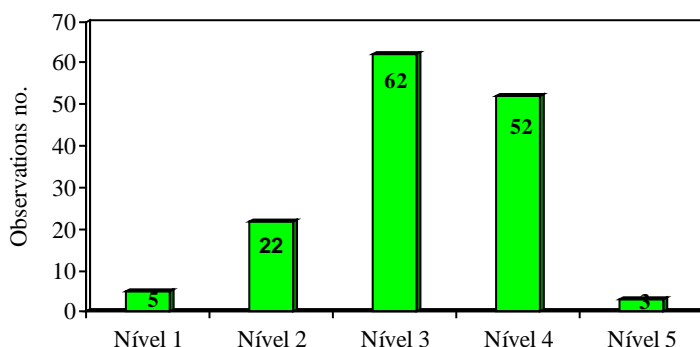
Grapf I - Involvement Scale

In observations we find an average level of involvement of 3.2. Thus we conclude that the average level of involvement found is near the level that defines the quality threshold which is, according to the author of the scale, 3.5, although clearly not achieve. Means that the average of the quality of involvement most occurring in the context shows that children work mainly in a more or less continuous but with lack of true concentration, motivation and pleasure. It is a routine operation without major investment of energy. The motivation on task and delivery are limited, the child does not feel challenged. Easily stops the activity when an attractive stimulus appears.
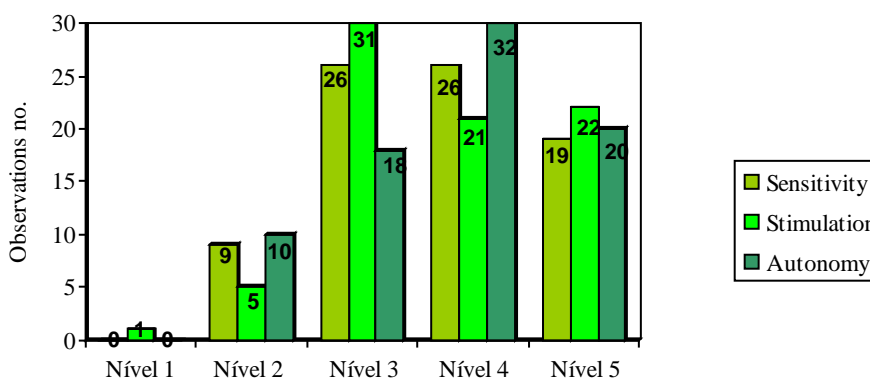
Graph II - Adult Observation Scale

Nevertheless a significant number of episodes were identified on a level 4, where there are clear signs of involvement but not during the entire period of observation. The child engages in activities without interruption but for a short time the attention is more superficial. Happen, however, moments of intense mental activity, in which the child

feels   challenged   and   his/her   imagination   is   stimulated. Graph 2 presents data on the Adult Observation Scale on the adult dimensions sensitivity, stimulation and autonomy.

The average size calculated for the sensitivity is 3.8, for stimulation is 3.7 and Autonomy is 3.8, all being above the defining quality of 3.5. However, it is important to note that these are average values of the institution and that the averages vary in each classroom. Thus, for example, in the case of stimulation, two educators are above 3.5. and the other two below this limit.

Establishing some connections with other works (Louis, 1998; Formosinho-Oliveira, 2000; Silva, 2001; Leal, 2002; Trinity, 2002) around the behaviour patterns of preschool teachers or so-called style of the teacher, we can assume that verified data meet Júlia Formosinho whose data indicate that early childhood Portuguese teachers are especially strong in sensitivity, have support levels of autonomy and are weaker in stimulation.

Already the work of Helena Luís (1998), which involved eight teachers of the Santarem region, show different data: in regard to their stimulation results show especially teachers "neutral" (there speech is not really rewarding, challenging, thought of the complexified child or a facilitator of communication). In dimension sensitivity Luís found that the most common interventions are not facilitating, and promoting autonomy the dimension less observed (the capacity for initiative of children is not recognized in an active way and children are not involved in developing rules and resolving conflicts). Similarly, the work of Silva (2001) (with 12 educators in the district of Aveiro) and Leal (2002) (with 46 educators from the metropolitan area of Porto), directed by Joaquim Bairrão, showed a strong directive and controlling the interactions between caregivers and children, these data are also corroborated by Trindade (2002), which found in three teachers studied, essentially directive practices, even if they claim an approach focused on the interests of the child and the individual peculiarities of development! The activity is directed by the teacher, who knows what is important for the child, and is equally important for all children!

These data, linked to an overall reading of emerging data in this study (institutional context, degree of children's initiative, the group's dominant organization, style and

level of involvement of adults) seem to be completed giving us a vision that confirms something mentioned by Portugal, Liborio and Santos (2007): - the persistence of an educational culture where there is great concern with the activities offered and directed by adult and a devaluation of free activities, routines, relationships and dialogues, established and emerging challenges in the action and reporting of children, and designed the curriculum regardless of the needs and interests of children (intervention approach focused on the task of the educator and culture), critical thinking, questioning of practice and teamwork is not sufficiently implemented (the tendency for accommodation and adjustment to institutional culture); little involvement in the resolution of problems (rarely attends innovation or entrepreneurial attitudes).

3.2. Evaluation of the process by the Early childhood teachers

Throughout the year, the preschool teachers involved in the project have been giving us some feedback about their experience, "feeling" this extremely important and was being cared for throughout this process. The fact that procedures will be videotaped and data are collected from other elements in addition to the professional elements in the institution, including the parents of the children was a factor which has added some apprehension on the one hand, but then expectations on the other. But despite these fears, the project was greeted with a huge reception from educators to play roles in the institution, which is reflected in the words of one of the teachers: "It feels good that someone gives us attention and wants to work together with us. It's good to feel that we are not alone. " Thus, over time the initial fears gave way to other feelings, "the observer became part of our experiences and I felt that, after all, being observed, contrary to intimidate me helped me to rethink my practice on a daily basis, especially at the level of my individualized intervention. " The effects of the project can also be seen in the following words: "led me to reflect on my practices and my way of being with my group, to verify that in my day to day, promoting the quality and children's learning and development of its competences in an effective manner if there was balance and diversity of activities and if they enhanced the autonomy and discovery for children". Finally, the voice of another teacher: "This is fun to see ourselves in the mirror and think"

3.3 Action Plan

Given the final analysis result of observations made, the educators in conjunction with collaborators in the DQP project, talked in order to find ways of acting that increased levels of involvement of children and to balance weaknesses observed and could not provide the level quality desirable by all. So, after being discussed the 10 dimensions of quality underlying the project DQP, and its implementation in the context of childhood in the study were identified by teachers some aspects to introduce on the Action Plan.

Thus, the level of Learning and Teaching Strategies was agreed that it would be interesting to diversify activities focusing less on work and large group activities directed by increasing the interaction between the teacher and children during free activities and focusing on project methodology.

In terms of Planning, assessment and record keeping of activities, the participation of other experts, from parents and children in the preparation of Curriculum Programs Group was one of the points considered week. Also the interaction teacher-assistant in the planning of activities was taken into account.

In terms of the Physical Environment was considered to be important to diversify the materials and make at least one area of work that can be changed throughout the year depending on the interests of children.

At the level of relations and interactions failure of cooperative work was a factor noted and taken into account especially considering how to share the wealth and diversity found in different classrooms would be a growth factor for everyone.

A last commentary

The experience that this study provides, raising the level of reflection among teachers should be warmly positive. Thus, we believe the evaluation system played by EEL / DQP project can only bring good results when generalized. However, the availability of mental time and energy required from the staff is undoubtedly significant. The complexity of the process and the type of analysis needed to develop this project evaluation and quality improvement will be too time consuming and demanding for the teachers to develop in an institution, often involved in various overwhelming tasks, so that they can feel truly motivated to accomplished in spite of its undeniable contribution to the improvement of their practices. Its success seems to depend largely on the presence of an external element in the preschool that go along with this process ("critical friend").

Since making the assessment as a tool for quality development, it becomes urgent to develop a culture of evaluation in education (CNE, 2002). However, such a change can only be achieved with the use of mechanisms to monitor, support, contractual agreements to create a dynamic of viable and consistent quality transformation.

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Educational Effectiveness and Quality Assurance
in Alternative Education

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Introduction

Alternative education, also known as non-traditional education or educational alternative, includes a number of approaches to teaching and learning other than mainstream or traditional education. While some have strong political, scholarly, or philosophical orientations, others are more informal associations of teachers and students dissatisfied with some aspect of mainstream or traditional education. Educational alternatives, which include author's schools, charter schools, alternative schools, independent schools, and home-based learning vary widely, but often emphasize the value of small class size, close relationships between students and teachers, and a sense of community.

There aren't any definite criteria for defining educational institution as alternative. It's necessary that there should be a point which is not practiced by traditional education systems or which is rejected by them. There are some points taken into consideration when defining some groups in which one element is traditional and the other one is alternative:

- as to the funding source schools may be state and private;
- as to the education objectives schools may be comprehensive, transgressive, holistic etc.;

- as to the attitude to religion schools may be secular and religious;
- as to the contingent schools may have segregation and inclusive organization;
- as to having the author's concept schools may be traditional and author's.

Educational alternatives are often rooted in various philosophies that are fundamentally different from those of mainstream or traditional education. Yet there exists scant evidence as to whether or not these ventures actually work or, indeed, as to how they might be evaluated. It might be useful to compare some of the lessons of alternative education (Punch, M., 1974: 101 – 1180). The common things uniting these ventures are that they wish to escape from formal structures, they 'guarantee' the child almost complete freedom by deinstitutionalizing and de-formalizing the educative process. The problem for educationalists is how does one go about evaluating the quality of these experiences.

But 'quality' itself is not a neutral word. It is a socially constructed concept, with very particular meanings, produced through what we refer to as the discourse of quality. The discourse of quality has influenced the childhood research field over the last 30 years or so. It has generated many studies, mainly American, although an increasing number are coming from other countries, indicating the spread of the discourse of quality in the childhood field. In this material we deconstruct this discourse, look for its origins and analyse its application to the alternative education field where it has become a dominant discursive regime.

Quality and its evaluation can thus become an integral part of a new control system, assuming a policing function (Lundgren, U., 1990: 27), so that the power that decentralization gives away with one hand, evaluation may take back with the other (Weiler, H., 90: 27). So in the field of alternative education, we can see a growing body of experts - researchers, consultants, inspectors, evaluators and so on – whose job it is to define and measure quality. Increasingly, we rely on this expert system to make judgments for us about the services we want or need for ourselves and our children.

We look to these experts to tell us that what we are getting is good quality. Increasingly overloaded, we seek reassurance rather than understanding; we want the guarantee of expert assessment instead of the uncertainty of making our own judgments.

The discourse of quality has an obvious appeal as part of a search for clear, simple and certain answers underwritten by academic, professional or other authority. Part of us may know we need to learn to live with uncertainty - but another part of us may still desire objectivity and a quest for stable criteria of rationality. The investigator is seen to be able to adopt an objective, value-neutral position with regards to the subject matter under investigation. This scientific detachment is made possible by the use of research tools and methodologies, which serve to limit the personal contact between researchers and researched and provide a safe guard against bias (Clarke, A., 1995: 67 – 81).

The process of specification of criteria, and their systematic and methodical application, is intended to enable us to know whether or not something achieves the standard. Central to the construction of quality is the assumption that there is an entity or essence of quality, which is a knowable, objective and certain truth waiting to be discovered and described.

The discourse of quality values and seeks certainty through the application of scientific method that is systematic, rational and objective. At the heart of this discourse is a striving for universality and stability, normalization and standardization, through what has been termed criteriology, the quest for permanent or stable criteria of rationality founded in the desire for objectivism and the belief that we must somehow transcend the limitations to knowing that are the inevitable consequence of our sociotemporal perspective as knowers.

Since its emergence on the scene in the early 1980s the discourse of quality has been applied to the field of alternative educational institutions in a number of ways, including research, measures, standards and guidelines on good practice. These have all involved, in various forms, the development and application of criteria, to enable evaluation of the standards or performance of

childhood institutions. These criteria mainly fall into three groupings: structure, process and outcome.

Evaluation criteria in alternative education

Williams, a reviewer of the different approaches to quality in childhood services concludes that every approach 'can be analysed in terms of its Input, Process and Outcome' although he adds that 'some methodologies are stronger on one aspect than another' (Williams, P., 94: 17). In particular, outcome criteria are less often evaluated, mainly because there are difficulties, financial and methodological, in collecting and interpreting data about children's development and performance in a way that enables it to be neatly related to the performance of childhood institutions. For example, in the real world children may attend a number of different institutions during their early childhood making it difficult to tease out the outcomes from attending any one particular institution; and a child's development needs to be tested both before starting to attend an institution and after leaving to get a clear idea of the impact of that particular institution. Consequently, structural and process criteria have been used as a proxy for outcomes, so that researchers and others often identify quality with characteristics of care facilities that correlate with favourable scores on developmental tests.

One of the main consequences of this research has been to establish relationships between some structural and process criteria on the one hand, and some outcome criteria: 'research in child development and early childhood education has identified several clear indicators of quality care, defined in terms of their predictive significance for children's development' (Moss, P., 1999: 99).

Another product of this research work within the discourse of quality has been the development of measures which have come to be used by many researchers as a tried and tested means of assessing quality.

The best known and most widely used example is the Early Childhood Environmental Rating Scale (ECERS) (http://ers.fpg.unc.edu/node/82). The

ECERS was developed by two American early childhood specialists, Thelma Harms and Richard Clifford, in the early 1980s and has been described by its authors as 'a relatively short and efficient means of looking seriously at the quality of the [early years] environment . . . [covering] the basic aspects of all early childhood facilities'. Designed for use in a variety of forms of early childhood institution in the United States, a country with a very particular economic, social, cultural and political context, it has nevertheless been used increasingly in other countries across the world by both researchers and practitioners and seems set to become a global standard and the basis for an increasing body of cross-national comparisons of early childhood institutions.

The Early Childhood Environment Rating Scale provides an overall picture of the surroundings that have been created for the children and adults who share an early childhood setting. The ECERS consists of 43 items that assess the quality of the early childhood environment including use of space, materials and experiences to enhance children's development, daily schedule, and supervision. This 43 item scale covers seven categories (See table 1).

Table 1: The Early Childhood Environment Rating Scale

Space and Furnishings	1. Indoor space
	2. Furniture for routine care, play and learning
	3. Furnishings for relaxation and comfort
	4. Room arrangement for play
	5. Space for privacy
	6. Child-related display
	7. Space for gross motor play
	8. Gross motor equipment
Personal Care Routines	9. Greeting/departing
	10. Meals/snacks
	11. Nap/rest
	12. Toileting/diapering
	13. Health practices
	14. Safety practices
Language-Reasoning	15. Books and pictures
	16. Encouraging children to communicate
	17. Using language to develop reasoning skills
	18. Informal use of language
Activities	19. Fine motor
	20. Art
	21. Music/movement
	22. Blocks
	23. Sand/water
	24. Dramatic play
	25. Nature/science
	26. Math/number
	27. Use of TV, video, and/or computers
	28. Promoting acceptance of diversity

Interaction	29. Supervision of gross motor activities
	30. General supervision of children (other than gross motor)
	31. Discipline
	32. Staff-child interactions
	33. Interactions among children
Program Structure	34. Schedule
	35. Free play
	36. Group time
	37. Provisions for children with disabilities
Parents and Staff	38. Provisions for parents
	39. Provisions for personal needs of staff
	40. Provisions for professional needs of staff
	41. Staff interaction and cooperation
	42. Supervision and evaluation of staff
	43. Opportunities for professional growth

Each item is ranked from 1 to 7. A ranking of 1 describes inadequate conditions while a ranking of 7 describes excellent conditions. A training video, instructor's guide, and video guide and training workbook are available to assist with training.

The goal of the research in general is to compare alternative education systems in traditional EU countries (represented by France and Germany) and those joining in two last enlargements (represented by Poland and Bulgaria) in terms of political, scholarly, or philosophical orientations, class size, relationships between students and teachers, and a sense of community etc. Special attention is paid to the problem of assessment and measuring quality of alternative educational institutions in comparison with traditional (mainstream institutions). As the raised problem is too wide we first of all paid attention to the school environment and took the ratio of the data got at the selected alternative schools to corresponding data from the mainstream schools.

Selection of Schools

Three groups of countries were selected for participation in this study. These were France, Germany, Poland, and Bulgaria. The choice of countries was prompted by the fact that Germany and France are the countries with long traditions of alternative schooling, in Poland and Bulgaria the alternative schools started appearing mainly in late 80s of the previous century. The schools under analyses were the alternative institutions of secondary education (for children between 5 or 6 and 10 or eleven).

Selection of Classrooms

A sample of 8 alternative classrooms was observed. They were randomly selected for observations (2 classrooms at each school).

Selection of Participants

All Teaching staff in each selected classroom. However, to collect more in-depth demographic information (e.g., languages spoken by teachers and children in their classroom), we chose to interview the head or lead teachers in each classroom, because such staff typically set the tone and style for classroom activities and interactions. In the 8 observed classrooms, 23 teaching staff were observed and interviewed.

Directors

We interviewed the director of each school to ensure that a person with an overview of center operations and access to center records could provide details about salaries, turnover and staff qualifications. Directors' job definitions varied depending on the size and structure of each school. In some cases, directors

or assistant directors worked in the classroom, in others, the director's role involved minimal classroom contact and focused primarily on administrative tasks.

Measures

Measures included observational instruments routinely used to observe and assess the school quality and teacher-child interaction as well as interview protocols for teaching staff and center directors adapted or developed for the study.

Classroom Observations

We focused on whether programs included developmentally appropriate materials, activities and interactions around seven content areas, as detailed in Table 1. and scored on a seven-point scale: 7=excellent, 5=good, 3=minimally adequate and 1=inadequate. Even-number scores indicate that some of the requirements of the higher rating are met, but others are not. We calculated scores based on the average of all items. Than we found the ratio of the data got at the selected alternative schools to corresponding data from the mainstream schools. The ratio which is more than 1 demonstrated the environmental conditions better provided at the analyzed alternative classrooms; less than 1 – the mainstream classrooms provided the better school environment. The further comparisons were based on the obtained ratios serving the ground for some conclusions.

Interviews

Directors provided information about the turnover, compensation and professional background of all staff employed at their schools. The teachers in each classroom provided information about school practices related to inclusion and diversity, and the linguistic match among children, their parents and staff.

Procedure

Following an initial phone call to directors, research assistants contacted the directors again by phone to make appointments to collect data at the schools. In each center, data collection began with a two-hour classroom observation. In order to ensure that their scoring was not influenced by each other's perceptions of the classrooms, researchers were instructed not to discuss the observations. Following the observation, the research assistants arranged to interview the teachers about their own background, their language skills and the languages spoken by children in their classroom. The director interviews occurred following the observations.

In summary, the results of this study establish:

- A correlation between alternative schools and a positive school environment in traditional EU countries and those that joined in the last enlargement.
- Higher levels of each factor for the alternative schools as compared to the conventional school in these countries.

The results were summarized in the table (See table 2) where shown the scores in each item in the 1 – 7 scale for 2 alternative schools (AS1 and AS 2), 2 mainstream schools (MS1 and MS2) in each country, the mean value, and the ratio received by dividing the MS scores by AS scores. The analysis of the study results is based on the ratio and depends on whether the ratio is more or less than 1.

Table 2: The distribution of scores and ratios by countries

		Germany and France						Poland and Bulgaria					
		AS 1	AS2	mean value	MS 1	MS 2	mean value	**ratio**	AS 1	AS2	mean value	MS 1	MS 2	mean value	**ratio**

	Item														
Space and Furnishings	1. Indoor space	5	5	5	5	5	5	**1**	5	4	4.5	4	4	4	**1.1**
	2. Furniture for routine care, play and learning	6	5	5.5	4	4	4	**1.4**	3	5	4	5	3	4	**1**
	3. Furnishings for relaxation and comfort	6	5	5.5	3	4	3.5	**1.6**	4	4	4	3	2	2.5	**1.6**
	4. Room arrangement for play	7	6	6.5	6	6	6	**1.1**	5	4	4.5	4	4	4	**1.6**
	5. Space for privacy	3	4	3.5	3	4	3.5	**1**	4	4	4	2	1	1.5	**2.7**
	6. Child-related display	4	4	4	4	4	4	**1**	5	5	5	3	3	3	**1.7**
	7. Space for gross motor play	5	4	4.5	5	5	5	**0.9**	6	5	5.5	5	5	5	**1.1**
	8. Gross motor equipment	5	5	5	5	5	5	**1**	4	4	4	3	3	3	**1.3**

Personal Care	9. Greeting/departing	5	5	5	5	5	5	**1**	5	6	5.5	4	3	3.5	**1.6**
	10. Meals/snacks	7	6	6.5	5	5	5	**1.3**	5	5	5	4	4	4	**1.2**
	11. Nap/rest	7	6	6.5	5	5	5	**1.3**	6	5	5.5	2	3	2.5	**2.2**
	12. Toileting/diapering	7	7	7	5	5	5	**1.4**	5	5	5	2	2	2	**2.5**
	13. Health practices	6	6	6	5	5	5	**1.2**	6	5	5.5	4	5	4.5	**1.2**
	14. Safety practices	5	5	5	5	5	5	**1**	5	5	5	5	5	5	**1**
Language-Reasoning	15. Books and pictures	4	3	3.5	5	6	5.5	**0.6**	3	3	3	4	5	4.5	**0.7**
	16. Encouraging children to communicate	7	7	7	4	5	4.5	**1.6**	5	6	5.5	2	3	2.5	**2.2**
	17. Using language to develop reasoning skills	5	4	4.5	5	5	5	**0.9**	6	6	6	5	5	5	**1.2**
	18. Informal use of language	6	6	6	4	3	3.5	**1.8**	4	5	4.5	3	4	3.5	**1.3**
Activities	19. Fine motor	4	4	4	4	4	4	**1**	3	2	2.5	1	2	1.5	**1.7**
	20. Art	7	6	6.5	4	3	3.5	**1.9**	6	6	6	4	5	4.5	**1.3**
	21. Music/movement	7	7	7	6	5	5.5	**1.3**	7	7	7	5	5	5	**1.4**
	22. Blocks	5	4	4.5	2	3	2.5	**1.8**	5	6	5.5	3	4	3.5	**1.6**
	23. Sand/water	7	7	7	3	3	3	**2.3**	6	6	6	2	2	2	**3**
	24. Dramatic play	7	7	7	2	3	2.5	**2.8**	5	7	6	3	2	2.5	**2.4**
	25. Nature/science	7	7	7	4	4	4	**1.8**	5	6	5.5	4	3	3.5	**1.6**
	26. Math/number	3	4	3.5	6	6	6	**0.6**	3	3	3	6	7	6.5	**0.5**
	27. Use of TV, video, and/or computers	3	4	3.5	5	5	5	**0.7**	5	6	5.5	5	5	5	**1.1**
	28. Promoting acceptance of diversity	4	4	4	6	5	5.5	**0.7**	3	3	3	3	3	3	**1**
Interaction	29. Supervision of gross motor activities	6	5	5.5	4	5	4.5	**1.2**	4	4	4	2	3	2.5	**1.6**
	30. General supervision of children (other than gross motor)	6	6	6	5	5	5	**1.2**	5	6	5.5	3	4	3.5	**1.6**
	31. Discipline	3	2	2.5	5	6	5.5	**0.5**	1	2	1.5	6	6	6	**0.3**
	32. Staff-child interactions	7	6	6.5	4	4	4	**1.6**	6	6	6	4	3	3.5	**1.7**
	33. Interactions among children	6	6	6	4	4	4	**1.5**	5	6	5.5	3	3	3	**ra**

Program Structure	34. Schedule	2	3	2.5	5	6	5.5	**0.4**	2	2	2	6	6	6	**0.3**
	35. Free play	5	5	5	2	3	2.5	**2**	6	6	6	3	3	3	**2**
	36. Group time	5	5	5	4	4	4	**1.3**	6	5	5.5	3	4	3.5	**1.6**
	37. Provisions for children with disabilities	6	5	5.5	6	6	6	**0.9**	4	5	4.5	2	1	1.5	**3**
Parents and Staff	38. Provisions for parents	5	5	5	5	5	5	**1**	4	4	4	3	2	2.5	**1.6**
	39. Provisions for personal needs of staff	5	5	5	4	5	4.5	**1.1**	5	5	5	3	3	3	**0.6**
	40. Provisions for professional needs of staff	6	7	6.5	4	4	4	**1.6**	6	6	6	4	3	3.5	**0.6**
	41. Staff interaction and cooperation	6	7	6.5	4	4	4	**1.6**	5	5	5	4	4	4	**0.8**
	42. Supervision and evaluation of staff	6	5	5.5	6	6	6	**1.9**	6	6	6	5	6	5.5	**0.9**
	43. Opportunities for professional growth	5	4	4.5	6	6	6	**0.7**	5	5	5	5	5	5	**5**

School Environment

At first we scored on a seven-point scale the areas dealing with *Space and Furnishings* at AS and CS of the two traditional EU countries. Then we did the same at AS and CS of the 2 new EU countries.

In the section dealing with Space and Furnishings the comparison showed better alternative schools results in organizing Furnishings for relaxation and comfort and availability of Room arrangement for play. These were equally expressed in both traditional and new EU countries.

Moreover, alternative schools of the new EU countries demonstrated better school environment in terms of Room arrangement for play (1.6), Space for privacy (2.7), Child-related display (1.7) in comparison with the same things in conventional schools.

The section dealing with Personal Care showed the higher ratio in the new EU countries in which analyzed alternative schools were better than conventional

in Greeting/departing (1.6), rest (2.2) and Toileting (2.5). We'd like to draw your attention to the fact that it doesn't mean that the mentioned care components were organized in a worse fashion in the first group of countries. The results can be explained by better conditions created for children at conventional schools in comparison with those created in the second group of countries (compare: 5:3.5; 5:2.5; 5:2).

In the *Language-Reasoning section* the main advantage of alternative schools was unanimously expressed by encouraging children to communicate (1.6 and 2.2), and informal use of language (1.8 and 1.3), while the use of books and pictures was eliminated (0.6 and 0.7).

The *Activity Section* demonstrated that the activities prevailing at alternative schools of both groups of countries in comparison with conventional schools are more aimed at: Art (1.9 and 1.3), Music and movement (1.3 and 1.4), Blocks (1.8 and 1.6), Sand/water (2.3 and 3), Dramatic play (2.8 and 2.4), Nature/science (1.8 and 1.6). The conventional schools rated much higher at. Math/number (0.6 and 0.5), Use of TV video, and/or computers (only in traditional EU countries) (0.7), Promoting acceptance of diversity (0.7 and 1).

The *Interaction section* rating proved that the stronger things about alternative schools are: Supervision of gross motor activities (1.2 and 1.6), General supervision of children (other than gross motor) (1.2 and 1.6), Staff-child interactions (1.6 and 1.7), as well as Interactions among children (1.5 and 1.8). But discipline is not the strong point of freedom based classrooms.

As the *Program Structure Section* shows, Free play (2 and 2), and Group time (1.3 and 1.6) are important components of alternative schooling. Schedule (0.4 and 0.3) is hidden in a way. Some interesting observations concerned Provisions for children with disabilities which were actually of the same level at both AS and CS at the traditional EU countries, but 3 times better at AS in the new ones.

Parents and Staff are better treated at AS of the traditional EU countries in terms of Provisions for personal needs of staff (1.1), Provisions for professional needs of staff (1.6), Staff interaction and cooperation (1.6), and Supervision and evaluation of staff (1.9), while alternative schools of the new EU countries are better than conventional in provisions for parents (1.6).

Students' characteristics of school atmosphere

The interviewed children characterized the atmosphere of their school in terms of being cooperative, constrained, tense, relaxed, pressured, trusting, demanding, respectful, anxious, and democratic (See figure 1).

Figure 1: School Atmosphere
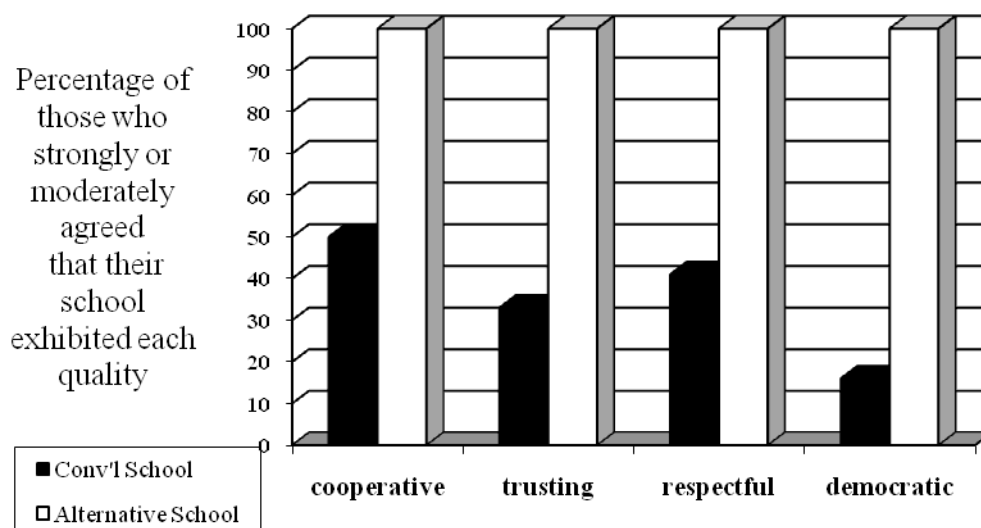
As shown in Figure 1 of the children surveyed from freedom-based schools strongly or moderately agreed that their school was cooperative, trusting, respectful, and democratic.

Pupils from the conventional school showed much lower numbers for those descriptors: 50% strongly or moderately agreed that the school was cooperative, 33% considered it trusting, 41% considered it respectful, and only 16% strongly or moderately agreed that their school was democratic. The

conventional school rated much higher than the freedom-based schools for negative environmental indicators including constrained, pressured, and anxious.

Summary and Significance

While the sample size of this study is too small to lead to generalizations about alternative or conventional education, this study suggests that freedom-based environments are of extraordinary value to pupils. The study showed that the conditions created for pupils at alternative schools of both traditional and new EU countries are better than at conventional schools in: room arrangement for play, meals/snacks, nap/rest, toileting/diapering, health practices, informal use of language, art, music/movement, nature/science, supervision of gross motor activities, general supervision of children (other than gross motor), group time, interaction between children.

The emphasis is lain on: furnishings for relaxation and comfort, encouraging children to communicate, blocks, sand/water, dramatic play, staff-child interactions, free play.

That can be explained by the mission of those alternative schools. Though different they all saw their task in supporting anti-authoritarian idea, deinstitutionalizing, de-formalizing the educative process. The location is also of great importance: 2 of them were located near lakes, 1 was a boarding school pleasantly placed in a park, and another one was in a small people friendly town. All of them were independent, that is they were financed by parents (Poland and Bulgaria), and got an additional state funding (Germany and France).

The situation at conventional schools is important for understanding the alternative ones. The conventional schools in the traditional EU countries provided more freedom, more use of TV, video, and computers and stressed diversity than in the new ones. We were surprised to see that provision for pupils with disabilities at conventional schools of the new EU countries were poor. The conventional schools rated much higher at math/number, schedule and discipline.

We've only demonstrated the application of *Process* criteria referring to school environment. Since the procedure covers the basic aspects of all childhood facilities, it can be used in a number of ways by child care facilities, primary schools, parent cooperative preschools, private schools, playgroups, Church related schools, author's schools and school improving projects. For instance, if used as a self-study/self improvement guide, inadequate or minimal scores on the scale indicate areas for emphasis in training and learning. The ECERS can also be used as a pre and post test measure to assess the impact of training and continuing education. The data collected can also be used for comparing schools of different types.

We realize that *Structural* and *Outcome* criteria are also of great importance and our further research is focused at their application.

Among other indicators of quality are: the school board and the community; school management of finances; reporting pupils' progress; learning support; leadership; planning for improvement; expectations and promoting achievement; equality and fairness; accommodation and facilities; staffing; provision of resources; structure of the curriculum; courses and programmes; teachers' planning; the teaching process; pupils' learning experiences; meeting pupils' needs; assessment as part of teaching; self-evaluation; staff review and development.

Additional studies that include a larger sample of schools, pupils and teachers and a randomized method for gathering responses can lead to greater understanding of the differences between conventional and alternative education. Such studies can also provide the hard data that can help skeptics, politicians, educators, and parents understand the powerful significance of a freedom-based approach to education.

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