

**GLOBAL REPORT ON THE EVALUATION OF THE RESEARCH UNITS ON
EDUCATION SCIENCES**

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1 Setting up of the Panel

The Evaluation Panel in the area of Education Sciences comprised the following four foreign professors:

- Daniel Gil Perez - University of Valência
- Paul Taylor - University of Rennes
- Gaston Pineau - University of Tours
- Jesus Bastos Alvarenga - Fluminense Federal University

plus

- António Cachapuz - University of Aveiro

and had as co-ordinator, nominated by Foundation for Science and Technology:

- Maria Teresa Ambrósio - Nova University of Lisbon

who asked for support, on this task, from Prof. A. Cachapuz. These two Professors, together, have assured all the tasks of orientation, document analysis, visits to the Units and the drawing up of reports by unit, as well as the Global Report.

In the setting up of this Panel, it was taken into consideration the diversity of research areas developed within the Research Units and the evaluators' knowledge of the educational research status in Portugal. For the purpose of the centres' visits and the interviews with the teams of the new proposed centres, the Panel elements split into two teams headed by the two referred co-ordinators.

1.2 Method

All the evaluators, after reading the reports of the Research Units and confronting them with the evaluation criteria described by the President of Foundation for Science and Technology, prepared a set of methods appropriate to the visiting of the different units, in order to harmonise the evaluation criteria and the drawing up of recommendations and final reports. Due to the diversity of the Research Units, we also had as an objective to proceed to a characterisation of these Units, analysing them according to their institutional status, duration, academic seniority of their researchers, their relationship with other scientific areas and their evolution in the last three years. After this, we aimed at identifying the Unit's Profile and its Research, concerning the activities of Human Resources Training, Scientific Production and national and international degree of the Unit. We took also into account the recommendations presented to the Units by the Evaluation Panel in 1999, the given classification mark and supplementary information was gathered to allow the foreseeing of future developments.

Therefore, and based on the Reports presented by each Unit, each evaluator has prepared his/her first comments and after the visits the final comments for each one of the Units.

The contacts made with the research teams and the visits to the buildings allowed us to evaluate their abilities and evolution trends of the research lines and programs, and the areas on which they are more oriented and interested to develop integrated research projects which could be included on future inter-centres' or inter-institutions' networks. We underline that the Directors of the visited Units had correct and enough information about the objectives of this evaluation programme and, therefore, presented a clear report on the future research guidelines and the needs and difficulties of their Units. They have also put a proposal for developing projects or integrated programs on well identified thematic areas. These proposals and suggestions were included on the specific Report which the Panel did

on each one of the centres and, specifically, on the new centres whose set up raised some doubts for the majority of the Panel elements. The Panel underlined on its own report, the co-operation that could be very healthy between these new centres not yet approved and the existing ones.

1.3 Global Appreciation

After visiting and drawing up reports on each Unit by the Evaluation Panel, a global appreciation of the work was done of which the following generic comments were stressed:

- Some of the evaluators already knew the centres under evaluation from previous work visits. They observed in all the centres a quality improvement in the gathering and organisation of the information requested by the Foundation for Science and Technology which is shown in the analysed technical reports. According to the evaluators, such an improvement is due to better information, knowledge and registration of data in the centres, as well as to a more careful management of projects and resources. Nevertheless, they all agreed about the need to review the formal of the technical dossier and its annexes as is presented on the final recommendations of this Report or are included on some evaluators own comments;
- The same quality improvement in the work organisation, its registration and management, was generally confined during the visits, by the way the work carried out was presented by the co-ordinators. Therefore, within this scope, we can say that in the last three years the centres under evaluation reached a high degree of management ability, growth and scientific identity, showed by the teams' work results;
- However, and in all the centres, the growth, in terms of researchers with a PhD degree, projects, financing and publications, does not correspond to an equal growth of research maturity, resources management and research potentials. In fact, some Centres and Units under evaluation are presented as the sum up of several, individual teams, practically separated from each other, with no cross-references, projects or researchers. Others, although in a smaller number, have tried new models of organisation to allow a bigger concentration of resources and financial efforts in the research lines that revealed bigger potentials or even propose a future division into more homogeneous units or the introduction of more rational management criteria appropriated to the aimed objectives. The dialogue with the research teams allowed us to identify the biggest difficulty - the Units do not

always have well defined objectives and goals that allow them to have a controlled growth strategy, a criteria-based selection of self financing projects, a support to publications and activities of dissemination and training justified on a priority basis.

- The demand of the Foundation for Science and Technology for the Units to select and present the "five best works" should be followed in the future by a requirement that they justify, not only the scientific contents, but also its dissemination, and the reason for publishing in national or international revues. For the evaluators, having copies of such works would also give an interesting information to a better understanding of the Unit's work, as was already said on the 1999 Report. That would allow the Unit scientific Identification with the contemporary research lines in the same area which have expression in the international community and, evaluate the international degree of the work carried out by the team;
- It was also noticed the effort of the Units to provide their facilities with computer and audio-visual equipment and the acquisition of books and periodicals' subscriptions. It would be useful for the evaluators in the future to establish a digital network between the documentation centres of these Units so the effort made in this area would be better used.
- To justify the lines and programmes' organisation of the Unit's work, the evaluators also felt pertinent to ask to be included in future Technical Reports, a brief but consistent comment, on the most interesting works published by the researchers in specific scientific areas. The description of areas and themes of post-graduated thesis would also be desirable;
- Also, the self-evaluation team results, highlighting with quality and quantity criteria its path of scientific maturity and growth, would turn the evaluation effort into a scientific and institutional reflexive activity.

In conclusion, here are some detailed recommendations on how future evaluation processes can be improved (as P. Taylor mentioned):

1. The success of this week was due to the efficient organisation, even with places so apart as Coimbra, Braga and Porto to visit, but also mainly due to the support of Susana and Sofia and the drivers who took the Panel elements;
2. Despite the great number of places to visit in a sole week, the objectives were reached. The *in loco* visits are more useful than meeting with centres' representatives, for example, in Lisbon. As more centres become accredited, the number of evaluators would need to increase or the evaluation process would need

to last longer (2 weeks?), although it's known that both of these solutions would imply bigger financial costs;

3. Besides this, centres are themselves becoming more complex, specially those at Aveiro and Porto. A simple three hour session is, therefore, not enough to appreciate all the details and many questions remain without an answer. As a result, it was noticed a general feeling of dissatisfaction. The visit to some centres should go on for a full day so that certain aspects would not be so superficially touched;
4. Some centres invested a great deal of time in the presentation of their work. It would have been a better option to have had access to all this information before the visits. In this way the presentations would not need to take so long. A big effort on improving this field at this stage of the evaluation process should be done in the future;
5. In spite of all the information it was considered important also evaluating the strategies for and to financing research in the different centres. There was really almost no time to discuss the use of resources (human and financial) and the relationship between the research activities and the "quality expenses". For some of the evaluators this kind of evaluation is necessary as was mentioned on the comments by Unit.

Notes and recommendations on the new Centres' applications:

- The Panel considered that the proposals for the opening of new centres are difficult to evaluate out of context and an *in loco* visit would be desirable;
- Given the wide range of different situations, characteristics, plan proposals, dimension, researchers' curricula of the proposed new centres, the Panel wrote a detailed report, justifying its position regarding the setting up of these centres, which was handed in, soon after the evaluation week, to the President of the Foundation for Science and Technology for consideration. Included are recommendations that, in the event of them being accepted, would oblige to a rethinking of some of the proposals;
- Nevertheless, in what regards the new centres whose proposals came from the High Schools of Education, there is the suggestion of creating a network of research teams, either national or regional, and not the creation of one or more centres linked to a specific place or institution. Therefore, the change of creating a network of centres based on the network of High Schools and Universities, for example, of a given region, would put together the research activities by area, strengthen the independent research of the junior researchers' curriculum, allow the graduation of new researchers in an inter-school cooperation scheme and could even consider

the local set of problems. The management of this network could be done in a rota, with each school belonging to the network being in charge of its supervision for equal lengths of time, say three years, for example. This grouping of activities into networks would give to high schools, to which the school belonged, a reference point and greater visibility and credibility, either regional or national.

1.4 Final Recommendations and Considerations

1. Basic Financing

The level of basic financing in the Units under evaluation has grown considerably in these last three years, thanks to the basic financing allocated by the FCT and also to the external financing achieved through the projects.

However, all the research units are faced with huge needs of junior researchers because all their elements are extremely busy with activities of teaching and administrative work and their research work is not recognised by the Faculties or Universities to which they belong, with the exception of a few which are described on the reports by unit.

2. Financing Programme and Integrated Projects

Integrated Projects

Some of the visited units also showed development potentials within fields of research that are deemed as a priority for the Country. We recommend their support so they can pass from a theoretical level, less profound and structured, spread over individual researches, to the setting up of a coherent body of knowledge centred on specific and well-defined problems. It is the case, for example, of the research on the NTTs, of Lifelong Learning, Learning Communities, Kindergarten Education, Aesthetic Education, Science Education and so on.

Therefore, we propose the signing up of contracts, through the Financing Programme or the Integrated Projects, with some units, individually or on a network, which seem particularly prepared or oriented to several areas and keeping the support to the specialised Libraries of the Units as well as the dissemination of their results.

Scholarships

The demands and recommendations for the Financing Programme are mainly the need for attachment to the Units, for fixed periods of time, of researchers doing their PhD or post-Doctoral thesis, through scholarships, and for the development of well-defined projects.

3. Support to international dissemination and publication

As recommended in previous Reports (1996 and 1999), and due to difficulties of visibility, affirmation and recognition of the research work carried out by the Portuguese scientific community, we recommend the support to a new periodical (Portuguese / Brazilian) or to some other(s) which already exists, in order to achieve the necessary level of exchange, co-operation and indexing with other recognised international periodicals.

We would like to express a special thanks to Susana, Sofia and the drivers for the success of this week which was due to the efficient organisation, even the visits so apart as Coimbra, Braga and Porto.

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Teresa Ambrósio

