

RESEARCH

FORMATION AND DEVELOPMENT OF A NETWORK OF RESEARCHERS FOR THE EVALUATION OF TEACHING

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Abstract:

This article describes the process of forming the Red de Investigadores sobre Evaluación de la Docencia (Network of Researchers for the Evaluation of Teaching). It addresses the purposes for forming the network, analyzes the network's decade-long presence, and presents members' arguments for continuing to work as a team. Their reasons include the possibility of help in developing similar projects, exchanges in work styles and the respective theoretical and methodological approximations, companionship, and the academic development of participants. The article summarizes the group's products and results, and concludes in favor of associations of researchers based on a genuine interest to produce knowledge, and on the need to recognize favorable social settings for attaining this end.

Key words: researcher networks, teacher evaluations, educational research, higher education, Mexico.

Introduction

The general policies of the educational sector in the past decade have been directed in part to strengthening the institutionalization of university structures in Mexico, by forming and consolidating research groups. Thus the state has promoted new forms of producing knowledge in the academic life of universities. Given the inductive nature of government action at all levels and in all sectors, we can assume that this change has repercussions on teachers' academic work as well as on the organization of groups responsible for educating the younger generations and producing knowledge. At the present time, little is known about the impact of these policies, in spite of the need to understand the real conditions for producing scientific knowledge. The purpose of this study is to document the process of forming and developing the Network of Researchers for the Evaluation of Teaching (Red de Investigadores sobre Evaluación de la Docencia—RIED) in Mexico, with the intention of contributing to the identification of critical factors that favor the creation and development of networks of knowledge.

The forms of generating knowledge have been modified in the past fifty years; in the production and communication of knowledge, interactive and contextualized models are replacing the linear model (Gibbons *et al.*, 1997). Without doubt, globalization has influenced this process of change substantially: it is a sociopolitical phenomenon that implies complex links among diverse nations that transform not only the worldwide economic setting, but also the political, ideological/cultural, and technical settings.

Thus the web of links and interconnections among the states, societies and organizations that form part of the global economic system cause decisions on one side of the globe to have a significant effect on others (Zander, 1999; Zoltan, 2000). The phenomenon called globalization can be considered a re-elaboration of the network of social practices—a re-elaboration that leads to establishing new relations between the different levels of social life (Fairclough, 2003). Given the series of new relations among levels, the logic of sub-national components has been developed to emphasize the importance of local knowledge in understanding the real world in the production of

scientific knowledge (Casas, 2001); emphasis is placed on the need to encourage more balanced relations among the involved parties as a way of attaining the sustainable development of nations.

According to Gibbons *et al.* (1997), new forms of producing knowledge are known for the diverse attributes that distinguish them. For example, they are carried out in a context of application, and the imperative regarding the usefulness of knowledge is present from their origin; trans-disciplinary aspects incorporate actors from different disciplines and with different histories; given organizational diversity and heterogeneity, knowledge is produced in a varied manner according to researchers' skills and experiences, and study groups are characteristically institutionalized; researchers join together in temporary networks and teams; and quality control incorporates a range of diverse intellectual, social, and political interests.

The design of new forms of organization for producing knowledge is based on the concept of networks. From this perspective, empirical and theoretical work has shown the importance of networks of collaboration and information for generating knowledge (Freeman, 1991). As a result, the notion of networks is a useful tool for studying new relations of producing knowledge. The concept, however, is a polysemous term that is used in various disciplines and with diverse purposes; for example, in sociology the notion of social network is applied to the analysis of social structure; in engineering, to the study of complex systems; and in economics, it is employed to examine the set of organizations that make innovation possible, such as networks of innovative companies, and networks of information and collaboration (Freeman, 1991).

For the effects of this study, the concept that is fitting is that of networks of knowledge. Based on the Canadian experience, Clark (1998) proposes the following classification. Networks: informal, numerous, appear and disappear, but play an important role in the creation of knowledge; networks of information correspond to the type of networks of university libraries that provide access to information but do not create new knowledge; open networks are constructed to carry out research according to a well-defined topic, have a formal constitution, and allow participation by invitation; networks of development are formed to create knowledge and accelerate its application to social and economic development, and are formed in a formal manner in a framework of specific topics and carefully defined criteria of participation.

Open and development networks can be considered formal networks for producing knowledge. Some of their ideal characteristics are the following: *a)* Their main purpose is to create and communicate knowledge; *b)* their structure and operation are designed to maximize the rate of creation of knowledge; *c)* they must provide clear, direct benefits for all participants; *d)* they are organized formally with a defined structure; *e)* participants' presence in networks is by invitation based on merits; *f)* they have a well-defined structure of communication; and *g)* the network must transcend the borders of various sectors (Clark, 1998).

An extended definition of formal networks of knowledge delineates networks as a group of people who have common interests in the process of generating, applying and transmitting knowledge, along with the intention of strengthening each other's abilities in research and communication. Network members share the bases of knowledge and the development of solutions, are usually dispersed in geographically separate locations, and make use of information and communication technology to handle flows of knowledge (Creech and Willard, 2001).

The definition of networks of knowledge implicitly uses the concept of scientific and technological cooperation. This concept is conceived as a culture that affects the modes and procedures implied in scientific research, technological development, and processes of innovation; it is based on the need for the complementation of abilities, and is justified by the benefits for its participants. It implies a set of activities that assume association and collaboration in attaining common objectives and a mutual benefit. In addition, since international cooperation has strengthened research capacities and permitted more ambitious objectives, it is now conceived as an intrinsic component of the processes of generating knowledge and developing technologies and innovation. Its importance is reflected in the fact that networks not only constitute a strategy for

cooperation, but also are increasingly used as an organizational model for strengthening institutions (Sebastián, 2000).

International organizations like the World Bank and the United Nations Development Programme actively promote networks of knowledge as a new approach for sharing knowledge and supporting national development (Sarna, 2004). At the same time, various authors warn about the simplification of the problem and call for ensuring that such practices contribute to the local knowledge that is necessary for development (Scarf and Hutchinson, 2003).

Scientific and technological research is a substantive function of institutions of higher learning, and corresponds to universities' roles as elements of national systems of innovation; in Mexico, educational research has focused on public institutions in the Federal District, although the problem was detected more than twenty years ago and generators of this type of studies appeared in various states of Mexico in the 1990s (Schmelkes and López, 2003). In terms of the distribution of researchers in this area, according to the National System of Researchers (Sistema Nacional de Researchers—SNI)(which is used as a referent because it has become instituted in practice as the system of evaluation and certification of researchers since its creation in 1984), 58% of Mexico's researchers work in the metropolitan area of Mexico City; the states with most researchers are Jalisco, Puebla and Veracruz, with more than ten researchers incorporated in the SNI, and the remainder of the eight to ten states that encourage this task have six or fewer researchers in the SNI (OCDE-CERI, 2004; Ramírez and Weiss, 2004).

In addition, we must remember that the number of researchers is insufficient in comparison with the size of the educational system and existing needs (OCDE-CERI, 2004). The general panorama shows great disparity between institutions and the dispersion of researchers. Plus in the universities, research activities compete with teaching and service, and institutional disparity in recognizing educational research is seen.

An encouraging sign of the professionalization of educational research in Mexico is that since the 1990s, specialized and inter-institutional academic communities have developed and represent a novel form of organization and producing knowledge in the nation (Chavoya and Weiss, 2003). These recently formed communities consist of academics from various institutions (through unique forms of organization that are different from those usually seen in institutional spaces),¹ with different professions and academic trajectories that are grouped around a specific topic of interest (Gutiérrez, 2003). A general presentation of groups of researchers is provided by the Mexican Council of Educational Research on its web page² (COMIE, 2005), which reports a total of twenty-three groups, of which a majority has the main purpose of promoting the generation, discussion, systematization and communication of knowledge; in general, researchers come from different regions of the country and work primarily in public universities, and to a lesser degree in private universities, institutions in the public sector, and even more infrequently, in nongovernmental organizations. Of interest is that of the total number of groups, seven are identified as a "network", and only one is referred to as an *academic body* (terminology often employed at present for a government program).

The above data show, in the setting of educational research, an incipient but sustained intent to encourage collective over individual work. In spite of the concentration of human resources and infrastructure, a tendency for double movement is seen: decentralization and work in groups.

In Mexico, the policies of the past twenty years favored evaluation associated with the possibility of receiving additional resources; the SNI can be considered the first referent of the evaluation processes of academics with salary consequences, followed by the incentive programs for academic performance established during the early 1990s in public universities. These programs were instituted in a context of budget reductions and economic restrictions, with documented effects of institutional deterioration, due to the competition among academics to obtain limited available resources.

In 1996, the decision was made to change the orientation of policies to encourage direct collaboration and exchange among academics through the Professor Improvement Program (Promep). Its general objective is to improve substantially the training, dedication and performance of the academic bodies of institutions of higher learning in order to elevate the quality of educational services (Promep, 2005). Academic bodies are formed by full-time teachers and researchers who share one or various lines of study of disciplinary or multidisciplinary topics, and a set of objectives and academic goals organized in a balanced manner. Their members may belong to one or various institutions when so required by their line of research. According to this program, the principal characteristics of these bodies are that their members cooperate and that their cooperation is proven by their production; that they participate actively in congresses, seminars and other academic activities; and that they make continuous exchanges with networks and with their peers both inside and outside of Mexico (Promep, 2005).

The efforts of Promep from 1997 to 2000 were directed primarily to supporting the academic formation of full-time university professors; not until 2001 was emphasis placed on the development, consolidation and integration of academic bodies, which were recognized as academic organizational structures for supporting university planning and the harmonious development of generating and applying knowledge. The results attributed to Promep include having favored the evolution of teachers' profiles and increasing the number of full-time professors (Urbano, Aguilar and Rubio, 2005). Still pending, however, is the documentation of its impact on the organization of academic bodies and the generation of new knowledge. In this sense, the federal government has implemented initiatives that favor the formation de networks, which express international trends in the form of organizing academic work to produce knowledge. Independent from these policies, evidence can be given of the convergence of academic and personal interests that have permitted the conformation of research groups.

This study analyzes the process of formation and development of the Network of Researchers for the Evaluation of Teaching (Red de Investigadores sobre Evaluación de la Docencia—RIED) in Mexico. The study was made by three members, with the intention of documenting an experience that may contribute to identifying critical factors that favor the creation and development of networks, as well as encouraging the appearance of other, similar networks that consolidate the knowledge of relevant topics and promote the professional development of their members. The analysis is made in three sections: the nature and formation of the Network; its development and dynamics; and results and impact. The first section examines the aspects that have characterized the conformation of the group and its intrinsic properties. The second section refers in a general manner to aspects relative to the Network's functioning, organization, processes of collaboration, interactions among members and group dynamics; it also presents the results of a questionnaire distributed to members to identify the individual motivation and factors that have promoted research processes in RIED, as well as members' participation and time in the group. The third section describes the products and results generated by the group.

Nature and Formation of RIED

The group was created in order to develop a line of research³ on the evaluation of teaching at the university level. The basic consideration was that at that time, the state of knowledge of the topic did not have a recognized theoretical corpus to permit supporting or orienting the evaluation of university professors—one of the principal functions assigned to institutions of higher learning. In addition, the topic had been ignored due to the attention focused on evaluating researchers. Another consideration was to encourage a discussion of the limits and possibilities of student opinion questionnaires—a resource employed almost exclusively to evaluate professor performance. In a similar manner, insufficient information was available on the daily work of

university professors, a situation that implies a lack of attention to the challenges and possibilities that the systematic analysis of this function can contribute to systems of evaluation (Rueda, 2002).

The RIED group was formed on the initiative of one of the academics, who invited colleagues from universities in Mexico to meet to share their experiences, based on two criteria. The first criterion used to identify and invite RIED members was to be working on the topic of evaluating teaching or analyzing teaching practice at the university level. Consideration was given to these two topics because of the belief that evaluation procedures promote a way of being a teacher and studying teaching practice, as well as pursuing the identification of teaching models; thus the topics are closely linked and can be mutually enriched. A second criterion consisted of the guests' showing a clear commitment to research, as well as willingness to participate in shared work. After forming the initial group of academics having the indicated characteristics, the members extended invitations to other researchers to participate in the Network.

The first group was formed by five academics. That number has increased, and at the present time, RIED is formed by eighteen participants who, because of their trajectories, can be referred to as consolidated researchers or as young researchers in the process de consolidation. They work in seven public and private universities throughout Mexico, and in one decentralized public organization, thus permitting documentation of the problem of interest in various institutional contexts. The members' original professions are diverse. Listed from most to least numerous, there are psychologists, pedagogues, one nutritionist, one journalist, and one administrator. In addition, the collaboration of foreign academics from universities in Brazil, Canada, Spain, and France, has permitted contrasting the Mexican experience with that of other countries.

The initial goals of work were defined, in a group manner, as the need to encourage an exchange of ideas and focuses on the evaluation of teaching, as well as to carry out systematic follow-up on the evaluating experiences implemented in different institutional contexts, in order to convert them into contributed knowledge about the field and promote dialogue with other academic communities. The work carried out over ten years has permitted reaffirming the original goals and constructing others through interaction, so that purposes now include: contributing systematic knowledge to higher education in Mexico in the topic of evaluating teaching, and cooperating in the theoretical and methodological development of the evaluation and analysis of teaching activities. In this sense, the research work done by the group members is in two original lines: on one hand, a focus on the evaluation of university teaching; and on the other, the analysis of teaching practice in universities.

Development and Dynamics

Outstanding factors in the analysis of the conditions that have made the creation and development of RIED possible, are the conception of the general working model and the creation of the necessary conditions for establishing short-, medium- and long-term research goals. In this sense, all the participants recognize the importance of having organized as a group much before the government sector in charge of higher education promoted the formation of academic bodies and networks.

RIED is articulated around work projects, which are established jointly by the members; goals are clearly defined with regard to products and dates of delivery. It should be emphasized that some projects play an important role as facilitators of group cohesion and production, as in the case of writing a book, participating as a network in academic forums, and presenting research progress at RIED seminars for feedback. Actions are formalized (for example, formal invitations to a seminar) to facilitate members' applications for employment or financial support in their institutions of origin or at financing agencies.

Since participation in the network is voluntary, the personal commitment of members prevails in academic projects. In addition, the association is flexible: members may form part of some or all

projects or not participate at a given time, without detriment to their future work. Therefore trust and respect for the unique demands of professional life predominate.

Work dynamics are characterized by encouragement for horizontal relations and the opening to theoretical and methodological differences, based on active participation and independent collaboration in attaining common goals. The group meets two or three times per year, to participate in a seminar on the evaluation of teaching in higher education; at this time, members discuss, analyze and provide feedback on individual research projects as well as collective products obtained by small teams. Goals for the short and medium terms are also defined. It should be pointed out that communication is ongoing by E-mail. In terms of group dynamics, it is important to recognize that group meetings have been financed through member support and resources have been earned by selling books written with collective participation.

To identify the factors that have promoted research processes at RIED, as well as the participation and permanence of its members, a questionnaire with four open-ended questions was used: What are the three main reasons you participate in the group and what is their order of importance? What are your reasons for staying in the group? What repercussions has the group had on your academic trajectory? How did you enter the group?

All RIED members were invited to participate by E-mail, and the questions were sent as an attachment. The questionnaires were received by E-mail and the texts formed the corpus of the work. A total of fifteen researchers participated: seven men and eight women; thirteen who work in public universities and two who work in private institutions. The analysis of the questionnaires was based on techniques of analysis of content. The defined unit of analysis was the sentence, considering that textual sentences permit identifying meanings; the codification followed the proposal by Holsti (1966).

The categories and subcategories with the respective recurrence obtained for each question are presented in Table 1, followed by a description of the results that illustrate them.

TABLE 1
Frequency of Categories and Sub-categories by Question

P	Categories	F	Subcategories	F
1	What are the three main reasons you participate in the group?			
	<i>To belong to an academic group</i>	11	We share research interests and can promote and carry out activities involving evaluation. We share experiences. To form part of a group. To have interlocutors. To work in a group. Because of the nature of the group.	5 3 2 1
	<i>Shared learning</i>	9	The diversity of focuses and methodologies.	9
	<i>The work atmosphere</i>	8	Very warm relations of support and companionship. The cordiality and respect are very stimulating. The academic recognition of each and every member. Personal and academic growth. Respect for different points of view and no	3 2 1 1

			domination.	1
	<i>Support for training and academic development</i>	7	Support for publications and participation in academic events.	4
			Support for graduate training.	3
	<i>To contribute to development in the field</i>	4	To contribute to the consolidation of the field.	2
			To influence educational practice and policies.	1
			To agree on thematic affinity and to search for understanding in a joint manner.	1
	<i>The promotion of effort</i>	1	The members' quality of work makes me work harder.	1
2	What are your reasons for remaining in the group?			
	<i>Academic production</i>	11	An important stimulus for establishing research efforts.	7
			The products attained thanks to shared effort.	2
			To attain products.	2
	<i>Personal and professional socialization</i>	12	It is a place for academic learning and behavior guidelines.	2
			Collective experience.	2
			Knowledge and interaction with people from different public and private institutions.	2
			The academic and human quality of the group.	2
			The wealth of experience and diverse knowledge of other people.	1
			The opportunity to be present in events beyond the institutional setting where you work.	1
			The harmonious, healthy relations that are formed among members.	1
			The presence of friends.	1
3	What have been the group's repercussions on your academic trajectory?			
	<i>Academic development</i>	12	The work performed in the group has enriched my personal trajectory.	10
			It is a place for negotiating ideas.	1
			Specific follow-up on a topic.	1
	<i>Recognition in academia</i>	6	Working as a group opens doors.	5
			My work is recognized in other countries.	1
	<i>Support for teaching</i>	3	Direction of undergraduate and graduate theses.	2
			Course design.	1

	<i>Corroboration of benefits of group work</i>	2	Satisfaction and confirmation that this type of group still exists.	1
			Harmonious, productive work in academia.	1
4	How did you enter the group?			
	<i>By invitation.</i>	14		
	<i>I expressed my interest.</i>	1		

In order of importance, the categories that explain the members' reasons for participating in the group, as well as their expressions regarding the group are:

1) *To belong to an academic group.* The group is recognized as offering a place for members to participate around common research interests, and as favoring the exchange of experiences, cooperation, constructive dialogue among academic peers, interlocution, and group work. The following arguments exemplify the above in greater detail:

Forming part of this group has give me the possibility of having interlocutors. Interlocution is a basic aspect of work in academic institutions and in individual work. If you lack referents for presenting and discussing your projects prior to publication, you probably lose the opportunity to improve or notice aspects that were ignored. Of course, you always have interlocution (people who know about your work, people who read what you write, your colleagues at work, other work groups, etc.), but it is generally unsure interlocution for various purposes or it complies with different functions. In this sense, the evaluating group is a group of systematic, qualified, responsible and continuous interlocution. That is one of my reasons for participating in it (C 13).

I participate because of the nature of the group, its climate and its cohesion, and because it gives me a pleasant sense of belonging. Also because of the human and academic quality of its participants, all worthy of my greatest appreciation in both aspects. And because I am convinced of the need for interdisciplinary and inter-institutional work, a type of work that is in danger of extinction in our country (C 14).

2) *Shared learning.* Work in RIED is considered to have enriched the diversity of research focuses and methodologies that converge in the topic of evaluating teaching, and thus in its members' experience. Outstanding examples are:

[...] the opportunity to work in collaboration with an excellent group of colleagues from diverse institutions, experts in the field and with a diversity of viewpoints (C 3).

[...] In the group you meet other people and they enrich you with their experience and knowledge (C 8).

3) *The work atmosphere.* Mention is made that the group's atmosphere is cordial and respectful, and therefore extremely stimulating; in addition, interpersonal relations in the group are characterized by companionship. The academic recognition of each group member is promoted: "One reason that I participate is to have the experience of a warm human relationship and a spirit of support and companionship that is increasingly unusual these days (C 3)".

4) *Support for training and academic development.* The group's actions are considered to have permitted permanent dialogue with experienced researchers; as a result, the younger members find conditions more favorable for doing graduate work. The group is also recognized as having promoted publications and participation in academic events, thus supporting both academic and

personal development: “A place where encouragement is given to academic and personal growth (C 9)”.

5) *To contribute to development in the field.* The assumption is made that belonging to the group permits consolidating the field of evaluating teaching, and the influence on educational practices and policies.

6) *The promotion of effort.* The academic quality of the group’s members is recognized as promoting personal effort.

When questioned about the factors that have influenced their decision to remain in the group, the respondents offered replies in two categories:

1) *Academic production.* The group is recognized as encouraging projects. It is perceived as an important stimulus in consolidating individual research efforts in publications and academic forums. Shared effort is seen as having given results that would not have been attained without the group: “The pace of the group work has obligated me to meet established dates to participate in national and international congresses and to collaborate with publications (C 4)”.

2) *Personal and professional socialization.* The affirmation is made that the group provides a place for learning behavioral guidelines that promote personal development, due to the members’ academic and human qualities. It is also a place for harmonious and healthy relations among members, as well as interaction among individuals from different public and private institutions. The group is a place for friendships. In this aspect, the members explained that the group has allowed them:

[...] to grow and prove that if I am successful, my colleagues are pleased, in contrast with other groups or colleagues (C 15).

[...] Each time I see my colleagues, I know I am going to learn many things. Besides, I know that I am going to have a very pleasant time (C 4).

[...] It is a group in which each participant is recognized and different viewpoints are respected (C 7).

Regarding the group’s repercussions on individuals’ academic trajectories, the aspects mentioned are:

1) *Academic development.* The members of RIED manifest the notorious manner in which the dynamics of group work have promoted systematic actions and a space for reflection that has enriched personal trajectory: “[...] I especially value the effort of doing collaborative publications, since that type of work has provided me with a space for reflecting on and negotiating ideas—and thus advancing in my proposals (C 5)”.

2) *Recognition in academia.* The group members’ feeling regarding this category occurs as a function of the personal and professional benefits they have obtained from forming part of the organization. Working in the group creates opportunities, allows work to be recognized in other countries, and offers the possibility of following a specific topic closely:

[...] Working with an inter-institutional group opens many doors; at the level of my institution, it gave me a lot of freedom (C 1).

[...] The national recognition of the group opened many doors for me to collaborate on other projects with other institutions (outside of the group), like ANUIES (C 10).

One researcher emphasized personal and emotional aspects in his responses: “The principal repercussion has been to preserve hope: In spite of all—the disenchantment, egoism and envy that are so common in academia—groups like this one still exist (C 13)”.

3) *Support for teaching.* The group is viewed as supporting the researchers' teaching activities, since it has permitted them to direct various theses related to the evaluation of teaching, and to design courses.

4) *Corroboration of benefits of group work.* The statement is made that the group has represented a place where harmonious and productive work can be done.

Regarding the final question, most of the participants answered that they entered the group by direct invitation. Only one of the researchers, on learning of the work done by the organization, manifested his interest in participating.

Results and Impact

The line of research developed and the working dynamics that have characterized RIED confirm the advantages of collegiate effort in contributing to the production of knowledge. The affirmation can be made that the members' research projects have permitted the systematic follow-up on diverse experiences of evaluation—a situation that has resulted in the generation of proposals and experiences with methodological and technical contributions. In this sense, the exchange of ideas and focuses on the evaluation of teaching have enabled, on one hand, collective processes of learning—which have led to the development of the group's knowledge on the topic in a very efficient manner, and on the other hand, to progress in the theoretical and methodological construction of the field.

RIED's production is summarized in Table 2 in terms of the number of books produced by the group and by individuals, chapters of individual and collective books, juried articles, and doctoral and master's theses finished by the participants, although RIED was never planned as having the explicit purpose of contributing to the conclusion of formal studies.

One of the most significant attainments is the publication of books that express accumulated experience. The first five are monographs that present the results of individuals' research in their institutions; the results were analyzed and discussed in a group seminar.⁴ In this manner, a report is given of the way institutional needs have been addressed, in addition to the repercussions of knowledge on practices at the members' institutions of origin.

TABLE 2
Production from 1996 to 2004

Type	Amount
Books from RIED	6
Individual books	3
Chapters of books	51
Juried articles	28
Participants' doctoral theses	6
Participants' master's theses	4

This production shows systematic follow-up on the evaluation of experiences in very different institutional contexts, where strategies have been tested to promote the participation of students and professors in designing and implementing teacher evaluation processes. Attention has been focused on diversifying the uses of evaluation, which is generally oriented to the requirements of the administration and/or directing organization; the evaluation of teaching at public universities

has been documented as being aimed at administrative control or at permitting access to compensation programs.

In response to this situation, experimentation has been done in connecting evaluation processes with permanent training programs—considered as progress in the return to evaluation as an instrument for improving teaching. In the same direction, strategies have been tested to evaluate teacher activities, as a response to the almost exclusive use of opinion questionnaires directed to students as a means to evaluate teaching.

Studies on the analysis of teaching practice have contributed to recognizing the complexity of the activity. They have also led to the conclusion that the evaluation of teaching is much more than the application of an instrument that identifies the user's opinion regarding the behavior of the educational agent. Evaluating teaching is a human, professional activity with important political, ethical, and social implications; its principal benefit resides in the possibility of understanding and improving teaching.

One of RIED's challenges was to write a joint work that summarizes the group's theoretical and methodological ideas: *La evaluación de la docencia en la universidad. Perspectivas desde la investigación y la intervención profesional* (Rueda y Díaz Barriga, 2004). This text develops proposals on the evaluation of teaching, including the conception of evaluation as a process for improving teaching; the acceptance of the role of theory as a support and guide; the inexistence of a sole methodology for working with evaluation; teachers who participate as part of the evaluation and are integrated into the processes of reflection and decision-making; the pertinence of linking evaluation with teacher training; and interest in favoring the evaluation of pedagogical matters over administrative matters.

The books have been published by university publishing houses, as well as by Universidad Nacional Autónoma de México and Universidad Autónoma Metropolitana, and by other publishing firms with broad distribution in Latin American countries.

It is worthwhile to note that the group was invited to produce articles for the section of "Análisis temático: la evaluación de la docencia universitaria" in *Revista de la Educación Superior*, of the Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES). The journal is one of the oldest and most recognized publications in Mexico. The articles were prepared in both an individual and joint manner by Network members.

As part of the strategies to communicate RIED's work and experiences, three international colloquia were held in the city of Oaxaca; academics invited from Canada, France, Spain and Brazil attended the events, in addition to officials from the General Directorship of Higher Education in Mexico and ANUIES. The colloquia permitted the exchange of ideas among colleagues, students and the designers of national educational policy. The group has been present at other events, such as national congresses in educational research organized by COMIE, and the international colloquia of Association Francophone Internationale de Recherche Scientifique en Education and the Comparative and International Education Society.

Conclusions

The described experience coincides in general with most of the characteristics attributed to the new modes of producing knowledge (Gibbons *et al.*, 1997) and with the formal networks that generate knowledge. Specifically, the main purpose of the group is to create, communicate and increase the rate of production of knowledge; it provides benefits for all participants, who are invited as a function of merit; it has a well-defined communication structure; and it transcends the borders of various sectors (cfr. Clark, 1998). Produced knowledge has been developed in the context of application, in response to needs and with the quality demanded by the receiving institutions.

In addition, the narrated experience has outstanding socio-emotional aspects that are visualized by RIED members as key elements in the existence and consolidation of the group; at the same time, the group's practices are not permeated by the institutional dynamics of the members. RIED represents a modest effort to contribute to the decentralization and expansion of educational

research in our country, particularly considering the serious problems of national education and the limited number of researchers willing to contribute to systematic knowledge. It is also a contribution to discussion on the evaluation of teaching in the national context and the search for different ways of confronting the problem.

The analysis, discussion and implementation of alternative practices in evaluating teachers allows us to call attention to the topic, and to underline the need to increase efforts to favor the pedagogical aspects in evaluation processes over administrative aspects. The evaluation of teaching as a social practice that is not reduced to its technical aspect requires political viability.

This paper has analyzed, from the viewpoint of RIED participants, the components that have influenced the operation, permanence and productivity of a group of academics in developing a line of research. The outstanding aspects in the characterization of its constitution are the clear definition of the group's purposes, the presence of an academic leader recognized by the participants, and the voluntary association of academics who work in various universities in Mexico. The group was created in an inter-institutional manner with the possibility of integrating the experiences produced in various public and private establishments.

The dynamics of collective work—developed on a basis of horizontal relations—have made a reality of collaborating action in attaining short- and medium-term goals. The factor that has been determining in belonging to the group is active participation in projects; at the same time, voluntary and flexible association for participating in collective activities has permitted the prevalence of trust and respect for the particularities and moments of professional life.

From the participants' point of view, the outstanding factors that have promoted the research processes developed in the RIED context are shared learning, reinforced by the diversity of focuses and methodologies that converge in the work; and the valued aspect of belonging to a group, given the difficulty of relying on the institution of origin for interlocutors and the real conditions of collaborative work. In the same manner, support in graduate learning and academic development, understood as productivity, are factors that motivate the active participation of each member. No less important is the atmosphere created among the participants in promoting the socio-emotional development of its members—an aspect that, according to the participants' statements, seems to be increasingly difficult in work settings, probably due to the conditions of competition imposed by programs that favor individual performance.

The results obtained in the production of knowledge based on the work carried out in RIED confirm the advantages of cooperative and collaborative actions in research processes. At the same time, our experience underlines the importance of constructing spaces for dialogue and work that promote individuals' academic development and ongoing training of academic communities.

Progress can be seen in the efforts made by the central administration of the educational system to promote teamwork in producing knowledge; however, precautions should be taken so that these new work situations are not seen by the involved academics as exclusively a means to have access to additional resources, but as a strategy that responds better to the conditions of a changing, uncertain world.

The particular characteristics of Latin American countries, and in particular the conditions of development of their school systems and educational research, obligate searching for strategies that permit a socially pertinent scientific production while promoting the collaboration and development of individuals associated to reach this goal. At the same time, permanent dialogue with the international community should be promoted. We hope that the experience we have shared encourages other academics to consolidate and work together in contributing knowledge to the most urgent topics of formal education.

Notes

¹ It should be pointed out that for many years, educational research in Mexico was developed and consolidated by groups of academics from the same institution. They specialized in a topic and their work

validated the institution. Their work was guided by the norms of the organization to which they belonged (Gutiérrez, 2003).

² <http://www.comie.org.mx>

³ A line of research is understood as the deliberate association of a group of individuals to produce original knowledge on a specific topic, in dialogue with the theories and methodologies in use in the community of researchers (Rueda, 2002).

⁴ These books are: Rueda, 2004; Rueda, Díaz Barriga y Díaz, 2003; Rueda y Díaz Barriga, 2002; Rueda y Landesmann, 1999; and Rueda y Nieto, 1996.

Bibliographical References

- Casas, R. (2001). "El enfoque de redes y flujos de conocimiento en el análisis de las relaciones entre ciencia, tecnología y sociedad", *Kairos* (8) 2 (consultado el 10 de septiembre de 2004, en: <http://www.fices.unsl.edu.ar/kairos/k8-d07.htm>).
- Chavoya, M. L. y Weiss, E. (2003). "Un balance de la investigación educativa en México, 1993-2001", en E. Weiss (coord.) *El campo de la investigación educativa. 1993-2001*, col. La investigación educativa en México. 1992-2002, vol. 1, México: COMIE/SEP/CESU-UNAM, pp. 641-668.
- Clark, H. C. (1998). *Formal Knowledge Networks. A Study of Canadian Experiences*, Canada: International Institute for Sustainable Development.
- Consejo Mexicano de Investigación Educativa (2005). *Grupos de investigadores* (consultado el 31 de mayo de 2005, en: <http://www.comie.org.mx>).
- Creech, H. and Willard, T. (2001). *Strategic Intentions: Managing Knowledge Networks for Sustainable Development*, Canada: International Institute for Sustainable Development.
- Fairclough, N. (2003). "El análisis crítico del discurso como método para la investigación en ciencias sociales", en R. Wodak y M. Meyer (comps.) *Métodos de análisis crítico del discurso*, España: Gedisa, pp. 179-203.
- Freeman, C. (1991). "Networks of Innovators: A Synthesis of Research Issues", *Research Policy*, 3, pp. 220-242.
- Gibbons, M. C. et al. (1997). *La nueva producción del conocimiento. La dinámica de la ciencia y la investigación en las sociedades contemporáneas*, Barcelona: Pomares-Corredor, pp. 7-95.
- Gutiérrez S., N. (2003). "Comunidades académicas especializadas interinstitucionales de la investigación educativa", en E. Weiss (coord.), *El campo de la investigación educativa. 1993-2001*, col. La investigación educativa en México. 1992-2002, vol. 1, México: COMIE/SEP/CESU-UNAM, pp. 151-168.
- Holsti, O. (1966). *Content Analysis for the Social Sciences and Humanities*, Massachusetts: Addison-Wesley, pp. 94-150.
- OCDE-CERI (2004). "Revisión Nacional de Investigación y Desarrollo Educativos. Reporte de los examinadores sobre México", *Revista Mexicana de Investigación Educativa*, 9 (21), pp. 515-550.
- Programa de Mejoramiento al Profesorado (2005) (consultado el 29 de julio de 2005 en: <http://promep.sep.gob.mx/ca.htm>).
- Ramírez, R. y Weiss, E. (2004). "Los investigadores educativos en México: una aproximación", *Revista Mexicana de Investigación Educativa*, 9 (21), pp. 501-514.
- Rueda B., M. (2002). *Propuesta de proyecto de investigación para ser presentado en la Secretaría de Educación Superior e Investigación Científica*, manuscrito presentado en la reunión de trabajo del COMIE el 15 de abril de 2002, México.
- Rueda B., M. (coord.). (2004). *¿Es posible evaluar la docencia en la universidad? Experiencias en México, Canadá, Francia, España y Brasil*, col. Biblioteca de la Educación Superior, serie Memorias, México: ANUIES-UABJO.
- Rueda B., M. y Díaz Barriga, F. (comps.). (2002). *Evaluación de la docencia. Perspectivas actuales*, 2ª reimp., México: Paidós Educador.
- Rueda B., M. y Díaz Barriga, F. (coords.) (2004). *La evaluación de la docencia en la universidad. Perspectivas desde la investigación y la intervención profesional*, México: CESU-UNAM/Plaza y Valdéz.
- Rueda B., M.; Díaz Barriga, F. y Díaz, M. (coords.) (2003). *Evaluar para comprender y mejorar la docencia en la educación superior*, 2ª reimp., México: UAM/UNAM/UABJO.
- Rueda B., M. y Landesmann, M. (coords.) (1999). *¿Hacia una nueva cultura de la evaluación de los académicos? Pensamiento universitario*, núm. 88, tercera época, México: CESU-UNAM.
- Rueda B., M. y Nieto, J. (comps.) (1996). *La evaluación de la docencia universitaria*, México: Facultad de Psicología-UNAM.
- Sarna, N. (2004). *The Global Development Network. Addressing Challenges of Globalization: An Independent Evaluation of the World Bank Approach to Global Programs. Case Study*, The World Bank Operations Evaluation

- Department (consulted March 17, 2006, at: http://www.bancomundial.org/evaluacion/gppp/casos_gdn.htm)
- Scarf, C. and Hutchinson, K. (2003). "Knowledge Networks for Development: A Participatory Design Approach", *International Conference on the Convergence of Knowledge, Culture, Language and Information Technologies*, Alexandria.
- Schmelkes, C. y López M. (2003). "Instituciones y condiciones institucionales de la investigación educativa", en E. Weiss (coord.) *El campo de la investigación educativa. 1993-2001*, col. La investigación educativa en México. 1992-2002, vol. 1, México: COMIE/SEP/CESU-UNAM, pp. 121-143.
- Sebastián, J. (2000). "La cultura de la cooperación en la I+D+I". *Espacios*, 21 (2) (consultado el 2 de septiembre de 2004, en: <http://www.revistaespacios.com/a00v21n02/80002102.html> bajado el 9/2/2004).
- Urbano, G.; Aguilar, G. y Rubio, J. (2005). *Para mejorar la de las universidades públicas* (consultado el 18 de febrero de 2005, en: <http://www.campusmilenio.com/n93/promep.htm>).
- Zander, I. (1999). "How do you mean global? An empirical investigation of innovation networks in the multinational corporation", *Research Policy*, 28, pp. 231-250.
- Zoltan, J. A. (ed.). (2000). "Introduction", *Regional Innovation, Knowledge and Global Change*, London: Pinter.

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