The Curriculum in a community of practice

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ABSTRACT:

In this article, we are going to describe the process of curriculum development within a community of practice online *consisting mainly of* teachers of English as a foreign language – the *Webheads in Action* (*WiA*). This article focuses on the themes of flexible and constructivist curriculum, of communities of practice online and of teachers training. To this end, we carried out a research study of a qualitative nature, being based on a case study strategy, which will be briefly described here.

As a key point of this research, we realize that the *Webheads in Action* are actually an online community of practice since they show the three principal characteristics indicated by specialized theory (Wenger, 1998a): (1) *joint enterprise*; (2) *mutual engagement* and (3) *shared repertoire*. Coupled with this, they also show other elements that enable us to relate the *Webheads in Action* with the communities of practice: *history, identity, plurality, autonomy, participation, reciprocity, integration, future, technology and learning* (Schwier, 2002). Their activity proved to be grounded on a flexible and open curriculum structure in accordance with a socio-constructivist approach. Learning, centred on the individual, takes place in contextualized and authentic situations, these practices and the community being the curriculum itself (Wenger, 1998a).

We also concluded that the activity taking place in the community generates dynamism in the group, which significantly strengthens meaningful learning and makes of in-service teachers training a more efficient and motivating enterprise.

KEYWORDS:

Communities of Practice, Flexible curriculum, Learning, Educational technologies, Training, Constructivism.

INTRODUCTION

Nowadays, technology is present in our private and professional lives. It is an indisputable fact that it is an integral part of our society. Thanks to the Internet and technologies which carry us through our daily lives, we have been witnessing the emergence of innumerable Communities online. They are created around various objectives, some rather ludic, others of a more serious nature. Among the latter, we can single out the learning communities, especially the communities of practice (Wenger, 1998a). The communities of practice (CoPs) are characteristically a group of people who are spontaneously brought together not only with the aim of sharing common interests, but also, overwhelmingly, to report on their activities and get involved and collaborate in practices which reinforce learning and boost their professional performance. At present, CoPs members depend more and more on technological means to establish contact among themselves and develop their practice together. The individuals who set up a given community of practice are recognised not only for their interests, but also for their professional activities and for the way they fulfil them. This they do through the sharing of stories and experiences, the upshot being the contribution towards the knowledge of the others within a training perspective. Our research deals with this type of community as a method of in-service teacher training, along with its underlying curriculum model.

Bearing this in mind, we oriented our study around the following research questions: What are *WiA* characteristics that make of it a community of practice, according to the theoretical parameters determined by literature? What are the characteristics of the curriculum model guiding the team's practice? What is the role of the community of practice of teachers of the English as a model of shared professional training?

The answers to the above questions were found based on information gathered from the analysis of data and with the support of the theory produced in the fields at stake, that is to say, what literature tells us about *online* communities of practice, the curriculum in a community of practice, the theories of learning that legitimise it and in-service teacher training, even though indirectly.

THEORETICAL FRAMEWORK

It seems pertinent to begin by explaining some of these theoretic assumptions according to their specific area.

ONLINE COMMUNITIES OF PRACTICE

Communities of practice are not exactly a novelty of this century, nor are they a recent experiment whether in the educational sphere, or in the professional sphere or in both, which are inter-related here, for obvious reasons. Just as defined by Wenger (1998b), the CoPs are roughly characterised by three dimensions:

• What defines them (what they are): a team activity which is constantly strengthened and renegotiated by the members;

• How they work: their activity is kept alive thanks to the dedication of those involved. Inevitably, they end up by establishing bonds and, as a consequence, forming a social identity;

• What skills are developed: shared repertoire of common resources, progressively developed by the individuals making up the CoP and who are active participants. From among these resources may be mentioned habits, feelings, artefacts, their own ways of expression, styles and so on.

CoPs are associated with activities and/or interests of a professional nature, clearly showing the common aims and interests of their members. Lave and Wenger define CoP as

A community of practice is a set of relations among persons, activity, and world, overtime and in relation with other tangential and overlapping communities of practice. A community of practice is an intrinsic condition for the existence of knowledge (…) It does imply participation in an activity system about which participants share understandings concerning what they are doing and what that means in their lives and for their communities (1991, p. 98).

Regarding communities of practice, Schwier (2001, 2002) also identifies a combination of elements inherent in their composition, which, although they touch on some of the points already mentioned, bring some freshness to the study of this theme, as we can see in the table below.

ELEMENTS OF THE COMMUNITY	DESCRIPTION
Historicity	Communities are stronger when they share history.
Identity	Communities foster a sense of shared identity.
Plurality	Communities draw much of their vitality from "intermediate associations" such as families, churches, and other peripheral groups.
Autonomy	Within the emphasis on group identity, it is important that communities respect and protect individual identity.
Participation	Social participation in the community, especially that promoting self-determination, favours autonomy and sustains the community.
Integration	All the elements mentioned above depend on supportive norms, beliefs and practices.
Future	Learning communities are not static; they open trajectories of participation that place engagement in its practice in the context of a valued future.
Technology	In virtual communities of practice, technology can facilitate and develop the community, but it may also inhibit growth.
Learning	Learning is a central element in communities of practice, although the nature of learning could be broadly defined and contextual.
Mutuality	Communities spring from, and are maintained by interdependence and reciprocity.

Table 1: Elements of Communities of Practice according to Schwier (Adapted from Schwier, 2002, p. 4).

The great originality in the case of this writer is the fact that he has already included technology as a variable associated with communities of practice, albeit with some restrictions, and of viewing members' engagement as practices developing in an innovative sense, towards the future – a fact also considered by Wenger (1998a).

CURRICULUM OF A COMMUNITY OF PRACTICE
AND LEARNING THEORIES

Lately, curriculum has been considered by some writers as a social and cultural construction, as a way of organising a combination of practice and knowledge which reflect a culture, a society, a historic-cultural scenario. Thinking of curriculum is, therefore,

according to Grundy (1987), considering a group of people who interrelate before certain shared situations and interests and who emancipate themselves by means of team practices, which open new doors to reality. "the curriculum is not simply a set of plans to be implemented, but rather is constituted through an active process in which planning, acting and evaluating are all reciprocally related and integrated into the process" (Grundy, 1987, p. 115).

Thus, the curriculum is, in this way, a form of social practice occurring in the real world in which it is integrated and in authentic situations which are, therefore, meaningful for the participants. From this perspective, knowledge is also a social construction, as far as the participants, on being involved in a critical reflection on a given area of knowledge of shared interest, become active in the construction of their own knowledge. "[Therefore,] praxis becomes a process of making sense which recognizes significance as a social construction" (Grundy, 1987, p. 116), a collective understanding of something.

"The idea of a critical community is important here" (Grundy, 1987, p. 124), because this type of curriculum is directed towards groups of people whose relationship is nurtured and characterized by constant discussion on mutual interests. As Grundy (1987) reminds us, with the words of McTaggart and Singh (1986, p. 44), this "Criticism can only be conducted in a community where there is determination to learn rationally from each other".

This emphasis on the negotiated curriculum does not imply that there is no underlying structure. However, one of the key aspects of a more dynamic curriculum would undoubtedly be the stimulus of a critical conscience via the building of knowledge through a more flexible approach to the content. This would give rise to the acquisition of knowledge in authentic settings, which in turn, would facilitate the development of "knowledge as a fully integrated social activity" (Figueiredo, 1999, p. 3).

To sum up, curriculum as praxis enables a diversity of learning which interrelate (Coll, 1998) and which focus on "people's diverse capacities, competences and well-being" (Zabala, 1999, p.104). This is also the type of curriculum present in communities of practice.

This concept of curriculum in construction is reinforced by its supporting theories of learning: the

constructive perspectives. For the most part, these have been the theoretic foundation for the construction of the curriculum and for the application of technologies in teaching and learning.

The constructivist theory, together with philosophy, psychology and cybernetics, has become much more popular in recent years and is briefly defined by the way the individuals perceive and understand the world (von Glaserfeld, 1989). The individual, whilst a learner, performs an active role, is responsible for his own learning and is a direct participant in the building of knowledge as far as he reflects on his experiences and interacts in meaningful and contextualized learning situations.

Among the various approaches developed by the constructivist theory we consider as the most relevant for our study the so-called social constructivism, which is particularly linked to the theories developed by Vygotsky, Bruner and Bandura (Shunk, 2000).

Social constructivism gives special importance to culture and the context within which learning takes place. Another factor highlighted by this perspective is the collaborative nature of learning, mainly developed by Vygotsky (1978).

This writer underlines the importance of social interaction in learning. The cognitive development of the subject is directly related to his role in society and to the way he interacts and communicates with it. Learning first happens within society and only later has an impact on the cognitive processes of the individual.

Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; that is, first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals (Vygotsky, 1978, p. 57).

Vygotsky, therefore, upholds learning founded on the building of knowledge in the community engendered by the collaboration and interaction between the individuals. Thus the social context is an important and determining aspect in the acquisition and building of knowledge. Interaction also

presupposes an environment favourable to a multiplicity of perspectives.

Thus the impact of the constructivist theory in learning begins in the curriculum. Constructivism calls for the elimination of a standardized curriculum whilst promoting, on the other hand, the creation of alternative, flexible curricula, based on learners' prior knowledge and reality. Besides, this perspective gives equal value to praxis and active building of knowledge between participants with different levels of expert performance. (Lave & Wenger, 1991; McMahon, 1997; Oliver & Herrington, 2000).

In this way, the socio-constructivist approaches recommend peer collaboration and multiplicity of perspectives (Jonassen, 1994), mutual sharing of knowledge, problem- and context-based learning and other ways which involve learning in and with the surrounding environment – society - that is to say, situated community learning (Lave & Wenger, 1991; Scardamalia & Bereiter, 1996).

Regarding the new models of learning (based mainly on the *web*), Oliver and Herrington (2000) propose a combination of nine key elements which, in their perspective, bring together the essential purposes of the creation of a contextualized learning environment and set within a constructivist model of learning.

The key elements are presented below in schematic form, followed by a succinct explanation of each one.
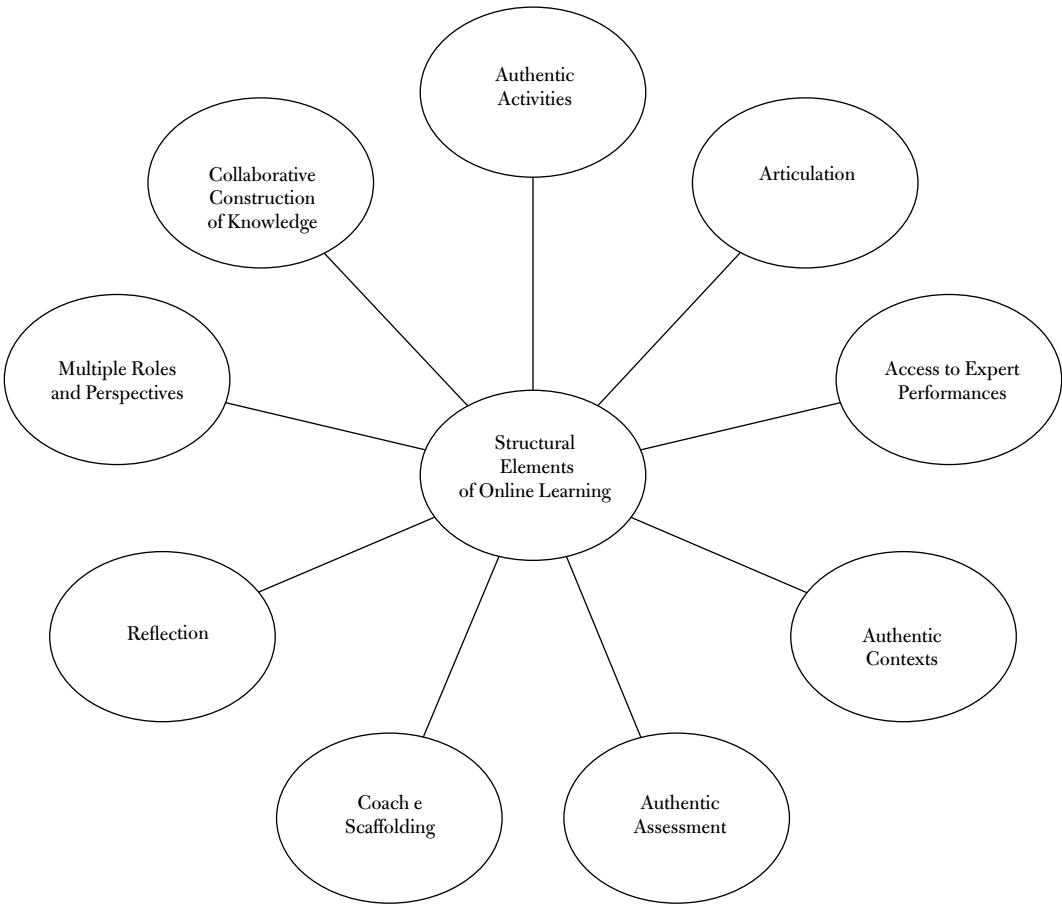
Scheme 1. Key Elements of the online Learning Model
(Based on Oliver, Herrington, Herrigton & Sparrow, 2006).

1. *Authentic Contexts*: The learning environment should be designed as a complex whole, which can be subjected to exploitation overtime and which motivates and makes sense of learning;

2. *Authentic Activities*: the strategies of learning should be organized so as to provide tasks based on the real world and which are not simply a series of examples with no connection or coherence to what is to be learnt;

3. *Access to different levels of expert performances*: access of participants to different levels of expert performances, access to the social periphery or to real events just as they happen;

4. *Roles and multiple perspectives*: the importance of the individuals attaining and exploiting different perspectives;

5. *Collaborative construction of knowledge*: fundamental element, especially with distance learning. The collaboration should be put forward in such a way as to involve the group and not only the individual through appropriate tasks and communication via technology;

6. *Reflection*: effective reflection derives from authentic contexts and activities already described;

7. *Articulation*: the tasks should link tacit and explicit knowledge;

8. *Coaching and Scaffolding*: Supplied via collaborative learning, where teachers and pupils contribute and negotiate meaning. Seen equally as a way for the teacher to intervene and facilitate learning through the technologies;

9. *Authentic Assessment*: integrated in the process of teaching/learning, in the activities carried out by the pupils.

However, these elements only have expression if they are within a learning context, if the proposed activities encourage more learner-centred and collaborative learning and if such a model has an underlying device to back-up and moderate efficient learning, where active knowledge is enhanced and facilitated by the communication technologies.

Continuous Training

Continuous training has lately come to be seen as a "necessary evil" for the development of the professional skills of individuals, who see in it a way not only of improving their performance but also of making progress in their career and in their socio-professional development. The continuous training of teachers is no exception. As role models, responsible for the training of future professionals, teachers should, more than ever, accompany the evolution of society and adapt their methods of teaching/learning to the current reality. As Nóvoa argues, the "training of teachers is something (…) which is established in *continuum*" (2001), learning being a process which stretches throughout the professional and individual trajectory and which should reflect present day needs. Educational technologies are our contemporaries and so should not be ignored by individuals and even less by the school.

As Costa reminds us, it is

important that teachers may benefit from the potential of these technologies in terms of their own professional development but above all, to use them with their pupils, giving them innovative and more interesting learning situations, and closer to the surrounding world (2003, p. 1).

The development of professional skills (Perrenoud, 1998), and subject specific learning as well as the suitability of practices is, of course, the purpose of continuous teacher training.

The 21st. century is the continuation of an era where technological progress is clearly emphasised above all other advances accomplished by humanity. The technologies have opened up new horizons and provided new perspectives. In the case of teachers, the need to be up to date when faced with this emerging phenomenon, as well as adopting new methods in the classroom, has become almost imperative so as to achieve a renewed, modern vision of school and bridge school reality and daily life just as it is experienced by the pupils.

The introduction of Information and Communication Technology (ICT) into the learning environments may make this difference. When efficiently used, educational technologies can positively aid learning. *Learning with the Technologies,* as Costa (2005) promotes on his site[1], can benefit pupils as much as teachers: the possibility of both learning and teaching through the use of technology and the available tools on the Internet, can accentuate, improve and motivate learning as well as the whole

educational practice. The first step to take is to prepare teachers to use them, by providing them with basic concepts and knowledge. To transform their perspectives and create enthusiasm for the efficient use of educational technologies in their teaching and learning activities requires an adequate and up to date training in educational practices. The online communities of practice are, in this sense, motivating forces and effective sources of continuous training.

THE CASE STUDY

The case under analysis, the object of our study, consisted of a group of teachers of the English, defenders of educational technologies in the service of education, who meet online with the purpose of introducing and debating this theme, is known as *Webheads in Action* (*WiA*). The main aim of this community is the use of computer-mediated communication tools, in a perspective of mutual help so that they can collaboratively learn more about the character of online and blended learning and apply the resulting knowledge to their teaching methods and/or projects they wish to develop (Stevens, 2001). Thus, it deals with a group of teacher-pupils who use the technologies to learn and to teach.

Its members are spread throughout the four corners of the world and most of them are only known to one another virtually, that is to say, by means of synchronous or asynchronous communication tools, via Internet. Theirs is a frequent activity and the group is cohesive, in the words of the coordinator (Stevens, 2001). The *Webheads in Action* seem to be an excellent example of what is expected of a community.

METHODOLOGICAL OPTIONS

Within a qualitative approach, we adopted the Case Study method, of a descriptive and interpretive nature, as it is a research which aims at focusing on a phenomenon of current life, where the researcher has no control whatsoever over the nature of ambience under study. Another reason is because we would like to concentrate on research work of a descriptive and interpretive nature, starting with an exploratory perspective (Yin, 1994). "The objec-

tive (…) is to understand the subjects' world and determine how and with what criteria *they* judge it" (Bogdan & Biklen, 1994, p. 287).

We relied upon different ways of gathering and analysing data so that we could make a more precise interpretation of our study objective in a more complete way and from different points of view (Cohen, Manion & Morrison, 1989). Comparing data from various sources is due to the need to check the validity of the study and give it credibility by means of a multiple perspective analysis.

The procedures for gathering data were taking form as we progressed and became more familiar with our objective. We started with an exploratory observation, which allowed us not only to gather precious information regarding the group, but also to stipulate the first categories for analysis, which contributed to a much clearer understanding of our problem.

Afterwards, we proceeded to gather documents produced by the participants during the period of observation and, in a final stage of our study, we gave a mini questionnaire to the participants in which we requested open answers to the three fundamental questions of our study, the main intent of which was to confirm the information gathered and analysed and thus cross reference the data taken from the three ways of collecting and analysing the data.

RESULTS

As a result of the analysis and interpretation of the data, we concluded that the *WiA*, in fact, are defined by a range of characteristics referred to in literature, which enable us to "denounce" this group of teachers as a community of practice. Returning to the theory of Schwier (2002), we checked that a *historic past* is subjacent to the *Webheads in Action* which corresponds to an activity in the plural lasting for several years, which not only justifies its existence as a community, but also allows its members to identify themselves with it. Throughout our study, we verified through the bearing of its members a strong identification with the group, calling themselves, and operating, as *Webheads*, which led us to conclude that there is a sense of unity and belonging which establishes this *identity* adopted by the

group, despite this being made up of a great variety of individuals of diverse countries, with totally different perspectives and experiences. From Europe to the American continent through to Asia and Australia, this community has a vast number of representatives of various nationalities and with different bents. This diversity affords the *WiA* the possibility to build not only team knowledge, but also *interdependence* between them, based on a *plurality* of points of view and meanings, visible through a multiplicity of perspectives issued for the bosom of the community. This results in contributing towards a more meaningful learning for the individuals who make up the community. However, this does not mean that the individual is suppressed within the group; on the contrary, as we had the opportunity to verify from our analysis, this plurality is accepted and valued, which also results in an easier *integration* and *participation* of the individuals in the community. The members of the *Webheads* also reserve an *autonomy* which is implicit to their activity and attitude regarding learning. Here, each learns what he wants depending on his practical interests and at his own rhythm, without this being considered a negative point in the participation of community activities. The attitude is of flexibility and *learning* based on specific interests, built on reflection and consistent teamwork, within a defined context: that of educational technologies. It is the enthusiastic exploitation of this theme which has nourished and motivated the continuity of the community until now. In fact, this is undoubtedly one of the curious aspects of this community because the objective of their learning is also the means by which the members carry out their learning, that is to say, they learn about technologies with Technologies, just as Schwier (2002) anticipated and Costa (2005) proclaims. We are faced with a paradigm of authentic and contextualized learning.

It is also opportune to stress just like Wenger, McDermott and Snyder (2002), that the *Webheads in Action* can be viewed as a community of practice because there is a common objective shared by the individuals who form it; because there is an obvious passion for a thematic field which they want to cultivate and develop together, so that the individual practices can benefit at the same time that each of the active participants contributes equally for the common knowledge of the entire community. It is also thanks to the *technologies* that they not only improve their modus operandi whilst teachers, bringing them up to date and preparing themselves for present and *future* education, but also developing affinities between them, thus allowing affective ties to be formed, which extend beyond the interests of learning that led them to integrate into the community in the first place. These ties are not based only on frequent interactions, but also on a strong sense of socialization and a socio-affective relationship, which is evidenced by the ever-present enthusiasm and motivation in the relationships they have established with each other and which is also present in their learning itinerary. In our opinion, socialization is an element we would like to highlight here as one of the main catalysts of the activity and learning within a community.

In accordance with the analysis and interpretation carried out, we verified that we are sampling a decisively flexible curriculum based on constructivist beliefs.

As Oliver and Herrington (2000) pointed out, the model of training which defines the online community of practice *Webheads in Action* presupposes *authentic* contexts of learning since the participants learn about technologies with recourse to these same technologies. The stage for this community is *online* and the tasks put forward are carried in this same scenario, which enables the participants' commitment to contextualized and *authentic activities*, since they not only study the tools, but also put them to practical use in their teaching, thus conveying the knowledge acquired in the community to their professional lives in the classroom. This fact contributes to our understanding of curriculum as a practice that makes effective learning possible and based on real situations. Neither prescribed nor formal curriculum is dealt with here, but rather a curriculum built through the development of the community and reflecting what it is.

Besides, community members' learning is accomplished in a give and take dialectics, where the novices learn with those more experienced, where different expert performances all contribute to an effective learning and where *Scaffolding* is a reality. Consequently, this blend of individuals, with different levels of knowledge and expert performances,

results in an exchange of information and a *teaching and learning team praxis* which is obviously fruitful and influential in the community learning. With doubts and/or suggestions, everyone contributes towards the common aim of the community: the increase of knowledge and the development of new ways of thinking. Access to a *multiplicity of perspectives and roles* is also verified in the *WiA* activity, where any one of the individuals with knowledge on a given subject can easily, at a given time, play an important part which is protracted as long as this contribution is understood to be pertinent to the community's activity. Others may assume this leadership role alternately in this learning perspective and contribute towards team learning whenever this is justified. This is also an enhancing factor of the community, just as interaction and collaboration form the implicit framework that this community inspires. As a matter of fact, the training of the individuals in this community is reflected mainly in the results of shared knowledge and teamwork by means of a constant and intense interaction shown throughout the whole process of learning. In a an effort of continuous *reflection* on acquired knowledge put into practice, of the *interrelation* between tacit and explicit knowledge, seen through the practical results applied to the professional contexts of the participants in the CoP, a collaborative build up of knowledge stands out. This marks and defines the whole learning process and reflects a flexible curriculum. This curriculum is fashioned according to how the community evolves in its practice, *evaluates* its individual and collective performance and (re)defines its purpose. As Wenger puts it (1998a) "Learning cannot be designed" (p. 225), but can, undoubtedly, be based on experience and the progressive practices of a group of individuals, which serve to sustain a structure which, although informal, is shown to be effective in guaranteeing the significant build up of knowledge founded on a shared practice.

We can conclude, therefore, that we are dealing with a curriculum model based on practice and real situations and aiming at contextualized learning, where the collaboration and the interaction between individuals allows contact with different aspects of knowledge, promoting thoughtful and authentic learning opportunities. This means that inherent to the *Webheads in Action* is a *curriculum of learning* just as defined by Lave and Wenger (1991).

It is also our understanding that this community performs a key role in the lives of the participants, at both professional and personal levels, decisively influencing their practices in a positive and innovative way. We can affirm that throughout the whole process of research, the community's activity is intense and motivating and is reflected in the daily practice of the members who carry over the acquired abilities to the area of their professional performance by applying the new knowledge in the classrooms as education professionals.

This community of practice is, without a shadow of doubt, an excellent and efficient way of furthering professional development within the realm of educational technologies – an area which this community favours, which is instantly revealed by the name they have adopted: *Webheads in Action*. This means we are dealing with a group of individuals *(Heads)* who are intellectually stimulated and interested in learning via the *Web*. It is this interest which unites them in the mutual dedication of a team activity *(action)*.

By collaborating with the *Webheads,* one does not learn only about technologies but also how to use and apply them to each one's context. This community explores various subjects which contribute to a more efficient and complete learning. These are reflected in each member's personal self and professional self, which improve as knowledge expands and consequently evolves in their practice.

Returning to Wenger, McDermott, and Snyder (2002), we consider that the community *Webheads in Action* is an active innovator way of enhancing professional development. Whilst active members of this community, the *Webheads* teachers manage to make progress in their careers and professional performance by developing new abilities and skills, by being part of a network of knowledge, in which a multiplicity of perspectives is apparent, by promoting practices and by establishing a strong sense of professional identity which in turn creates greater motivation and confidence in the advancement of their educational activity. Parallel to this, the mutual help and collaboration in tackling with new challenges, the access to specialized and diversified knowledge, the interaction and socialization be-

tween peers, the significant participation and strong sense of belonging evidenced by the *Webheads* facilitates progress in their professional experience and in the status of innovative and adventurous teachers, often calling themselves *Tech-Teachers*.

Next, we present a scheme which we believe to be the essence of the *Webheads in Action*, based on the relation between aforementioned theoretical assumptions to which we add a few aspects we consider pertinent.
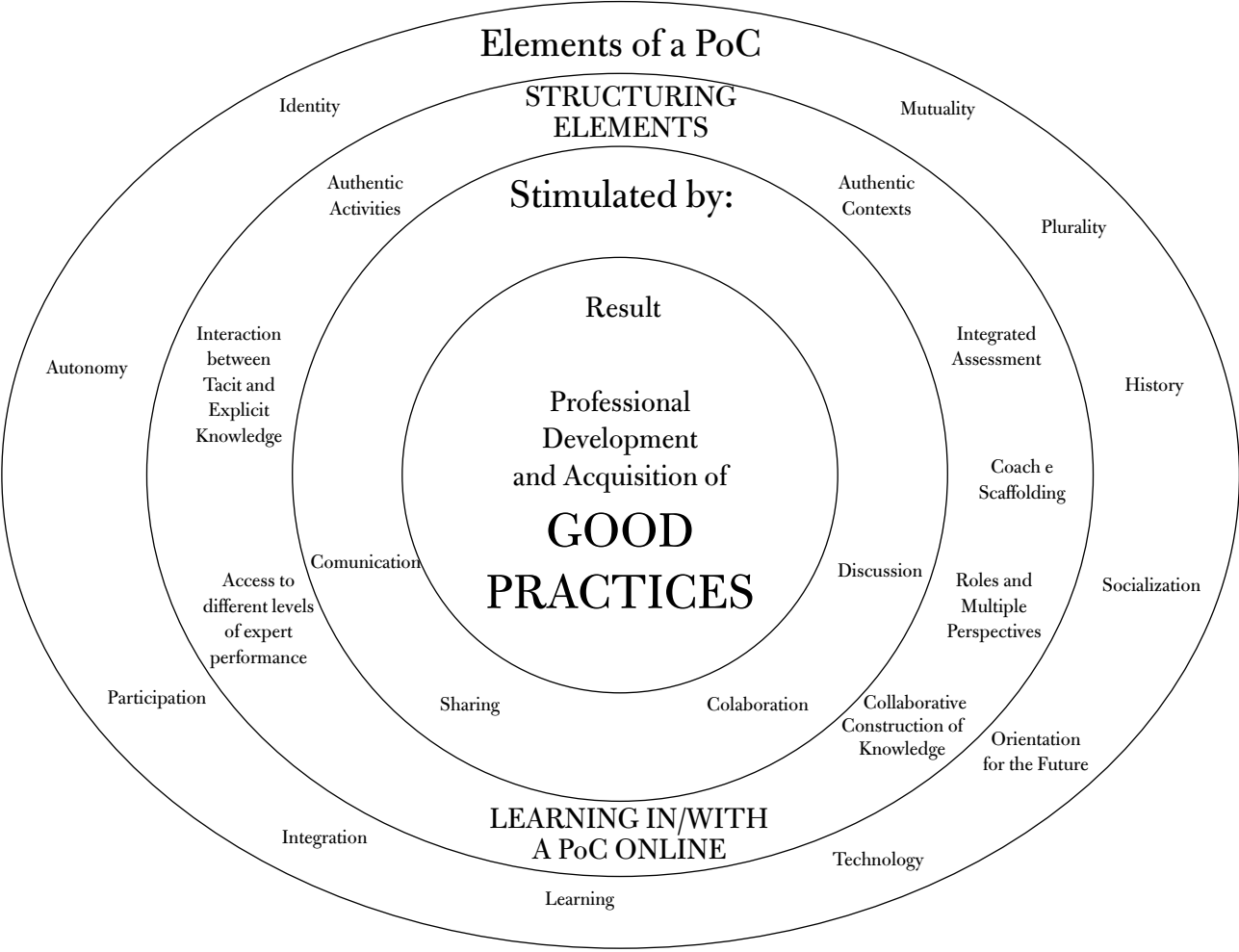
Scheme 2. Succint view of the *Webheads in Action*.

The above scheme is our succinct view of what characterises the *WiA*. Following Schwier (2002), there are ten elements that represent this community, and to which we felt the need to add an eleventh – socialization – so as to stress the socio-affective dimension also expressed in this community. We also added the structuring elements of the community's online learning, based on the aspects pointed out by Oliver and Herrington (2000). We completed the scheme with two more levels regarding the stimuli, which keep the flame of this community alive, and the results obtained from participation in this. The obvi-

ous conclusions in these last two levels are the fruit of our interpretation within the scope of this research.

To sum up, the *Webheads in Action* bring together the beliefs anticipated by literature concerning online communities of practice, their activity being structured around a curricular foundation of a flexible and constructive nature which encourages good practices applied to the teaching and learning of languages. It is a fact that the community has had an impact on the lives of the participating teachers in such a way that it is a model of active, efficient, free and voluntary professional training.

Endnotes

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