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A METHODOLOGICAL PROPOSAL FOR THE ANALYSIS OF A LEARNING PRACTICE AND A SOCIO-TECHNICAL SYSTEM

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ABSTRACT

This article aims to propose an analytical model and contribute to the methodology used to study the phenomenon of learning and innovation, through the appropriation of two theoretical-methodological models: cultural-historical activity theory (CHAT) and socio-technical system (STS) theory. AIESEC (*Association Internationale des Etudiants in Sciences Economiques et Commerciales*) Curitiba was used as empirical field to expose such methodology.

Keywords: cultural-historical activity, socio-technical system, methodology, learning and innovation.

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1 CONTEXT

The objective of this study is a methodological modeling aiming to make an analytical proposition through the interface between the cultural-historical activity theory (CHAT) to provide more elements for the study of the concept of practice, still offering dialogue with the innovation field, to enable the approximation of practice and of innovation. A bibliographical survey was carried out, and from this, it was verified a set of authors⁴ that already evidenced the possibility of approaching the two theories. The works of these authors are presented in the sequence.

The CHAT was first presented as a system of approach to information research in 1991, in Copenhagen, at the IFIP WG 8.2 conference. Kuutti (1991) suggested that the object of analysis in information system should be the activity information system. Similarly, Bødker (1991) discussed the potential of CHAT as an analytical framework for understanding computer-based artifacts as tools for work activities and materials for systems design. For 15 years, since the Copenhagen Conference, CHAT has been applied to research in the areas of human-computer interaction, cooperative computer work, information systems and information science, citing as examples the studies of Bødker (1997), Bardram (2000), Bertelsen et al. (2000), Mwanza (2001) and Wilson (2006).

Mursu et al. (2006) work with CHAT in the area of information systems development, offering an explanatory model. CHAT, when applied to the development of information systems, enables an analytical model. The Activity Analysis and Development (ActAD) is a proposal that takes work activity as a systemic entity, with its constituent elements and its networks of activities, that can be introduced and applied in all information systems. The development of information systems is modeled as an activity. The approximation between CHAT and the field of information systems results as a contribution of a participatory model of development, which aims to develop work and information systems in 3 phases: the understanding of the current state of an activity, the description of the objective state of the activity and the planning for the transformation of the objective state (MURSU et al., 2006).

The purpose of information systems is to facilitate and assist work activities, as a system of human activity. The researchers conceptualize an information system as the use of information technology from a collective work activity. Thus, the development of information systems is defined as the process by which some collective work activity is facilitated by new means of technological information, through analysis, design, implementation and sustained support (MURSU et al., 2006). The development of information systems is considered a critical and emancipatory process (ORLIKOWSKI; BAROUDI, 1991).

CHAT and the work development research theory emphasize that activity is a collective phenomenon involving many actors. However, according to Mursu et al. (2006), the studies mentioned above tend to reduce activity to a set of actions performed by an individual, and the analytical model does not guide the researcher in a clear way, in the sense of how to study the individual and collective aspects of work activities in the same framework (KORPELA et al., 2004).

The strong feature of CHAT is its historical roots, whose philosophical and interdisciplinary structure studies different forms of human practices as development processes, at individual and social levels, interconnected at the same time, having interaction in a social context and the idea of dynamics and development of work activity (KUUTTI, 1996).

CHAT is an approach to the development of work-oriented information systems and has an analytical model for researching practice as a system, derived from people's daily tasks. It is suggested that such a model should meet the following requirements (KORPELA et al., 2004):

4 Bødker (1991); Kuutti (1991); Orlikowski & Baroudi (1991); Kuutti (1996); Bødker (1997); Bardram (2000); Bertelsen & Bødker (2000); Korpela, Soriyan & Olufokunbi (2000); Mwanza (2001); Vrazalic & Gould (2001); Korpela et al. (2002); Korpela et al. (2004); Mursu et al. (2006); Wilson (2006).

- a. the starting point should be the work activity as a systemic entity;
- b. technology should be taken as a tool to facilitate work, integrated into the work system;
- c. both collective and individual aspects of work need to be taken into account;
- d. work systems need to be studied in their organizational context;
- e. the analysis model should be based on a sound theoretical basis and should be applicable to descriptive and practical studies.

This model has been developed and used for several years at the University of Kuopio in 3 research projects: PlugIT, INDEHELA and Ziplt (KORPELA et al., 2000, 2004). The proposed interface model of CHAT and the information system area is ActAD, whose work processes of professionals are within an activity, with information flow and information management. It is critical to create a collective understanding between information system designers and actors, in relation to how they are working, what kind of tasks are being performed, how the information tools are used and who are the other actors involved. Taking a group of professionals to analyze the relationship with the information system in use, the interaction is between the group and the information system.

This level can be interpreted as the perspective of the actors in the work processes. An actor has a goal, tools, colleagues and rules when working on a purpose and transforming for the intended outcome. In addition to the instruments or means of individual actions, other types of mediation instruments (social infrastructure) are also needed within an activity (MURSU et al., 2006).

According to Kuutti (1991), the systemic unit that the information systems of researchers and professionals must consider first is the activity (work) in all its aspects and dynamics. It is not very important to know whether information services and management processes, within an activity or network, form an information system. The question is whether the use of information and communication technologies facilitate the objectives of the activity. However, information and communication technology is becoming increasingly widespread, and the need for new means of technological information is one of the most common sources for change in work and information systems projects (KORPELA et al., 2002).

The empirical field is developed in two ways in this study: as a learning practice and an innovation. As a practice of learning, from the CHAT as a practice, located in the theoretical concept of Engeström (1987), taking practice as systems of activity and as an innovation, from the socio-technical system (STS) theory.

The use of the concept of learning practice in the academic area of the Business Management enables to investigate how the different human activities are performed in the daily life of organizations (SANTOS, ALCADIPANI, 2010).

The use of the STS design favors understanding the genesis and foundation of technology in the organization. The technological process, understood as contingent, involves heterogeneous factors resulting from a social product. Technology and organization are dependent categories, which have mutual interaction, whose focus is on the internal dynamics and the social context that assume a particular sense (CORREIA, 2000).

In this research, the interest is focused on understanding how the learning process occurs in the organizational routine and in innovation. Such process is located in a training program for young leaders at AIESEC⁵ Curitiba.

⁵ Association Internationale des Etudiants in Sciences Economiques et Commerciales.

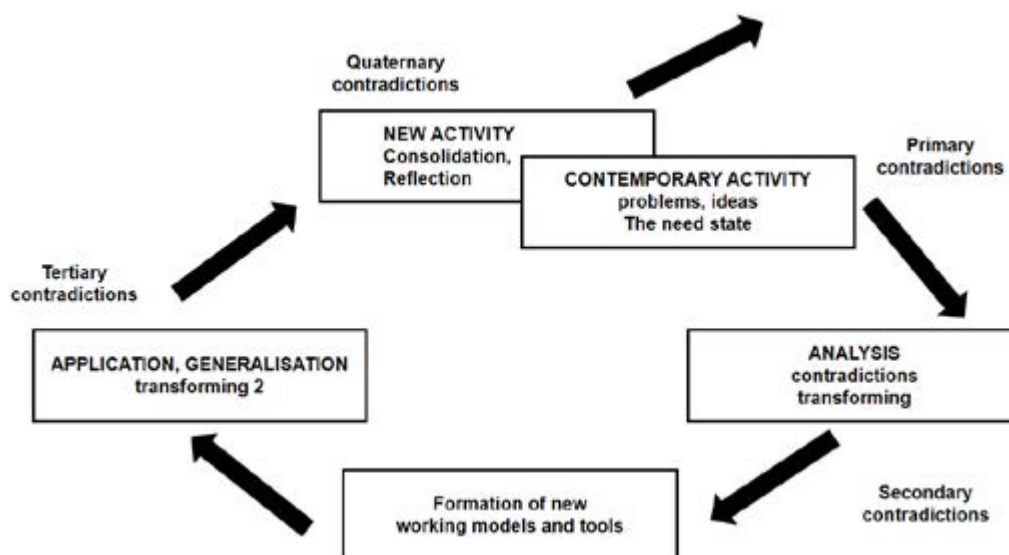
2 METHODOLOGY

This section is composed by the application of the methodological proposal of this study, in which the work development research, the intervention session and the interface of the CHAT and STS were used, presenting the foundations and principles of the theories, their analytical categories, divergences and complementarities as presuppositions of an explanatory model.

The work development research guides the study of specific types of learning, expansive learning and object analysis, which can be seen as an activity in which the processes of change occur (ENGESTRÖM, LOMPSCHER; RUCKRIEM, 2005). This methodology implies a localism, in the sense that, in society, the relations and contradictions of a given socio-economic formation, the potential for qualitative change, are present in any and all local activity. It is performed by concrete human beings through the mediation of artifacts, which can be seen as a multilayer network of interconnected activity systems (ENGESTRÖM; BLACKLER, 2005). This methodology also allows to study another kind of learning: the remediation one, in which it is admitted that there are changes, not in the object, but only in some elements of the activity system. This type of learning is inserted in the CHAT, for making possible the verification in the change of tools in the activity system (ENGESTRÖM; BLACKLER, 2005).

The fundamental principles of CHAT are historicity and change, that ensure understanding the activity system model, which enables to describe changes in practices, the object of activity, mediation elements and changes in activity. The change occurs in the form of cycles, in which development forms new activities and the group socially interprets a new object, new reasons in response to a changed situation, building a set of tools, which forms a social organization around this new object. Such situations are called expansive cycles, where the new object and its reasons are typically expanded somehow, when compared to the previous object and respective reasons (ENGESTRÖM; SANNINO, 2010). Figure 1 highlights the stages of the expansive cycle.

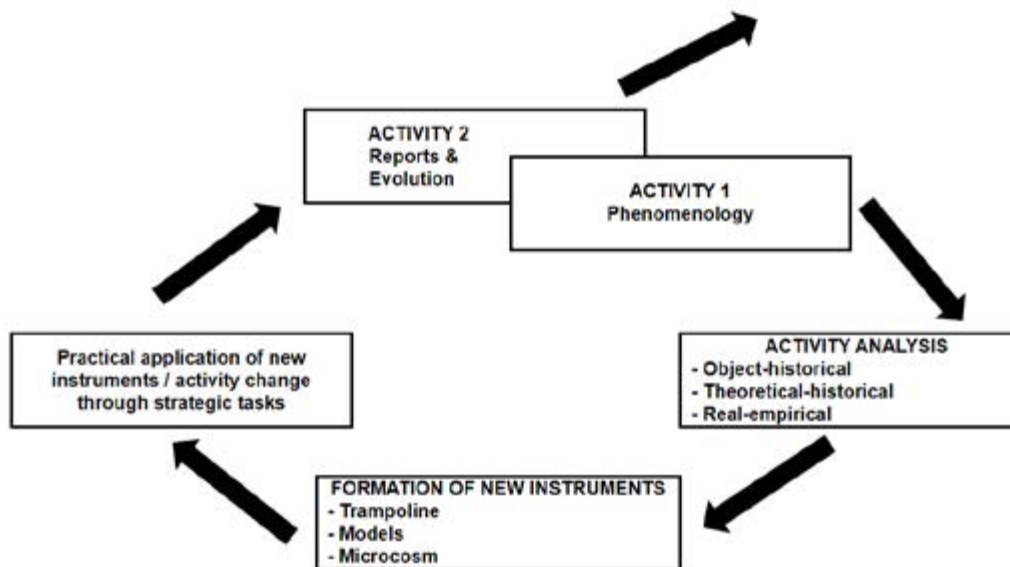
Figure 1 - Expansive cycle



source: adapted from Engeström (1987)

The cycles show their own aspects of reality and the cyclical movement of history, which is both internalization and expansion. Although the general directions of the 2 cycles are opposite, their internal structures are similar in terms of concrete research steps. This similarity becomes even more visible when the expansive cycle is transformed into a Development Research cycle (ENGESTRÖM, LOMPSCHER; RUCKRIEM, 2005), as seen in Figure 2.

Figure 2 - Methodological cycle of expansive development research



source: adapted from Engeström (1987)

In this research, the expansion cycle was used with the following 2 steps:

Step 1: a general description of the phenomenon, through the characterization of AIESEC and AIESEC Curitiba programs. This stage involved the delimitation of the activity system, through the investigation of some sources, such as: reading newspapers of the time; interviews with managers, former presidents, president, *alumni* and former members of AIESEC Curitiba; on-site observations; discussions with people involved in the activity; search for meeting minutes; intranet and internet search; reading statutes and regiments. The gathering of this material eventually resulted in obtaining a preliminary view on the nature of the discourse and how the problems are experienced by those involved in the activity. The role of the researcher is to obtain an understanding of the need state and the main contradiction below the surface of the problems, doubts and uncertainties that the participants of the activity experience (ENGESTRÖM; SANNINO, 2010).

Step 2: the activity system analysis was performed through two approaches. The first one was object-historical and the second one was real-empirical. The historical analysis of the object was made through the construction of a narrative of the AIESEC Curitiba Leadership Training activity, based on the following sources: day-to-day observation of youth work; participation of an integration event (Discovery Day); document search; regulations; manuals; meeting minutes; regiments; newspapers of the time; internal newspapers; interviews with founder, former presidents, managers and university students of different times. This narrative allowed to identify and analyze the successive phases of development of the activity system, to discover the transitions from one phase of development to another and to understand the identity of the activity through the identification of its object. This procedure allowed the field researcher to understand the automation and the dynamics of self-organization of the activity. The second analysis was the

real-empirical one, carried out in an intervention session, in which the hypothesis elaborated by the researcher to the university students was presented to discuss and make possible solutions propositions. This methodological application, proposed by Engeström (1987), led the practitioners to participate in the same analysis that the field researcher carried out, so they could appropriate and use the same conceptual tools, thus, been able to see the agency of the subject. For that, the intervention session was structured with the following script:

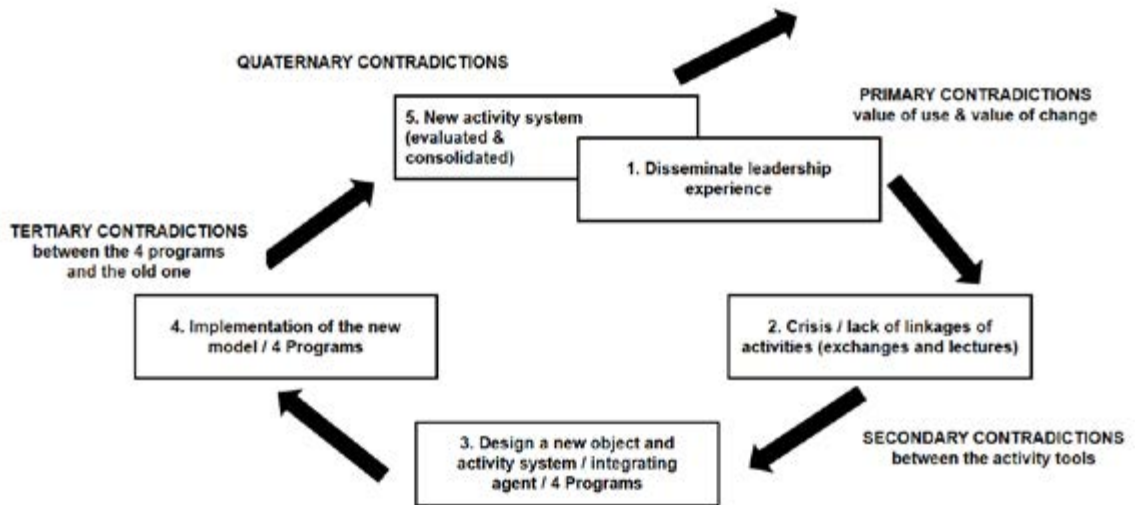
a) An invitation was sent by e-mail to the members, president, former presidents and managers of AIESEC Curitiba, explaining that a session would be held in which the field researcher would present the study carried out in the AIESEC Leadership Training Program. In the same e-mail, there were also three questions for the participants to reflect and to respond further by e-mail. The questions were structured to try to locate the contradictions that were causing the activity of the participants of AIESEC Curitiba to have only remediation learning and no expansive learning. Another reason for elaborating the questions was to locate how they understood the concept of transforming agent that was the object of their activity, and which tools they used to do so. The questions submitted were: What are the problematic events or cases that prevented them from achieving the expected results? Why did these problems exist? What was the AIESEC Curitiba leadership concept? These questions had the function of following the double stimulation method, which consists in the application of two stimuli: the first one is a task to be performed or a problem to be solved; the second one is a neutral object that has the potential to be used as a tool to solve the proposed task. The purpose of this process is to introduce semiotic resources to understand how individual deal with and how they change the environment with external activity (VYGOTSKY, 1978). The intent of this method is to make possible for individuals to seek new psychological and practical tools to solve them, when faced with problematic situations that they can not solve with the original tools and knowledge they possess (PEREIRA-QUEROL; JACKSON FILHO; CASSANDRE, 2011). This means that the subject's agency is his / her ability to change the world and his / her own behavior (ENGESTRÖM, LOMPSCHER; RUCKRIEM, 2005).

b) On the appointed day, the session began with the presentation of the compilation of the answers to the questions, which were sent by e-mail. This allowed to trace the problems faced at that time and how they expressed themselves and exposed the routine problems. At this meeting, an invitation was also made to discuss the projections of AIESEC Curitiba. Based on the collected material, it was possible to identify in which cycle they were located, what challenges they faced and to propose a reflection on this. The researcher did an analysis of the problems they mentioned, using the activity system, to identify related elements.

c) Then, they were asked regarding the problems they had in the 4 programs of the company (Global Talent, Global Citizen, Young Talent and Young Leader). Also, what types of tools did they use to empower the transforming agent? The types of problems were verified, together with the suitability of the concept they assigned to leadership.

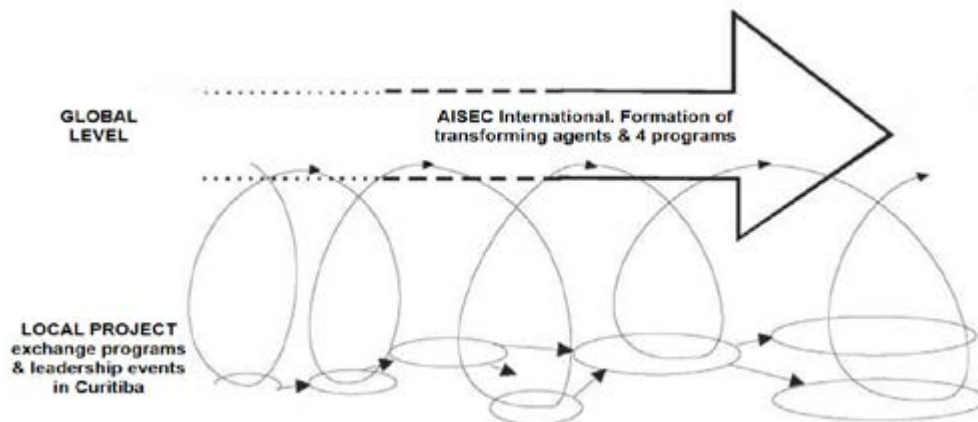
d) The next task was to present to them the representations of the hypothesis of CHAT and STS, both elaborated based on the construction of the narrative of the History of Leadership Formation of AIESEC Curitiba. Figure 3 shows the CHAT representation through the expansive cycle, and Figure 4 shows the STS representation by Geels & Raven model.

Figure 3 - Expansive learning cycle of AIESEC Curitiba (2011 - 2013)



source: own authorship, from an adaptation of Engeström (1987)

Figure 4 - Innovation in leadership training at AIESEC Curitiba (2011 - 2013)



source: own authorship, from an adaptation of Geels & Raven (2006)

e) Finally, the participants were asked about what they think of the representations of the hypothesis. This served to ascertain whether they would corroborate, refute or alter the formulation of the hypothesis. It was also asked what stage of development they were in. The intent is that the task is not only for the experimenter, but also for the practitioner, who must always interpret and reconstruct. In interventional studies of expansive learning, the configuration of mediation is complex and multilayered both semiotically and instrumentally, but crucial events are temporally and spatially constrained in order to comprehensively collect data that compels the researcher to adopt a new view of mediation (ENGESTRÖM, 1987).

In sum, it is emphasized that the research was analytical. By the analyzes mentioned above, it is possible to make the definition of the unit of the object, of a given phase of the development of the activity under investigation. This unit allowed to measure historicity. Another expected result of the analysis was a hypothetical vision of the developmental form of the activity system.

2.1 RESEARCH PROCESS & METHOD

This section describes the way of construction of the research method, exemplifying the analytical concepts of CHAT and STS, by applying the empirical field of AIESEC Curitiba.

2.1.1 Explanation of the historical analysis method using CHAT

For historical analysis, the first and central concept used was the event, understood as an action, in which someone transforms something, an occurrence (SEWELL, 1996).

In sequence, the steps of the operationalization of this concept and other procedures:

Step 1: based on the speeches captured by the interviews, it was organized the description of the events from the present, from the past and respective context.

Step 2: the descriptions and events were organized chronologically, but it is emphasized that the events considered irrelevant were removed – those that did not change the activity system nor the object and neither were transformed. The justification is because the focus of the research aimed to the expansive learning through expansive and remediation learning cycles. Then the structural events that change an element of the activity system were found – a sequence of events that result in changes of the elements (SEWELL, 1996). The following is an example of an event citation (Quote 1):

[...] PM took the opportunity and went to an exchange program in Finland in 1984. – interview with PM, former president of AIESEC, 04/20/2012.

It is observed in the example that the event is the description of an exchange program action that did not change the activity system either the object.

The following is an example of structuring event citation (Quote 2):

[...] In 1983, the student PM moved from another city in order to install an AIESEC in Curitiba. – interview with PM, former president of AIESEC, 04/20/2012.

With this speech, it can be observed that the subject of AIESEC Curitiba is being formed, and an activity, which will have a structure for this. Thus, one can think of some elements such as the location where AIESEC will be installed, who are the subjects, rules, tools, object. This is where it all began, and that supports the design of the activity system.

Step 3: interpretation of events for the reconstruction of activity systems, which, in turn, give the structure, the elements that are part of the activity and understand how the object has been changing.

The following is an example of an activity system citation in 1985 (Quote 3):

[...] The first program is the exchange one, with the aim that the peoples knew each other, and the young people acquired cultural experience. Our audience was the college kids. We had no internet, and no cell phone in the 80's, but the paper files and posters they had in the corridors of the Colleges and Universities was a great tool of exchange program propaganda. Each had to do a part of the job. We lived in favor of an academic center, and the colleges gave us company files. – interview with PM, former president of AIESEC, 04/26/2013.

With the description, one can identify the elements of the activity system, such as the young person, who is the target audience; the object being changed, which is the cultural experience; tools and artifacts such as paper, company files and posters, which mediated the work directed at an object, to produce a result; and, finally, the division of labor, in which each has its role.

The following is an example of an activity system citation in 2011-2013 (Quote 4).

[...] The young university students of AIESEC have their own language, they have a dance. The typical profile of the members of AIESEC Curitiba - a UFPR student who studies Economics or Administration, is 21 years old on average. It has students of Economy, Communication, Design, Engineering and International Affairs. The cultural exchange would be a way to make tomorrow's leaders aware of other realities and how to deal with diversity. Our work is all networked. Each one has to send his / her material produced, his / her work. And when we need it, we also consult via email friends who know something we want. Who is involved with AIESEC participates in the network, so, shares work as a network. – interview with GS, Human Resources Manager of AIESEC, 11/05/2012.

With this speech, the elements that are part of the collective activity system (such as the community) are identified, which are the young university students who have a certain age group around 18 to 26 years old, entrepreneurs, colleges; the form of work that is by network; the division of labor, in which each one must do his / her part to contribute to the collective; the exchange program as a way to achieve the object, which is the formation of leaders.

Step 4: the concept of activity system was used to separate events into relevant, critical and structuring.

Step 5: finally, the concept of historical event was used to find the cycles of expansive learning, which begins a new cycle with each new object. The historical event is defined as that which modifies previous social relations and practices, transforms structures and has a collective aspect (SEWELL, 1996).

The following is an example of historical events (Quote 5).

[...] Initially, the exchange program sought the AIESEC mission and had a fail, where the leadership came. Later we understand that. So we developed the Work Program for Leadership, which was created by our maturing. Before, the leadership did not have a format, but today it has. – interview with TS, president of AIESEC, 10/03/2013.

With this speech, it is noticed that a new object was created, which denotes the insertion in the learning cycle, which had the design of a new phase by the members, characterizing itself as the modeling phase to disseminate leadership (Quote 6).

[...] As a new member, the person was encouraged to do new projects, if he / she had an environment to lead, to put his / her opinion, to diverge, to agree, anyway, that was very rich. The meetings always gave room for leaders to emerge, to lead things. AIESEC had many meetings with a lot of people, on more ideological matters, opinion, and judgment, and there arises a lot more argumentation and there the leaders emerged. At the age of 21, I coordinated a team of 14 volunteers with very strong social content. I started going to National Congresses and spoke to 400 people about the projects that were being developed in Curitiba, in the local committee. And as the chairman of the local committee, you expand your field of vision, because you live with people of other nationalities, exchange program experiences and there is the National Council, where the regulation and motions of the national AIESEC in a given country are discussed. And each local committee takes its proposals, and the decisions at AIESEC were taken by consensus, until it came to exhaustion. – interview with FS, former president of AIESEC, 10/09/2013.

This speech denotes the change, the transformation of the object that, in this case, is the student's leadership, and as he / she expanded the way of experiencing the concept of leadership, it has transformed. With this, it turns out that there is a learning cycle, by which this young individual passed, because he / she expanded the object, in this case, the motivation

caused to him / her. This historical event denotes the formation of a new phase of design of the new object, marking a different cycle (Quote 7):

[...] Members began with exchange programs, then it was discovered that doing seminars was a tool for recruiting new members and another way to gain leadership. – interview with FH, former president of AIESEC, 10/01/2013.

Here it is clear that the object has changed, as was the exchange program and then went on to be the lectures and conferences. This denotes a passage and, consequently, the emergence of a new activity and beginning of a new cycle of learning. This change is specific, the object is changed.

2.1.2 Explanation of the analysis method using STS

The multilevel analysis places the levels with their respective concrete elements: micro (technology, networks through universities, companies, laboratories, associations and windows of opportunity), meso (technological regime, technology that crosses the market, technical and scientific knowledge, public policy, culture, infrastructure, industrial networks and strategic games) and macro (development of innovation trajectory). For this analysis, the following steps were taken:

Step 1: based on the speeches captured by the interviews, it was organized the description of the events from the present, from the past and respective context.

Step 2: descriptions and events were organized chronologically.

Step 3: the data were interpreted with the concepts of the socio-cognitive model of technology evolution dynamics, such as cycles, micro, meso and macro, which indicate the types of learning that occurred in an innovation.

Here are examples of citations that indicate micro, meso, and macro levels (Quote 8):

[...] What we have developed very well in the local committee of Curitiba were the projects of leadership and training of members in our workplace. We were aware that we were competing with students from national universities such as FGV, UFRGS, UFRJ and also we had repercussions at the international level. – interview with CF, former president of AIESEC, 10/14/2013.

With this speech, one can perceive the movement from a local project, micro level of experimental learning, to another level (meso) with the summarization of discussions of the national and international community of AIESEC, characterizing cognitive and social learning. Both types of learning (experimental and cognitive) occur in a cyclical way, meaning that they leave the micro and go to the meso (Quote 9).

[...] When I entered, I saw the Curitiba network, then I started to talk and learn from the national network and finally my learning network expanded to the international one. – interview with L, young student of AIESEC, 04/23/2013.

In this speech, one can observe the learning in the local network, in which there is an exchange of knowledge, of sharing with the community, that goes to another level of discussion and learning, that is the national and international community of AIESEC. It is from this movement and dialogue that the systematizations, theorizations and creation of planning occur, meaning the construction of collective knowledge (Quote 10).

[...] In 2011, there were changes through the programs for the maturation and experience that people acquire in the local AIESECS, exchange with the national ones and reach international instances. And with that, it broadens the vision, that is, to extend the experience from local to international. And it happens all the time, but soon these models will change again. – interview with TS, president of AIESEC, 10/03/2013.

This speech denotes the passage of levels and types of learning. Initially, there are expectations that are disseminated locally, in which experimental learning occurs, later this knowledge goes to other instances of discussion with other members, both national and international, and ends up being summarized in cognitive and social learning.

In sum, Box 1 synthesizes the methodological framework.

Box 1 - Collection method, type of data and type of analysis

collection method	type of data generated	type of analysis
interviews with young people, former presidents, managers	speech, narrative	historical analysis
search of documents, minutes, periodicals, internal newspaper	narrative	historical analysis. historical analysis of CHAT & STS
informal conversations, participation in meetings	narrative	historical analysis. historical analysis of CHAT & STS
observation of work routine	narrative	historical analysis. historical analysis of CHAT & STS
intervention	speech, narrative	hypothesis formulation

source: own compilation (2014)

3 EMPIRICAL FIELD

This section contains the characterization of the AIESEC's history and description of the activity systems.

3.1 AIESEC CHARACTERIZATION

AIESEC is a third sector organization. It is an international non-governmental organization (NGO), made up of university students and founded in the Netherlands, in 1948, in the context of the postwar period. The scenario of that time was a Europe devastated by World War II, and it was for this reason that the young university students of the courses of Commercial Sciences, Business Administration, Economics and Accounting Sciences decided to come together to think of a way to change that context and contribute in a positive and peaceful manner.

The solution found was the creation of AIESEC as an institution to help people increase their cultural empathy and cultural sensitivity through exchange programs. The plan was that if people could understand each other more easily, conflicts would decrease or, if people could get into the other person's life context and understand what motivates them to make certain decisions, they would also minimize conflicts.

However, the exchange programs could not be focused on the general public, as university students realized that at the time of war, leaders are the ones who decide. It was for this reason that they chose to form leaderships: young leaders who had a social conscience and who had a positive impact on society in general. It would be a way to avoid wars and also contribute to social development.

The intention was to foster future leaders, who would be young people, thinking about the leaderships of tomorrow, through the promotion of cultural exchange programs. With this, they would be able to promote world peace in order to fulfill the human potentiality, because they believe that there is great potential within each person, so it must be developed. According to the AIESEC members' conception, it is possible to work so that each person is at his / her full potential, being happy, productive and contributing to society. Over time, this was spreading as a concept of leadership, whose main tool, in the beginning, was the exchange program, but today it is not the exclusive one anymore.

AIESEC has around 65 years of history, a period in which there were some transformations, as can be verified in the following description.

In 1948, AIESEC was an independent and apolitical non-profit organization, present in 7 countries, whose purpose was to promote and establish friendly relations among its members. The core work was exchange programs, for studies and cultural tours (sightseeing).

In 1960, the mission was to increase diversity and improve international harmony. The focus was the organization of exchange programs for internships and reception for these internships, as well as exchange trips for studies.

In 1980, AIESEC was developing a new generation of managers with an international vision. The core works were professional exchange programs, educational activities and research in management topics.

In 1989, AIESEC's vision was to establish peace and the full development of human potentialities. The core works were professional exchange programs and social projects. The focus, during this period, was to contribute to the development of countries and their population, with emphasis on international cooperation.

In 1999, AIESEC believed that by developing individuals it would contribute to the development of communities, cooperation and international understanding. The core works were professional exchange programs and learning activities. AIESEC facilitated international professional exchange programs and supported other activities, which promoted the learning of exchange students and AIESEC members.

In 2005, AIESEC became an international platform that allowed young university students to discover and develop their potential, promoting leadership for a positive outcome in society. The core works were leadership development, professional exchange programs and global learning environments. It provided its members with an integrated development experience comprised of leadership opportunities, professional exchange programs and participation in a global learning environment, which is the current positioning of the organizations.

In 2013, AIESEC aimed to develop leadership among young university students, with the aim of positively impacting society in general, so that one day, peace will be achieved, activating leadership in each young participant. It is currently worldwide and has around 60,000 members. The focus of AIESEC is to train leaders for the future, through the development of human potential and fostering young leaders who impact on society. Therefore, there is a Leadership Training Program, developed by young people and aimed at young university students, which provides practical experience and the development of people management skills and planning

This is the differential of AIESEC: enable university students to create their own career by developing leadership, with a voluntary bond. The time that the young person wishes to stay in AIESEC is something personal, that meets the objectives and interests, for the participation and learning that they want to obtain.

Young university students are called members and consider AIESEC a laboratory that allows the creation of opportunities for young people from different countries, fostering them as leaders. The profile of the young university participant of AIESEC is in the age group between 18 to 30 years old, studying in undergraduate or postgraduate programs in the field of Administration, Economy, Communication, Engineering and other ones.

Currently, there are 4 programs that young people can participate, being 2 exchange programs and 2 work experiences. The exchange programs are Global Talents and Global Citizens; and work experiences are the Young Leaders and Young Talents.

All programs are structured in 5 competences: global vision, entrepreneurial vision, social responsibility, emotional intelligence and proactivity learning. Information on the structure and functioning of AIESEC Curitiba is contained in the internal regulation, which brings together the set of policies, being a legal instrument, in accordance with the statutes, which serves as a guide for all members, establishing norms of conduct and work, aiming at better results.

3.2 AIESEC CURITIBA PROGRAMS

Currently, AIESEC offers leadership training through 2 different fronts: (1) exchange programs; (2) teamwork programs, which are divided into 4 specific programs and are understood as activity systems that will interact and expand practices, and also as STS that require the innovation process. Next, these 4 specific programs are described.

The exchange programs are subdivided into voluntary work (social: Global Community Development Program) and remunerated (professional: Global Internship Program).

The Global Community Development Program is a social, voluntary, unpaid exchange program in which people spend an average of 3 to 6 months. This program both send and receive exchangers. At AIESEC Curitiba, the work is made possible through 3 projects: *Gira Mundo*, to work with children on themes of entrepreneurship, sustainability and globalization; *Mozaiko*, a project to manage NGO, through marketing or financial management; and *Oasis*, a methodology that AIESEC learned, whose goal is to develop a community and transform it with its own resources. The other form of this exchange program occurs with Brazilian students, who go out to volunteer in the most diverse areas, such as teaching English to young people in a needy region in Africa; go to Asia to teach entrepreneurship or work the gender and cooperative issue, according to the young student's ability and local demand.

On the other hand, the Global Internship Program is a corporate exchange program that works by registering *curriculum vitae* in a global database, which can be applied to vacancies. The challenge is to learn another culture, in addition to being paid, thus often making people stay longer. This program both send and receive exchangers.

In both exchange program experiences, the participants develop leadership ability, learning to deal with different cultures, broadening their global vision, leaving their zone of comfort, learning technical skills of the labor market, dedicating themselves to a cause and managing people in for-profit and non-profit organizations.

The teamwork programs are divided into the modalities Team Member Program and Team Leader Program. In the first one, the individual does not need to have professional experi-

ence, since he / she will learn to work within the scope of work, acquiring professional posture and developing operational activities at AIESEC Curitiba's own workplace, in Human Resources, Finances, Marketing, Logistics, Planning and Exchange Program. The goal of the program is to get the young participant involved in the routine of the workplace, being responsible for an activity or project and subordinate to a leadership.

In turn, the Team Leader Program is formed by a group of at least 3 young people who must be managed by a leader, having to achieve a stipulated result within 2 months. The experience that is offered is the management of the members of AIESEC, in the activities that they develop in their place of work. This is done through the development of strategies, to achieve results, and through the use of some tools such as coaching, team meetings, daily follow-up, planning, encouraging member participation and LEAD (Learn, Engage, Activate, Deliver) – a management tool focused on developing personal leadership. Leaders who are in the process of training have national formation through events, exchange of experience with members and meetings to learn to use the tools to align the methodology of work. AIESEC offers its working positions as opportunities for people to develop leadership, aiming at the participant to learn how to manage teams, work in teams, develop an entrepreneurial vision, proactivity, technical skills and enabling results through the growth of operations and functioning of the organization.

At the end of 2011, there was a restructuring in AIESEC, with the Membership Program emerging, with the purpose to provide opportunities to develop leadership for team members among themselves. In this program, the teams are formed by 4 members, and each one has the responsibility to develop their specific work, not depending on the manager to charge for it.

4 DISCUSSION & CONCLUDING REMARKS

When approaching the learning practices, actions located in an activity system are observed. To demonstrate such practical actions, CHAT, through the expansive cycle, reveals the actions of analysis, modeling, implementation and consolidation. Still on the CHAT, the forms of learning in activity systems were verified. One of them is the remediation form, in which smaller cycles of learning occurs, through the change of tools and some elements in the activity system. Another way of seeing the learning actions is the expansive learning, which transforms the object. Both remediation and expansive learning processes aim at resolving contradictions within the elements of the activity system. And, in this research, the expansion occurred through the creation of the concept of transforming agent, which can be taken as an expanded object, meaning that it has qualitative characteristics that seek to resolve current historical contradictions. This object was intended to integrate the different results of the AIESEC programs. In this case, it was identified that the primary contradiction remains in the system by the market value and social value of use of AIESEC services.

The STS theory contributed explaining how the process of innovation construction took place, following the multilevel perspective, through the micro, meso and macro levels and also by the components that were part of this process. In this theory, there are 2 types of learning: the experimental (at the local level) and the cognitive (at the meso level), both consolidating the trajectory of innovation at the macro level. This learning movement can be observed in the empirical field studied, being a cyclical movement.

The development of a learning practice and an innovation in AIESEC Curitiba can be observed in the leadership training program, as follows.

As a learning practice, the concept of leadership changed over a period of 28 years, through the construction of AIESEC Curitiba's History of Leadership Training narrative. The object of leadership was the main expansion, through the creation of the concept of transforming agent,

which found in the programs its means of viability. Each new concept of leadership opened up a new cycle, as well as the contradictions that led to expansion. CHAT made it possible to explain why these changes occurred, the construction of a historical perspective of the object and the understanding of such emergence. The exchange programs and the lectures were interpreted as 2 parallel cycles, and the transforming agent came as a way of integrating them. However, according to the intervention data, it can be verified that this did not occur. STS, on the other hand, allowed to verify the diffusion movement of innovation, through the socio-cognitive cycle, in the niche, with the following elements: formulation of expectations, concrete projects, needs of experiments, cognitive appropriation of the community, abstraction and summarization.

Leadership was understood with its different meanings:

1985: leadership has in the exchange a means, being understood as an international experience.

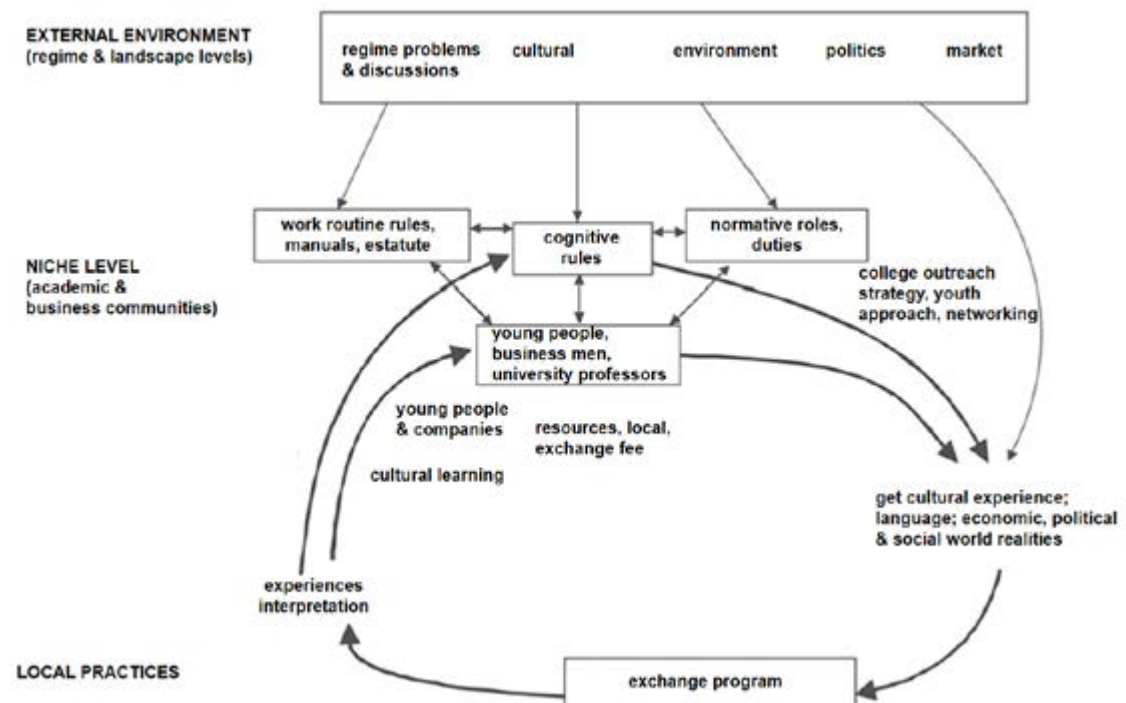
1985 (2nd semester): leadership has in the lectures a means to disseminate a reflected knowledge of managers, entrepreneurs and consultants.

2011 - 2013: leadership is understood by the creation of the concept of transforming agent. By experimentation of the management process, it becomes explicit through 4 specific programs.

As an innovation, the Leadership Training of AIESEC Curitiba can be verified by analyzing the innovation cycle. Between 1983 and 1985, a niche process began, through the articulation of the expectations generated by university students. This process begins with a local pilot project, called AIESEC Curitiba, which has the exchange program as STS, which enabled the young people to experience their work day by day, in a concrete way, being an experimental learning space, in which young people begin to articulate, foster and exchange experiences. This level of experimental articulation was characterized as the micro level. The STS explains the transition from the micro level (pilot project) to the meso level (diffusion).

The exchange program can be considered a local innovation for AIESEC Curitiba. To systematize the elements found in the STS of AIESEC Curitiba, the graphic representation is shown in Figure 5.

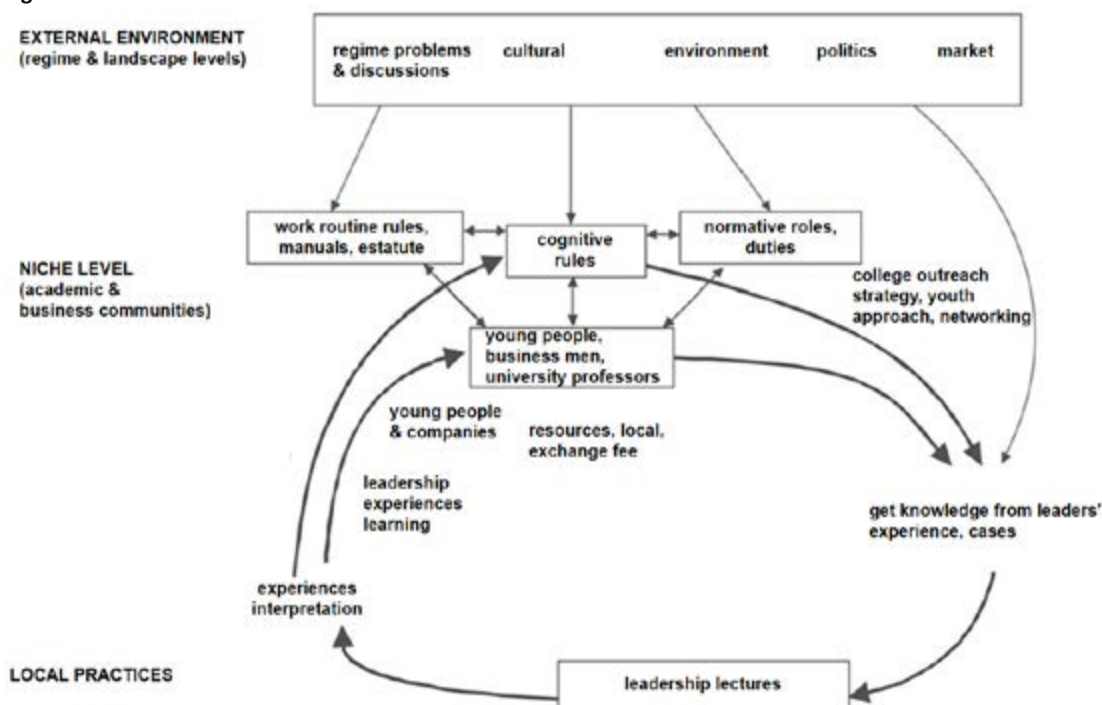
Figure 5 - Exchange program innovation



source: own authorship, from an adaptation of Geels & Raven (2006)

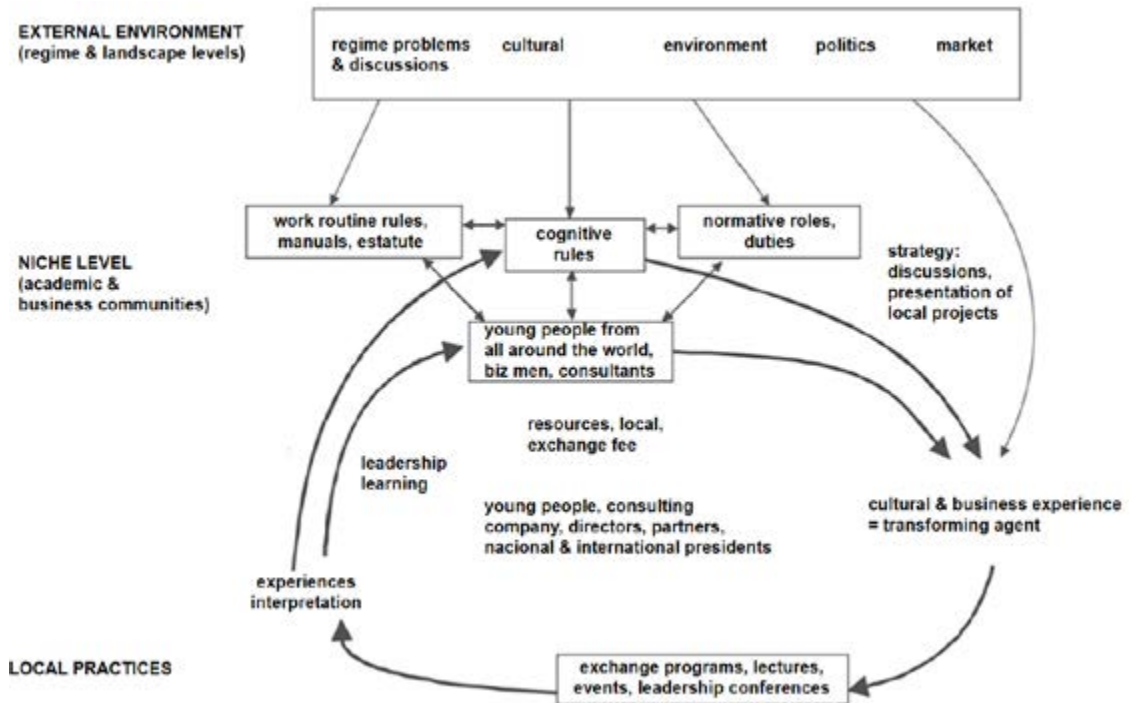
In the middle of 1985, young people began to rethink if only the exchange program could develop the practical experience of leadership. So they decided to implement a program of lectures, in which business leaders, federations, consultants and teachers would share their experience with young AIESEC members. The emergence of the lectures represented another niche of leadership for the organization, whose beginning occurred with the articulation of expectations of some acting members, through a local pilot project, that is, experiments, which were characterized as lectures. This marked the beginning of another niche, at the micro level. The graphic representation of the lectures, events and congresses, as well as the transforming agent for leadership development is shown in Figures 6 & 7.

Figure 6 - Lectures innovation



source: own authorship, from an adaptation of Geels & Raven (2006)

Figure 7 - Transforming agent innovation



source: own authorship, from an adaptation of Geels & Raven (2006)

In 2011, there was another cycle at AIESEC Curitiba, marked by the restructuring and formatting of AIESEC programs. This change was discussed at local, national and international levels, resulting in an AIESEC International Congress. The result of the discussion in their congress triggered the creation of a concept called transforming agent, made possible by the systematization of 4 specific programs and a new management tool called LEAD.

Since 2013, AIESEC is considered to be in the process of moving to a new cycle, as there is demand for other innovations, for the creation of other STS. This demand is being articulated in the form of niches, in which committees were created for local discussion, and the result of this work will further be brought to discussions with the national and international communities.

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