Contradictions, Appropriation, and Transformation: An Activity Theory Approach to L2 Writing and Classroom Practices

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In this report we propose that activity theory provides a useful framework for understanding how students learn to write in a foreign language and how student and classroom practices evolve over time. Moving away from the predominant focus of foreign language pedagogy (at least in the U.S.) on the individual, activity theory emphasizes the sociocultural and historical nature of the learning setting. After first outlining central tenets of activity theory, we then apply them to understand (1) how international students in a first-year university rhetoric and composition course appropriated concepts and tools of rhetoric and self-evaluation, (2) how those concepts and tools mediated their learning to write in English, and (3) how tensions/contradictions in the class led to changes in the composition activity system. We conclude by positing that activity theory has potential for contributing to our understanding of the strong influence of sociocultural factors on the learning process and for informing second language composition theory and pedagogy.

INTRODUCTION

A second language learner writes, "Of course my desire to study it's my own decision but it's baised [sic] on the way I was raised."

Most studies in the field of second language composition focus on the products and processes of *individual* students. Recently, though, an alternative approach to language learning is investigating language learners as *social* beings. Of course, the fact that people are social is not a new concept. Williams (cited in Horner, 1997) points out, however, that for most scholars this concept means merely that individuals live in a social world or use "socially inherited forms," not that "the contents of [one's] consciousness are socially produced" (p. 507). Asserting that human cognition is "in a very fundamental sense a cultural and social process" (Hutchins, 1995, p. 353) and is mediated by the tools and resources used (Wertsch, 1991, 1994), this approach emphasizes the sociocultural and historical influences of the institutions in which students engage in learning. As social beings, students and teachers embody institutional influences with the result that sociocultural influences play a significant role in how teachers teach and how students learn, which strategies they employ, and how they interact with other students and teachers. Heath's (1983) research in Appalachia, for example, demonstrated how a family's "ways with words" influenced how their children talked and interacted in school, thus preparing them for success or

failure. Scribner and Cole's (1981) work with the Vai in Liberia showed that social patterns of literacy practices affected cognitive functions. To understand, then, how students learn to write in a second language, one must investigate the sociocultural influences of the institutions in which they participate.

One particular sociocultural perspective is activity theory. The word *activity*, from the German *Tätigkeit*, means "doing in order to transform something," and thus activity theorists study "human practices as development processes" (Kuutti, 1996, pp. 25, 41). Although activity theory is the leading theoretical approach in Russian psychology (Kaptelinin, 1996), it is just beginning to make inroads in U.S. research. It has been used in human-computer interaction studies (Bødker, 1991, 1997; Nardi, 1996), developmental workplace research (Engeström, 1987, 1996; Engeström & Middleton, 1996), and education (Dillon, 2000; Grossman, Smagorinsky, & Valencia, 1999; Kozulin, 1998; Moll, Tapia, & Whitmore, 1993; Newell, Gingrich, & Johnson, 2001; Wells, 1994; Wertsch & Toma, 1995). It and other sociocultural approaches are only slowly making headway in L2 research (Hall, 1997; Lantolf & Pavlenko, 1995). Accordingly, we wish to use activity theory as a framework for investigating second language writing because, as biologist Henri Atlan has argued, "interaction between seemingly disparate disciplines, with different classification schemes, theories, and methods is crucial in developing new knowledge" (quoted in Syverson, 1994, pp. 7-8).

THEORETICAL FRAMEWORK

Activity theory, along with other sociocultural approaches, traces its origins to Vygotsky, who asserted that knowledge is first seen on the social plane and afterwards becomes internalized on the psychological plane (Vygotsky, 1981, p. 163); knowledge is sociohistorically mediated. That is, people's ways of thinking and learning develop through and are shaped by the activities in which they participate, activities that are social in nature and have historically developed tools, structures, and settings. Thus, in their everyday actions and activities, people inherit and embody the sociohistorical residue of their predecessors so that *context-independent cognition is non-existent.*

Vygotsky's work focused on the mediated learning of individuals. Differentiating between individual action and collective activity, A. N. Leont'ev, one of Vygotsky's colleagues, formulated the beginnings of activity theory (Cole & Engeström, 1993). Actions differ from collective activity in that they have defined goals having a beginning and end. Leont'ev used the example of the primeval collective hunt in which some tribal members made noise to frighten the animals towards hunters waiting to catch them. The two actions of making noise and catching animals together constitute the activity of hunting, and outside the context of hunting, the action of frightening animals would be meaningless because the goal is not to frighten animals away but to catch them.

To understand individual actions, therefore, one must know the context in which those actions are embedded, namely, a system of activity.

Moving towards a better accounting of the collective nature of activity, Engeström (1987) expanded Leont'ev's concepts graphically to include rules, community, and division of labor (see Figure 1).

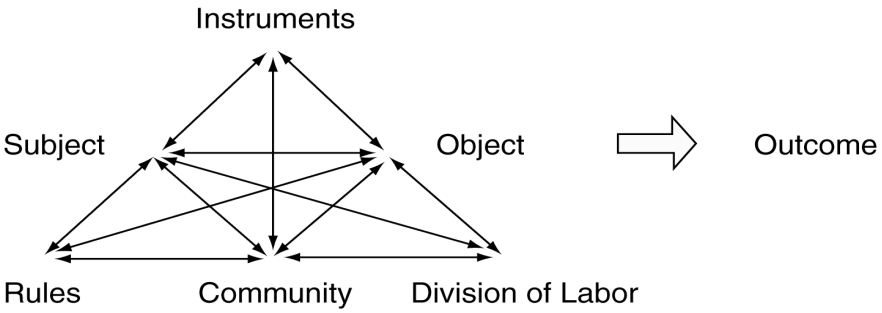

Figure 1. The structure of a human activity system (Engeström 1987, p. 78). Reprinted with permission.

In this model, the *subject*, usually a collective one, refers to the individual(s) whose perspective is being analyzed and who is working towards some *object*, tangible or intangible, in order to transform it into some *outcome*. *Instruments* are the mediating artifacts, psychological or material, that shape the activity (and, in turn, are shaped by the activity) and that the subject uses to achieve expected outcomes, with *rules* guiding the system's actions and interactions. People, individuals or groups, who have the same object make up the *community*, and the *division of labor* considers how tasks are divided horizontally among community members and vertically with respect to power and status (Engeström, 1996). What ties the elements together is "a collective object and motive [that] is realized in goal-oriented individual and group actions" (Hasu & Engeström, 2000, p. 63). Activity systems are not static but dynamic: All of a system's elements reciprocally and dynamically influence each other so that the system is continually adjusting, adapting, and changing.

Activity systems interact and overlap with other activity systems. In an undergraduate university course, for example, there are at least two overlapping activity systems: that of the teacher and that of the students (Dillon, 2000; Lantolf, 2000). Two systems exist because the object of the course differs between teacher and students, and so, too, their perspective. Dillon (2000) asserted that the object for students is meeting graduation requirements and the course is an instrument for doing so, whereas for the teacher, teaching the course is the activity's object, and instruments are the resources available for teaching the

class. Even when the teacher and students have the same object, the teacher will also have the students as an object (Engeström, 1998). This dual (or multiple) nature of the classroom's activity should influence the pedagogy chosen. An apprenticeship model, for instance, might be appropriate for graduate student seminars in which instructor and students could have the same object of, say, producing a paper for publication. However, although exceptions may exist in K-12 and undergraduate courses, teachers and students do not generally engage in the same activity.

Just as objects differ between teacher and students, so do their communities and the division of labor. The community for teachers is usually other teachers, but for students it is classroom members. Accordingly, the division of labor for teachers is the classroom, whereas for students it is usually each student for him/herself (Engeström, 1998), although collaborative work on projects could result in a different division of labor. Rules, which can be both explicit and implicit, would normally be the same for both, and so, too, would the outcome: the transforming of the object (text) into grades and test scores (see Figure 2).

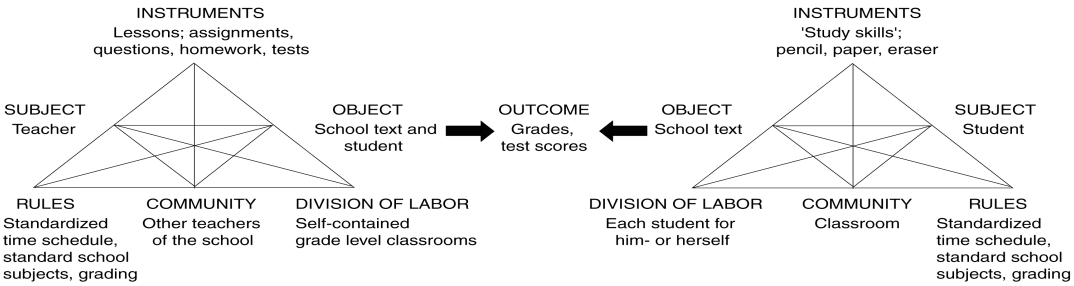

Figure 2 Traditional teaching and schoolgoing as interconnected activity systems (Engeström, 1998, p. 80). Reprinted with permission.

Changes in activity systems come about through the reciprocal and unified processes of *internalization* and *externalization*. Because internalization, which has been mentioned above, may imply a transmission method of knowledge that neglects the active participation of the learner, from here on the term *appropriation* will be used instead. Tied to appropriation, or internalization, is externalization, or the

manifesting of internal processes externally and the creating of new artifacts and social practices.

What drives appropriation, and thus development, is the contradictions and tensions between individuals and sociocultural influences, between two or more elements of an activity system, and between different activity systems. To *develop* means to resolve or transform these contradictions (instead of merely shifting them elsewhere), thus resulting in a change in the activity system: the construction of a new object and motive(s). Such a change is a long-term cyclical and spiral process of internalization and externalization that Engeström (1987) called *learning by expanding*:

> The essence of learning activity is production of objectively, societally new activity structures (including new objects, instruments, etc.) out of actions manifesting the inner contradictions of the preceding form of the activity in question. Learning activity is *mastery of expansion from actions to a new activity*. While traditional school-going is essentially a subject-producing activity and traditional science is essentially an instrument-producing activity, learning activity is an *activity-producing activity*. (pp. 124-125, italics in original)

In other words, instead of a composition class turning students into walking encyclopedias of rhetorical conventions and genre, not to mention grammar, it should enable students to (1) *analyze* and *connect* rhetorical conventions with particular genres and genres with certain audiences, (2) *transform* these conventions and genres into contradictions, and (3) *expand* and *generalize* these conventions and genres into their own writing and other communicative practices for their own goals, motives, and productive societal practices (Engeström, 1987, p. 125, our adaptation to writing).

This paper continues the sociohistorical approach taken by Engeström and other activity theorists to explore how international students learn to write and interact in a first-year university composition course, and it asks these questions:

1. How do students *appropriate* tools and concepts of rhetoric and self-evaluation?
2. How do these tools and concepts *mediate* their learning to write in English?
3. How do *contradictions* lead to an *expansion and generalization* of student and class activities?
4. How can sociohistorical factors affect *achievement*?

DESCRIPTION OF THE STUDY

The study, participant-observer in nature, focused on a first-year university composition and rhetoric course for international students in part

because it was taught in a computer-assisted classroom three out of the five class days a week (the other two days were in a classroom without computers), which introduced a wide variety of electronic tools for analysis. As Haas (1996) has argued, "because technologies are at once tools for individual use and culturally constructed systems, the study of technology can provide a fertile site in which to examine the larger issue of the relationship between culture and cognition" (xv), and we would add, to investigate the influence of activity systems on learning to write in a second language. This class was also chosen in part because one of the authors (Nelson) was the teacher of record. Both Nelson and Kim, the second author, are doctoral students in foreign language education. Schwarzer, who attended the class several times and who helped to structure the research, is the third participant observer and an assistant professor in the same program.

The study consisted of 10 out of 17 students in the class. (Two others had consented but later dropped the class.) Participant backgrounds were diverse. They represented seven different countries, and it was their first year in the U.S. for most of them. Their classifications ranged from first year to graduate student, and ages, from 18 to 26. Some had much writing experience in English, and others, almost none. Majors ranged from the liberal arts to the sciences, and one student had a law degree (see Table 1).

Table 1 Student Background Information

Pseudonym	Sex	Age	Country	Year in university	Major	Years in U.S.
Cahyadi	M	19	Indonesia	2	Computer Science	0
Carlos	M	18	Mexico	1	Economics	1
Catalina	F	26	Brazil	4	Linguistics/Literature[a]	0
James	M	18	Hong Kong	1	Computer Science	0
John	M	19	Hong Kong	1	Computer Science	0
Jungsook	F	21	Japan[b]	3	English	0
Keiko	F	23[d]	Japan	3	Archaeology[c]	2[d]
Lucas	M	20	Brazil	3	History	0
Maria	F	18	Cyprus	1	Biochemistry	0
Neelum	F	22	India	3	Computer Science	0.5

[a]Catalina has a law degree.
[b]Jungsook, although born and raised in Japan, is of Korean ethnicity.
[c]Keiko has a degree in history.
[d]Estimated.

Data Sources

Data collection consisted of the students' Online Learning Records [now called the Learning Record Online (see Syverson, 1995)] with their observations, summary interpretations, and sample documents of writing and other class activities (see Context section for sample documents and Appropriation for an explanation of the Online Learning Record); three tape-recorded interviews with each of the participants, one interview each at the beginning, middle, and end of the semester; and questionnaires assessing their educational background, biographical data, and writing attitudes and abilities (see Appendix for questionnaire).

In addition, the three participant-observers made observations while students were engaged in class activities. Nelson and Kim usually typed their notes up immediately after class, fleshing out the handwritten observations with more recalled information. As the teacher of record, Nelson made observations every class day, five days a week. Kim made observations each day she came, approximately two days a week, and Schwartzer, the three times in the semester he came to class. To reflect collectively on the class, audio-taped conferences were held. Nelson and Kim conferenced together once every two weeks for the first month and approximately once every three weeks after the first month. All three participant-observers held a conference after each class that Schwarzer attended.

Context

The course, Rhetoric & Composition for Nonnative Speakers of English (an international version of a required first-year university course), is situated in a large, research-oriented university in the U.S. Designed to teach argumentative writing supported by research, the classes generally have students write four papers (three papers if using the Online Learning Record due to its own extensive writing requirements) of three to five double-spaced pages in length through a process approach of preparing topic proposals, preliminary drafts, peer and teacher reviewing, revising, and final drafts for each paper.

The class took place in two classrooms: one with computers and the other without. In both classrooms, rectangular tables, two side-by-side and two or three tables in length (4.2 x 1.8 m for the computer classroom and 5.9 x 1.8 m for the other room) with chairs all around, straddled the center of the rooms. The computer room had 24 MacIntosh Power G3 computers around the room next to the walls, about three to four feet away from the tables, except for six computers at one end. Students could turn their chairs 180 degrees and roll either to the computers or to the tables. All homework except for a few assignments at the beginning of the semester was turned in electronically.

ANALYSIS OF CLASS

We will first look at how students appropriated class tools and concepts, how their learning was mediated, and how contradictions in the class led to an expansion and generalization of some students' activities and to changes in the course. Then, we will discuss how sociohistorical factors influenced two students' achievement.

Appropriation

Various concepts and tools had to be appropriated in the class, including rhetorical concepts, research tools, technological tools, and class practices. Due to space constraints, the appropriation of only two instruments will be discussed in this section: class interaction and the Online Learning Record. To identify levels of appropriation, we draw upon Grossman, Smagorinsky, & Valencia's (1999) system of classification:

- Lack of appropriation
- Appropriating a label (knowing a tool's name but not its features)
- Appropriating surface features (knowing some or most features but not being able to fit them into a "conceptual whole")
- Appropriating conceptual underpinnings (understanding the tool's conceptual basis and being able to use it occasionally in novel situations)
- Achieving mastery (using the tool effectively)

Appropriation of class interaction practices. Students are influenced by the previous institutions and activity systems in which they have participated, and for this reason, how and how well students appropriate concepts and tools vary accordingly. For instance, it seems that students from Mexico, Brazil, and India are accustomed to frequent class discussion in their home countries:

Carlos	The students ask lots of questions during the class, and for some, from time to time, it depends on the teacher, the way he teaches, they might ask lots of questions during the class, to the students, to keep them awake or something
Catalina	There is class discussion in Brazil. There we, I don't know, maybe we interrupt more the class, but we ask all the time, and there is more discussion
Lucas	we have 30 people in a classroom, and you can discuss things, and the teacher can open the discussion for the class and everybody has an opportunity to discuss something, to express their opinions

From the beginning, the students from these countries were the most active participants in leading small group discussions and in asking and answering questions in class.

In contrast, participants from Indonesia, Hong Kong, and Japan interacted much less frequently during class, influenced by their educational experiences of listening to teachers lecture in their home countries. Cahyadi, an Indonesian student, commented,

> I think because about the tradition, I mean in Asia, like people don't like to ask questions. They prefer to send an email or come to the teacher after the class. They kind of embarrassed … or shy or something when asking a question in front of the all people.

Cahyadi mentioned the possibility of asking teachers questions outside of class, but he added that only "a few per cent of the students" would do so. In fact, he rarely asked the teacher questions in person but preferred to send questions via email.

Several students from Asia did interact more with the teacher outside of class, continuing their previous practices. John, from Hong Kong, for example, reported in his first interview at the beginning of the semester that he and most other students at his high school would ask questions after class on an average of twice a week for each class and especially before examinations, questions about homework, "some problems like how to change, how … to improve something, to get better result." As the class setting encouraged questions in class, after class, and via email, John continued these practices. He came to all three individual conferences on rough drafts held outside of class, queried the teacher sometimes after class, and emailed to resolve "problems." For instance, he emailed questions concerning his paper's topic proposal to the instructor:

> I am not quite sure what do I say for the importance to the readers. Could you explain to me in more details.
> One more thing about the topic prposal. I am quite sure whether my warrants are correct .Please give me some comments.

With respect to "get[ting a] better result" on his grade, he asked via email:

> Yes, I am trying to go significantly beyond what is required in order to get an A in this class that directly affect the my chance of getting into to CS major. What do you suggest me to do so that I can achieve my goal.

These examples suggest two conclusions. First, students' appropriation of class practices, such as open class discussions and in-class student-teacher interaction, seemed influenced by students' prior sociohistorical experiences:

Those students accustomed to in-class questioning and discussions continued their previous practices, and those from less interactive backgrounds continued their practices, although they did slowly move towards more whole-class interaction due to the class setting's influence. Obviously, the former group of students had previously mastered such class practices. The latter group, in contrast, had difficulty appropriating these practices, perhaps because, although they could understand at a surface level what other class members were doing, previous social patterns of participation hindered their embodying new concepts of interaction.

Second, appropriation, at least in this class, seemed to be scaffolded through social interaction, as indicated by questions through email and outside of class. This second assertion does not deny the contributions of lectures, books, and other sorts of less social interaction, but rather underscores the fact that learning is socially situated.

Appropriation of the Online Learning Record (OLR). The OLR is a portfolio record integrating classroom activity (teaching and learning), assessment, and research (Syverson, 1995). It accomplishes this integration by providing the structural support and the concepts for students (and teachers) to evaluate their development. Self-evaluation is supported by requiring students to interview someone who knows them well to obtain an opinion on their reading, writing, and thinking skills; to write their own reflection of the same skills; to make observations on class-related activities; to select samples of their work; and to interpret those observations and works in terms of their learning with respect to rhetoric, research, and collaboration. The OLR structures students' self-evaluation by providing the concept of five dimensions of learning by which they would assess their development: confidence and independence, knowledge and understanding, skills and strategies, use of prior and emerging experience, and reflection. Besides integrating writing activity, learning, and assessment, the OLR also embodies the rhetorical concepts taught in the class. Namely, it is a written argument on the students' development in the class. Students present a *claim* for a grade corresponding to their development; they provide *reasons* for their claim, an analysis of their development; and they furnish *evidence* for their analysis in the form of their work and observations.

Appropriating the OLR was a slow process for the students because it was foreign to them and complex. For this reason, the teacher devoted two days of the first week of class to explaining its format, purpose, and philosophy, and he also assigned readings with examples giving further explanation. About two weeks into the semester, students wrote a paragraph or two explaining the OLR, its purpose, and how it might help them meet their class, university, and career goals. Students seemed to understand to varying degrees that the OLR was an evaluation tool tracking their development:

Lucas We can use it to demonstrate our improvements [in learning] and claim for a good grade based in our amount of work.

John I think OLR is a material that Mr Nelson can see how students change in their writing.

Most students, however, had not yet understood the OLR's conceptual underpinnings. In fact, as one student put it at the beginning of the semester, the OLR was "extremely confusing." For the most part, students had only appropriated labels and surface features presented by the teacher as indicated by other comments:

Catalina but I have to confess I don`t understand yet how exactly is it going to work or to be helpful to us.

Jungsook OLR would help me: - write English everyday. - check what I did and studied. - know how I felt. - see my improvement through the feedback. However "samples of work" is still not clear to me.

Jungsook wrote that "it took about 1 month to understand the OLR," and almost two months later, at least two students did not understand the learning dimension of "use of prior and emerging experience." Thus, students were seen appropriating labels and surface features but not being able to fit the parts into a conceptual whole.

Key to appropriating the concepts and practices of writing in the university is participation. When students participate in listening to lectures, they learn how to listen to lectures. For students to learn how to write or acquire a tool, they must participate in writing or using the tool. Participation brings students face-to-face with contradictions between their understanding and their implementing that understanding, as in putting together an OLR. Thus, Neelum said,

> But I did okay, if somebody points me, What is this? Then I can do it. But at that time, I didn't understand importance of observations, actually. But when it comes to, when I have to make midterm OLR, then I understood … what is the reason behind making observation. And like at that time, I used to think, Okay, Sample of Work means just observation, couple of sentences from the observations, essay, rough draft, exercise, and stuff like that. But I have no idea, why should I put it in here, OLR, ... At that time, Mid OLR Summary, it didn't make sense when I did it, ... Because I thought okay, this person knows this, this, this, but at that time, I didn't knew, okay, its evidence is in Sample of Work and Observation. But when, it make sense to me when I wrote MidOLR. And then after that point, I tried to be careful about Observation and everything.

Accordingly, before the Midterm OLR, many students wrote observations on their confusion about the OLR, but after composing their Midterm OLRs, only one such observation was seen, indicating that they had appropriated the conceptual underpinnings of the OLR by the end of the semester.

Participation enabled students to appropriate the OLR despite much confusion. Similarly, despite no apparent confusion, lack of participation in whole-class discussions by students unaccustomed to such practices precluded appropriating this practice. It seems that participation was mediated in part by the requirement of grades: Appropriating the OLR was necessary to obtain a good grade; participating in class was not.

Mediation

Mediation occurs through the concepts and tools people use to construct meaning and perceive the world, the primary tool being language. Other major tools in the class included the technologies, the instructor, and the concepts to be learned. The rhetorical concepts mediated the students' perception of reading and writing, as Lucas noted,

> Well, practicing, that's good. The theory, the rhetoric theory, it's good, because you know, of course, I knew that you have to have some organizations and I knew what was definition argument, and evaluation argument, but I didn't have words and conceptions for this. ... You have kind of structure, you know, for some things, but rhetoric gives you concepts, it's more easy to deal with it. So you, sometimes we read something and you recognize this, you know that, you know what the guy's doing

Obviously, Lucas used to understand a text's plain meaning when reading but now armed with rhetorical concepts understood more than the surface level of the text.

Next to the teacher, and perhaps to the rhetorical concepts taught, the major tool mediating learning was the OLR because it structured support and provided learning concepts for self-evaluation. Support was structured via student observations on class-related activities, whether inside or outside of class. Thus, students developed the practice of noticing their use of rhetoric and also its use in other arenas. As Lucas observed,

> I'm reading a text written by Galileo Galilei (1564-1642) in 1615 called "Letter to the Grand Duchess Christina" (Drake, S. *Discoveries and opinions of Galileo*). I'm astonished with Galileo's power of argumentation! He defends his scientific cause within the theological affairs and gives good reasons! I observed that he used in his text arguments of character such as quotations of St Augustine and other greats figures of the church….

Observing other arenas through the lens of rhetoric mediates learning. For Lucas, science is becoming perhaps no longer a matter of discovering facts but an art of persuasion.

This support was reinforced through the dimensions of learning, especially the one of reflection. Required to reflect on their learning, students had to come to grips with its nature, albeit not always successfully. Reflection was problematic for students; yet, to differing degrees, students' appropriation of reflection seemed to shape their learning. Maria, a student who had "seldom collaborated" previously, learned that others "think different than I do" and, as a result, could "improve [her] work tremendously by hearing other people's ideas." Other students also commented on learning from others:

Catalina I think that talking to classmates is a very good strategy to elaborate our academic works, because people sometimes come up with things you haven`t thought about or haven`t realized about your own work.

Carlos My final thought is that learning becomes more effective with collaboration because instead on relying on what we individually know we collaborate and learn from others.

Thus, the OLR appears to have shaped student learning by focusing students on their actions, by providing learning concepts that mediated how they observed and evaluated their development, and by helping them become self-directed and reflective. At the same time, however, it also was the source of key tensions in the classroom.

Conflict and Transformation

Conflicts for students existed between their previous levels of vocabulary and the vocabulary in their readings about the OLR and rhetoric, between previous notions of writing and rhetorical concepts to be acquired, between their historical expectations that assessment was the teacher's job and the need to evaluate themselves, between the amount of time needed to make observations on their activities and their belief that that time could be better spent doing more formal writing, and between their confusion concerning the OLR and their need to use it to obtain the grade they wanted.

The action of constructing the Midterm OLR did not necessarily diminish the level of confusion because, although it brought resolution to some contradictions, it also created others. One student wrote,

> The problem I faced when writing my OLR is matching the 5 dimensions [of learning] within the 3 areas [of rhetoric, research, and collaboration]. I first had to realize what each dimension means and then go through all my observations and work and choose what represented knowledge, what

> skills and strategies I have acquired, how I used prior and emerging experience, how I have built confidence and most difficult critical awareness (reflection). I think that I haven't fully understood what the OLR means by saying reflection and how is that shown so it was difficult for me to find reflection in rhetoric, research and collaboration.

Similarly, another student commented,

> One problem that I had was organizing all the information to show my learning. The problem for me was to accommodate all the information that we have done during the semester in some way that it would reflect where my skills in rhetoric, research and composition where at the beginning of this semester and my improvement in each one of these skills. … It was difficult to try to synthesize all the learning and then divided in the three areas: research, collaboration and rhetoric. And then apply into the five dimensions of learning.

For these two students and others, quite a few tensions remained: formatting the OLR, understanding the dimensions of learning, especially reflection, with respect to the three areas of rhetoric, research, and collaboration; selecting samples of work that best reflected their development; and synthesizing and interpreting their learning.

Contradictions are not necessarily to be avoided, however, because they are the driving force of transformation within an activity system (Engeström, 1987). The contradiction between OLR confusion and their goal of obtaining a grade of B or A led students to take steps to appropriate the OLR and to resolve that contradiction. Those steps involved using other tools: language, the teacher, and other students' work. Students discussed the OLR format with other students, queried the teacher in person and via email, and paid close attention to the Midterm OLRs of other students. In fact, after seeing other classmates' OLRs, several students revised their understanding of the OLR, and at least one decided to "reorganize [her] entire OLR again." In the processes of revision, reorganization, and participation, most students gave evidence by the semester's end that they had appropriated to different degrees the OLR's conceptual underpinnings:

Cahyadi	Now, I completely understand what the benefit of using the OLR system. We can monitor our improvement as well as our weaknesses.
Neelum	This [OLR] activity helped me to think critically and also learn from peer's work.
Catalina	I'm sure [the OLR] is very important and efficient as a learning tool, and since we would have everything recorded, we would be able to

> evaluate our own works and development, which can help us with critical reflection.

These remarks indicate that the contradictions surrounding the OLR transformed it for the students from an object of confusion into an instrument of critical reflection.

Expansion and Generalization

Contradictions can lead students to expand and generalize forms and genres studied in class into their own writing for their own goals, motives, and productive societal practices.

Student Expansion. Such expansion was seen in two students' uses of the OLR. From the students' perspectives, the OLR was a genre connected to one particular teacher and class. They had never seen it before, and they may never see it again. Even so, one student, Lucas, appropriated the OLR's Observation section and expanded it into a tool for his own goals. Rather than limiting observations to a direct recording of his actions as instructed, he used it as a tool for understanding and reflecting on class readings and concepts as evidenced by some of his observations:

> September 22: (Definition paper):
> - One doubt: Does the rebuttals need to "beat" all the previous reasons or just a few of them? …
> - I still have a problem with the transitions between paragraphs. Can we use ordinary transitional words or only repeat the last paragraph sentence idea?
>
> September 29 (Tilt): I have a doubt. When I'm making a research and there are a lot of sub themes very interesting how do I manage to get straight at the point that interests me? Which one is better; to take time to look for all the themes, or continue working in just one. The problem is that you don't have time to look for all of them but on the other hand it is not good to let interesting topics get loosed.

He seemed to generalize this technique of interaction with texts and lectures to other classes and readings as indicated by this observation:

> I'm trying to develop an efficient system to read and retain important information from academic books. There are different kinds of reading and I'm trying to find a good mechanism for academic reading. Highlights are not enough, and make comments on the book or on a sheet of paper, or make summaries of each paragraph along the text, etc. takes a long time. Most of the times I don't read my own comments and they make the reading a slow process….

Another student, Neelum, also expanded aspects of the OLR and rhetorical concepts for her own purposes. She said in an interview that she was continuing to make observations, although not necessarily on academic matters but more on her own life:

> First of all, whenever I argue with some people like, I make sure, who is he, like if he's my friend, he's like, that makes me help me to choose my language. Then I try to, okay, what he's thinking, and how should I respond to him? And third thing, I make sure, like whatever I think, he understand that. It's not misunderstanding or confusion in between, so I try to give examples, more and more examples, and if examples not work, like when my own example doesn't work, then I try to drag some other people in between who knows me and him, both of them. That's how I do.

Apparently, Neelum had noticed a contradiction between her previous methods of arguing and the rhetorical concepts in class: She knew an arguer needed to understand her audience and its values, that the language chosen should meet her audience's expectations. By using examples as our textbook recommended, she was following the rule of "connecting with her readers," or speakers, to become more persuasive. Learning from the OLR to be more reflective, Neelum came to generalize rhetorical concepts learned in class to her everyday interactions with friends and relatives (see Figure 3).

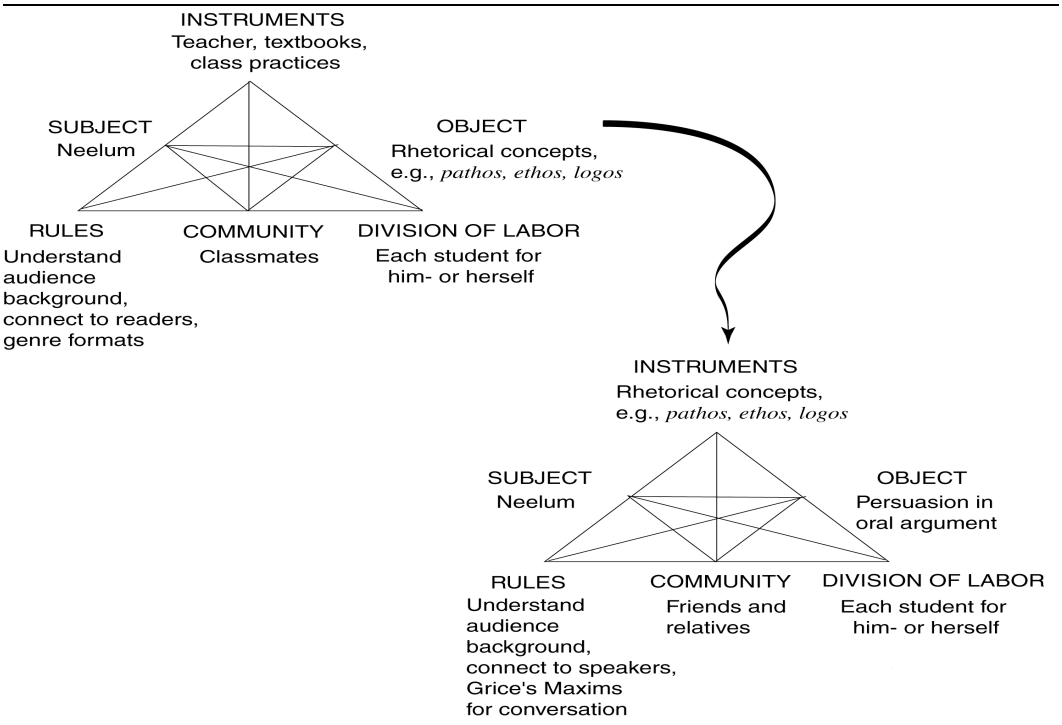

Figure 3 Expansion into another activity.

Class Changes. Besides changing members' participation in an activity system and how they come to understand and use its tools, contradictions may also alter the system. Conflicts with the OLR led to student suggestions that because the OLR readings and samples by native speakers of English are not easy to follow or understand, future classes should have sample OLRs from nonnative speakers and a simplified version of the OLR information. The former has been implemented, and the latter is in progress. Actually, the OLR is difficult for native speakers to appropriate, too, and for that reason, among others, a pilot study is being conducted now in five rhetoric and composition classes in which an online interface puts the different parts of the OLR together for the students, attempting to scaffold their conceptual understanding of the whole.

Note, though, that the class system, although resolving contradictions, is not yet expanding them into other productive practices, for instance, in the Division of Rhetoric and Composition. Institutions are on a different timescale from individuals and change much more slowly than their individual members. Similar to evolution in which many genetic adaptations must accumulate before speciation becomes visible, many material and psychological changes must accrue before institutions evolve into new systems.

Sociohistorical Influences on Achievement

Sociohistorical factors, past and present, can affect student achievement, as seen in the case of Maria from Cyprus and Jungsook, a Korean, born and raised in Japan.

Past sociohistorical influences. Maria and Jungsook were similar in some ways. Both entered an American university for the first time. Both had limited computer and writing experience. Both of their formative educational backgrounds had a similar class format: lecture without interaction between teacher and students. This format's historical influence shaped their methods of obtaining information. When having questions, they generally sought answers after class or through email rather than during class.

There were differences, though. Jungsook was a junior majoring in English and attending a U.S. university as an exchange student for one year. Maria was a first-year student majoring in biochemistry. Jungsook had done some academic and creative writing in English at the university level in Japan, but, unlike Maria, she had not been exposed to the traditional five-paragraph essay model. Although both did well in the class, we might have expected that Jungsook, having more university experience and majoring in English, would have been the more successful of the two at least gradewise; however, this did not turn out to be the case because sociocutural influences led one student to be "satisfied" with a grade of B while another strove for an A.

One sociocultural difference was how higher education is valued by their respective societies. Higher education in Japan is not considered by many students to be primarily a time of studying. Gray (1999) wrote that students

cannot fail in a Japanese university. Actually, they can fail, but it is very difficult to do so (C. Adamson, personal communication, July 24, 2001). Grades and ability are not as important as the school attended for future employers (Gray, 1999; Ishikawa, 1997; The Prime Minister's Commission on Japan's Goals in the 21st Century, 2000). Moreover, employers have not considered graduate degrees necessary as further training will be "tailored to the company's needs," although this practice is changing (Ishikawa, 1997, p. 302). For the most part, higher education remains a "time for [students] to socialize, join clubs, develop social skills, connections for the future, potential mates, and to explore personal interests" (Gray, 1999).

These comments resonate with Jungsook's perspective on university life. About two weeks into the semester, she was required to write a short essay on her class, university, and career goals. The following is one paragraph from that essay:

> Unfortunately I haven't found my career and life goals yet but it doesn't mean I don't look for my goals. I all the time think about what I can do now and what I need to do. Personally I'm interested in intercultural communication. … I'm going to graduate from my university in Japan in 2002 and I would do job-hunting them. Until them all I can do is that first, I learn and study many things at universities (in Japan and [university in the U.S.]). Secondly I see and talk with a lot of people including students, teachers and so on as much as possible through school life and variety of activities in order to make wide network. I believe all of the experience in the university would make me strong and help me find my goals.

Jungsook did study and appreciate her learning. (In fact, she studied "all the time" in the U.S. due to U.S. institutional influences.) However, she had appropriated Japanese societal concepts of the university being a place to "network," and, as she said later in an email, "Having fun making friends, living freely is most important."

In contrast, according to Maria, "most Cypriots feel that university requires a lot of study but this doesn't mean they study enough," and "most Cypriots choose to continue their studies to get *at least a Master's* in order to get a better work back home" (italics mine). Out of her high school class of 28, all went to university except one or two. And Maria's goal was to earn a doctorate in biochemistry.

Moreover, in Maria's case, the institution of family played a major role in her goal of pursuing a doctorate. She wrote,

> The main influence for students like me and that boy to get a Ph.D is our family. My parents have a Master's and my father wants to see me and my sisters going beyond what he did in his life. But the main reason is the

> way my parents raised me, that is in a very calm environment full with love for everything including love for education…. Thus my grandparents (from my mother's side) wanted their children to have the chance to get educated. My grandfather always wished us: I hope you reach the highest step. … Both of my parents got scholarships to study (my father was working and was 25 when the scholarship gave him the opportunity to study). Now me and my 2 sisters are studying on a scholarship. Thus you see it's all about family. Of course my desire to study it's my own decision but it's baised on the way i was raised.

Maria's family history had influenced her considerably. Her father and grandfather wanted her to go "beyond what he did" and "reach the highest step." Appropriating these sociofamilial influences, Maria had become in her own words a "perfectionist," as seen in her reading the OLR six or more times compared to other students' one to two times.

Present sociohistorical influences. Not only were past sociohistorical influences at work, but present ones were, too. Maria's strong science background made her classes in science, such as first-year chemistry and physics, fairly easy for her because she was competing against Americans, most of whom, it seems, had less rigorous science backgrounds than she did. In fact, she did not go to office meetings with her professors because she was "far ahead of the other students." (She received A's in all of her classes.) She had extra time to appropriate the rhetorical and OLR concepts.

In Jungsook's case, her major of English worked against her. Taking courses in anthropology, sociology, and business communication, she engaged in presentations, papers, and extensive reading, tasks that were not only in a culturally bound second language but also were not part of her prior educational experience. In effect, her background was less rigorous than that of the Americans in her classes. Unlike Maria, Jungsook had no extra time, finding it difficult to keep up with assignments and classes.

The factor of time was not merely a result of conflicts between different countries' educational systems but also of classroom practices because time entered the grading equation. The basis of evaluation was engagement in the class rather than the level of proficiency attained. The major rationale for this grading system was that the wide disparity of writing proficiency and English language skills among the students would allow the stronger ones to coast by on previously acquired skills without improving and would discourage the weaker ones from striving for more than a C. (It would be close to impossible for some students to otherwise pass this class.) However, knowing that the weakest students could earn an A motivated them to use the system, which, in turn, mediated their understanding of what it meant to excel in this class: engagement in the course work and development in rhetoric, research, and collaboration.

To obtain a grade of A, however, a student had to go beyond the required

course work, which took more time than achieving a grade of B. Although Maria had more than enough time to work towards an A, as indicated by her "perfectionist" six-time reading of the OLR, time should not be considered as a stand-alone variable: Maria, having appropriated her family's values to be "successful in the university," had set for herself the long-term goal of obtaining membership to the academic community as a professor of biochemistry, perhaps even remaining in the U.S. Her goal, she felt, required as many A's as possible in order to maintain scholarship support for the duration.

In contrast, Jungsook did not work towards an A due to lack of time. Just as important, though, her previous university experiences did not place such a high value on grades, allowing her to consider a grade of B as satisfactory. Furthermore, her goal was a one-year experience of improving her language skills and learning about American culture before returning to Japan to complete a bachelor's degree, which may or may not have much to do with her, as of yet, unknown, future career community.

Consequently, despite being in the same class and university, Maria and Jungsook worked towards different grades because of their previous and different sociohistorical influences. Moreover, due to these influences they had different motives and thus were participating in different activities (see Figure 4).

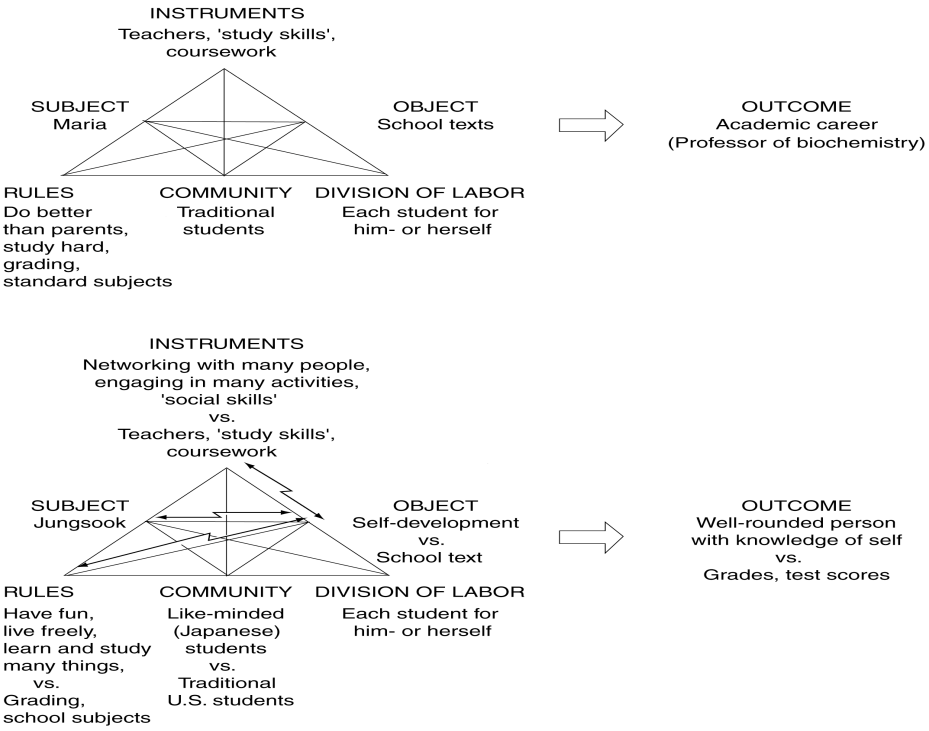

Figure 4. Contradictions in Activity Systems

Although people can embody multiple motives, it seems that Maria, perceiving the university to be vital for (and the place of) her future career, was taking part in a single activity, an *activity of academic learning*, one that lines up well with high academic achievement, at least for undergraduate studies. In contrast, Jungsook—considering the university as a place for networking and extracurricular actions but entrenched in an institution requiring course-oriented actions—was more likely engaged in two overlapping and conflicting activities: an *activity of social, cultural, and personal learning* that would be supportive of any career she entered and traditional *school-going activity*. Although such conflict has the potential for learning activity to take place, traversing a battlefield of conflicting activities can, if the contradictions are too great, undermine academic achievement.

CONCLUSION

Academic achievement is not simply a matter of individual skills because students are social beings embodying the sociohistorical influences of their institutions and cultures. Students' participation in class, their appropriation of rhetorical concepts and tools like the OLR, the conflicts they face in appropriation, their ability to expand and generalize their learning, all are mediated by the concepts and tools of the past and present activities in which they have engaged and are engaging. Consequently, to understand how students learn to write in a second language, or learn to do anything, requires an analysis of the activity systems in which they are embedded and an analysis of the contradictions inherent within activities and between them.

An activity-theoretical analysis can also add to our understanding of the nature of learning activity and help us determine whether our own classrooms and educational institutions are engaged in the activity of learning or in school-going activity, which produces students filled with an inert knowledge generally not used outside of school. Even tackling engaging problem-solving tasks within a constructivist framework does not necessarily result in learning activity if the tasks have a given context that students do not transcend and generalize to other contexts.

Activity theory asserts that learning activity requires having students participate in the discovery of contradictions between what they are learning in class and what they know and practice in order to transcend the classroom context and to expand and generalize their learning into other social activities. To find the contradictions, students need tools, such as the Online Learning Record, that help them observe and reflect on class-related concepts in settings outside the class, especially in their own social practices, as in the case of Neelum expanding the rhetorical concepts acquired in class to her activity of persuading friends and relatives.

Learning how to create learning activity settings is an on-going and not-so-easy struggle because learning is a never-ending, spiraling cycle of appropriation,

transformation into contradictions, and expansion into new learning activities (Engeström, 1987)—a cycle that includes the learning activity of educators and researchers—and because our thoughts and actions are mediated and shaped by sociohistorical experiences that often militate against the activity of learning.

Echoing the student at the beginning of this paper, one educator writes, "I've decided to improve the curriculum in the way I was trained."

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Appendix
Questionnaire

Writing practices of non-native speakers of English in a first-year university writing class

1. How would you describe your attitude towards writing when doing the following types of writing on a scale of 1 (dislike very much) to 4 (like very much), both in English and in your native language?[1]
   [In general, e-mail, diary writing, class papers/reports, resumes, applications (school/business/etc.), ICQ (Internet chat room), personal letters, other (please specify)]
2. How would you describe yourself with respect to anxiety while writing on a scale of 1 (very anxious/nervous) to 4 (very comfortable), both in English and in your native language? [In general, e-mail, diary writing, class papers/reports, resumes, applications (school/business/etc.), ICQ (Internet chat room), personal letters, other (please specify)]
3. In your opinion, how important is it for your major to have experience in the various types of writing on a scale of 1 (very unimportant) to 4 (very important), both in English and in your native language?
   (in general, e-mail, diary writing, class papers/reports, resumes, applications, other)
4. In your opinion, how important is it for your future career to have experience in the various types of writing on a scale of 1 (very unimportant) to 4 (very important), both in English and in your native language?
   (in general, e-mail, diary writing, class papers/reports, resumes, applications, other)
5. How would you rate the following aspects of writing on a scale of 1 (difficult) to 4 (easy)? (grammar, vocabulary, organization, transitions, style, getting good evidence, getting good ideas, other)
6. How would you rate your language skills (listening, reading, speaking, and writing) on a scale of 1 (poor) to 4 (excellent)?
7. How important are these language skills for school on a scale of 1 (not important at all) to 4 (very important)?
8. How important are these language skills for your future career on a scale of 1 (not important at all) to 4 (very important)?
9. How many years have you formally studied English? ___ Studied in an English medium school? ___ Lived in other English-speaking countries? ___
10. At what age did you first begin to study English? _____
11. When did you take your last TOEFL and TWE exams, and what were your scores?
12. How many years have you been familiar with the following computer skills?

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[1] The Likert scales will not be shown for Questions 1 through 9 and 12, but items used in the scales will be enclosed within parentheses after each question. All questions with Likert scales request responses for both English and native language use.

13. What sorts of writing (for school or business) have you done in the past and how much of those types of writing have you done?
14. Other comments?
15. Name _____ 16. Major _____
17. Year in university _____ 18. Age ____ 19. Sex ____
20. Place of birth _____ 21. Native language _____
22. Languages (except for English and your native language) in which you can speak, read, or write?