

# L2 Task Design for Electronic Media

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## ABSTRACT

*This paper discusses the tenets of Activity Theory and their relation to task-design for the purposes of second language acquisition. Tasks should support all class activity as it is beneficial to the definition of learning as posited by Sociocultural theory. Types of tasks are surveyed. Guidelines for task design and development are suggested.*

## Introduction

There are numerous different types of tasks that are available in Computer assisted instruction (CAI) or Computer-based instruction (CBI). First we consider the distinctions between *activity*, *task*, and *exercise* and how each may or may not fit into the classroom. Next, the presentation of various types of instructional software should permit the theoretical distinctions to become clear in the available software. Finally, we reflect on important considerations for implementing task-based learning in the second language classroom

## Activity, task, and exercise

The main distinctions between activity, task and exercise can be operationalized very simply. Activity is everything that occurs in the class. Tasks are blueprints for linguistic activity toward a non-linguistic goal. Exercises are blueprints for linguistic activity toward a linguistic goal. In other words the main distinction between tasks and exercises is that tasks are completed when a function has been finalized by participants; exercises are completed when participants supply the correct language. This section is designed to delineate the parameters and tenets of activity and describe how tasks can attribute to the overall activity of the classroom.

The concept of activity is essential to any development from a sociocultural perspective.

Activity that occurs as assisted interaction within the Zone of Proximal Development (ZPD) and promotes mediation is particularly valuable for second language (L2) development. Activity theory is also an essential element to understanding the sociocultural perspective on language learning. What is called Activity Theory today is more a philosophy than a theory in the strict sense of the term. Activity theory posits five main principles: hierarchical structure, object-orientedness, internalization/externalization, development, and mediation.

The **hierarchical structure** of activity is best shown by Leont'ev's (1978) three levels: Activity, action and operation. In brief, *activities* are goal-directed and motivated by conscious effort, *actions* are the stepping stones/short-term goals used to accomplish those activities, and *operations* are the methods for accomplishing actions in specific contexts. While this tricotomy is not particularly insightful for CALL and second language learning, it should be noted that different actions may be used to accomplish the same activity and operations vary according to the context. These distinctions will become more important in the discussion on task design for CALL.

**Object-orientedness** basically states that the things that create our reality have specific objective properties on many levels; natural science, cultural, social. All activity is oriented toward an object. Objects can include the solution to a problem or purpose of activity.

**Internalization/externalization** is a dichotomy that permits the reproduction and transformation of reality. Internal activity coincides with the traditional understanding of mental processes, yet Activity theory maintains that internal processes cannot be understood in isolation from their external realization; both processes are ontologically inseparable. Internalization allows the reproduction of reality because it provides a forum for interaction without having to attempt actual manipulation of objects (visualizing, imagining, planning, etc.). Externalization is a necessary component when internal activities require repair (as in the negotiation of meaning) or coordination among participants (for group work). The shift between internal and external activity is dialogic and often referred to as *regulation*. Regulation occurs on three levels: object regulation, other regulation, and self-regulation. A child is largely object regulated as it depends on the environment to accomplish tasks. As children grow they learn to be other-regulated, relying on others (parent, teacher, peer) to scaffold their performance to accomplish certain tasks. Finally, humans learn to be self-regulated where s/he has control over his/her environment and is able to initiate change. That is not to say that a person has complete control over all tasks, but rather the person is able to use a number of tools to mediate his/her own activity.

**Development** refers to the idea that society and tools are in a constant state of development as activity continues. In short, the nature of development reaffirms the phylogenic quality of tools that improve as their usefulness is passed down through the generations.

**Mediation** plays a central role in activity and represents how humans accomplish activity. The activity between human and object is mediated through the use of tools. Tools are created and used during the activity and carry with them traces of the cultural development of the creation. The term *tool* is used in its broadest sense, so some examples of tools are language, computers, textbooks, chalkboards, and checklists.

The idea of language as a tool for mediation has become particularly significant in second language acquisition studies since it has important discussions about private or inner speech. During language learning, many learners will use language to regulate the object, in other words, learners talk to mediate the parameters of the task. Some of these comments include statements like “what do we do now?” and “Are we supposed to write this down?” Other statements from students can signal other regulation; “So, do you want to start?” or “it’s your turn.” Additionally, private or inner speech may signal self regulation when students practice the correct form internally before speaking.

Sociocultural theory has become much more important to task design in the second language classroom particularly as task design involves interaction in the classroom. Hall and Verplaetse (2000) summarize a number of important implications for classroom management. First, learners must be encouraged to make connections to their own lives; be interesting. Second, interactions must not only be cognitively appropriate but also affectively encouraging; foster a sense of community. Third, everyone must be active in the learning process; create opportunities to show both the knowledge learned and the process of learning. Fourth, learner development and student development are inseparable; the people in the class are learning to be social human beings as much as they are learning to use the language.

Sociocultural theory takes language as a tool that results from the activity required to accomplish a task or goal and not a system that is used after the parameters have been acquired. Sociocultural theory assumes that all tools develop through uses. Therefore, it is more consistent

with the notion of interlanguage (Selinker, 1972) in which language is constantly developing during use. Development of the tool (language), then, occurs best through use or activity.

Learning is a process of acculturation according to sociocultural theory. Where other theories point to the association of form and meaning, sociocultural theory regards learning as socialization into a specific group through shared, scaffolded, activity.

Activity in class extends beyond the concepts of noticing (Schmidt & Frota, 1986), negotiating meaning (Long, 1985), and deriving intake from input (Lee & VanPatten, 2003). Activity includes participation in the classroom society as well as any classroom tasks. While participation in the classroom society may be achieved in numerous ways, tasks designed for the classroom should ideally maintain the five tenets of activity theory.

- 1) Hierarchical structure. There should be a hierarchical structure of actions that students can clearly identify (step 1, step 2, etc.) to accomplish a goal.
- 2) Object-oriented. Tasks should be goal-oriented in that learners must be able to complete the task and show that they have a finished product.
- 3) Internalization/Externalization. The activity in class should allow for regulation, (i.e. scaffolding support should be available to the student). Students should have the opportunity for language play.
- 4) Development. Activities can span short periods of time or extend over the course of the semester.
- 5) Mediation. Activities should require mediation using the tool (i.e. negotiation of authentic meaning using the target language) that may occur as private speech and written or oral communication to others.

These five characteristics are central to task design for any foreign language class but are particularly useful in technology-based tasks. Not surprisingly these five requisites echo much of the prior work done in task definition (Long, 1985; Breen, 1987; Candlin, 1987; Crookes & Gass, 1993; Skehan, 1996; Chappelle, 1999; Nunan, 1989, 1999; Lee, 2000; Hall, 2002; Lee & VanPatten, 2003).

Activity theory essentially drives the need for well-structured tasks that provide for creative language use. Nunan (1999) clearly identifies what is meant by creative language use. He states, "Creative language use involves the recombination of familiar elements (words, structures, and prefabricated patterns) in new ways to provide utterances that have never been produced before" (p. 77). Activity theory calls for well-structured tasks that are still "open" tasks. Well-structured tasks lead learners to focus on certain structures and concepts that may be used as comprehensible input, while open tasks allow for a wide variety of unrehearsed responses. Incidentally, "open" tasks are opposed to "closed" tasks (those for which there could be an answer key), and well-structured tasks that lead learners down the garden path are opposed to poorly structured tasks that cause learners to spend more time defining the task rather than performing the task.

## **Types of tasks**

This section discusses various types of tasks as they are included in stand-alone applications, hybrid environments, and fully support computer-mediated communication (CMC). The tasks include allowance for focus on form and focus on meaning and include a large range of computer abilities. A sampling of activities is shown in Table 1.

Table 1 – Examples of task type.

Tutorial Drills (mechanical, meaningful, communicative) Quizzes & Educational Games Information-gap Consensus activity Discussion (teacher-led, student-led, entire class vs. group vs. pair)
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One of the most popular type of software in instructional technology includes tutorial software (Grabe & Grabe, 2001). However, within the field of language acquisition, tutorials are not used extensively. Tutorials typically consist of a short learning segment followed by a short exercise to measure how well the student has mastered the new skill. While there exists many tutorials for language learning, they are of little help for the actual acquisition of the language since language is, as Shrum & Glisan (2000) state, “not an object of study but an activity in which to engage” (p. 35).

If the focus of language learning is on the activity, then it seems that drill-and-practice (or drill-and-kill) exercises should produce more significant results than tutorials. Mechanical drills (those that focus on forms only) can provide instant recasts or feedback which have been shown to help learners acquire certain syntactic forms (Ayouun, 2001). Meaningful drills (those that focus on form but encourage responses that are specific to each learner) may also be easily formulated with appropriate feedback and through networked computers be made available to the instructor or other members of the class. Communicative drills (those that focus on meaning while structuring the stimulus to elicit the appropriate form) can also be easily formulated to occur in class using synchronous CMC such as Instant messenger or Chat, as well as out of class using asynchronous CMC (i.e. email, bulletin-boards, newsgroups). The negotiation for asynchronous CMC occurs over a much longer time and lends itself to more elaboration and additional attention to form, but does not guarantee it.

Quizzes and educational games are similar to drills and are fairly self-explanatory. Educational games are often quizzes that have no formal grading mechanism. The typical activities of a standard written test (true/false, multiple choice, matching, short answer) are available on the computer with a few advantages. Support can include reading, writing, and listening with the available digital recordings. Matching can be enhanced through drag-and-drop procedures and even be extended to classifying so that several objects can be paired with other objects without adherence to a 1:1 matching schema. One major drawback with tasks of this type is that they do not necessarily inspire social interaction unless the quiz can be taken with partners or unless the quiz is created by learners for learners in the class. Students can easily design short tests for each other using online teacher tools such as Swarthmore Makers (<http://lang.swarthmore.edu/makers/>) or applications such as Macromedia’s *Dreamweaver Courseware*..

Simulations became much more popular in the 1990’s and continue to maintain their popularity in foreign language media centers and classrooms. These types of tasks are feasible on both stand-alone applications and in hybrid environments. The most popular of the stand-alone was created by MIT, *A la rencontre de Philippe*. In this video-disc-supported software, the student must watch and listen in order to help Philippe accomplish certain tasks around town (listen to his answering machine, pay the plumber, catch the metro, make up with his girlfriend, etc). Multiple endings are available depending on the completion of certain tasks by the user. This type of tasks includes role-play situations. *Meurtre à Cinet* is an example based on the

popular game *How to host a murder*. Students divide into groups and each takes a role. The supporting website offers a map of the town and some global clues. Each role receives information that s/he must share with the rest of the group in order to solve the mystery. The task entails exchanging information in the target language using email.

The exchange of information is useful since it nearly always involves the negotiation of meaning. Information-gap activities rely on the coconstruction of meaning from multiple participants. Information-gap activities include at least two participants, where each only knows a part of the information. Learner A must provide information to learner B in order to solve a given problem. Neither learner has access to the other's information other than what each is able to communicate. Robert Blake provides some examples of information-gap tasks ([http://www.eslgo.com/resources/sa/ig\\_tiger.html](http://www.eslgo.com/resources/sa/ig_tiger.html) ). These types of activities can occur through face-to-face or computer-mediated communication.

Consensus activities are similar to information-gap activities in that members of a group must still communicate in order to solve a problem. Unlike the information-gap activities, all learners in the group have access to all of the information. They must negotiate in order to find an acceptable solution for the entire group. An example of this could include an activity where students log into a chat room while also reading information from a web site. For example, if students are led to a tourist website for Washington D.C. they must negotiate what tourist locations to see in Washington D.C. that are acceptable to the entire group.

Discussions activities can be conducted in a number of ways using computers. Synchronous CMC includes Chat, IM, IRC, MOOs, MUDs, and MUSHs, while asynchronous CMC includes bulletin boards, email, newsgroups, and listservs. Discussion activities outside of class have advantages in that they can provide advance organizers for topics and activities that are done in class and allow for more time spent on oral communication in class. Asynchronous CMC lends itself easily to out of class discussion since learners can participate at their leisure, while synchronous CMC must be coordinated for out-of class discussions so that all participants are presents. By the same token, asynchronous CMC appears to be counter-productive during class where speech and ink are more efficient media. Nevertheless, synchronous CMC has been shown to have a number of advantages in paired discussions as far as discourse, quality of interlanguage, embedded routines, meaning negotiations, corrective feedback, and self-repair (Pellettieri, 1996). For many of these chat-based tasks, it is important to divide the class into chat-groups. Full-class discussion with only 8 learners has proven difficult for learners who were unable to follow multiple threads in a given discourse. Thus it would seem that, synchronous CMC is useful for small-group and paired work, while entire group discussions are best handled face-to-face.

In short, CALL has significant contributions to what may be done to encourage use of the language outside of class such as tutorials, simulations, quizzes, drills, and asynchronous CMC. Information-gap and Consensus activities that have been shown to provide significant opportunities for negotiation in the language are facilitated though synchronous CMC that may provide more significant attention to both form and focus. Instructors must always remember to view in-class activities for the purpose they serve. This purpose should always be linguistically motivated rather than politically motivated (to please the administration) or temporally motivated (to fill/kill time in class).

Lomicka, Lord, & Manzer (2003) offer an important A-E checklist for all those who want to develop materials. A) Analyze the task in order to choose the appropriate technology that facilitates the task. B) Backup your lesson plan with an alternative since you never know what

technological glitches may occur during the class. C) Community is important to any activity. As dictates sociocultural theory, community is central to linguistic development. Likewise instructors should be mindful of the 5 Cs of ACTFL (Communication, Cultures, Connections, Comparisons, & Communities; Phillips & Draper, 1999). D) Diversity of activities is essential to promoting motivation in the classroom. Webquests are nice introductory activities in the computerized classroom, but if those are the only types of activities implemented, then student motivation may quickly wane. E) Evaluation of the activity is critical for those instructors who wish to improve their activities and not repeat mistakes made in earlier trials. Activities should be evaluated not only on what works, but also what provides appropriate scaffolding, cultural authenticity, and classroom preference. There are also a number of considerations for choosing certain technologies over others.

- **Goals:** In any computerized classroom instructors must constantly reconsider the goals of the lesson particularly in terms of input required and outcomes desired. This should be a dialogic balance created through interaction with students, technologies, and instructor.
- **Pedagogical advantages** of newer technologies over the blackboard. Newer technologies can offer a number of advantages over traditional media such as the blackboard or the overhead transparency. Instructors must make the decision if the marginal returns on language acquisition merit the time and energy required to implement the new technology in a classroom task.
- **Matching appropriate technology with task.** As has been repeated many times, any technology should be chosen for its ability to facilitate the task in the classroom and not for its bells & whistles. Certain forms of technology, such as a webquest, may facilitate vocabulary recognition but not necessarily vocabulary use.
- **Use of target language.** As with any second language class, even those in the computerized classroom should be conducted in the target language. Often students and instructors, possibly because of the unfamiliarity with the technology, decide that the computer classroom is the one time that English is an appropriate tool for task mediation. Instructors can avoid this trap by providing appropriate vocabulary during the first day in the computerized classroom (i.e. mouse, screen, click, highlight, save, post, send, etc.). As mentioned before, the tool of mediation (language in this case) is also the activity so the decision to not use the target language is essentially a decision to perform a task but ignore the overall activity of the class.
- **Students' familiarity with technologies.** Instructors should have an idea of what their students are capable. Most college students should be capable of sending and receiving email, using the web to find information, using multiple word-processing applications (MSword, WordPerfect) with the fonts appropriate to the target language, and saving files to disks. With minimal instruction, students should be able to easily learn to keep an online portfolio using student constructed web pages, use a chat program, read and post to a bulletin board, and download and upload files.
- **Instructor's familiarity with each technology.** Instructors should use technologies that are familiar to both the instructor and the students since instructors are ultimately responsible for troubleshooting any problems that occur during classroom. There are numerous tutorials online for the standard applications found in the computer classroom.
- **Motivation for using technology.** Finally instructors must also take into account the motivation for using technology on all levels. Often the administration (deans and department and section chairs and heads), feel and pass along the pressure to use

technology for reasons of uniformity across the college or department. Sometimes the pressure to use technology comes from the need to justify the monies spent on maintenance and development of technological resources (i.e. “We paid for the computers, you had better use them!”). Students and instructors may feel pressure to implement technology because it is being done in other classes or by other instructors. Sometimes instructors may be required to teach one day a week in a computerized classroom in order to be observed. Students may lack motivation to use computers if they do not have access outside the university, or if their connection is slow. Whatever the motivation, instructors should never lose sight of the initial goal of the task and the overall purpose of activity in the classroom. It is extremely difficult to recover from a poorly planned technology-based task.

It is through activity that all human development occurs. Language development is no different and requires active participation both socially and cognitively. *Activity* governs the entire classroom and is equally determined by all participants (students, instructors, guests ...). Nevertheless, the instructor’s main role is to design tasks to serve as a blueprint for linguistic activity. As instructors become aware of the different types available, they can design useful tasks for their curriculum. These tasks, if theoretically sound, should prove to be pedagogically sound and serve as the basis for all classroom activity.

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