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Collaborative Iconic And Symbolic Representation Activities Using Edusemiotics In English As A Second Language (ESL): A Philosophical Approach

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Abstract

Edusemiotics constitutes a base on which educational theories lay rather than another teaching method. Even though it dates back to St. Augustine's work, it is relatively new in the frames of the academic literature. Signs operate as mediators in several educational relational concepts (teacher-student, body-mind). Edusemiotics can be put into practice through iconic learning and symbolic representation activities which can be enhanced using technology and more specifically computers, which are an image-based tool. The notion of collaboration is also introduced here since it is a means of not only building strong connections between the learners but also of leading to a more enriched way of thinking. Teachers' intervention is necessary since students can easily deviate from collaborative techniques and work in a more familiar to them way, individualistically. For these interventions to happen smoothly, teachers should also be able to establish a caring environment in the classroom. Taking a grasp from philosophy of education, it is suggested that when simple signs are turned into complex structures, learning occurs when a discovery of similarities takes place.

Keywords: Edusemiotics, Collaborative learning, philosophy of education, teaching English, ESL, Semiotics

A Short Introduction to Edusemiotics

Semiotics, the study of signs and signification, and education share a common history which is already evident in St. Augustine's (2009) work "De Doctrina Christiania": "learning concerns either things or signs, but it is through signs that we learn what things are" ([397AD], book 1, 2). It seems that Augustine's ideas transmit a new philosophical mental view that will eventually become officially part in the field of semiotics. In fact, Olteanu and Campbell (2018: 245-6), remark that "...the recognition that humans and animals alike only know the mind-independent things of their environment through attributing meaning and value to them: by bringing them within their species-specific phenomenal world" (or Umwelt, the term later adopted in biosemiotics from von Uexküll 1973 [1928], see Sebeok, 2001 [1994]: 27, and, further, also in edusemiotics, see Nöth in Semetsky, 2010: 5 and Stables 2012: 1, 40, Stables et al. 2014).

Semiotics and education are determined by a deeper connection than the one regulating education with psychology and sociology. In particular, semiotics rediscovered a century ago, became popular within academia in the last half century and it has started developing within philosophy of education in the last decade (Olteanu, 2014).

Biosemiotics supports that education is not founded on the premise of psychology and sociology. The recent development of Educational Semiotics has revealed that Semiotics has already existed and that education adapted to this semiotic structure. In line with this approach, semiotics precedes the birth of cultural constructions and this is evident in Biosemiotics' definition "is the idea that life is based on semiosis, i.e., on signs and codes" (Barbieri, 2008) and biosemiotics' main purpose "to show that semiosis is a fundamental component of life, i.e., that signs and meaning exist in all living systems" (Barbieri, 2009). According to the theory "life itself", it seems that learning constitute a semiotic phenomenon in terms that it motivates us to sign

interpretation. In fact, education could be considered as a semiotic construct emerging from the progress of life itself. Besides, history of education in terms of sign emergence and evolution perceives education as being a stage practiced in the general evolutionary action of signs (Olteanu, 2014). Frederik Stjernfelt (2009), remarks that semiotics is becoming a non-skeptical mediator in the continual interaction with other cognitive fields, material, humanist, and scientific disciplines etc. (Stjernfelt, 2011).

Olteanu and Campbell's (2018) point of view is that educational semiotics is not considered to be semiotics applied to education due to the fact that edusemiotics does not operate as a teaching method. Instead of this, edusemiotics perceive semiotics as the main base of educational theory and practice, like Augustine does as well. According to Peirce (2018, 246-247) "a sign is something by knowing which we know something more" and its virtual meaning expects to be interpreted (CP 8.332; CP 5.427, CP 5.97; in: Olteanu and Campbell, 2018; also see Kechagias, 2009). The "learning-as-semiosis" concept has to do with the learning process in which signs operate as mediators (Kechagias, 2006), mediating relations such as subject–object, mind–body, animate life–inanimate matter, culture–nature, and teacher–learner, rather than operating as a pedagogue tool since it's not a primal issue here to understand internal mental states, neurological activity, or behavioral responses (Olteanu and Campbell, 2018). Staying on topic, the part following presents samples of the collaborative iconic and symbolic representation activities we use in ESL class using Edusemiotics as well as the theory under which base our activities.

Collaborative Learning and Iconicity

Collaborative learning is "a method that implies working in a group of two or more to achieve a common goal, while respecting each individual's contribution to the whole" (McInnerney and Robert, 2004, 205). For collaborative learning to take place efficiently, we take into consideration Bruner's research on the *Process of Education* (1960) consisting of a). the importance of structure, b). readiness for learning, c). intuitive and analytic thinking, d). motives for learning, and e). aids to teaching.

In his research on the cognitive development of children, Bruner (1966) proposed the term *iconic learning* (image-based) as a mode of representation of learning. *Iconic learning* takes place when children are between 1–6 years old. In this stage of life, information is stored visually in the form of images. When learning subjects it is easier to develop strength in the subject when diagrams and illustrations are coupled with verbal information. Models and pictures are what form the iconic representation of learning.

In addition to this, students up to 6 years old are considered to have such a vivid imagination that is a common struggle among ESL teachers to captivate their attention. However, things are getting easier when iconic learning and collaborative activities take place. In fact, iconic learning gives the chance to children to recognize images and illustrations arising from their daily life. Being able to do so, children become more motivated to pay attention and participate in the ESL class. Furthermore, they get really excited when they notice that they know so many things in a class where they are taught a foreign language. Collaborative activities are used here in order to prove to students that they do know things, boost their confidence and familiarize them with a cooperative concept required in order to improve their social skills.

Sample collaborative iconic learning activity:

The goal of this activity is to familiarize pre-junior and junior students up to 6 years old with new vocabulary e.g. colors.

- Materials: white-board, crayons (or watercolors or colored markers), white construction paper
- Time required: 10 – 15 minutes
- Prerequisite: students should know the alphabet in L2 (English)

Step 1: Introduce the colors using the white-board. The colors are written in the target language (English) and are presented in an image-based form. Ensure that all students repeat after you the name of the colors given on the white-board before moving to the collaborative activity.

Step 2: Divide students into two groups and give the white construction paper to them. The first group starts painting the colors on the white construction paper using the appropriate colorful pencils and the second group tries to match the names of the colors given on the white-board with the image-based colors painted by group 1. The main rule is that everyone must participate.

Step 3: Everybody repeats the colors using the colorful construction paper now.

Symbolic representation

Symbolic representation is also a mode of representation of learning and part of Jerome Bruner's research on the cognitive development of children (1966). *Symbolic representation* takes place in children who are 7 years old and older. In this age group, information is stored in the form of code or symbols such as *language*. In fact, words and symbols are combined to describe experiences and are flexible regarding what they represent in order for the user not to feel restricted by a symbol. Therefore, *symbolic representation* is considered to be the most adaptable form of representation.

Students who are 7 years old and older are considered to have a less vague understanding of reality comparing to children up to 6 years old. More specifically, they are in the position to acquire knowledge not only by being exposed to relevant images but also to symbols such as language. Collaboration is of vital importance here as it leads students to a better understanding of the subject, which is getting more complicated from that age on, through cooperation and socializing. In addition to this, the duo of symbolic representation and collaborative activities gives students the chance to redevelop the subjects taught in the ESL lesson and this is where edusemiotics takes place.

Sample collaborative symbolic representation activity:

The goal of this activity is to do a revision in grammar e.g. in Present Simple and Present Progressive

- Material: papers, pencils/pens, signs/symbols
- Time required: 10 minutes

- Prerequisite: Students should have already been taught the Present Simple and Present Progressive

Step 1: Students are divided into two groups. The first group is called "Present Simple" and the second group is called "Present Progressive". Each group is given a piece of paper and every student a pencil/pen.

Step 2: You have already prepared at home the learning material with which the two groups should work.

In particular, the "present simple" group is given several pieces of paper including the helping verb "do/does", the "-s" suffix for he/she/it, the adverbs of frequency and some useful key words such as "every day", "twice a month" etc. These pieces of paper symbolize the present simple tense and are used as language-symbols in order to remind to group 1 the rules of the present simple tense. The "present progressive" group is given the rest pieces of paper that include the helping verb "be (am, is, are)", the "-ing" suffix and the appropriate key words of this tense such as "at the moment, "these days" etc. These pieces of paper symbolize the present progressive tense and are used as language-symbols in order to remind to group 2 the rules of the present progressive tense.

Step 3: Groups are ready now to start writing down on their blank pieces of paper an imaginary story. The "present simple" group is allowed to use only the present simple tense and the "present progressive" group is allowed to use only the present progressive tense. To ensure that the less-advanced students participate in the activity and cooperate with their group, ask them to keep track of the sentences that their group has generated by numbering the sentences.

Step 4: Each group chooses a spokesperson to read out his/her group's story out the whole class.

Technology and Collaborative Learning Techniques

We live in the times of the fourth industrial revolution. Now more than ever, the information society transfers knowledge through images (Kechagias, 2009). Children grow up in environments highly exposed to images. It is, thus, more than necessary to examine briefly how computers (an image- based tool) could boost the forementioned iconic learning activities. They can enhance the students' language skills and help educators integrate signs into the teaching process. Neil (1998, in: Azlina 2010) argues that technology and society are developing in a fast pace thus schools and educational institutions should integrate new learning methods which can follow up with the latest technological achievements.

If we combine collaborative learning (CL) with the new technologies, new ways for knowledge can open and new skills can be developed for the learners. Technologies can enhance skills closely related to high-order thinking and also, they could enable teachers to be co-learners with the students and not just distant facilitators. Thus, teacher-student relations will be enhanced as well. To continue with, there are specific tools which promote the communication between learners during the process of collaborative learning. These include synchronous (at the same time) and asynchronous tools. The latter enable the learner to complete tasks without having to interact with other students and thus providing more freedom in time management while the

former promotes peer interaction and the need for collaboration. The following table presents some collaborative features and their supporting tools (Kaplan 2002, in: Azlina 2010).

CL Features	Supporting tools
Synchronous tools	- Audio conferencing - Web conferencing - Video Conferencing - Chat - Instant Messaging –Whiteboards
Asynchronous tools	- Discussion boards - Calendar - Links - Group Announcements - E-mail - Surveys and Polls
Document management	-Resource Library - Upload / Download

There are four steps which should be followed in order to incorporate computer supported collaborative learning in the class. These are based on an activity chain which focuses on computer-supported activities (Kienle 2006, in: Azlina 2010):

1) The teacher should prepare the task, the workspace, the structure of the course, the learner groups, etc.

2) Both the teacher and students will need to use their own material. The former should mainly focus on presenting and adapting the material in such a way that will make knowledge more easily transferable to the learners.

3) The students fulfill the activities that have been assigned by the teacher and interaction is necessary. Peer collaboration is highly promoted.

4) The learners and the teacher can collaborate by discussing several matters which are included in the learning material. Questions can be asked to the teacher and the final goal is to complete the tasks.

Collaborative Techniques and the Advantages of Collaboration

Collaborative activities can be performed through the application of specific techniques, such as the following (Azlina, 2010):

1) Fishbowl

A group of three or four learners has to solve a problem or complete a task by analyzing and paraphrasing ideas, understanding each other's point of view, etc. Simultaneously, other groups observe it and have to assess how well or not the first group communicated and collaborated. At last,the whole class has a conversation around this topic. (Leonard, Dufrense, Gerace, Mestre, 1999, in: Azlina, 2010).

2) Jigsaw

This technique includes pairs preparation. The pairs have a subject to work on. The one learner starts by "teaching" the material to the other and the other listens and thinks of ways to improve its presentation and content. After that, the learners change roles. The teacher goes around by

helping learners to collaborate more easily (Gallardo, Guerrero, Collazzos, Jose, Ochoa, 2003, in: Azlina 2010)

3) Paired Annotations

Learners work together, in pairs, in order to review a text of any kind. Main ideas should be discussed and a final annotation should be written presenting their opinions about the text they have read. (Brown and Lara, 2007, in: Azlina, 2010).

4) Think-Pair-Share

Sharing ideas in pairs in order to evaluate them before presenting them in a larger group. In this way, students learn not only to collaborate but also show solidarity and real interest towards their classmates.

Working collaboratively, instead of independently, leads to a deeper information processing and to more meaningful psychological connections among the participants (Johnson, Johnson, and Smith, 1998; Smith, 1995). In particular, collaboration aims at the creation of new insights during discussions (Henri, 1992; Kaye, 1992) and guiding students to an understanding of alternative perspectives (Cunningham, 1992). An essential advantage of collaboration is that students are in the position to build a new understanding towards reality by questioning others' ideas and defending their own. Thus, collaboration, when takes place successfully, creates a final product that is different from what any individual could produce alone (Ingram and Hathorn, 2004; Tzani and Kechagias, 2009). This new product is created through the combination of different perspectives, talents, and ideas, which is quite different from what each participant could have created on his or her own (Kaye, 1992). Last but not least, an integral part of collaboration is that all the students who participate in a collaborative task are expected to contribute more or less equally (Ingram and Hathorn, 2009).

Antagonism vs. Collaboration

According to several authors (Kreijns, Kirscher, and Jochems, 2003; Johnson and Johnson, 2004), students do not always follow successfully the directions given in a collaborative task despite the fact that they are asked to do so when being divided into groups. Yet, this is not something that surprises us due to the fact that students are taught to be graded according to their individual effort and results, so when they are asked to work collaboratively they are challenged emotionally and cognitively since collaboration may contradict the structure they are used to and taught to work in (Kozar, 2010). Another reason why collaboration challenges students is that it sets more structural, interpersonal, and cognitive demands on them than more passive cooperative activities do. In this respect, collaboration is often expected not to evolve naturally from our students, especially in societies in which both individual responsibility and accountability play a crucial role (ibid).

Thus, in our point of view, collaborative activities are of vital importance in an individual-oriented society as they lead students to escape from their comfort zone of being independent and self-determined. In terms of this, collaborative activities give students the chance to be part of a more socially-oriented approach, identify themselves with a group mentality and meet the

power of co-determination. In addition to this, collaboration in class needs to be based on a foundation of a teacher-student relationship in order to come into being, grow and improved.

The Importance Of Teacher-Student Relationship: Do's & Don'ts

Do's:

- The first thing we need to do is to *get to know and connect with each student* in your classroom. Particularly, always call them by their first names and make an effort to find out information about their interests and to understand what they need to succeed in school (Croninger & Lee, 2001; Whitlock, 2006).
- Simultaneously, try to *spend time individually* with each student with the aim of creating a positive relationship with them and especially those who are difficult or shy (Pianta, 1999; Rudasill, Rimm-Kaufman, Justice, & Pence, 2006; Spangler Avant, Gazelle, & Faldowski, 2011).
- Focus on being aware of the *explicit and implicit messages* you are giving to your students and on showing them that you want them to do well in school through both actions and words. (Pianta, et al., 2001; Rimm-Kaufman et al., 2002; Hemmeter & Conroy, 2012).
- *Create a positive climate* in your classroom by improving not only your relationships with your students but also by enhancing the relationships among your students (Charney, 2002; Donahue, Perry & Weinstein, 2003; Wentzel, 2010).
- Whether intentional or not, you are modeling behavior for your students so *focus on being a positive paradigm***.** Students are smart enough to notice not only positive strategies, such as taking a deep breath or talking about your frustrations but also negative strategies such as yelling at students or making mean or disrespectful jokes about colleagues (Jones, Bouffard, & Weissbourd, 2013).

Don'ts:

- Don't take for granted that being friendly and respectful towards your students is enough so as to bolster their achievement. *Ideal classrooms have multiple goals:*
    - 1) Teachers hold students to appropriately high standards of academic performance.
    - 2) Offer students an opportunity for an emotional connection to their teachers, their fellow students and the school (e.g., Gregory & Weinstein, 2008; Wentzel, 2010).
- Don't give up too quickly when things don't go according to plan. Keep in mind that one of your main goals is to *develop positive relationships with difficult students*. These students will benefit from a good teacher-student relationship as much or more than their easier-to-get-along-with peers (Baker, 2006; Birch & Ladd, 1998) and take into consideration that a positive relationship with difficult students would have a beneficial impact on your lesson.

- Don't assume that elementary school students are the only ones who are in need of respectful and sensitive interactions. Middle and high school students benefit from such relationships as well (Allen et al., 2013; Meece, Herman, & McCombs, 2003; Reyes, Brackett, Rivers, White, & Salovey, 2012).
- Don't ever assume that relationships are inconsequential, let alone the teacher-student relationships. Specifically, research has shown that preschool children who have faced serious conflict with their teachers deal with a rise in stress hormones when they interact with these teachers (Lisonbee et al., 2008).
- Don't wait until negative behaviors start taking place in your classroom. Instead, be proactive in order to prevent negative interactions. For instance, encourage a positive social experience by including your students in discussions about social interactions and consistently keep modeling those positive interactions for them (Jennings & Greenberg, 2009).

How Do Teacher-Student Relationships Relate To Classroom Climate?

According to Donahue et al., (2003), positive teacher-student relationships promote beneficial classroom climate whereas negative teacher-student relationships lead to adverse classroom circumstances. For instance, when first grade teachers tend to use practices that demonstrate caring towards students as well as practices that foster interpersonal skills among students, then students are less likely to reject one another. In addition, aggressive students who have positive relationships with teachers are more likely to be accepted by peers than aggressive students who lack positive relationships with their teachers (Hughes et al., 2001). Constructive teacher-student relationships have an important positive influence on the social skills of difficult as well as typical students (Zins, Elias, Greenberg, & Weissberg, 2000).

Upgrading our relationships with our students is considered to be the first step as far as meeting your students' emotional and relational needs is concerned. In addition to this, a teacher should work on encouraging a caring community of his/her learners. Such efforts would result in the improvement of interactions among your students and promote students' engagement in school (Hamre & Pianta, 2005; McCombs, 2004; Meece et al., 2003; Weinberger & McCombs, 2003).

The age of your students defines the nature of positive teacher-student relationships. A kindergarten child is able to perceive precise behaviors as nurturing and caring such as a doting smile, a one-armed hug etc. In contrast to this, an adolescent would think of those behavioral actions as being over-involved and too sentimental rather than nurturing and caring. Last but not least, a teacher should always keep into consideration that in the early school years, students' perception of their relationship with teachers and teachers' perception of those same relationships are quite similar. On the other hand, as children grow and develop, the gap between their perceptions of teachers and teachers' perception of them grows and widens (McCombs & Miller, 2006).

Discussion – How to Deal with Icons?

Taking into account Olteanu and Campbell's (2018) idea that edusemiotics is focused both on the interaction and complementarity of organism and environment, we could suggest that

edusemiotics is the umbrella under which collaborative iconic and symbolic representation activities may arise. Learning through collaborative iconic and symbolic representation activities takes place in terms of semiosis meaning that signs operate as mediators, mediating educational relational concepts arising from *life itself*. In addition to this, Olteanu (2014) supports that Peircean semiotics focuses on the idea that signs are in need of having a non-conventional basis so as to be used and interpreted: "…a great distinguishing property of the icon is that by the direct observation of it other truths concerning its object can be discovered than those which suffice to determine its construction." (CP, 2.279).

The integral part here is the sign leading to the primacy of iconicity in learning and the rise of the educational relational concepts such as subject–object, mind–body, animate life–inanimate matter, culture–nature, and teacher–learner. According to Stjernfelt (2007), iconicity is required in signification and operates as the cornerstone of a semiotic philosophy of education: "This leads us to what is probably the most decisive feature in icons at all: the fact that they are the only signs through the contemplation of which it is possible to learn more [...]" (Stjernfelt, 2007, p. 78). Thus, while putting edusemiotics into practice, we should take into account that it is not semiotics applied to education since it does not operate as a teaching method or pedagogue tool due to the fact that our primal focus is not on the understanding of the internal mental states (Kechagias, 2019), neurological activity, or behavioral responses of our students.

Moving one step further, Legg (2017), talks about 'scaffolding education iconically' and learning as diagrammatic reasoning, in an attempt to explain that meaning is conveyed not only through words but also through signs, pictures, diagrams etc. In addition to this, diagrammatic teaching can be achieved by turning separate pieces into more comprehensive wholes that result in further complex structures and, as a consequence, learning arises when a discovery of similarities takes place (see Olteanu and Campbell, 2018). Moreover, "scaffolding education iconically" plays a crucial role in active learning and teaching since it exercises learners' imagination by demanding an answer to questions arising from real-world situations (see Legg, 2017).

Here is of vital importance to mention that two people interpret and learn something in a different way. For instance, a saxophone student who knows basic piano will possess a very different relationship to harmony than one who does not; a physics student learning about the concept of force who knows how to swim will have a very different relationship to this knowledge than another student who doesn't, etc. (see Olteanu and Campbell, 2018). Thus, Olteanu (2015: 75) clarifies: "What happens when learning is that structures of signification (what needs be apprehended) have to settle on already existing structures of signification: a learner. In their interaction, these signs will find their own compatibility and the probability for this to happen in the same manner in two different cases is too small to be considered."

As ESL teachers, we do know how much dedication it needs, though, to make our students participate in the ESL journey and trust us wholeheartedly. Therefore, creating solid teacher-student relationships is of vital importance in our classroom. We could say that collaboration in class might have a positive impact upon this matter. In fact, being willing and ready to work collaboratively in class is an evident that you do care about your students' progress and this is something that your students will notice. In addition to this, collaboration operates as a means of not only building strong social and cooperative skills among our students but also leading to a

more productive way of thinking. Alongside iconicity, collaborative activities are becoming more fruitful for our students' interpreting competence. However, our intervention here as ESL teachers is of vital importance since students can easily deviate from collaborative activities' instructions and work in a more familiar to them way, individualistically too. Furthermore, we should take Legg's (2017) final guidance into account that iconic teaching needs to take place with consciousness and restrain in order to upgrade our lesson rather than degrading it. Besides, we are living in the era of images. So, it is of vital importance to learn how to utilize images scientifically through the theory of edusemiotics.

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