TEACHERS’ AND LEARNERS’ PARTICIPATION OPPORTUNITIES IN MEANING CONSTRUCTION FOR NEW WORDS IN THE FOREIGN LANGUAGE CLASSROOM

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Abstract. The aim of the present article is to identify the participation opportunities of teachers and learners in meaning construction for new words in the foreign language classroom. This kind of communicative situation is multimodal – participants in the classroom use several means or resources to construct meaning (e.g. verbal expression, vocal expressions, gestures, space and objects). The present article is based on audiovisual material – two Estonian and two French classes. In total, 110 communicative episodes were selected and transcribed. The approach used in this research is micro-level multimodal discourse analysis. The results show that the participants – the teacher and the learners – can be active or passive meaning constructors for a new word. Teachers’ and learners’ active participation in meaning construction can emerge in two ways: 1) multi-modally and 2) monomodally (by using one resource only). Interaction models are created based on the results. Three models of situations are distinguished according to the identity of the active meaning constructor(s): 1) teacher alone, 2) teacher and learner/learners together, 3) learner/learners alone. The article analyses the examples of communicative situations to present the participation opportunities of teachers and learners in meaning construction for new words. The results of the study may help teachers to plan their language classes considering the possibilities of activation of participants in the classroom.

Keywords: foreign language learning, multimodal communication, resources, meaning construction, Estonian, French

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1. Introduction

Interpersonal communication is an important way of learning, which is why learning often takes place in group settings. Foreign language learning is no different – a teacher and learners get together in a classroom. One of the
main activities in the foreign language classroom is to learn new vocabulary items in addition to grammar and cultural phenomena. The present article brings into focus the communicative situations (see the definition in Chapter 2) in foreign language learning where meaning is constructed for new words via interpersonal interaction.

Unknown words and expressions may appear in written exercises or reading texts, audio and/or visual material, or conversation during the class. Unknown items may be simple words, compound words or longer expressions, or even word groups (e.g. in the vocabulary list). In this article the unknown word or expression is referred to as the Word (with a capital W) to distinguish it from the other uses of the word “word”.

In the classes, some of the learners might have been interested in getting confirmation of the meaning of the Word and others might have needed to create the meaning if they did not know the Word at all. The construction of the meaning of the Word took place in interaction, as the participants used several means or resources to regulate the conversation, to express thoughts and emotions. Those resources were verbal expression (words and grammar), vocal expression (e.g. changes of the speed, pitch and volume of the voice, pauses, vocalizations), gestures (body movements and positions), and use of space and objects (e.g. writing on the paper or on the blackboard). The participants used these resources, for instance, to express the lack of knowledge, the wish to participate in the conversation, or to construct the meaning for the Word.

The present study relies on the theories (Jewitt 2008, Kress et al. 2001, Kress 2010, Norris 2006) that support the idea that human communication is multimodal – people use more than one means or resource to create signs for the purpose of meaning-making. In multimodal communication signs are weaved together and every sign partially adds to the meaning. Monomodal indicates that only one resource is used to construct meaning. The monomodal meaning construction can happen when specific conditions are set (e.g. a diver uses gestures). The present article pays attention to multimodal and monomodal ways for meaning construction for new vocabulary items in foreign language classroom.

The present study contributes a large sample of communicative episodes and a multimodal analysis thereof to the research on teachers’ and learners’ participation opportunities in meaning construction situations for a Word. The present article is based on 110 communicative episodes where meaning construction for a Word takes place. The episodes are transcribed with the help of the conversation analysis method, which has been adapted to the needs of micro-level multimodal discourse analysis. The episodes have been transcribed so as to allow for analysis of all potentially communicative actions (see the definition in Chapter 2) of all the teachers and learners. All sounds, movements and holding postures that have been produced by the participants in the classroom have been transcribed as actions that can be interpreted as signs.
The aim of the current research is to study teachers’ and learners’ participation opportunities in meaning construction situations and, accordingly, to distinguish different types of communicative situations. The research questions are:

1) Who construct(s) meaning for the Word?
2) What kind of models can be created with respect to the activity of different participants in the meaning construction process?
3) What kind of resources are used to construct meaning for the Word?
4) How can participation opportunities be classified with respect to the use of resources?

2. Multimodal communication

Communication has been defined as taking “different kinds of information – and interpret[ing] them as signs” by the theoretician and researcher of social semiotics Gunther Kress who uses these words while describing the road crossing situation (Kress 2010:159–160). For instance, the driver may not express something intentionally by the speed of his car, but for the person who crosses the road it has meaning and so the driver’s action becomes communicative (Kress 2010: 159–160). The whole situation of crossing the road becomes communicative. The present study is based on the transcriptions of communicative situations that take place in the foreign language classrooms. In those transcriptions are presented all audible and/or visual actions that the participants have created with or without intention to communicate something. The participant communicates intentionally, for instance, if he/she raises a hand to ask for a turn, or says the synonym for the Word to construct the meaning. The participant may act but not have the intention to communicate – for instance, he/she may scratch his/her head. This action can still give information to the person who perceives it. Then the action can be interpreted as feeling uncomfortable because of dry skin or as taking time for thinking, or both. That is why the transcribed actions are named potentially communicative actions in the present article.

The communication between participants in the classroom is multimodal: the teacher and learners use several means or resources to construct meaning. For instance, the resources can be verbal expression (words and grammar used orally and in writing), vocal expression (e.g. changes in volume, pitch and speed of the voice, pauses, vocalizations), gestures (body movements and positions), use of space and objects, or images (drawings, photos, graphics). Every resource has a potential of creating signs (Kress 2010), thus teachers and learners become sign-makers. Kress (2015:57) finds that for the purpose of creating meaning, humans construct a sign-complex or multimodal ensemble.

Teachers and learners as sign-makers design the meaning construction. Designing means that “(...) [p]eople make use of the resources that are available at a given moment in a specific communicational environment to realize their interests as sign makers” (Jewitt 2008:252). Humans use several resources alternately and
simultaneously to construct the semantic relationship between signs. This is what gives every produced sign the potential to participate in the meaning construction process. In the present study, during the transcription process as well as during the analysis, the author has tried to pay equal attention to all verbal and vocal expressions and gestures that teachers and learners use.

The choice of the signs is affected by several factors. For example, “[t]he social / cultural / semiotic world of every community depends on how the senses have been and are valued, fostered, developed in a community (Kress 2015:56)”. For instance, hearing-impaired people use systemic sign language instead of vocal verbal expression. The use of resources is limited or broadened by the opportunities to use the senses. For example, a phone call allows one to perceive only the voice of the conversation partner, while in traffic it is important to see the road signs. The meaning-maker has to consider his/her own perception possibilities as well as those of his/her communication partner.

Besides perception possibilities, the meaning-maker has to be aware that the communicative activities take place in a frame. Ethnographic researcher Jeff Bezemer (2008:167) finds that “[f]rames grow out of the recurrence of activities; they come to serve as a basis for the contextual ground for meaning making”. The language class itself is the repeating frame that itself includes several frames that follow each other or take place simultaneously – for instance, introduction to the lesson, task, discussion, test. The present study is based on foreign language classes and the concrete frame is the situation where meaning is constructed for words that are partially or totally unknown for some or all learners.

Linguist Sigrid Norris studied multiparty interactions (where one person co-constructs actions with several participants) by using multimodal discourse analysis and argues that verbal expression is not always the most used resource and that “(…) the unconditional focus on language in these traditional approaches to discourse might not only mislead the analyst, but also do not allow for an analysis of the genuine use of spoken discourse (…)” (Norris 2006:419). There is growing interest in multimodal communication in classrooms – for instance, there are studies on classrooms of science (e.g. Kress et al. 2001), language (e.g. Kress et al. 2005, Lim Fei 2011), art (e.g. Norris 2013). The present article aims to contribute to language learning research by offering multimodal discourse analysis considering verbal expression, vocal expressions, gestures, use of space and objects by all the participants, incorporating all the signs that are audiovisually perceivable on the video.

3. Gestures and verbal expression

*Communication* and *language* do not indicate the same phenomenon even if it is not easy to define them. The difference between the meaning of the two words is illustrated by many examples on how humans and animals communicate by using other resources than verbal expression in the book by anthropologist
Ottenheimer (2006). One of those resources – gestures – has been increasingly studied in many different human interactions since the late 20th century. While Sacks et al. (1974) introduced conversation analysis, which allowed detailed systematic transcription of verbal and other vocal expression, researchers in the field of gestures published works on the possibilities of description, use, and categorization of gestures, as well as the inclusion of gestures into models of interaction (e.g. Birdwhistell 1970, Efron 1941/1972, Ekman and Friesen 1972, Kendon 1980, McNeill 1992). Psycholinguistics researcher McNeill showed in his book “Hand and mind” (1992) how gestures are phonologically, semantically and pragmatically in synchrony with speech.

The use of gestures has been widely studied in the domain of language learning as well, and several authors have found that gestures are important in conversation regulation as well as in certain learning activities (e.g. Allen 2000, Cadierno 2008, Gullberg 2008, McCafferty and Stam 2008). The systemic transcription and analysis of gestures better brings out learners’ activities in the classroom and the dependence of language learning on the use of gestures. In various types of communication situations – from turn-taking to the construction of meaning for new vocabulary items – the communication in the classroom is influenced by the use of gestures.

There are still few studies on how gestures are used in the spontaneous construction of the meaning for Words. The applied linguistics researcher Anne Lazaraton (2004) filmed the foreign language classes and used microanalysis of the transcriptions of the videos. She focused on situations in which explaining words was not planned. In her article (Lazaraton 2004), she analyzed 18 communicative episodes where the English teacher was the explainer of the meaning of new vocabulary items. She finds that it was clear already when she was watching the videotape that the teacher used many gestures. The microanalysis confirms that gestures are an important way of expressing oneself, alongside verbal expression.

The applied linguistics researcher Taleghani-Nikazm (2008) studied German and Persian language classes at an American university. She focused on the gestures of the teacher, finding (Taleghani-Nikazm 2008:231) that the use of gestures by the teacher “facilitat[ed] comprehension of unknown vocabulary, elicit[ed] vocabulary from the learners, provid[ed] learners with visual cues to corrective feedback”. She also found (Taleghani-Nikazm 2008:237) that the gestures helped the teacher to complement the verbal expression and to be more comprehensive for the learners.

Lazaraton (2004) and Taleghani-Nikazm (2008) focus on how the teacher constructs meaning for a Word. In those studies the learner is rather passive, does not add meaning to the Word and gets information from the teacher. The learners’ active participation in meaning construction for Words has been studied by Ingerpuu-Rümmel (2015) who performed a study on how teachers and learners used verbal and gestural expression in Estonian and French language classes. She found that verbal expression and gestures might both construct meaning for the
unknown word – those resources complemented and reinforced each other “fulfil[ling] specific roles and work[ing] towards creating a meaningful whole” (Ingerpuu-Rümmel 2015:43).

The present article pays equal attention to the teachers’ and learners’ gestural activity and use of other resources in meaning construction situations for Words, hence the relevance of earlier work in gesture research to this study.

4. Interaction models

Interaction between teachers and learners in the classroom is still an important way of learning foreign language in educational institutions over the world, even if the language is also learned individually with the help of books or electronic tools, by living in a foreign culture or by communication with a mentor online. During the second part of the 20th century, authors who studied language classes started to stand for the idea that the nature of the language lies in social activity, in the use of language (e.g. Barnes 1992, Cazden 1988, Hall 1993, Sinclair and Coulthard 1975). Studies of interaction in the foreign language classroom spread in different cultures (e.g. Consolo 2000, Hall 2009, Markee, Kasper 2004, Seedhouse 2004).

The applied linguistics researcher Joan Kelly Hall found (2003:170) that teachers and learners create a discourse in the classroom where they “develop particular understandings of what constitute language and language learning”.

For the purpose of better understanding the effectiveness of foreign language instruction, researchers started to look for patterns and models in the interaction between teacher and learners. Linguists Sinclair and Coulthard (1975) found that the three-part sequential IRE exchange model was the main interaction unit in the classroom. In this model the teacher gives information (I) as the expert, learners respond (R) and the teacher evaluates (E) the answer. Several researchers (e.g. Consolo 2000, Damhuis 2000, Duff 2000, Hall 1998, Sullivan 2000) preferred the model of IRF, where F means feedback – the teacher confirms, expands the idea, repeats etc. to continue the discussion in the kindergarten, school and university. The studies that confirmed the existence of IRE and IRF found that the teacher was the leader of the communicative situations in the classroom.

The learners’ participation in different activities is framed by the teacher’s plans. Lerner (1995) found that the learners’ interactional autonomy depended on the type of the learning activity practiced in the classroom. Lerner (1995:128) suggested that the organization of the activities as sequences also shapes the opportunities for participation. Lerner categorized the activities in the language learning classroom as project-based and goal-based activities. The former gives the learners more opportunities to the learners to participate in different ways.

At the end of the 20th century, communicative approach expanded in the field of language instruction. The aim of this approach is to support learners in such a way that they can start to communicate in target language already in classes. Changes in the methods of language teaching have also influenced the interaction
in the classroom. At the Fourth International Conference on the Development and Assessment of Intercultural Competence in Arizona (2014) Hall presents figures showing that the physical positioning of learners depends on the task given to them by the teacher and influences in turn the way the participants communicate with each other. The present article studies the models of interaction which are found with the help of multimodal discourse analysis of teachers’ and learners’ interaction in the foreign language classroom.

5. Material

The analysis focuses on foreign language classes videotaped at an Estonian university in 2009–2010. The video material includes two Estonian and two French classes (with a duration of 90 minutes each). The material is part of a sub-corpus of interactive communicative situations in the database of multimodal communication of the University of Tartu. Three teachers and 31 learners participated in the classes. The researcher explained to the subjects before the classes began that the video material would be used to study participants’ communication and that the results would be presented anonymously. All the participants signed their informed consent. Participants’ names are replaced by pseudonyms in the transcription.

The researcher used two cameras to tape the classes, which lasted for 90 minutes each. The researcher did not interfere with the activities of the class. The class activities were based on the teachers’ plans; the researcher had no input in the structure or content of the classes. The Estonian classes had different teachers (marked T1 and T2 in Table 1). The French classes had the same teacher (marked T3 in Table 1). All teachers were female native speakers of the language they taught in the videotaped classes. The learners participating in the classes had different native languages; the language taught was a foreign language for all of them.

A total of 110 episodes of communication were chosen for analysis from the video material. The duration of episodes vary from 5 seconds to 4 minutes and 35 seconds. The episodes chosen (see Table 1) were those where the meaning was constructed for a word or expression that turned out to be partially or totally unknown to one or more learners in the classroom.

This article presents three tables. In all the tables the same coding system is used:

T1 – teacher in the first Estonian learning class (C1)
T2 – teacher in the second Estonian learning class (C2)
T3 – teacher in the first and second French learning class (C3, C4)
C – class
Table 1. Statistical overview of analyzed classes

<table>
<thead>
<tr>
<th>Class</th>
<th>Target language</th>
<th>Teachers</th>
<th>Number of learners</th>
<th>Learners’ native languages</th>
<th>Number of episodes of communication in which the meaning of a Word was constructed</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Estonian</td>
<td>T1</td>
<td>5</td>
<td>Russian (4), Finnish (1)</td>
<td>20</td>
</tr>
<tr>
<td>C2</td>
<td>Estonian</td>
<td>T2</td>
<td>10</td>
<td>Russian (8), Hungarian (1), Ukrainian (1)</td>
<td>28</td>
</tr>
<tr>
<td>C3</td>
<td>French</td>
<td>T3</td>
<td>8</td>
<td>Estonian (7), Russian (1)</td>
<td>12</td>
</tr>
<tr>
<td>C4</td>
<td>French</td>
<td>T3</td>
<td>8</td>
<td>Estonian (5), Russian (1), Italian (1), Turkish (1)</td>
<td>50</td>
</tr>
</tbody>
</table>

4 classes – 3 teachers 31 learners – 110 episodes

6. Method

The aim of the present article is to present the opportunities for participation of the learners and the teachers in the situations of meaning construction for new words and expressions, and to create models of those situations. The following steps have been taken:

1) **Selection of the episodes of communication.** From the video material, all the episodes where meaning construction for a Word takes place have been selected. The *Word* with a capital letter indicates the primary word, compound word or expression (see examples in Table 2) that appears to be unknown for some or all of the learners, judging from their verbal expression, gestures, postures. Episodes have been chosen that contain specific features: the episode starts with the question about the meaning of the Word raised by the learner or the teacher, continues with multimodal communication where construction of the meaning for the Word takes place, and ends with the start of a new activity (e.g. a grammar exercise or meaning construction for the next Word). In total 110 communicative episodes were chosen for transcription and analysis.

2) **Selection and adaption of the transcription system.** The method of conversation analysis was chosen to transcribe the video material. Jefferson’s (2004) transcription system was used and has been adapted and partially modified in order to achieve a clear presentation of the episodes. This system has a good number of signs to indicate different aspects of vocal expression. This system also permits the use of descriptive expressions to present gestures and their speed, reach, repetitiveness etc on a separate line between doubled parentheses. The transcription symbols used are presented in Appendix 1.
3) **Transcription for multimodal microanalysis.** All potentially communicative actions (hereafter actions) that were audibly and visually perceivable, of all the participants, were transcribed. In the selected episodes the main actions were words and grammar, vocal expressions (e.g. pauses, changes in volume and speed of the voice), gestures (body movements and postures), and use of space and objects.

4) **The transcription is presented like the flow of communication** where all the potentially communicative actions of all the participants are presented in synchrony. The line numbers mark where the actions of participants continue. Every participant is marked by an alphabetical letter and a colon, which is followed by the verbal and vocal expressions. The next line, related to the same actor, is between doubled parentheses and presents the use of gestures, space and objects. When the participant does not change in his/her actions, his/her actions are described only on the line where they first appear (e.g. Example 1, lines 1–3, participant D). The English translation of verbal expressions in French or Estonian is presented on a separate line in italics.

5) **Analysis of the functions of the actions and the categorization of the participants as active (AMC) and passive constructors (PMC) of the meaning for the Word.** The actions of participants are divided into two categories: actions which construct meaning for the Word are underlined, while actions which serve other functions (e.g. feedback, questions, expression of emotions) have no underline. For example, the participants may construct the meaning for the Word *book*. If the participant nods in the class, then he/she expresses agreement or understanding, but he/she does not add anything to the meaning of the Word. If the participant points to a book on the table, the gesture has the function of meaning construction.

6) **Selection of the examples to present the research results.** Five communicative episodes have been chosen for the present article. Example 1 shows all the potentially communicative actions of all the participants in the class, to illustrate how the actions have been divided as meaning constructors for a Word and actions which fulfil other functions. Examples 2–5 present only actions of the AMC. Examples 1–5 represent the results which have been found by analyzing 110 episodes, that is to say the participation opportunities of all participants in the situation of meaning construction for a Word (see the chapter 5).

7. **The examples of the microanalysis of five communicative episodes**

Five communicative episodes (Table 2) have been chosen for the present article to illustrate the results of the analysis of 110 communicative episodes (Table 1). Three of these episodes originate from French classes and two from Estonian
classes. All four filmed classes are represented. In two examples (Examples 1 and 2) the AMC is the teacher, in two examples the AMC is the teacher and two learners (Examples 3 and 4), and in one example the AMC is three learners (Example 5). The actions of the PMCs are shortly described at the end of the analysis of each Example.

Table 2. Examples of the episodes of the meaning construction for Words

<table>
<thead>
<tr>
<th>Example in the article</th>
<th>Class and teacher</th>
<th>Word</th>
<th>English translation of the Word</th>
<th>AMC</th>
<th>Total number of learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 1</td>
<td>C3, T3</td>
<td>micro-trottoir</td>
<td>street interview</td>
<td>teacher</td>
<td>8</td>
</tr>
<tr>
<td>Example 2</td>
<td>C1, T1</td>
<td>üüratu</td>
<td>enormous</td>
<td>teacher</td>
<td>5</td>
</tr>
<tr>
<td>Example 3</td>
<td>C4, T3</td>
<td>souligner</td>
<td>to underline</td>
<td>teacher, 2 learners</td>
<td>8</td>
</tr>
<tr>
<td>Example 4</td>
<td>C2, T2</td>
<td>soo</td>
<td>swamp</td>
<td>teacher, 2 learners</td>
<td>10</td>
</tr>
<tr>
<td>Example 5</td>
<td>C4, T3</td>
<td>colère</td>
<td>anger</td>
<td>3 learners</td>
<td>8</td>
</tr>
</tbody>
</table>

The first example demonstrates how the active meaning constructor is defined by underlining the verbal and gestural expressions which construct meaning for the Word. Example 1 presents the actions of all the participants (AMCs and PMCs). Examples 2–5 present only the actions of the AMC. Teachers T1, T2 and T3 are indicated only by T in the transcriptions to leave more space for the description of the actions. A, B, C etc. mark learners.

Example 1.

The teacher T3 constructs meaning for the Word micro-trottoir ‘street interview’ in the French class 1. Eight learners are participating in this class. The teacher is telling a story. The Word micro-trottoir emerges from this story and the teacher herself raises a question about the meaning of the Word.

1. T: vous savez un micro-trottoir
   you know a street interview
   ((waves l hand fingers in front of her mouth, fingertips together, then indicates with l index finger on her mouth))
   A:
   ((looks at the mobile phone hidden in her lap under the table))
   B, C, E, F, H:
   ((look at the T))
   D:
   ((looks at papers on the table))
   G:
   ((looks at the pen that she holds with both hands))

2. T: je vous ai expliqué ce que c'est un micro-trottoir (.)
   I explained you the meaning of a street interview (.)
   ((waves l hand fingers in front of her mouth, fingers together))
3. T: c'est quand on interview des gens
   *it is when you take interview from people*
   ((turns gaze to A-D, waves r fist in front of her mouth))
A:  ((looks at the mobile phone in her lap under the table))
D:  ((turns her gaze and head towards the T))
4. T: dans la rue (.)
   *on the street*
   ((r palm towards the floor, fingers spread out, waves))
E:  ((turns her gaze toward the T))
G:  ((nods, looking at the T))
B:  ((micronod))
D:  ((nods, r fist with the pen in front of her mouth))

The teacher uses the word *micro-trottoir* ‘street interview’ (*micro* means ‘microphone’, *trottoir* means ‘sidewalk’) and refers that she has explained this word once before (line 1). Learner A frowns, showing that the meaning of the Word is not clear for her (line 1). The teacher says that *micro-trottoir* takes place when people are interviewed on the street (lines 3–4). She raises the fist next to the mouth as she holds the microphone (line 3). Then she spreads fingers turning the palm towards the floor to indicate the street and says *dans la rue* ‘on the street’ (line 4). Three learners nod to the teacher to show understanding or listening (line 4).

In this communicative episode, the teacher is the only active meaning constructor (AMC) for the Word. She constructs meaning multimodally by giving a verbal explanation and by using body movements. The actions of the learners are only gestural in this episode and their gestures do not add meaning to the Word.

**Example 2.**

The teacher T1 constructs meaning for the Word *üüratu* ‘enormous’ in the Estonian class 1. In this class, there are five learners and they do not construct meaning actively. The teacher has written words which contain the letter *ü* on the blackboard, including the Word *üüratu*. The goal of the learning activity is to practice the pronunciation of the words which contain *ü*. The article presents lines 1–4 and 13–15 of the transcription.
The teacher asks the question *mis on üüratu* ‘what is enormous’ (line 1) and makes a pause, looking at the learners (line 2). The teacher starts the meaning construction for the Word because no learner shows the will to do it. The teacher finds a synonym for the Word – *piiritu* ‘boundless’ (line 4) and the expression *mingi üüratu* ‘something enormous’ indicates that she is looking for a suitable example (line 4). The reflection and word searching is shown in the glance to the ceiling (line 4). In lines 5–12, the teacher continues the verbal meaning construction. The teacher repeats the synonym *väga väga suur* ‘very very big enormous’ (line 13) and opens the hands wide to indicate something enormous (line 13). The gesture is presented as a synonym to the Word. The teacher still shows reflection after presenting the gesture: she adds another verbal expression, *me ei hooma seda* ‘we don’t comprehend it’, glances to the ceiling and moves the ring on her finger (line 14). The teacher expresses that a mountain can also be enormously big and nods, looking at the ceiling (line 15). The nod expresses her satisfaction with the examples.

The teacher constructs meaning for the Word multimodally – she uses mostly verbal expression, but once she also uses a gesture as a synonym for the Word. The teacher alone constructs the meaning for the Word. The learners do not use verbal expression during the episode. Their gestures do not refer to the meaning construction of the Word. They look at the teacher or at the paper in front of them.
or write. Their silence and gaze may indicate that they do not know the meaning of
the Word or they do not want to participate in the meaning construction. By
writing, the learners may express that the actions of the teacher are compre-
hsensible for them.

**Example 3.**

The teacher T3 and two learners – C and E – construct meaning for the Word
*souligner* ‘to underline’ in French class 2. There are a total of eight learners in the
class. The teacher and the learners look through the word list on the copied paper.
The teacher pronounces every word one after the other. The meaning is con-
structed for a word when any learner expresses the need for it.

For understanding the analysis of the transcription, it is important to know how
the learners sit in the classroom. As learner E sits behind C, her gestural activity
may be clearly visible to the teacher and the teacher’s gestures may not be seen by E.

1. T: ↑SOULIGNER↑ (…)  
   ↑TO UNDERLINE↑(…)  
   ((holds a blue marker and a French-Estonian dictionary in her r hand; grabs  
   the dictionary with her l hand as well; raises eyes, gaze moves from A to D))
   C:  
   ((looks at the paper in front of her on the table, holds the pen with her r  
   hand))
   E:  
   ((looks at the paper in front of her on the table, the r hand holds the pen,  
   head leans on the r hand))

2. T: ↑SOULIGNER↑ (…)  
   ↑TO UNDERLINE↑(…)  
   C:  
   ((xxx))  
   ((raises eyes, smiles and draws an imaginary line in the air  
   with the pen))
   E:  
   ((looks at T and draws an imaginary line in the air with the  
   pen))

3. T: oui souligner c’est faire un trait  
   *yes to underline that means to draw a line*  
   ((draws an imaginary line in the air with the marker moving the hand back  
   and forth, looks at C, D))
   C:  
   ((small nod looking at T))
   E:  
   ((the drawing gesture becomes faster and stronger))

4. T: mais c’est aussi INSISTER  
   *it means also to insist*
The teacher shifts into high pitch while saying *souligner* and raises her eyes (line 1); this is how she asks whether the meaning needs to be constructed for the Word. The teacher repeats the Word *souligner* and learners C and E almost simultaneously draw an imaginary horizontal line in the air by using the pen (line 2). Learner C also says something very quietly (line 2). The teacher accepts C’s (and maybe also E’s) gestures by the words *oui souligner c’est faire un trait* ‘yes to underline that means to draw a line’ and does a gesture similar to the learners’ hand movement (line 3). E sits behind C – it is possible that E thinks that the teacher does not notice her gesture because she continues to gesture as the teacher makes the same movement. E’s gesture also becomes faster and more intensive (line 3). The teacher turns her gaze towards A, B, G, H and says that the Word also means to insist: *mais c’est aussi insister* ‘it also means to insist’ (line 4). Learner C nods in confirmation when the teacher has given the “second meaning” of the Word (line 4). Learner E has finished the imaginary line drawing, looks down at the paper and starts to write (line 4). E does not express her knowledge in any other way, e.g. by raising her hand or by speaking out loud. It is possible that E sees the gesture made by C and/or the teacher and thinks that there is no need for more explanations.

In Example 3, two learners and the teacher are AMCs. After the teacher has raised the question about the meaning of the Word, the learners construct meaning mainly by using gestures. The teacher constructs meaning multimodally by using verbal and gestural synonyms of the Word. The other learners (acting in the role of PMCs) look at the paper or raise their eyes towards the teacher. At the end of the episode, some of them start to write, which may express that the meaning construction was sufficient for them.

**Example 4.**

The teacher T2 and two learners – A and E – construct meaning for the Word *soo* ‘swamp’ in the Estonian class 2. There are a total of ten learners in the class. The learners read a story on the copied paper. The teacher has chosen the word *soo* from the text and has written it on the blackboard. The teacher initiates the construction of the meaning for the Word by asking if the learners know the word *soo*. The article presents the lines 1–5 and 15–20 of the transcription.
1. T: mis on soo (...)
   what is a swamp (...)
   ((turns her face and body towards the learners))
E:  
   ((-touches her chin with the pen in her r hand, looks at T and the blackboard))
2. T: vene keeles (.)
   in Russian (.)
   (looks at A, licks lips with the tongue))
3. A: boloto boloto
   bog bog
4. T: nii (.) soo↑ah↑
   well (.) swamp ↑what↑
   ((nods)) ((looks at E))
E:  
   raba (.)
   bog (.)
5. A: ei raba on
   no a bog is
   raba on need
   a bog is these
   ((draws a hill with both hands))
T: raba on natuke teine asi (.)
   ja h (.) a bog is a bit different (.)
   yes (.) a bog is something else
   a bog is a bit different (.)
   teistmoodi
   ((glances toward the ceiling))
   ((tilts her head from l to r))
   ((turns gaze to A))
[...]  
15. A: tal on niimoodi et all on nagu see vesi
   ja peal pool on siis on siis
   it has like that so that like the water is below and on the upper side there is
   there is
   ((draws a hollow shape twice))
   ((draws a hill with hands together and apart))
16. T: noh
   well
   ((nods))
17. A: kuidas öelda need
   how to say these
   ((smiles and glances at T and then at E))
18. T: just (.)
   aga soo on siis see märg maa
   exactly (.) but a swamp is then this wet land
   ((draws a flat surface with her l palm, fingers repeatedly touch the thumb))
19. A: soo on lihtsalt märg
   swamp is simply wet
   jah
   yes
   ((draws a flat surface with her r hand))
T: see ei kasva ülesse kõrgemaks eks ole
   it does not grow taller right
   ((draws a hill with her l hand))
20. A: kõrgsoo on nende kõrgendustega
a raised bog is with these elevated areas
((the r hand draws a hill))

T: soo on märg maa  
a swamp is a wet land
((turns towards the blackboard))

The teacher turns her face towards the learners and raises the question of what soo means (line 1). The teacher also asks if the learners know the translation of the Word into Russian (line 2), because 80% of the learners’ mother tongue is Russian (Table 1). Learner A proposes a Russian word boloto (line 3). Immediately after the words of A, learner E twice says the word raba ‘raised bog’ in Estonian (line 4). Learner A answers to E that the word raba is not suitable because it means something else and A draws an imaginable hill in the air (line 5). The teacher agrees that a swamp and a bog are not exactly the same thing (line 5). On lines 6–14 (which are not presented in this article), only learner A constructs meaning for the Word. On line 15, learner A is looking for a suitable word to denote the top surface but cannot find it and explains that a bog is elevated compared to surrounding areas and has water below, all the while drawing a hill and a hollow shape in the air with both hands (lines 15). The teacher comments that soo ‘swamp’ is wetland as she draws a flat surface with the palm of her hand (line 18). By saying those words the teacher defines the Word soo, which A has left out of the meaning construction process because he concentrates more on explaining what a bog is. The teacher and learner A confirm each other’s constructed meanings by using verbal expression and gestures (lines 19–20).

Example 5.

The teacher T3 has distributed copied papers to the learners in French class 2. The Word colère ‘anger’ is presented in the list on the paper. In Example 5 the learners – B, D, H – are the only AMCs.

There are a total of eight learners in this class. They sit in rows, which may influence their gestural and verbal behaviour. Learner G asks about the meaning of the Word. H sits behind G, alone in the last row. B and D sit in the row in front of G (but not directly in front of her).

In this episode, translation into Estonian is used. The learners B, D, G and H are all Estonians. Three learners in this class do not speak Estonian as a mother tongue (one of them has learned Estonian, but the other two have never learned this language). The teacher is learning Estonian.

1. G : qu’est-ce que la colère
what is anger
((looks at the paper in front of her and supports her forehead with the fingers of the left hand))

B: 
((glances at the paper in front of her and raises eyes to T))

D: 
((leans her right cheek on her right fist, looks at the paper in front of her))

H: 
((touches his forehead with the fingers of his right hand, holds the pen, looks at the paper in front of him))

2. T: ↑ la colère ↑ (.)
↑ anger ↑ (.)
((a little frowning, pushes the head towards))

3. T: c’est quand
it is when

H: 
((takes his right hand off his forehead and raises his gaze towards T))

4. T: ee
aa
((the gaze moves from one learner to the other))

B: viha
anger
((turns head over his shoulder))

D: 
viha
anger
((raises eyes and turns her head over her right shoulder))

G: 
((starts to write with her right hand))

H: viha
anger
((shakes his right fist towards the T, leans his elbow on the table, smiles, holding pen with his right hand))

5. T : oui ( .) voilà ( .) c’est ça mhmm
yes ( .) exactly ( .) this is it mhmm
((laughs, looks at G))

B: 
((looks at T))  
((looks at the paper in front of her on the table))

D: 
((nods and glances at the paper on the table))

6. T: (...) 
(...) 
↑ oui ↑
((looks at the paper in front of her)((the glance moves from one learner to the other))

B: 
((smiles, looks at the paper))  
((smiles, raises the eyes towards the T))
Learner G asks what the Word *colère* means (line 1). Then (lines 2–3) the teacher repeats the Word *colère* with a higher pitch, which may mean that she is giving a sign that she has noticed the learner’s question. It may also mean that she is asking for help from the learners to construct the meaning for the Word or that she is preparing herself to construct the meaning. She starts the construction with the words *c’est quand* ‘it is when’ (line 3). Learner H raises his eyes from the paper and looks towards the teacher. The teacher does not end the sentence. Learners H, B, and D say to G that the Word means *viha* ‘anger’ in Estonian (line 4). H also shakes his fist (line 4), which can be seen only by the teacher because all the learners are watching on the other side. It is possible that this gesture is meant to confirm to the teacher that H knows the meaning of the Word and not to explain the meaning to G. The verbal expression of H, B and D is almost simultaneous. Learners B and D turn their heads to say the translation. This may be the reason why H says the translation first. Then G starts to write (line 4). The teacher confirms the translation by saying *oue (.) voilà (.) c’est ça* ‘yes (.) exactly (.) this is it’ and laughs (line 5). The laugh may express the happy surprise that the learners were quicker than she was in constructing the meaning. The laugh may also mean that the teacher was satisfied that she understood what the learners said. At the same time, B and D look at the paper in front of them. It may mean that they are looking for another unknown word. H also glances at the paper, then raises his eyes and says another translation into Estonian *raev* ‘rage’ (line 6). While saying this word, H smiles and touches his throat. The smile may express pride in his being able to find translations. The throat touching may indicate that he feels a little uncomfortable speaking up. The teacher shifts into high pitch while she says *oui* ‘yes’ (line 6); this is how she may express that she heard what H said and ask if the other learners agree with the translations. B smiles looking at the teacher, D and G nod (line 7). G’s nod is more intensive than D’s – G was also the person who originally asked about the meaning of the Word and started the
communicative situation. Three learners – B, D, G – show gesturally that the meaning of the Word is now clear.

In Example 5, only the learners are the active meaning constructors. Three learners translate the Word into their mother tongue. The meaning construction for the Word is mainly monomodal. One learner also uses a meaning constructing gesture which is perceivable only to the teacher because the learner sits in the last row and the others do not turn to see him. The teacher does not construct meaning. She confirms with words and laughter that she agrees with the learners. The other learners look at the paper and at the teacher during the episode. They do not express with any action that they do not know the Word or that they need some explanation about the communication that takes place.

8. Summary of results

The analysis of 110 communicative episodes revealed that there were two kinds of human meaning constructors in the classroom: active meaning constructors (AMC) and passive meaning constructors (PMC). The AMC produces visually and audibly recognisable actions to construct meaning for unknown words. The PMC does not participate in the meaning construction process by adding meaning to the Word, although he/she uses several actions to indicate and communicate other things, for example for asking a question, for feedback, for fidgeting.

The results show that there were three kinds of communicative situations (see Table 3):
1) the AMC can be the teacher alone,
2) the AMC can be the teacher and one or more learners,
3) the AMC can be one or several learners.

<table>
<thead>
<tr>
<th>Class</th>
<th>Target language</th>
<th>Teacher</th>
<th>No. of situations where only teacher is AMC</th>
<th>No. of situations where teacher and learner(s) are AMC</th>
<th>No. of situations where only learner(s) are AMC</th>
<th>No. of the episodes of meaning construction in the class</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Estonian</td>
<td>T1</td>
<td>13</td>
<td>7</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>C2</td>
<td>Estonian</td>
<td>T2</td>
<td>5</td>
<td>23</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>C3</td>
<td>French</td>
<td>T3</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>C4</td>
<td>French</td>
<td>T3</td>
<td>32</td>
<td>15</td>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>Total episodes</td>
<td></td>
<td></td>
<td>56</td>
<td>49</td>
<td>5</td>
<td>110</td>
</tr>
</tbody>
</table>
The teacher was the only AMC in 56 episodes. The teacher and one or more learners were acting together as AMCs in 49 episodes. In 5 episodes, only learners actively constructed the meaning; this happened only in French classes.

The microanalysis of the episodes shows that the teacher constructed the meaning alone when no learner expressed knowledge of the Word or a desire to construct the meaning. All the teachers tried to activate learners to participate in the meaning construction process. When the learners and the teacher were the AMCs together, usually one or two learners constructed meaning actively. Rarely, the teacher and three learners together were the AMCs in the communicative situation.

The analysis of the transcribed material shows that the teachers added something to the Word’s meaning in almost every situation, even if the learners were the AMCs (see Examples 3 and 4). Only in five episodes (in French classes) the teacher T3 did not participate actively in the meaning construction, just confirming the meaning constructed by the learners (see Example 5).

All the communicative episodes where the meaning construction for a Word takes place are multimodal, if all the potentially communicative actions of all the participants – the AMC and the PMC – are taken into account. The participants in the class use verbal and vocal expression, gestures, space and objects. The analysis reveals that participants in the class can participate in the meaning construction for Words in two ways:

1) multimodally (mostly with verbal expression and gestures),
2) monomodally, that is to say by using only one resource (e.g. verbally or gesturally).

Examples 1–4 in the present article show how the teacher constructs meaning multimodally – by using verbal expression and gestures. The learners may construct meaning multimodally as well – Example 4 demonstrates how learner A uses several gestures alongside the words. In Examples 4 and 5, the learners construct meaning monomodally – by using one word (learner E in Example 4, learners B and D in Example 5). The meaning can be constructed monomodally also by using a gesture – in Example 3, learner E uses only a hand movement to present the meaning of the Word. The collection of episodes (110 situations) also includes examples of monomodal meaning construction by the teacher.

9. Discussion

Kress et al. (2001) emphasize that interpersonal communication in classroom is multimodal. The present article shows the participation opportunities of the teacher and the learners in interactive meaning construction for Words. The transcription makes it possible to pay close attention to the potentially communicative actions of every participant. The analysis shows that the active meaning constructors may construct meaning for the Word multimodally – for instance, with the help of verbal expression and gestures. The analysis also revealed that the active meaning constructors may construct meaning for the Word
monomodally – only one resource is used – for instance by saying a single word or by making a single gesture. The article emphasizes that even if the classroom interaction is multimodal in general, in the concrete communication situation – for example, during the meaning construction for the Word – a participant may communicate only monomodally.

Lazaraton (2004) and Taleghani-Nikazm (2008) show the role of the teacher in the explanation of new words, Ingerpuu-Rümmel (2015) concentrates on the teachers’ and the learners’ actions in the meaning construction process for Words. The present article confirms that learners are often active meaning constructors alongside the teacher. Indeed, the teacher can be the only person who knows the Word and then he/she is the only active meaning constructor. However, the learners may more or less know the Word and participate actively in the meaning construction. Their activity is also determined by the communication practices in the classroom – the teacher may call on learners to allow them to speak or the learner may start communication him/herself. The learners’ level of activity is also determined by what resources they have available to them. For instance a participant may use gestures, knowing that they are visible to other participants and they represent typical means of communication in the classroom environment. The choice of the words depending on the level of language proficiency, as well as the complementation or substitution of verbal expression with gestures, creates additional active participation opportunities for the learners. The analysed episodes show that even if the teacher is the organizer and leader of the activities in the classes and activates learners with the help of questions in communicative situations, the learners can decide themselves when to take a turn and which resources to use.

The end of the 20th century brought the models of IRE and IRF to the classroom studies. Hall (2014) gives an idea of the changes in interaction customs in language learning. The material of the present study also contains examples that fit a three-part sequential model – teacher’s question, learner’s answer, teacher’s feedback. However, the multimodal analysis reveals that the interaction in classes is multifaceted. A learner may initiate a question or give feedback and the teacher may be the answerer. The study also shows that several participants – for instance, the teacher and three learners or the learners alone – can participate in the active meaning construction process, as a result of which the communication patterns become so complicated that the three-part sequential models are not applicable. Instead, the analysis of 110 episodes of communication supports a model that can not be found in the earlier studies on classroom interaction: the participants can be divided into two groups in the situations of meaning construction for a Word, namely the groups of active and passive meaning constructors. The active meaning constructors use various resources for the purpose of constructing meaning for Words. This division also permits to distinguish three types of communication situations in the analysed material (110 communicative episodes):

1) the teacher alone is the active meaning constructor,
2) the teacher and a learner/learners are active meaning constructors,
3) a learner/learners alone is/are active meaning constructor(s).

The present article has shown that the multimodal discourse analysis can identify and describe interactional models in classroom. The material is limited – the results are based on 110 communicative episodes, four classes (with a duration of 90 minutes each), with two languages being learned, analysing the potentially communicative actions of 31 learners and 3 teachers. Further studies might encompass other languages and other classroom interaction. The author finds that the same approach – multimodal discourse analysis – may be applicable to study the existence of the same or other models in preschool, school and university.

The present article studies the meaning construction for Words as an activity, but it does not examine the meaning that each participant constructs for him/herself. The participant’s idea of the meaning of the Word might be studied by future interviews or tests. The author hopes that the interaction models described in this article help to better define the research field and that teachers find inspiration to better activate learners in different ways in the meaning construction process for Words.

**Acknowledgments**

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**References**


Teachers’ and learners’ participation opportunities


### APPENDIX 1

**Transcription symbols**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Letter indicates the teacher.</td>
</tr>
<tr>
<td>A, B, C, D, E, F, G, H</td>
<td>Each letter indicates different learners.</td>
</tr>
<tr>
<td><strong>word</strong></td>
<td>Underline indicates meaning construction for the Word.</td>
</tr>
<tr>
<td>(())</td>
<td>Doubled parentheses contain gestures and use of space and objects.</td>
</tr>
<tr>
<td><strong>word</strong></td>
<td>Italic indicates the translation of a verbal expression into English.</td>
</tr>
<tr>
<td>l</td>
<td>Letter indicates the left side (e.g. l hand, a nod to the left).</td>
</tr>
<tr>
<td>r</td>
<td>Letter indicates the right side.</td>
</tr>
<tr>
<td>()</td>
<td>A dot in parentheses indicates a brief pause within a verbal expression.</td>
</tr>
<tr>
<td>(...)</td>
<td>Three dots in parentheses indicate a long pause within a verbal expression.</td>
</tr>
<tr>
<td>↑</td>
<td>Arrow indicates shift into especially high pitch.</td>
</tr>
<tr>
<td>WORD</td>
<td>Upper case indicates especially loud sounds relative to the surrounding talk.</td>
</tr>
<tr>
<td>“word“</td>
<td>Degree signs bracketing a verbal expression indicate that the sounds are softer than the surrounding talk.</td>
</tr>
<tr>
<td>(xxx)</td>
<td>The letters xxx in parentheses indicate that the transcriber was unable to understand what was said. The number of the parenthesized letters reflects the length of the ungot talk.</td>
</tr>
</tbody>
</table>