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Integrating digital video analysis software into language teacher education: insights from conversation analysis

Olcay Sert*

Faculty of Education, Hacettepe University, Ankara, B Blok 309, Beytepe Ankara 06800, Turkey

Abstract

This study aims at contributing to the development of language teacher education programmes in Turkey by integrating Conversation Analysis into the current curriculum. This short paper will argue for the use of digital video analysis software, namely Transana, in order to improve teachers' *Classroom Interactional Competence*. It will be suggested that by critically reflecting on video-recordings, teachers will develop a better understanding of the relationship between their language use and the learning opportunities they give to their students. It will also be argued that Transana, compared to audio-software, brings certain advantages to the training process, since it enables users to observe multimodal resources (e.g. body language) employed during classroom interaction.

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1. Introduction

Conversation Analysis (CA), as an approach to social interaction, has increasingly been used for analysing language classroom discourse in order to investigate what teachers and learners actually 'do' during classroom interaction (Huth, 2011). CA, started by sociologists Harvey Sacks and Emanuel Schegloff in early 1960s, provides researchers with a set of tools to understand and describe interactional practices participants employ in order to create mutual understanding and achieve a variety of communicative goals. The findings of conversation analytic classroom interaction research challenge the assumptions of earlier discourse analytic studies (e.g., Sinclair and Coulthard, 1975), which portray

* Corresponding Author. Tel.: +90 312 297 85 81.
E-mail address: osert@hacettepe.edu.tr.

classroom interaction as heavily relying on teacher-initiated three part sequences (Initiation-Response-Feedback/Evaluation) by ignoring micro-details of talk (Sert & Seedhouse, 2011). However, as Seedhouse (2010) argues, even when applied to the same discursal data, different research methodologies can reach diametrically opposing conclusions and only CA is equipped with necessary analytic tools that can uncover interactants' resources with its obsession on details of talk that form social actions.

Investigating learning and teaching practices with a fine-detailed, turn-by-turn analysis, CA studies that explore L2 talk in and beyond classrooms have recently mushroomed (e.g. Markee, 2000; Seedhouse, 2004; Hellermann, 2008; PekarekDoehler, 2010). Although these studies successfully documented the interactional practices of students and teachers that may lead to "the guided construction of knowledge" (Mercer, 1995), the implications of these findings for language teacher education (henceforth LTE) still need to be explicated. Only a handful of studies (e.g., Walsh, 2006; Seedhouse, 2008) have thus far built clear links between CA based findings from classrooms and LTE. Therefore, the primary aim of this paper is to discuss the advantages of a LTE program that is informed by micro-analysis of teacher and student talk in language classrooms, which also enables novice teachers to reflect upon their own interactional and pedagogical practices. Furthermore, this paper also explores practical aspects of how this can effectively be achieved by making use of video analysis software that enables practitioners to work on classroom data in order to gain critical insights from real-life classroom interactional practices. As has been argued earlier by scholars, understanding gained by a close analysis of teachers' own interactional and pedagogical practices can help them develop "Teacher Language Awareness (TLA)" (Andrews, 2001) and "Classroom Interactional Competence (CIC)" (Walsh, 2006, 2011, 2012) and thus leads to engaging classrooms where students are given more opportunities to use the language being learnt.

2. (Classroom) Interactional Competence

Adaptation to communicative needs and routinely using the language in activities lead to competencies, and in particular, Interactional Competence (IC) of learners. Young (2008) defined interactional competence as a "relationship between the participants' employment of linguistic and interactional resources and the contexts in which they are employed" (p.101). Markee (2008) proposed three components of interactional competence: (1) language as a formal system (includes pronunciation, vocabulary, grammar), (2) semiotic systems, including turn-taking, repair, sequence organization, and (3) gaze and paralinguistic features.

IC in L2 has recently been investigated in, for example, L2 classroom contexts (Pekarek Doehler & Pochon-Berger, 2011), in language proficiency interviews (Van Compernelle, 2011), and in study abroad contexts (Ishida, 2011). Yet, IC is not a construct that is only valid for students in L2 classrooms. Teachers, as the leading actors in especially traditional classrooms where teacher-fronted interaction constitutes most of the classroom talk, are important agents to facilitate learning opportunities through their talk, which may directly influence students' interactional competence. Walsh (2006, 2011, 2012) developed the idea of CIC, which encompasses the features of classroom interaction that make the teaching/learning process more or less effective. These features are (a) maximizing interactional space; (b) shaping learner contributions (seeking clarification, scaffolding, modelling, or repairing learner input); (c) effective use of eliciting; (d) instructional idiolect (i.e. a teacher's speech habits); and (e) interactional awareness.

In the following sections of the paper, I will build an argument on how micro-analysis of classroom discourse can be beneficial for teachers in order to develop TLA and enhance CIC. Yet, before we move on with LTE, I will justify the reasons for using Transana (Woods & Fassnacht, 2010) for the analysis.

The ground for selecting this software is rooted in the value of a multimodal approach to interaction. Therefore, the background of multimodality will be briefly explained and the practical benefits of using video analysis software will be discussed in the following section.

3. Multimodality and the Use of Digital Video Analysis Software

According to Kupetz (2011), multimodality is the coordinated deployment of “non-verbal resources such as gesture, facial expression, gaze, body display, as well as verbal and para-verbal resources such as (morpho-)syntax, lexico-semantics, phonetics, and prosody” (p. 122). CA-driven classroom discourse research on embodied resources has recently been expanding, and scholars have focused on a variety of topics including establishing reciprocity (Mortensen, 2009), round-robins (Mortensen & Hazel, 2011), turn allocation and repair practices (Kääntä, 2010), and students’ explanations (Kupetz, 2011). Furthermore, Sert (2011) found that a variety of non-verbal cues like raising eyebrows, head shakes, and gaze orientations help us better understand the interactional unfolding of students’ claims of insufficient knowledge (CIK) and interactional management of CIK by teachers. It can be argued that non-verbal features of talk-in-interaction, including gaze orientations and gestures, are key to understanding the overall structure of teacher-learner interaction. Yet, it is not possible to observe these phenomena without recording and digital video analysis software.

Transana is a user-friendly digital video analysis software used by CA researchers worldwide in order to carry out micro-analysis of interaction. It helps researchers to focus on multiple simultaneous recordings of the same interactional event with up to four screens, to connect transcriptions to video and audio files, and also to observe sound features of talk while managing databases (See figure 1 below). When teachers and trainees are video-recorded during their teaching, this software becomes an invaluable tool if they repeatedly watch their pedagogical practices and focus on problematic instances of interaction, or are informed on their successful teaching practices where relevant. How this software can help teachers to develop TLA and improve CIC will be briefly explained in the following section.



Fig. 1 Transana user interface

4. A CA framework for Language Teacher Education

As I argued elsewhere (Sert, 2010), LTE in Turkey does not provide opportunities for teacher candidates to develop an understanding of their own interactional and pedagogical practices, and therefore fails to train teachers in a way that will lead to a high level of CIC. In order to promote TLA,

trainees can be guided for transcribing their classroom practices and be advised to spot interactional sequences and certain actions that create or hinder learning opportunities (see Walsh, 2006 for an evaluation grid that can be used for this). In the extract below, I will illustrate a sample interactional trouble, in which a teacher selects an unwilling student as the speaker, and this eventually leads to a CIK by the selected learner. This data comes from EFL classrooms in Luxembourg (Sert, 2011) and is a part of a corpus of CIK. The interaction starts before the students listen to a song. The teacher starts a pre-activity sequence to contextualise the activity, and starts asking students some questions. The pedagogical agenda of the task seems to be a meaning focused one, where students express their ideas related to the teacher's questions rather than focusing on forms.

Extract 1: Everybody else, 7_08_06_10_1_15:05. (Sert, 2011, p. 66-68)

1 Tea: Sam do you want to be like everybody
 2+points at Sam
 3else(.)°in the future°.
 4+Sam withdraws gaze
 #2#3



Fig. 2 Fig. 3

5 Sam: °no:°.
 6 Tea: that's your dream (.) isn't it?
 7 Sam: +gazes +withdraws
 at Tea gaze
 8 Tea: can you tell me why not?
 9 Sam: +gazes +withdraws
 at Tea gaze
 10 (0.6)
 11 Sam: °yeah°.
 12 (6.6)
 13 Tea: #4 ((Tea starts inclining his head))



Fig. 4 Fig. 5

14 (0.4)
 15 Sam: #5 ((mutual gaze wit Tea for 0.7 sec))

16Sam: ((withdraws gaze and smiles))
 17(3.4)
 18Tea: you just don't want to be like everybody else.
 19Sam: ((laughs))
 20Tea: you want to be: DIFferent from everybody else?
 21Sam: °yes°.
 22Tea: yes?
 23Sam: yes.
 24Tea: why?
 25Sam: +averts gaze
 26(3.6)
 27Sam: °i don't know°.
 28Tea: you don't know? ((starts walking away))
 29(1.9)
 30 Tea: Luc you want to be: different from everybody else?

Since space precludes a detailed turn-by-turn analysis (but see Sert, 2011, p.68-69 for the full analysis of this extract), I will mainly refer to the indicators of the student's unwillingness to talk and the interactional unfolding of CIK (line 27). Firstly, following teacher initiations throughout the sequence, it is observed that Sam is constantly averting gaze and withdrawing mutual gaze (lines 4, 7, 9, 25). In addition to this, there are very long silences, therefore delayed or missing second-pair parts (lines 12, 17, 25), which are displays of trouble. The teacher's strategies to engage this student are not working; after the long silence in line 12, in order to obtain gaze, the teacher starts changing his body posture and leans towards the direction of the student by also inclining his head, which proves to be an effective resource in order to establish a state of mutual gaze (figure 4 and 5). However, after a 0.7 second of a state of mutual gaze, Sam averts his gaze again and smiles, which is followed by another long pause in line 17. In line 26, Tea asks an open-ended information-seeking question (*why?*), and Sam again averts his gaze and looks somewhere else in turn final position. After another very long silence, he claims insufficient knowledge (*°i don't know°*), which is followed by the classic teacher follow up turn (*you don't know?*). In line 32, the teacher allocates the turn to another student. Teachers, using Transana, can observe such instances of troubles, and the trainees can critically reflect upon these practices in order to change their interactional choices in question-answer exchanges.

The teachers can be asked to spot, transcribe, and critically reflect on such sequences of CIK in their classrooms so as to find out what would work best for the students. Examples of sequences in which teachers manage these interactional troubles successfully can be focused as well. For example, I found that certain resources employed by teachers after students' CIK can be conducive to student engagement and can lead to displays and demonstrations of understanding by the students. These resources include, but are not limited to, iconic gestures and embodied vocabulary explanations (see the related extract in Sert, 2011, p. 108), and designedly incomplete utterances (Sert, 2011, p. 117). In addition to this, the teachers can also focus on, for example, the ways they give instructions, transitions, repair sequences, assessments, questioning strategies, and language alternation. However, this reflection process needs to be guided by an experienced mentor and has to be carried out following certain procedures in order to enhance Classroom Interactional Competence. Figure 6 below illustrates how this CA-informed LTE framework can be implemented and be integrated into LTE in the Turkish context and beyond:

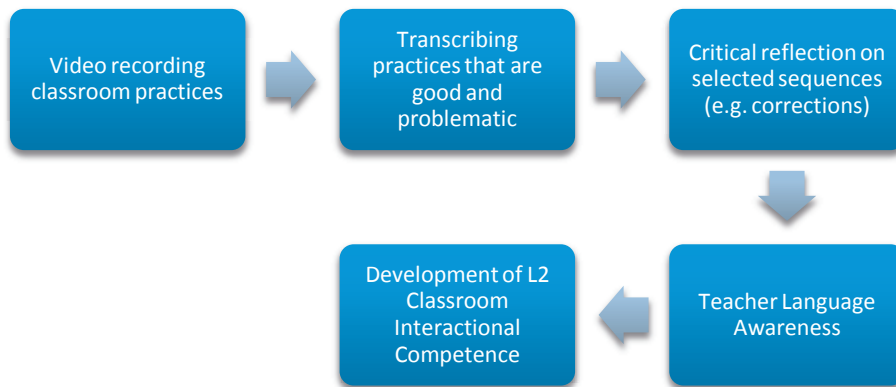


Fig. 6 A CA based LTE framework

As mentioned earlier, mentor guidance is very important in order to help teachers understand the ways they can engage students in classrooms. In the final year of undergraduate TESOL programs in Turkey, the teacher candidates are expected to observe teachers and also start teaching in foreign language classrooms. Their lessons can be video-recorded and then they can be asked to transcribe instances of interaction which lead to student engagement and which hinder opportunities for learning. An evaluation grid, like Self Evaluation of Teacher Talk (Walsh, 2006), can be used during this process and Transana should be used to better understand non-verbal features of talk as well as for practical purposes. Following this step, they reflect on these episodes with the guidance of a mentor and identify problems and relatively good experiences. This overall reflection process has the potential to change teacher behaviours and can develop TLA and thus enhance CIC.

5. Conclusion

In this short paper, based on my talk, I argued for an innovative LTE framework informed by CA, and built links to critical reflection and teacher-student interaction in language classrooms. It is obvious that there is room for development in LTE in Turkey, and in order to overcome problems in language learning, we need to understand what is actually going on in language classrooms. Although Turkish universities are successfully training teacher candidates by making use of innovative theoretical developments adopted from western scholars, we first need to observe, analyse, and understand the real classroom practices and teacher/student behaviours in our local context. In my opinion, the best possible way to achieve this goal is to adopt a CA-based perspective to investigate learning, and then to help teachers and students become interactionally more competent. We, therefore, need to carry out micro-analytic research, and in doing so, we can make use of digital video analysis software to depict the details of interactional and pedagogical practices successfully.

References

- Andrews, S. (2001). The language awareness of the L2 teacher: Its impact upon pedagogical practice. *Language Awareness*. 10 (2&3), 75-90.
- Hellermann, J. (2008). *Social Actions for Classroom Language Learning*. Clevedon: Multilingual Matters.

- Huth, T. (2011). Conversation Analysis and language classroom discourse. *Language and Linguistics Compass*. 5(5), 297-309.
- Ishida, M. (2011). Engaging in another person's telling as a recipient in L2 Japanese: Development of Interactional Competence during one-year study abroad. In G. Pallotti and J. Wagner (eds.). *L2 Learning as Social Practice: Conversation-Analytic Perspectives* (pp.45-85). Honolulu: NFLRC.
- Kääntä, L. (2010). *Teacher turn-allocation and repair practices in classroom interaction: A multisemiotic perspective*. Thesis (PhD). University of Jyväskylä.
- Kupetz, M. (2011). Multimodal resources in students' explanations in CLIL interaction. *Novitas-ROYAL (Research on Youth and Language)*. 5(1), 121-142. Retrieved on December 20, 2011, from http://www.novitasroyal.org/Vol_5_1/kupetz.pdf
- Markee, N. (2000). *Conversation Analysis*. New Jersey: Routledge.
- Markee, N. (2008). Toward a learning behavior tracking methodology for CA-for-SLA. *Applied Linguistics*. 29, 404-427.
- Mercer, N. (1995). *The guided construction of knowledge*. Clevedon: Multilingual matters.
- Mortensen, K. (2009). Establishing reciprocity in pre-beginning position in the second language classroom. *Discourse Processes*. 46(5), 491-515.
- Mortensen, K. & Hazel, S. (2011). Initiating round robins in the L2 classroom – preliminary observations. *Novitas-ROYAL (Research on Youth and Language)*. 5(1), 55-70. Retrieved on April 11, 2012, from http://www.novitasroyal.org/Vol_5_1/mortensen_hazel.pdf
- Pekarek Doehler, S. (2010). Conceptual changes and methodological challenges: On language, learning and documenting learning in conversation analytic SLA research. In Seedhouse, P., Walsh, S. & Jenks, C. (eds.). *Conceptualising Learning in Applied Linguistics* (pp.105-126). Basingstoke: Palgrave MacMillan.
- Pekarek Doehler, S. & Pochon-Berger, E. (2011). Developing 'methods' for interaction: A cross-sectional study of disagreement sequences in French L2. In J. K Hall, J. Hellermann & S. Pekarek Doehler (eds.). *L2 Interactional Competence and Development* (pp.206-243). Bristol: Multilingual Matters.
- Seedhouse, P. (2004). *The interactional architecture of the language classroom: A conversation analysis perspective*. Malden, MA: Blackwell.
- Seedhouse, P. (2008). Learning to talk the talk: Conversation Analysis as a tool for induction of trainee teachers. In Garton, S. & Richards, K. (Eds.) *Professional Encounters in TESOL* (pp. 42-57). Basingstoke: Palgrave Macmillan.
- Seedhouse, P. (2010). How research methodologies influence findings. *Novitas-ROYAL (Research on Youth and Language)*. 4(1), 1-15. Retrieved on 8, 2012, from http://www.novitasroyal.org/Vol_4_1/seedhouse.pdf

Sert, O. (2010). A proposal for a CA-Integrated English language teacher education program in Turkey. *Asian EFL Journal (Special Issue on English Language Teacher Education and Development: Issues and Perspectives in Asia)*. 12(3), 62-97.

Sert, O. (2011). *A micro-analytic investigation of claims of insufficient knowledge in EAL classrooms*. Thesis (PhD). Newcastle University, UK.

Sert, O. & Seedhouse, P. (2011). Introduction: Conversation Analysis in Applied Linguistics. *Novitas-ROYAL (Research on Youth and Language)*.5(1), 1-14. Retrieved on May 10, 2012, from http://www.novitasroyal.org/Vol_5_1/sert_seedhouse.pdf

Sinclair, J. M. & Coulthard, R. M. (1975). *Towards an analysis of discourse: The English used by teachers and pupils*. London: Oxford University Press.

Van Compernelle, R. A. (2011). Responding to questions and L2learner interactional competence during language proficiency interviews: Amicroanalytic study with pedagogical implications. In J. K Hall, J. Hellermann & S. PekarekDoehler (eds.).*L2 Interactional Competence and Development*(pp.117-144). Bristol: Multilingual Matters.

Walsh, S. (2006). *Investigating classroom discourse*. New York: Routledge.

Walsh, S. (2011). *Exploring classroom discourse: language in action*. Oxon: Routledge.

Walsh, S. (2012). Conceptualising Classroom Interactional Competence. *Novitas-ROYAL (Research on Youth and Language)*.6(1), 1-14. Retrieved on May 1, 2012, from http://www.novitasroyal.org/Vol_6_1/Walsh.pdf

Woods, D. & Fassnacht, C. (2010). *Transana v2.42*. Available at <http://www.transana.org>. Madison, WI: The Board of Regents of the University of Wisconsin System.

Young, R. F. (2008). *Language and interaction: a resource book*. Oxon: Routledge.