Turn taking and 'wait time' in classroom interactions

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Abstract

In this paper we examine classroom interactions using a conversation analytic approach to explore the relationship between turn taking and silences in classroom interaction. Seventeen mathematics lessons with pupils aged between 12 and 14 years were analysed in terms of the structure of turn taking and the length and nature of pauses that occurred during whole class interactions. We show that the turn taking structure of classroom interactions remains consistent with that described in the conversation analytic literature. In classroom interactions where different turn taking structures apply, silences have a different influence on student and teacher behaviour. We then demonstrate that the pedagogical construct of wait time is structurally built into classrooms with a formal turn taking structure and that this structure explains many of the previous research findings relating to the length of wait time. These findings have implications for pedagogic policies and recommendations relating to classroom interactions.

1. Introduction

Different turn taking structures give silences different roles which results in different interactional behaviours. This study focuses on the relationship between the structure of turn taking and silences during whole class interactions in 12–14 year olds. This analysis is used to examine the pedagogical concept of wait time.

Different approaches have been taken to analysing classroom interactions. Conversation analysis (CA) is one such approach and aims to describe and explain the structural organisation and patterns of turn taking through a fine-grained analysis of how the participants themselves orient to these structures through their interactional behaviour. Other notable approaches include the work of Sinclair and Coulthard (1975) and Mehan (1979) who both used a discourse analysis approach to reveal the Initiation Response Feedback (IRF or IRE) pattern that dominates classroom interaction. A teacher initiates an interaction, usually by asking a question, then a student responds, and then the teacher gives feedback (IRF) or evaluates (IRE) that response. This pattern continues to dominate classroom interaction (Kyriacou and Issitt, 2008) and many authors have explored variations on this pattern (Waring, 2009) or ways of using this pattern to improve the quality of teaching and learning (Mercer, 1992). Taking a conversation analytic stance, the IRF is not a single sequence type but instead consists of a question–answer adjacency pair and a third turn that can function in a variety of ways, such as closing down the interaction sequence (Schegloff, 2007) or beginning a range of teaching activities (Lee, 2007; Nassaji and Wells, 2000).

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1.1. Conversation analysis and turn taking

"a turn … refers to an opportunity to hold the floor, not what is said while holding it" (Goffman, 1981).

Using a conversation analytic approach, McHoul (1978) detailed the structure of turn taking in formal classrooms. More recently, this work has been extended by Seedhouse (2004) in his exploration of language classrooms and Maroni et al. (2008) in their examination of Italian primary classrooms. A conversation analytic approach looks at the structure or implicit rules that govern who speaks when, how long for and what can be said. In formal interactions, such as those that occur in classrooms, there are often additional constraints on who can speak when compared to ordinary conversation. These tacit rules can be revealed by the actions of participants, demonstrating their orientation to such rules and the sanction of participants when these rules are violated. Sacks et al. (1974) discuss the adaptation of turn-taking systems to the type of activities that are being undertaken and this is evident in the research into the different structures of turn-taking systems in institutional settings such as classrooms (McHoul, 1978), courtrooms (Drew, 1992) and news interviews (Greatbatch, 1988).

Sacks et al. (1974) outline a model for the organisation of turn-taking in ordinary conversation, emphasising the local management of turn-taking. The authors note that generally only one person speaks at a time, overlaps between speakers are short and there are no gaps when the speaker changes. Their analysis of naturally occurring data leads to a set of 'rules' governing the transfer of a turn from one speaker to the next. First, if the current speaker nominates another participant to speak next, then that participant is obliged to take the next turn and no other has the right to this next turn. If the next speaker has not been nominated by the current speaker, then another participant can self-select as next speaker with the participant speaking first having the right to the turn. If neither of these first two scenarios occurs, then the current speaker can continue and keep the turn. These rules then apply recursively at each point in a turn where transition to a different speaker is relevant (referred to as a transition-relevance place (TRP) by Sacks et al.).

However, turn taking does not necessarily follow the rules of ordinary conversation in formal classrooms (McHoul, 1978; van Lier, 1984). McHoul's analysis of discourse in geography classrooms leads him to develop an adaptation of Sack's et al.'s 'rules', which function in formal classroom contexts. These 'rules' highlight the different roles of the teacher and their students as they provide a normative structure which supports and enables different kinds of turns from teachers and students (Wooffitt, 2005).

McHoul's description of the structure of turn taking in formal classrooms is as follows. If the teacher is the current speaker then, as before, the teacher can nominate the next speaker. The student that has been nominated is obliged to take the next turn and no other student has the right to speak. However, if the teacher has not nominated a student to take the next turn, then the teacher is then obliged to continue the turn. Here is the first deviation from the rules of turn taking in ordinary conversation. There is no opportunity for any of the participants to self-select to take the next turn except for the teacher. If it is a student who has the current turn, then that student can select the next speaker. There are no occasions in McHoul's data where a student selects anyone other than the teacher as next speaker, and perhaps consequently, McHoul states that it is the teacher that has the right to the next turn. Otherwise, another participant can self-select as next speaker, with the teacher being first speaker. Again in McHoul's data, there are no examples where a student self-selects to be the next speaker. Finally, if neither of these two scenarios occurs then the student who is currently speaking can continue. However, they do not have the right to the turn as the first speaker as they would in ordinary conversation; the teacher retains the right, even if they do not speak first.

These adapted 'rules' illustrate the constraints on the roles in the local management of turn-taking in the classroom. For example, these rules do not allow students to self-select as next speaker if the teacher is the current speaker. Instead, they allow the teacher to pause during their current turn without risking 'interruption' by a student. They also allow for gaps between the speakers changing from student to teacher, when the student has not nominated the next speaker, as it is the teacher who has the right to first start. This scenario also restricts the possibility of students self-selecting following another student's turn: whilst the option for them to do so is there, it is the teacher who has the right as first speaker. Furthermore, the situation where a student who has the current turn selects another student as the next speaker is not considered. McHoul reported no instances where a student selected another student to take the next turn and there were no instances in the data from this study either. These restrictions on students' self-selecting minimise the possibility of overlap in classroom interactions, whilst increasing the opportunities for gaps between turns compared to ordinary conversation (McHoul, 1978), which changes the possibilities for different types of wait time as outlined below in section 1.2.

In McHoul's rules there is also no opportunity for multiple participants to self-select which again means that the potential for overlaps is minimised. Whilst McHoul's rules do not allow for multiple students to self-select as next speaker, he does provide an example where this occurs, and describes it as a violation of the rules. In his example, the teacher has solicited a response by asking a question, but has not nominated a student to answer the question. Many students self-select to answer the teacher's question and, to use McHoul's description, "chaos" ensues (p. 199). However, as soon as the teacher nominates a student to speak next the other students stop talking and the normal structure of turn-taking resumes. McHoul describes this as using "renormalizing acts as a reparative technique" McHoul (1978:199). Other