

Preliminary ADEX Coding Scheme for Explanation Nodes 01.06.2023

ELAN analysis

The ADEX corpus was manually transcribed with the programm Eudico Linguistic Annotator (ELAN). In the following the different tiers in ELAN are described in detail.

ELAN Tiers

EX_Speech	Speech of the explainer (EX)
EE_Speech	Speech of the explainee (EE)
EX_Backchannel	Backchannels EX
EE_Backchannel	Backchannels EE
EX_Move	Moves EX
EE_Move	Moves EE
EX_Gamenodes	Gamenodes of EX
EE_Gamenodes	Gamenodes of EE

Speech

Only utterances that belong to the game explanation are considered in the annotation. Speech which is related to the following topics is not taken into account: game talk, study talk and private talk. Game talk refers to the utterances which address other types of games which are discussed in detail beyond comparing it to the game. Study talk includes any comments which concern the study design. Private talk addresses any information of the participants demographical information.

All utterances are written in standard German spelling, whereby this only concerns the spelling of words and syntactical rules are not taken into account (e.g. the beginning of an utterance is not necessarily capitalised, only if it is a corresponding word type). Umlauts are transcribed as such (ä, ö, ü), vowel dilations are not emphasised, punctuation marks are not transcribed (except in the case of questions, tag-questions, see below). Colloquial contractions (e.g. "how are you") can be transcribed as such. An utterance comprises a coherent intonation structure which typically falls or rises at the end. Pauses of at least 2 seconds can be a further aid to segmentation, and pauses can also occur within an utterance. Other sounds such as coughing, sneezing etc. are not transcribed. Overlaps are indicated with round brackets.

Backchannels

Backchannels as Didriksen et al. (2019) put it, are "head nods or short utterances consisting of a word (e.g., 'uh-huh, 'yes', 'okay'), or short sentences, often repeating the previous turn (e.g., A: 'let's meet Monday at 10', B: 'Monday at 10')" (262). Backchannels do not function as separate turns that take the conversational floor (cf. 262).

Speaker Moves

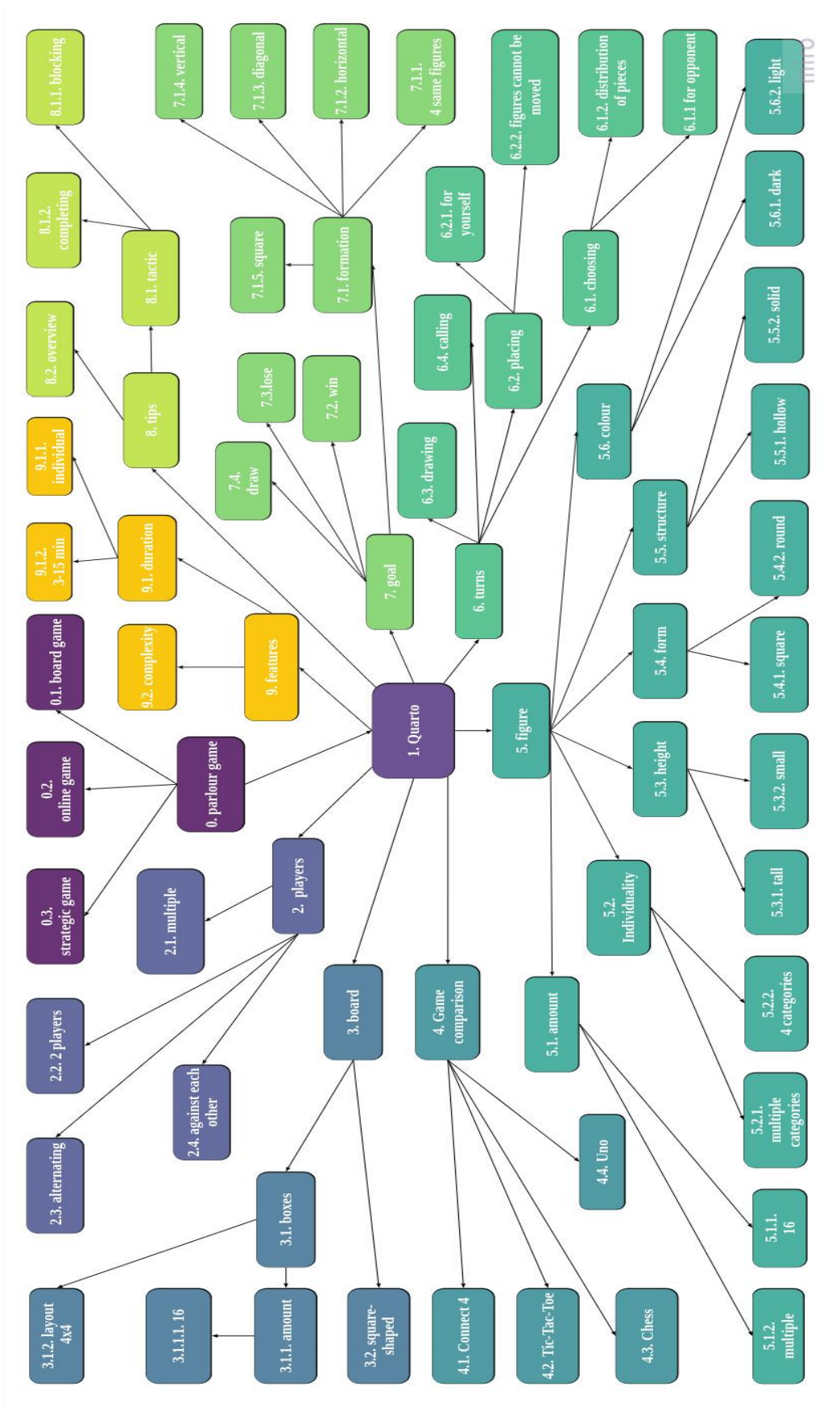
Following the work by Chi (2008) moves are defined as statements including a single idea presented by a single speaker within one turn.

Explanation Nodes Quarto

The explanation nodes are assigned to each speaker move analysis in order to support the content level analysis. In addition, they can provide proof of completeness and correctness of the explanation, as one has a list of nodes which can be covered within the game explanation and the actual list of nodes which have been addressed. Moreover, one can also include whether a node was explained faulty by assigning the node it belongs to and to add a x. Furthermore, it is possible that some utterances cannot be assigned to a node. In these cases an empty node should be included so we can evaluate how much of the utterances are explanation specific. The nodes which have a game node number are game specific.

First, the blocknodes were established and in an iterative process the subnodes were added. We adjusted the level of detail to the topical occurrences in the data. As one can see, the game explanations cover ten blocknodes (each indicated by the same colour) divided further in several subnodes. Taken together, 69 explanation nodes were identified. The 1. Quarto blocknode contains its name and all the other nodes are placed around this central node. In the 0. parlour game block, Quarto is put into the broader game context. This can include in more detail what type of parlour game it is: a 0.1. board game, an 0.2. online game or a 0.3. strategic game. All information concerning the players, how many there are and in which mode they play, are grouped in 2.0. players. The third block captures the different characteristics of the board (3.0.) such as the amount of 3.1. boxes or the 3.1.2. layout. A special block is the game comparison (4.0.) this includes the games that are often compared to Quarto. 5.0. figures is the largest block describing the characteristics of the different game pieces. In 6.0. turns, the required game turns of the game are listed. In 7.0. formations, names the possible formations of the figures and their impact on the goal of the game. Tactical hints are included in block 8.0. hints and the final block, 9.0. features, depicts general features of the game, such as duration and difficulty.

Explanation Nodes Quarto



Example of Coding in ELAN

The screenshot displays the ELAN 6.4 software interface. At the top, the menu bar includes 'Datei', 'Bearbeiten', 'Annotation', 'Zeile', 'Typ', 'Suche', 'Ansicht', 'Optionen', 'Fenster', and 'Hilfe'. Below the menu is a toolbar with various icons for navigation and editing. The main window is divided into several sections: a video stream at the top, a timeline below it, and a coding table at the bottom. The coding table has columns for time (from 00:01:38.000 to 00:01:45.000) and rows for different coding channels. The 'EX_Speech' channel contains the text 'if diesem vier kreuz vier Muster erstmal hinlegen' and 'genau das hätte ich auch gleich erzählt ich wollte nur erstmal den allgemeinen S'. The 'EX_Node relation' channel contains 'same'. The 'EX_Gamenodes' channel contains '7.0.'. The 'EX_Moves' channel is empty. The 'EX_Backchannel' channel is empty. The 'EE_Speech' channel contains 'darf ich erstmal fragen was ist denn das Ziel?'. The 'EE_Moves' channel is empty. The 'EE_Backchannel' channel contains 'ja'. The 'EE_Gamenodes' channel contains '7.0.'. The 'EE_Node relation' channel contains 'new node'.

References

Chi, M. T., Roy, M., & Hausmann, R. G. (2008). Observing tutorial dialogues collaboratively: Insights about human tutoring effectiveness from vicarious learning. *Cognitive Science*, 32(2), 301-341.

Dideriksen C, Fusaroli R, Tylén K, Dingemans M, Christiansen MH (2019) Contextualizing conversational strategies: backchannel, repair and linguistic alignment in spontaneous and task-oriented conversations [Preprint]. PsyArXiv. <https://doi.org/10.31234/osf.io/fd8y9>

ELAN (Version 6.5) [Computer software]. (2023). Nijmegen: Max Planck Institute for Psycholinguistics, The Language Archive. Retrieved from <https://archive.mpi.nl/tla/elan>