

"Algorithmic Recursive Sequence Analysis" (ARS) is a qualitative method used in qualitative social research to analyze action sequences. It enables the identification and reconstruction of latent rules and patterns in the observed actions and interactions of individuals or groups.

Suppose a researcher wants to study the decision-making behavior of employees in a company. He/she collects video data from team meetings and analyzes it using the ARS method. The first step is to record the action sequences in the form of video sequences.

Then a preliminary grammar is created that describes the possible patterns of action and rules in the video data. This grammar serves as a starting point for further analysis.

In the next step, an inductor is used, which recognizes the relevant action patterns on the basis of the provisional grammar and derives further rules. The inducer may recognize recurring patterns of decision-making processes, interactions, or ways of communicating within the team.

Once the inducer has derived the rules, a parser is used to check the action sequences against those rules. The parser checks whether the observed actions agree with the previously derived rules. This step is crucial to ensure the validity and reliability of the analysis.

In the last step, a transducer is used, which brings the results of the ARS into an interpretable form. For example, the transducer may provide summaries, visual representations, or other forms of analysis to convey the insights gained.

The output of the ARS is a reconstructed description of the latent rules and patterns in the team's action sequences. The researcher can now analyze how these rules affect decision-making behavior and interactions.

The ARS method makes it possible to recognize complex relationships and patterns in the actions of individuals or groups that may not be obvious at first glance. It is important to emphasize that ARS is a qualitative procedure and does not use quantitative measurements. Instead, it is based on the observation and interpretation of sequences of actions in order to reconstruct latent rules and develop a deeper understanding of social phenomena.