A Move and Act Definitions

Seven basic dialogue moves are as follows:

1. **ask(q)**, where q is a question asked or a task requested.

2. **answer(a)**, where a is the answer provided.

3. **restate(q/i)**, where q or i are, respectively, a question asked or information provided relevant to a task.

4. **ack(a)**, where a is the agent who agrees that the user's answer is correct.

5. **confirm(help)**, the agent needs to receive a confirmation from the user to help them.

6. **affirm(q)**, where q is the agent who admits that the question or the task is difficult.

7. **downdate(q)**, where q is the agent that reduces the difficulty of the question or the task asked by the agent.

as well as three more moves that are specific to the management of confusion state conditions:

1. **inforExten(q)**, the agent provides extent information on the question to help the user overcome their confusion.

2. **inforSply(q)**, the agent provides more information to the user to help answer the question.

3. **Freetalk(sbj)**, where sbj is a new subject with which the agent has a casual conversation with the user.

Turning to the finer-grained dialogue acts, we have nine dialogue acts:

1. **Restatement** (statement): The agent repeats the original task or question.

2. **Feedback request** (feedback): The agent asks for the participant's feedback or their response.

3. **Information extension** (statement): The agent provides more information to expand on the question or the task that has already been raised.

4. **Information supplement** (statement): The agent provides comprehensive information for participants to quickly and easily understand.

5. **Confirmation** (generic): The agent confirms whether the user needs help to overcome their confusion.

6. **Affirm** (generic): The agent acknowledges that the question is challenging and might cause the participant to become confused.

7. **Acknowledge** (generic): The agent acknowledges that the user is correct with positive feedback.

8. **Subject change** (statement): The agent changes a straightforward question or a topic.

9. **Notify confusion** (interface): The agent detects user's confusion state in real-time, that is, productive confusion, unproductive confusion, or non-confusion.