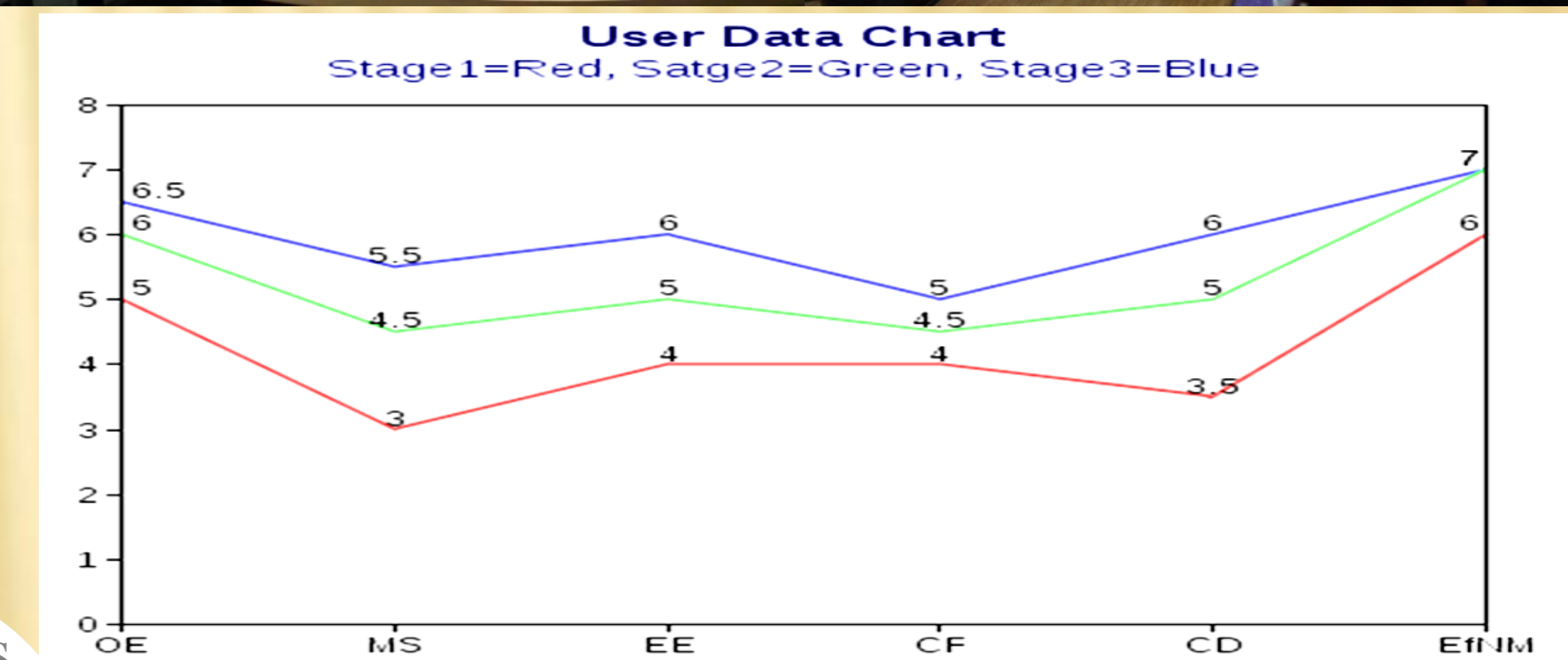
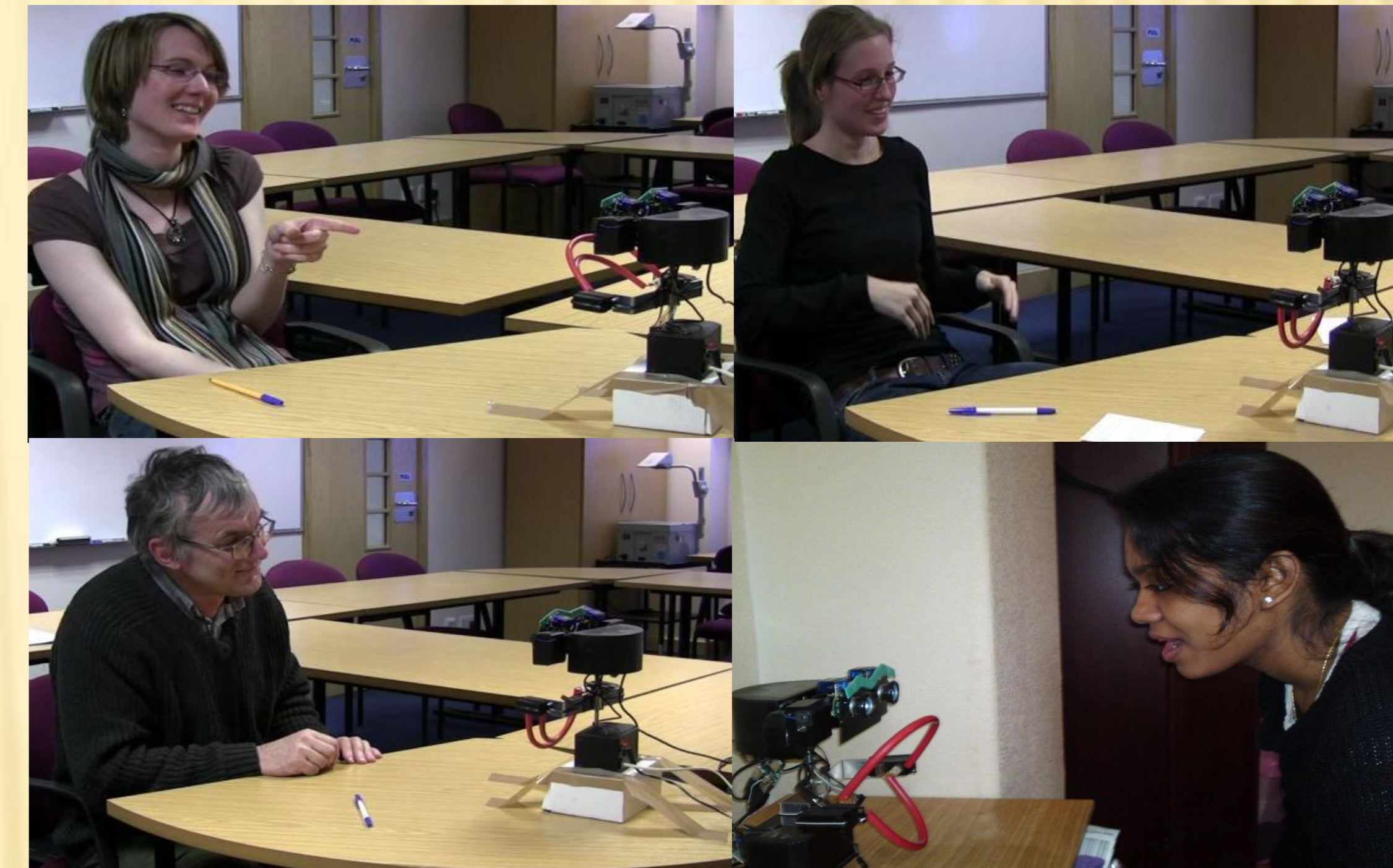
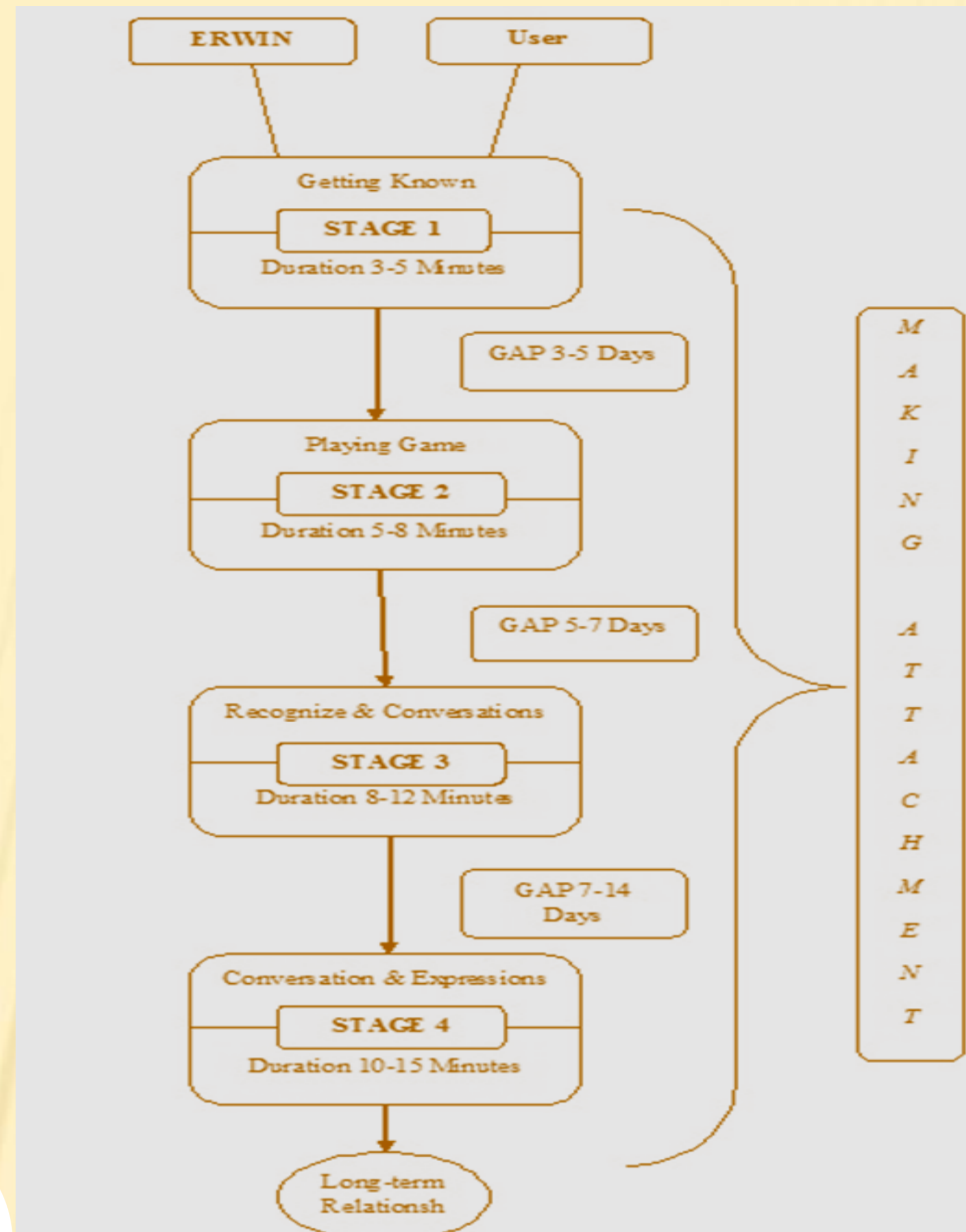


Introduction: The current research aims to develop a system for long-term relationships with a robot, based on emotional interaction. The first experiment of the research is to prove the hypothesis, which is, 'can a robot can engage with a user in a long-term relationship based on emotions?' This demonstrates the important aspects of human-human and human-robot interaction. This experiment is being conducted with the robot head called ERWIN (Emotional Robot With Interactive Networks), which is capable of simple prototypical emotions and will be conducted via a simple 'wizard of oz' procedure.

- Procedure:** For each stage,
1. One-to-one (face-to-face: ERWIN and user)
 2. CSR tool-kit (ERWIN Speech)
 3. Remotely controlled (observing user's reactions and expressions)
 4. Questions to complete by users.



Methodology: First stage, ERWIN greets users and asks their name with smiling face, also tells something about itself. Here, Erwin's speech is light and friendly. Second stage, ERWIN plays a game with users. Sometime ERWIN makes mistakes to notice user's reactions. At the beginning, ERWIN greets users with their names which makes users feel that ERWIN remembered them, also in some cases, ERWIN mistakes user's name to watch their reactions. Third stage, ERWIN remembers user's name and some facts they have told in previous experiments. ERWIN expresses frequent expressions while talking and listening. It's speech at this stage is more complex and related to the users profile data. In this stage ERWIN behaves more friendly with intellectual speech and frequent emotion expression.

Data Collection: Data has been collected on the measurement of overall experience (OE), user's mood swing (MS), ERWIN's expressions (EE), conversation flow (CF), conversation duration (CD) and user's eagerness of next meeting with ERWIN. The collected data until third stage of the experiment states that the users enjoyed spending time with ERWIN and they were getting involved with ERWIN while conversation is running. After each session, the users were waiting for the next meeting with ERWIN. Users liked the fact that ERWIN remembered their names and facts they told in previous. From the user's opinion, it's clear that an attachment bond has been created between ERWIN and the users which is the initial experiment goal.