Conducting a teleconference is not the same as holding a real meeting. For instance, sometimes it may be difficult to figure out who is talking. Therefore a teleconferencing system is being developed at the Institute for Data Processing at TUM, that utilizes spatial sound. Hence the question is whether such a "3D-system" is advantageous compared to a conventional "Mono-system". To draw such a comparison one can ask users for their preference (Quality of Experience) – or use other measures. One might ask whether the cognitive load of interlocutors is lower and the communication consequently is more efficient and effective. This thesis makes two contributions: First, the meaning of cognitive load is elucidated and means of measurement are presented. Second, a listening test is conducted to show possible advantages. In this test participants listen to conference recordings and subsequently answer questions about the topic and about their perceived listening effort. Results show significant improvements over the mono-system. Participants have to concentrate less and are able to identify the current speaker more easily. Afterwards they also have a better picture of who said what.