There is an on-going focus exploring the use of gesture in design situations; however, there are still significant questions as to how this is related to the understanding and communication of design concepts. This work explores the use of gesture through observing and video-coding four teams of engineering graduates during an ideation session. This was used to detail the relationship between the function behaviour structure elements and individual gestures as well as to identify archetypal gesture sequences – compound reflective, compound directed one-way, mirroring, and modification. Gesture sequences occurred at critical periods during the design session, such as idea evolution and developing shared understanding. They are used to act out design concepts, repeat and learn from sequences, and establish shared understanding. Finally, a number of implications are identified for both researchers and those seeking to support practice.