A Low-Cost Motion Capture Corpus in French Sign Language for Interpreting Iconicity and Spatial Referencing Mechanisms

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15 signers • 60 sequences per signer • approx. 5h raw data • 14 lexical signs in corpus • 8 linguistic mechanisms distrib. in 6 levels of 10 scenes • BVH & video output files with manual annotation • ongoing post-processing and annotation

**Data Acquisition Characteristics**
- Volunteers from A2 to C2+
- Freely interpret a given scenery
- Kinect Azure and custom software used for acquisition

**Linguistic Features**
- Placement:  
  - Pointing
  - Sign & place
  - Sign at location
- Sizing & shaping
- Repetitive positioning
- Relative referencing

**Proforms:**
- Animated
- Static

**Uses & applications**
- Recognition of scenes from LSF description such as:
  - BVH files from corpus
- Deep learning implementation
- Recognition through a pivot language (graph form) opening to various applications such as a base layer for future or a written French learning tool for deaf students

**Acquisition room scheme**

**MotionUp software**
- 32 pre-made handshapes are used to reconstruct data and wrist movement is corrected using filters
- Acquisition omits hands
- MotionUp post-processing software

**Demo available on computer**
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