

## Effectiveness of forearm, wrist and hand muscles strengthening on the writing speed in college students

### Swati

Lovely Professional University, India

**Background:** Handwriting is a complex activity and hence requires blending of various components such as cognitive, kinaesthetic, perceptual and motor components. If any of these components is missing, then writing is affected. Handwriting is influenced by factors such as anatomy of extremity, general health, writing surface. Also, not all age group can write with same speed, hence it is an age variant factor.

**Objective-** to find the effectiveness of forearm, wrist & hand muscles strengthening in improving the handwriting speed of the students. The agenda was to teach the students safe and easy exercises in order to increase their overall forearm, wrist and hand strength.

**Materials and Methods-** materials used were blank paper sheets, pens, towels, elastic rubber bands, stopwatch, ball. The study was Experimental study with 4 months of duration. Sample size included was 40 students with Random Sampling allocation. Words per minute was calculated pre and post

intervention.

**Result-** The values of the study were compared using Wilcoxon matched paired test. Pre and post treatment values show that there is extremely significant difference in the Pre and Post Treatment Values. ( $P < 0.0001$ ).

**Conclusion-** Based upon statistical results it was concluded that there was 16.73% improvement in the writing speed of the students by the forearm, wrist and hand muscle strengthening.