# 8. APPRAISAL

#### 8.1 CONCLUSIONS

The current studies contributed to the literature in several ways. To date, mindfulness had not been studied as an element within the adolescents in Indian settings. This study highlighted the importance of examining yoga related constructs mindfulness and its application in mental health of adolescents. Results from this study offered initial information on the possible interaction between mindfulness and state anxiety in working memory. Further, results show promising immediate effects of yoga based relaxation technique on spatial and nonverbal working memory. Furthermore, results confirmed the effect of yoga on enhancing working memory and enhancement of mindfulness. Although the current study provides initial insight into the role of yoga in working memory further research is necessary to explore the applications.

#### 8.2 STRENGTH

To our knowledge, this may be the first study on Indian adolescents to understand the relationship between mindfulness and working memory. As per our knowledge there is no previous reports specific to cyclic meditation on working memory in adolescences. Further current thesis explored various spectrum of working memory its relation and enhancement through yoga. Our study suggests that development of mindfulness and effect of yoga based intervention in younger populations and understanding possible mechanisms linking yoga and working memory may be a fruitful avenue for future research.

This pre-post design shown that yoga based intervention a potential benefits to enhance attention and memory on adolescent adolescents. These results make a contribution to the literature on improving adolescents' attention within educational settings. The

techniques might serve as a cost-effective means to enhancing attention performance and accuracy on healthy adolescents

#### 8.3 LIMITATIONS

Despite of these encouraging findings, there are important limitations that have to be considered. This was the general limitations for all the studies; participants were recruited from yoga camp, which could be a confounding variable, as the outcome variable might be influenced because of the motivation towards yoga practices. The sample included was healthy young adolescents in a yoga camp environment which may be difficult to generalize for all adolescents and adults.

- The causal direction of this relation is uncertain in these studies due to crosssectional design. Further self-report measures may be compromised by response biases.
- 2. Current research sample were having an average working memory.
- 3. It should be noted that this experiment was pre-post design which has it on limitation on controlling the confounding variables (recreation activity, drama, games etc.,)

## 4. It is limited to self reported questionairs

5. It was a self as control study design with convenient sampling, and the lasting effect of the intervention has not been assessed.

#### 8.4 APPLICATION OF THE STUDY

In conclusion, these data signify that 10days personality development camp of integrated yoga module enhance attention and memory which can potentially be implemented within an educational system.

### 8.5 FUTURE STUDIES

Longitudinal and experimental studies on mindfulness training may provide causal relationships between mindfulness and working memory. Additional higher-order cognitive measures such as attentional control and self-regulation measures could also be considered in this line of research. Further, the generalizability of these results needs to be tested with randomized control trials. Future studies could be investigated on physiological variable viz., EEG, EMG activity, and Cortisol level, and hormonal activity. Prospect research incorporating different age group, different level of attention and with various assessment methods to capture changes including physiological performing the task and intervention may be looked forward to understand the underlying mechanism. Future studies should include adolescents with low working memory skills assess on measures of working memory, IQ and academic attainment before and after yoga based training.