CHAPTER – V
SUMMARY AND CONCLUSIONS

5.0 INTRODUCTION

The attitudes towards the education of the disabled have undergone changes with the development of society and civilization. Among various disabilities, mental retardation is probably the greatest challenge who also require education for their successful adult living.

While they are characterized by weak learning behaviour, contemporary thinking about individuals with MR now is based on much higher expectations and a world of possibilities, not limitations. The main educational objective is to prepare them for independent living- personally, socially as well as vocationally. For their independent living, LCCE plays a vital role in strengthening the likelihood of success.

LCCE is an educational system designed to prepare students with MR with the important skills needed to function successfully as productive workers in the home and community. It is not only related to schools but family and community. It contains daily living, personal social and occupational skills. Daily living and personal social skills are provided in the special schools. Where as occupational skills are provided in vocational training centers of special schools. These training are required for their success in the world of work.

5.1 NEED AND SIGNIFICANCE OF THE STUDY

In a developing country like India, it is equally important to explore the education provided in the special schools for MR. This helps in making their adult
life successful and intern also influence on the development of the country. For this, government has formulated many educational provisions, policies and programmes for the students with MR.

Even though, their status has not been improved to a greater extent, to identify the deficit, several research studies has pointed out that there is a need to know and examine curriculum provided to them in the special schools. There is also need to assess the skills, they have acquired for independent living. Without examining this, may result in negative adult outcomes. That is, non-involvement in the community, limitations in independent living, restricted social lives, unemployment or underemployment, low pay, part-time work and frequent job changes for this population.

To analyse the curriculum offered in the special schools for MR and level of skill performance among the students with MR, the study should be conducted at the bottom level. For the success of any programmes, block/state level planning is necessary which helps in accurate measurement of the deficits. From review of related studies which is elaborated in next chapter, it was found out that there are studies conducted across the countries on subcompetencies of LCCE for students with MR and assessed their level of performance on various skills. But, a very limited study is conducted at the state level especially in Karnataka state. So the investigator was interested to conduct a study in the Karnataka state.

5.2 STATEMENT OF THE PROBLEM

This study aimed to find out the subcompetencies of LCCE training offered in the special schools for students with MR at the Karnataka state level. It also aimed at determining the level of performance of the students with MR in work readiness skills and vocational competency.
Thus the study is entitled as “Life Centered Career Education for Students with Mental Retardation in Karnataka State – An Exploratory Study”.

5.3 OBJECTIVES OF THE STUDY

1. To determine the percentage of special schools of Karnataka state offering training in different subcompetencies of LCCE for the students with mild and moderate mental retardation.

2. To find out the reasons for not offering training in certain subcompetencies of LCCE for the students with mild and moderate mental retardation.

3. To determine the percentage of male and female students with mild and moderate mental retardation exhibiting different levels of work readiness skills.

4. To determine the percentage of male and female students with mild and moderate mental retardation exhibiting different levels of vocational competency.

5. To find out whether there is any relationship between
   (a) Work Readiness Skills and School Experience
   (b) Work Readiness Skills and Pre-Vocational Training Experience
       among students with mild and moderate mental retardation.

6. To find out whether there is any relationship between
   (a) Vocational Competency and School Experience
   (b) Vocational Competency and Vocational Training Experience
       among students with mild and moderate mental retardation.
7. To compare the male and female students with mild and moderate mental retardation in
   (a) Work Readiness Skills and
   (b) Vocational Competency.

5.4 RESEARCH QUESTIONS OF THE STUDY

1. What percentage of special schools in Karnataka state offer training in different subcompetencies of LCCE for the students with mild and moderate mental retardation?

2. What are the reasons for not offering training in certain subcompetencies of LCCE for the students with mild and moderate mental retardation?

3. What percentage of male and female students with mild and moderate mental retardation exhibit different levels of work readiness skills?

4. What percentage of male and female students with mild and moderate mental retardation exhibit different levels of vocational competency?

5.5 HYPOTHESES OF THE STUDY

1. There is no significant difference between male and female students with mild mental retardation in work readiness skills.

2. There is no significant difference between male and female students with moderate mental retardation in work readiness skills.

3. There is no significant difference between male and female students with mild mental retardation in vocational competency.

4. There is no significant difference between male and female students with moderate mental retardation in vocational competency.
5. There is no significant relationship between 
   (a) Work Readiness Skills and School Experience 
   (b) Work Readiness Skills and Pre-Vocational Training Experience 
   among students with mild mental retardation.
6. There is no significant relationship between 
   (a) Work Readiness Skills and School Experience 
   (b) Work Readiness Skills and Pre-Vocational Training Experience 
   among students with moderate mental retardation.
7. There is no significant relationship between 
   (a) Vocational Competency and School Experience 
   (b) Vocational Competency and Vocational Training Experience 
   among students with mild mental retardation.
8. There is no significant relationship between 
   (a) Vocational Competency and School Experience 
   (b) Vocational Competency and Vocational Training Experience 
   among students with moderate mental retardation.

5.6 METHODOLOGY OF THE STUDY

Design of the Study: The present study adopted Exploratory and Descriptive design.

Population of the Study: All the 70 special schools for students with MR in Karnataka state comprised the population of study.

Sample of the Study: From population of the study, 42 special schools were selected. The reason was, as the population being very large in number and vastly distributed, it was very difficult to conduct within the limited resources of the
investigator. Later, a preliminary survey consisting of certain criteria was conducted on these selected special schools. The number of special schools fulfilled all the criteria were 19. To find out training offered in the special schools in different subcompetencies of LCCE, these 19 special schools were selected as sample.

Further to determine the level of work readiness skills among students with mild and moderate MR, special schools offering pre-vocational training among sample schools were considered. Since the entire sample schools were offering pre-vocational training, they were considered for further study. In these schools, the numbers of male students with mild MR were 59, female students with mild MR were 40, male students with moderate MR were 52 and female students with moderate MR were 34. The work readiness skills were assessed among these students.

To determine the level of vocational competency among students with mild and moderate MR in special schools offering vocational training among sample were considered. Among sample, only 8 schools were offering vocational training. In these schools, the numbers of male students with mild MR were 36, female students with mild MR were 31, male students with moderate MR were 61 and female students with moderate MR were 32. The vocational competency was assessed among these students.

**Sampling Technique:** Multi-Stagic Purposive Sampling Technique was used in the study.
5.7 PROCEDURE OF DATA COLLECTION

To find out the special schools offering training in different subcompetencies of LCCE for students with mild and moderate MR, Life Centered Career Education Checklist for students with mild mental retardation and Life Centered Career Education Checklist for students with moderate mental retardation were used. Firstly, the items of the checklist were read out to the informants- special educators. Later, if the schools were offering training in the subcompetencies, the response was noted as ‘Yes’ and otherwise ‘No’. Wherever the response was ‘No’ the reasons for not offering training were also collected.

To determine the level of work readiness skills of the students with mild and moderate MR, Generic Skills Assessment Checklist was used. Firstly, the items of the checklist were read out to the informants- vocational trainers. Later, if the students with MR independently or dependently perform work readiness skills, the response was noted as ‘Yes’ or else noted ‘No’. These responses were recorded by the investigator.

To determine the level of vocational competencies of the students with mild and moderate MR, San Francisco Vocational Competency Scale was used. Firstly, the items of the scale were read out to the informants- vocational trainers. Each items having four or five statement from which rater chooses the one most accurately describing the student’s behaviour. Number rated from 1 through 4 or 5, with option 1 representing the lowest level of vocational competency and option 4 or 5 representing the highest level of vocational competency. It consists of both positive and negative items. Later, when informants determined the appropriate option for an item, the investigator recorded the same.
5.8 ANALYSIS OF DATA

The analyses of special schools offering training in different subcompetencies of LCCE for students with mild and moderate MR were done qualitatively. For each subcompetency, the numbers of special schools offering training were calculated and percentages were computed. Further, reasons for not offering training of those subcompetencies were also discussed.

The analyses of work readiness skills of the students with mild and moderate MR were done in 2 ways. (a) Qualitatively- by calculating and computing percentage of the independent and dependent performance of the students on each subskill. (b) Quantitatively, by using t-test for significance of difference between uncorrelated means and Spearman’s Rank Order Correlation.

The analyses of vocational competencies of the students with mild and moderate MR were done in 2 ways. (a) Qualitatively- by calculating and computing percentage of different levels of the vocational competencies of students. (b) Quantitatively, by using t-test for significance of difference between uncorrelated means and Spearman’s Rank Order Correlation.

5.9 MAJOR FINDINGS AND DISCUSSIONS OF THE STUDY

The major findings and discussions of the study are as follows.

5.9.1 Major Findings and Discussions of the Special Schools of Karnataka State Offering Training in Different Subcompetencies of LCCE for the Students with Mild Mental Retardation

1. All the special schools for students with mild MR are offering training in the subcompetency- Identify Money and Make Correct Change under the competency- Managing family finance. This subcompetency for the children
with special needs (MR) was also mentioned in the National Curriculum Framework (2005). Further the Tennessee Department of Education, (2005) also addresses money management skills in transition planning and practices for youth with disabilities including MR. Bouck and Joshi (2012) found out from analysing the NLTS2 that average mental skills of the students with mild MR who received functional curriculum were 10.6%. This shows the emphasis of the special schools in empowering the students with MR in money management.

2. None of the special schools for students with mild MR are offering training in the subcompetency- *Calculating and Paying Tax* under the competency- *Managing family finance*. For not offering training, the reason given by the special educators was that- Persons with MR working in any sheltered workshop or in any jobs receive very less salary and do not fall under the tax-payer bracket. While, according to the Income Tax Act (1961) in India, persons with disability are required to pay tax, though certain deductions may be applied (Bandyopadhyay & Roy, 2011). This shows that there is the need for students with MR to learn this skill. In other country like Tennessee, Department of Education, (2005) emphasised to offer tax paying skills in transition planning and practices for youth with disabilities including MR. However, this skill is yet to address in the sample schools.

3. A small percentage (42.1%) of special schools for students with mild MR are offering training in the subcompetency- *Obtain and Use Bank and Credit Facilities* under the competency- *Managing Family Finance*. For not offering training, the reason given by the special educators was that- Persons with MR
lack understanding and performance ability of this skill. While, the Tennessee Department of Education (2005) addresses banking skills-posting a deposit in a check register, posting a withdrawal in a check register, complete a bank deposit slip, complete a withdrawal slip and write a check in transition planning and practices for youth with disabilities including MR. Further, Reserve Bank of India has permitted the banks to open accounts for disabled persons including MR, by appointing legal guardians by local level committees set up under the National Trust Act, 1999. Through legal guardian students with MR can also utilize bank facilities. Thus more percentage of special schools needs to empower money management skills to the students with MR.

4. Only 31.6% of special schools for students with mild MR are offering training in the subcompetency- *Selecting Adequate Home* under the competency-*Selecting, Managing and Maintaining a Home*. For not offering training, the reason given by the special educators was that Persons with MR cannot lead life independently or individually in a separate house. The National Curriculum Framework 2005 highlights to develop independent living skills for the children with special needs. The Tennessee Department of Education, (2005) also addresses home living skills, home maintenance skills and operate household appliances in transition planning and practices for youth with disabilities including MR. This reveals that the subcompetency been addressed in the school programmes of other country as well as present sample schools which is not to a sufficient extent. Thus, schools need to empower the students to lead an independent life in the society by offering training in this skill.
5. All the special schools for students with mild MR are offering training in the subcompetencies- *Dress appropriately, Exhibit proper grooming and hygiene, Demonstrate knowledge of common illness prevention and treatment* under the competency- *Caring for Personal Needs*. While the National Curriculum Framework 2005 also addresses need for health, hygiene, yoga, sports and physical education for the children with special needs. From the study conducted in Botswana by Dart, Didimalong, and Pilima (2002) it was found out that, schools for MR provided physical fitness education. Further, the Ontario Policy and Program Requirements (2011) also address physical education for Elementary and Secondary Schools including students with special education needs. Fontana and Lari (2001) found out that majority of special schools in Pakistan were following specially adopted curriculum which emphasis on the acquisition of life skills. This reveals that the subcompetencies of Caring for personal needs have been given more importance in the special school programmes across the countries.

6. A negligible percentage (26.3% to 31.6%) of special schools for students with mild MR are offering training in the subcompetencies- *Prepare for adjustment to marriage, Prepare for raising children (physical care), Prepare for raising children (psychological care) and Practice family safety in the home* under this competency- *Raising Children-Family Living*. For not offering training, the several reasons were given by the special educators was that- (a) Persons with MR lack awareness of marital life (b) Danger of having retarded off springs (c) Adjustment to marriage. While, in Nigeria as pointed by Olubukola (2007) ‘family living’ is one of the content areas to be taught to students with MR. In
our country, according to the Constitution of India, Right to marriage and family life are the fundamental rights (Bhat, 2004). Further more, this is also mentioned in the Article 23 of UN Convention on the rights of persons with disabilities as well as in the Rights of Persons with Disabilities Bill, 2012. Even though, in most of the schools these subcompetencies are not provided. When marriage is their fundamental rights, all the special schools needs to create awareness and help them to lead successful family living.

7. All the special schools for students with mild MR are offering training in the subcompetency- Demonstrates appropriate eating skills under the competency- Buying and Preparing Food. Similarly, the Tennessee Department of Education, (2005) also emphasized to provide skills – eating, planning, purchasing and cooking meals in transition planning and practices for youth with disabilities including MR. Thus, the special schools are enabling the students to become self-sufficient by providing this competency.

8. A small percentage (15.8% to 31.6%) of special schools for students with mild MR are offering training in the subcompetencies- Generally understand local laws and government, Generally understand the federal government, Understand citizenship rights and responsibilities, Understand registration and voting procedures, Understand selective service procedures and Understand civil rights and responsibilities when questioned by the law under the competency- Engaging in Civic Activities. For not offering training, the reason given by the special educators were that- Persons with MR cannot understand these concepts, Persons with MR do not have voting right. While, it was noted from The United Republic of Tanzania Country Profile (2004), that
The Associations for Mentally handicapped, an NGO aims in empowering person with MR, also lobbying and advocacy for their rights. Understanding the rights within the law and responsibilities within the society are essential for the students with MR to avoid exploitation of their innocence. So schools need to offer the knowledge about civic activities to create awareness of their rights. Furthermore, according to the Article 29 of United Nations’ Convention on the rights of persons with disabilities (United Nations 2006 and India ratified it on 2007), entitle citizens with disabilities to the same opportunities to participate in elections as their non-disabled peers. When persons with MR have right to vote, special schools need to empower them in attaining their rights.

9. None of the special schools for students with mild MR are offering training in the subcompetency- Drive a Car under the competency- Getting around the Community. For not providing offering, the reason given by the special educators was that- Persons with MR do not get driving license. According to Motor Vehicles Act, 1988 (India), if applicant is suffering from any disability which is likely to cause danger to the public by driving the motor vehicle then the licensing authority shall refuse to issue the learner’s license. But it is not mentioned that persons with MR cannot get driving license. If person with MR given suitable training, they also become eligible to receive driving license. While, the Tennessee Department of Education (2005) emphasised to offer skills- driver’s education training in transition planning and practices for youth with disabilities including MR. So special schools need to take an initiative in offering this skill.
10. All the special schools for students with mild MR are offering training in the subcompetencies- *Attain a sense of body, Identify interests and abilities* under the competency-*Achieving Self Awareness*. Further Lin (2008) found out that most of the students (94.8%) in Taiwan had individualized curriculum developed based on their needs. This reveals the emphasis of special schools to promote self awareness in the students with MR.

11. All the special schools for students with mild MR are offering training in the subcompetencies- *Know character traits needed for acceptance, Know proper behaviour in public places, Develop respect for the rights and properties of others, Recognise authority and follow instructions* under the competency-*Achieving Socially Responsible Behaviour*. A study conducted in Botswana by Dart, Didimalong and Pilima (2002) found out that the Botswana schools for MR are providing the competency-*Socially Responsible Behaviour*. The Social skills are also being addressed in the school programmes for MR in Indonesia (Wahab, 2005), Ghana (Quist, Nyarko & Deku, 2007), Karachi (Sajjad, Joubish & Khurram, 2010) and USA (Bouck & Joshi, 2012). This reveals that the special schools are enabling the students to achieve this competency for their social development.

12. All the special schools for students with mild MR are offering training in the subcompetencies-*Know how to listen and respond, make and maintain friendship* under the competency-*Maintaining Good Interpersonal Skills*. In other country like Botswana, as noted by Dart, Didimalong and Pilima (2002) that the competency- maintaining good interpersonal skills are also been offered in the schools for students with MR. This reveals that the special
schools are addressing this competency and helping students to develop better relationships at home and work.

13. A least percentage (47.4%) of special schools for students with mild MR are offering training in the subcompetencies- Differentiate Bipolar Concepts, Look at Alternatives, Anticipate Consequences and Know Where to Find Good Advice under the competency- Achieving Problem Solving Skills. For not offering training, the reason given by the special educators was that- Persons with MR cannot understand these concepts. Even the National Curriculum Framework 2005 emphasis on inculcating critical thinking, decision making and problem solving skills to the children with special needs. The Tennessee Department of Education, (2005) also addresses skills- decision making in transition planning and practices for youth with disabilities (including students with MR). Thus more sample schools need to stimulate higher order thinking in the students with MR.

14. All the special schools for students with mild MR are offering training in the subcompetencies- Read at level needed for future goals and Write at the level needed for future goals under the competency- Communicating Adequately with Others. According to the data released from NLTS-2 (US Department of Education), 28.5% of students with MR are receiving communication skill and 19.5% are receiving reading skills in the schools program. Sajjad, Joubish and Khurram (2010) found out that most of the special schools for persons with disabilities in Karachi including MR were offering pre-vocational training programs which emphasis on communication skills. Further, Bouck and Joshi (2012) found out from analysing the NLTS2 that majority of students with
mild MR had academic skills (60.1%) and basic academic skills (19.2%) outside of functional curriculum. This reveals the significance of this skill received in the special school programmes to empower socialization in the students.

15. All the special schools for students with mild MR are offering training in the subcompetencies—Identify major occupational interests under the competency- Selecting and Planning Occupational Choices. Related to this competency, it was also mentioned in The National Curriculum Framework 2005 that the students with special educational needs should be properly guided for a particular vocation in accordance with their abilities, aptitudes, and interest. A study conducted in the regular and special schools of Chennai by Suresh and Santhanam (2002) explored the significant relationship between generic skills and aptitude, work traits and aptitude of people with mild and moderate MR. Further the Tennessee Department of Education (2005) also addresses skills—identify personal strengths and interests for career/vocational choices in transition planning and practices for youth with disabilities including students with MR. This reveals that the special schools are selecting and planning occupational choices for the students with MR after considering their interests, abilities and aptitudes.

16. All the special schools for students with mild MR are offering training in the subcompetencies—Follow directions, Work with others, Accept supervision and Demonstrate occupational safety under the competency—Exhibiting Appropriate Work Habits and Behaviour. The National Curriculum Framework 2005 also emphasised that pre-vocational skills should include
acquisition of work skills, awareness about work ethics, appropriate work habits, responsibility sharing and inculcation of values- honesty, punctuality, dignity of labour, respect for teamwork and productivity consciousness. Further McCuller, Moore and Salzberg (1990) found out that in Utah, Idaho and Nevada, job responsibility and social vocational competencies, task production competency are provided to the workers with MR. This shows that the special schools are enabling the students to develop positive performance at work.

17. All the special schools for students with mild MR are offering training in the *Specific Occupational Skills*. Earlier studies conducted by Rao and Reddy (2004) found out that in India, 60% of special school are providing prevocational and vocational training, 57% of special school are for MR, 13% of special school providing sheltered workshop. In another study by Rao and Kumar (2004) found out that in India services of vocational phases provided by prevocational training are 90%, vocational training 87%, on the job training 59%, placement 44% and NGO with vocational facilities 34%. Further, the Tennessee Department of Education, (2005) also addresses occupation specific skills in transition planning and practices for youth with disabilities (MR). Lin (2008) found out that more students lived in the middle part of Taiwan, attended general/vocational high schools (50.1%). Sajjad, Joubish and Khurram (2010) found out that no such affective pre-vocational and vocational training programs for the persons with disabilities including MR in Karachi. This shows the special schools differing emphasis on enabling the students to improve their work productivity.
18. A small percentage (31.6%) of special schools for students with mild MR are offering training in the subcompetency- Interview for job under the competency- Seeking, Securing and Maintaining Employment. For not offering training, the reason given by the special educators was that- Persons with MR are selected for job based on their work performance rather than attending an interview. While the Tennessee Department of Education, (2005) addresses skills- Interview in transition planning and practices for youth with disabilities. This reveals that this skill is being addressed in the schools of other country. While the special schools in the present study yet to address this subcompetency in their school programme.

5.9.2 Major Findings and Discussions of the Special Schools of Karnataka State Offering Training in Different Subcompetencies of LCCE for the Students with Moderate Mental Retardation

1. All the special schools for students with moderate MR are offering training in the subcompetency- Count Money under the competency- Managing Money. This subcompetency for the children with special needs (MR) was also mentioned in the National Curriculum Framework (2005). Further the Tennessee Department of Education (2005) also addresses money management skills in transition planning and practices for youth with disabilities including MR. This shows the emphasis of the special schools in empowering the students with MR in money management.

2. None of the special schools for students with moderate MR are offering training in the subcompetency- Use vending machine under the competency- Managing Money. For not offering training, the reason given by the special
educators was that- In Indian context, it is not very common and usually found only in major cities. While on this skill, more research study need to be conducted.

3. A least percentage (26.3%) of special schools for students with moderate MR are offering training in the subcompetency- *Perform banking skills* under the competency- *Managing Money*. For not offering training, the reason given by the special educators was that- Persons with MR lack understanding and performance ability of this skill. While, the Tennessee Department of Education (2005) addresses banking skills-posting a deposit in a check register, posting a withdrawal in a check register, complete a bank deposit slip, complete a withdrawal slip and write a check in transition planning and practices for youth with disabilities including MR. Further, Reserve Bank of India has permitted the banks to open accounts for disabled persons including MR, by appointing legal guardians by local level committees set up under the National Trust Act, 1999. Through legal guardian students with MR can also utilize bank facilities. Thus more percentage of special schools needs to empower money management skills to the students with MR.

4. A least percentage (26.3%) of special schools for students with moderate MR are offering training in the subcompetency- *Selecting appropriate community living environment* under the competency- *Selecting, and maintaining living environment*. For not offering training, the reason given by the special educators was that- Persons with MR cannot lead life independently or individually in a separate home. The National Curriculum Framework 2005 highlights to develop independent living skills for the children with special
needs. Further, Fontana and Lari (2001) found out that majority of special schools in Pakistan were following specially adopted curriculum which emphasis on the acquisition of skills of self maintenance. This reveals that the subcompetency been addressed in the school programmes of other country as well as present sample schools which is not to a sufficient extent. Thus, special schools need to empower the students to lead an independent life in the society by offering training in this skill.

5. All the special schools for students with moderate MR are offering training in the subcompetencies- *Dress appropriately, Perform appropriate grooming and hygiene and, Recognise and seek help for illness* under the competency- *Caring for personal health*. While the National Curriculum Framework 2005 also addresses need for health, hygiene, yoga, sports and physical education for the children with special needs. Further, the Tennessee Department of Education (2005) addresses dressing, grooming and hygiene in transition planning and practices for youth with disabilities including MR. This reveals that the subcompetencies of Caring for personal needs have been given more importance in the special school programmes across the countries.

6. A small percentage (26.3%) of special schools for students with moderate MR are offering training in the subcompetencies- *Demonstrate knowledge of basic human sexuality* under this competency- *Developing and maintaining appropriate intimate relationships*. For not offering training, the reason given by the special educators was that-Persons with MR (a) cannot understand this concept (b) lacks awareness of marital life (c) danger of having retarded off springs. While, on this skill more research studies need to be conducted.
7. None of the special schools for students with moderate MR are offering training in the subcompetencies- Demonstrate knowledge of appropriate dating behaviour under this competency- Developing and maintaining appropriate intimate relationships. For not offering training, the reason given by the special educators was that- Dating is a western concept and unacceptable in our society. While, the Tennessee Department of Education, (2005) addresses knowledge about getting along with the opposite sex and relationships with the opposite sex in transition planning and practices for youth with disabilities including MR. The dating behaviour as a subcompetency in LCCE includes knowledge of appropriate touch at school and community, knowledge of personal relationship and knowledge of matured social emotional feeling. These skills need to be offered in the special schools which are most essential to avoid sexual harassment of students with MR.

8. All the special schools for students with moderate MR are offering training in the subcompetency- Demonstrates appropriate eating skills under the competency- Buying and Preparing Food. Similarly, the Tennessee Department of Education, (2005) also emphasized to provide skills- eating, planning, purchasing and cooking meals in transition planning and practices for youth with disabilities including MR. Thus, the special schools are enabling the students to become self-sufficient by providing this competency.

9. A small percentage (5.3%) of special schools for students with moderate MR are offering training in the subcompetencies- Demonstrate appropriate restaurant dining under this competency- Buying and Preparing Food. For not offering training, the reason given by the special educators was that-
Persons with MR cannot independently utilize restaurant facility. While, the Tennessee Department of Education (2005) emphasized to provide restaurant dining in transition planning and practices for youth with disabilities including MR. Thus, all special schools should offer training in this skill.

10. All the special schools for students with moderate MR are offering training in the subcompetency- *Demonstrate knowledge of personal interests and abilities* under the competency- *Acquiring Self-identify*. Further Lin (2008) found out that most of the students (94.8%) in Taiwan had individualized curriculum developed based on their needs. This reveals the emphasis of special schools to promote self awareness in the students with MR.

11. All the special schools for students with moderate MR are offering training in the subcompetency- *Demonstrate socially appropriate behaviour* under the competency- *Exhibiting socially responsible behaviour*. A study conducted in Botswana by Dart, Didimalong and Pilima (2002) found out that the Botswana schools for MR are providing the competency- Socially Responsible Behaviour. This reveals that the special schools are enabling the students to achieve this competency for their social development.

12. A small percentage (26.3%) of special schools for students with moderate MR are offering training in the subcompetency- *Demonstrate appropriate citizenship rights and responsibilities* under the competency- *Exhibiting socially responsible behaviour*. For not offering training, the reason given by the special educators was that- Persons with MR cannot understand these concepts. While, it was noted from The United Republic of Tanzania Country Profile (2004), that The Associations for Mentally handicapped, an NGO aims
in empowering person with MR, also lobbying and advocacy for their rights. Understanding the rights within the law and responsibilities within the society are essential for the students with MR to avoid exploitation of their innocence. So special schools need to offer the knowledge about civic activities to create awareness of their rights.

13. All the special schools for students with moderate MR are offering training in the subcompetencies- *Develop and maintain friendship* under the competency- *Developing and maintaining appropriate social relationships*. In other country like Botswana, as noted by Dart, Didimalong and Pilima (2002) that the competency- maintaining good interpersonal skills are also been provided in the schools for students with MR. The Social skills are also being addressed in the school programmes for MR in Ghana (Quist, Nyarko & Deku, 2007) and Karachi (Sajjad, Joubish & Khurram, 2010). This reveals that the schools are addressing this competency and helping students to develop better relationships at home and work.

14. A least percentage (26.3%) of special schools for students with moderate MR are offering training in subcompetencies- *Identify problems/conflicts, Use appropriate resources to assist in problems solving, Develop and select best solution to problems/conflicts, Demonstrate decision making* under the competency- *Making Informed Decisions*. For not offering training, the reason given by the special educators was that- Persons with MR cannot understand these concepts. Even the National Curriculum Framework 2005 emphasis on inculcating critical thinking, decision making and problem solving skills to the children with special needs. The Tennessee Department of Education, (2005)
also addresses skills- decision making in transition planning and practices for youth with disabilities (including students with MR). Thus more sample schools need to stimulate higher order thinking in the students with MR.

15. All the special schools for students with moderate MR are offering training in the subcompetencies- *Demonstrate listening and responding skills and Demonstrate effective communication* under the competency- *Communicating with others*. Similarly in Botswana schools for MR, communication skills are provided (Dart, Didimalong & Pilima, 2002). Sajjad, Joubish and Khurram (2010) found out that most of the special schools for persons with disabilities in Karachi including MR were offering pre-vocational training programs which emphasis on communication skills. This reveals the significance of this skill received in the special school programmes to empower socialization in the students.

16. All the special schools for students with moderate MR are offering training in the subcompetency- *Demonstrate knowledge of occupational interests* under the competency *Making occupational and job placement choices*. Related to this competency, it is also mentioned in The National Curriculum Framework 2005 that the students with special educational needs should be properly guided for a particular vocation in accordance with their abilities, aptitudes, and interest. A study conducted in the regular and special schools of Chennai by Suresh and Santhanam (2002) explored the significant relationship between generic skills and aptitude, work traits and aptitude of people with mild and moderate MR. In other country like Indonesia, as highlighted by Wahab (2005) that vocational skills at the junior higher level are developed based on the
students potential and interests. This reveals that the special schools are selecting and planning occupational choices for the students with MR after considering their interests, abilities and aptitudes.

17. A least percentage (31.6%) of special schools for students with moderate MR are offering training in the subcompetency- *Interview for occupational training and job placements* under the competency *Applying for and maintaining occupational training and job placement*. For not offering training, the reason given by the special educators was that Persons with MR are selected for job based on their work performance rather than attending an interview. While the Tennessee Department of Education, (2005) addresses skills- Interview in transition planning and practices for youth with disabilities. This reveals that this skill is being addressed in the schools of other country. While the special schools in the present study yet to address this subcompetency in their school programme.

18. All the special schools for students with moderate MR are offering training in the subcompetencies- *Perform work directions and requirements, respond appropriately to supervision, Demonstrate jobs safety and Work co-operatively with others* under the competency *Developing and maintaining appropriate work skills and behaviour*. The National Curriculum Framework 2005 also emphases that pre-vocational skills should include acquisition of work skills, awareness about work ethics, appropriate work habits, responsibility sharing and inculcation of values- honesty, punctuality, dignity of labour, respect for teamwork and productivity consciousness. In other country like Botswana, as noted by Dart, Didimalong and Pilima (2002) that enhancing employment
opportunities and promoting self reliance are focused by Botswana Revised National Policy on Education for students with MR. This shows that the special schools are enabling the students to develop positive performance at work.

19. All the special schools for students with moderate MR are offering training in the subcompetency of competency *Training and occupational choices*. Earlier studies conducted by Rao and Reddy (2004) found out that in India 60% of special school are providing prevocational and vocational training, 57% of special school are for MR, 13% of special school providing sheltered workshop. Further, Katsiyannis et al., (2005) examined data from the National Longitudinal Transition Study 2 and found out that a small percentage of students with MR had post secondary education as a transition goal, while more of them had sheltered and supported employment as a transition goal. Whereas, Sajjad, Joubish and Khurram (2010) found out that no such affective pre-vocational and vocational training programs for the persons with disabilities in Karachi. While Yekple and Mensah (2012) found out that there is an inadequate practical vocational training in the schools in Ghana. According to the data released from NLTS2 (US Department of Education), it was found out that more number of students with MR were included in the pre-vocational and vocational training in schools. Mehra (2011) found out that all the 15 organisations were performing 93.3% vocational assessment, 90% vocational training, 86.57% placement and 93% follow-up services for persons with MR in Hyderabad. This shows the special schools differing emphasis on enabling the students to improve their work productivity.
5.9.3 Major Findings and Discussions of the Male and Female Students with Mild MR Exhibiting Different Levels of Work Readiness Skills

1. All the students with mild MR exhibited independent level of work readiness skills in *Personal skills*. Contradictory to this, Grossman (1983) noticed that many individual with MR have significant limitation in social responsibility and personal independence. Similarly, Murugan (2007) found the group mean of current level of daily living activities skills among students with mild MR as 43.32%, which was at average level.

2. All the students with mild MR exhibited independent level of work readiness skills in *Communication skills*. While, Abeduto and Rosenberg (1980) finding a generally well developed level of conversational competence in adults with mild MR, found specific deficiencies in the use of indirect speech acts. Another study by Kuder and Bryen (1991) found out that there was a significantly more verbal interaction and verbal communication in the classroom as compared to the residential setting but few differences in qualitative aspects of communication.

3. In majority of the subskills of *Social behaviour skills*, all the students with mild MR exhibited independent level of work readiness skills. Except, less than 20% of students with mild MR exhibited dependent level of work readiness skills in the *Leading peer group in simple activities subskill*. In these skills, more percentage of male exhibited independent level of work readiness skills compared to female students with mild MR. While, several studies contradict this finding. Pfeiffer and Baker (1994) found out that children with MR, by nature of their cognitive impairments and deficits in adaptive behavior,
are at risk for a number of negative outcomes, including social-emotional problems. Murugan (2007) found the group mean of current level of social skills among students with mild MR as 30.27% at average level. While, Tekinarslan, Pinar and Sucuoglu (2012) found out that the social skills of the female are more than those of the male students with MR. Further Umadevi and Sukumaran (2012) found out that more than 50% of sample found to be non-functional in social skills and adults with MR do not differ significantly with respect to gender.

4. All the students with mild MR exhibited independent level of work readiness skills in reading and writing subskills under the Functional academic skills. These findings contradict the findings of Katims (2001), Amritha (2009) and Ratz and Lenhard (2013).

5. Less than 20% of students with mild MR exhibited dependent level of work readiness skills in the mathematics, finance and time subskills under the Functional academic skills. In these subskills, more percentage of male exhibited independent level of work readiness skills compared to female students with mild MR. Contradictory to the finding, it was observed from earlier studies that adult with MR have weak understanding of basic financial concepts (Blount, 1967), mathematical problem solving (Parmar & Cawley, 1991). Murugan (2007) found the group mean of current level of number and time skills among students with mild MR as 28.8% and 30.58% respectively, and least was on the money skills- 16.66%.
6. All the students with mild MR exhibited independent level of work readiness skills in *Safety skills*. This finding is supported by Marchand-Martella and Martella (1990) who reported that students with disabilities competent to bandage real-life injuries of siblings and treat self injuries as reported by their parents. While Murugan (2007) found the group mean of current level of safety skills among students with mild MR as 30.27% at average level.

7. In majority of the subskills of *Domestic behaviour skills*, all the students with mild MR exhibited independent level of work readiness skills. Whereas, students with mild MR slightly differed in exhibiting independent level of work readiness skills in the cooking, clothing and riding bicycle subskills. In these subskills, more percentage of female exhibited independent level of work readiness skills compared to male students with mild MR. While, Schalock and Harper (1978) found that students with MR along with other specific skill deficits, 80% of these individual who failed in living independently lacked meal preparation skills and found from five year follow up that cooking skills as essential variable for successful placement. Further, Murugan (2007) found the group mean of current level of domestic skills among students with mild MR as 46.46% at average level.

8. All the students with mild MR exhibited independent level of work readiness skills in *Mobility and hand functioning skills*. Contradictory to this finding, Robinson and Robinson (1976) marked person with MR as motor and affective deficits. Whereas, Murugan (2007) found the group means of current level of motor skills among students with mild MR as 48.5% and it was the highest level of skill behaviour. While another study by Vuijk and et al. (2010) found
out that children with mild MR had significantly more borderline and definite motor problems than the normative sample.

9. In majority of the *Occupational skills*, all students with mild MR exhibited independent level of work readiness skills. Except, less than 20% of students with mild MR exhibited dependent level of work readiness skills in the *Understanding and completing a task subskill*. In these subskills, more percentage of male exhibited independent level of work readiness skills compared to female students with mild MR. Suresh and Santhanam (2002) found out that persons with mild and moderate MR have the same level of generic skills, work traits and work aptitudes from different schools. Whereas, Murugan (2007) found the group mean of current level of pre-vocational skills among students with mild MR as 35.91% at average level.

5.9.4 Major Findings and Discussions of the Male and Female Students with Moderate MR Exhibiting Different Levels of Work Readiness Skills

1. All the students with moderate MR exhibited independent level of work readiness skills in *Personal skills*. Contradictory to this, Grossman (1983) noticed that many individual with MR have significant limitation in social responsibility and personal independence.

2. All the students with moderate MR exhibited independent level of work readiness skills in *Communication skills*. While contradictory to this finding, Bufkin and Altman (1995) found out that students with MR have a significant impairment in their use of nonverbal pragmatics communication.

3. In majority of the social behaviour skills, more than 70% of students with moderate MR exhibited independent level of work readiness skills. Whereas,
less than 75% of students with moderate MR exhibited dependent level of work readiness skills only in *Leading peer group in simple activities subskill*. In these subskills, more percentage of male exhibited independent level of work readiness skills compared to female students with moderate MR. While, Tekinarslan, Pinar and Sucuoglu (2012) found out that the female are more than those of the male students with MR. Another study by Umadevi and Sukumaran (2012) found out that more than 50% of sample found to be non-functional in social skills and adults with MR do not differ significantly with respect to gender.

4. More than 60% of students with moderate MR exhibited independent level of work readiness skills in the *reading and writing subskills* under the Functional academic skills. In these subskills, more percentage of male exhibited independent level of work readiness skills compared to female students with moderate MR. Similar findings found by Katims (2001), Amritha (2009) and Ratz and Lenhard (2013).

5. More than 70% of students with moderate MR exhibited dependent level of work readiness skills in the *mathematics, finance and time subskills* under Functional academic skills. In these subskills, more percentage of male exhibited independent level of work readiness skills compared to female students with moderate MR. Numbers of research studies have shown that individuals with MR can acquire some basic money management skills (LaCampagne & Cipani, 1987; Jitendra & Nolet, 1995). Contradictory to this several authorities have challenged the notion that students with mental retardation are incapable of devising cognitive strategies and engaging in
mathematical problem solving (Parmar & Cawley, 1991; Baroody, 1996) and lack of money use skills (Blount, 1967).

6. In majority of the subskills under Safety skills, all the students with moderate MR exhibited independent level of work readiness skills. Except, a small percentage of students with moderate MR (20%) exhibited dependent level of work readiness skills in the awareness of traffic signal subskill. In these subskills, more percentage of male exhibited independent level of work readiness skills compared to female students with moderate MR. This finding is supported by Marchand-Martella and Martella (1990) who reported that students with disabilities competent to bandage real-life injuries of siblings and treat self injuries as reported by their parents.

7. In majority of the subskills under Domestic behaviour skills, more than 85% of students with moderate MR exhibited independent level of work readiness skills. Whereas students with MR slightly differed exhibiting independent level of work readiness skills in the cooking, clothing, riding bicycle subskills. In these subskills, more percentage of female exhibited independent level of work readiness skills compared to male students with moderate MR. While, Schalock and Harper (1978) found that students with MR along with other specific skill deficits, 80% of these individual who failed in living independently lacked meal preparation skills and found from five year follow up that cooking skills as essential variable for successful placement.

8. All the students with moderate MR exhibited independent level of work readiness skills in Mobility and hand functioning skills. Contradictory to this finding, Robinson and Robinson (1976) marked person with MR that they have
motor and affective deficits. Whereas, Lahtinen, Rintala and Malin (2007) found out that there is static balance and manual dexterity improved from early to late adolescence and decline during adulthood, further, gender differences in adulthood were significant in physical performance.

9. In majority of the Occupational skills, 70% of students with moderate MR exhibited independent level of work readiness skills. Whereas, less than 60% of students with moderate MR exhibited dependent level of work readiness skills only in the Understanding and completing a task sub-skill. In these subskills, more percentage of male exhibited independent level of work readiness skills compared to female students with moderate MR. While, Suresh and Santhanam (2002) found out that persons with mild and moderate MR have the same level of generic skills, work traits and work aptitudes from different schools.

5.9.5 Major Findings and Discussions of the Male and Female Students with Mild MR Exhibiting Different Levels of Vocational Competency

1. Majority of the students with mild MR (50%) exhibited moderate level of vocational competency in Motor skills. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with mild MR. While, Vuijk and et al., (2010) found out that children with mild MR had significantly more borderline and definite motor problems than the normative sample.

2. Majority of the students with mild MR (45%) exhibited higher level of vocational competency in Cognitive skills. Whereas, majority of students with MR (70%) exhibited moderate level of vocational competency in measuring
and transferring skills. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with mild MR. Contradictory to this, studies found out that adult with MR take longer time in learning new things (Dixon and Reddacliffe, 1996; Tiwari, 2011). While Fletcher et al. (2004) found out that children with higher IQ scores were not the same children that scored at high levels on the cognitive tasks. Further on Reading skills, Ratz and Lenhard (2013) found out that 29.3% of students with MR do not read at all, 6.8% read at a logographic stage and 31.9% at an orthographic level.

3. Majority of the students with mild MR (60%) exhibited higher level of vocational competency in Responsibility skills. Whereas, majority of students with MR (50%) exhibited moderate level of vocational competency in Specifying what is Unclear and Adequacy of performance. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with mild MR. While, Dixon and Reddacliffe (1996) found out that adult with MR were punctual, honest, helpful and complying with supervisor’s requests. Whereas, Tiwari (2011) found out that students with mild and moderate MR were at average level in work behaviour.

4. Majority of the students with mild MR (50%) exhibited higher level of vocational competency in Social-emotional skills. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with mild MR. This finding contradicts to the findings of Tiwari (2011), Umadevi and Sukumaran (2012). While Herbert and Ishikawa (1991) found out that workers in supportive work program had higher
social skills compared to workers in sheltered work program. Further, Black and Rojewski (1998) found out that mean ratings on the social awareness sub-scales were higher for the adolescents with mild MR rated higher in work performance.

5.9.6 Major Findings and Discussions of the Male and Female Students with Moderate MR Exhibiting Different Levels of Vocational Competency

1. Majority of the students with moderate MR (50%) exhibited moderate level of vocational competency in Motor skills. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with moderate MR. Whereas, Lahtinen, Rintala and Malin (2007) found out that there is static balance and manual dexterity improved from early to late adolescence and decline during adulthood, further, gender differences in adulthood were significant in physical performance.

2. Majority of the students with moderate MR (60%) exhibited moderate level of vocational competency in Cognitive skills. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with moderate MR. Tiwari (2011) found out that learning from past experience (cognition skills) was at least occurring behaviour of students with mild and moderate MR. Parhamovich (1989) found out that there are significant differences in vocational competency scores between institutionalised and non-institutionalised individuals with MR. On the reading skills, Ratz and Lenhard (2013) found out that 29.3% of students with MR do not read at all, 6.8% read at a logographic stage and 31.9% at an orthographic level.
3. Majority of the students with moderate MR (50%) exhibited moderate level of vocational competency in Responsibility skills. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with moderate MR. While, Dixon and Reddacliffe (1996) found out that adults with MR were punctual, honest, helpful and complying with supervisor’s requests. Whereas Tiwari (2011) found out that students with mild and moderate MR were at average level in work behaviour.

4. Majority of the students with moderate MR (60%) exhibited moderate level of vocational competency in Social-emotional skills. In these skills, more percentage of male exhibited higher level of vocational competency compared to female students with moderate MR. This finding contradicts to the findings of Tiwari (2011), Umadevi and Sukumaran (2012). While Herbert and Ishikawa (1991) found out that workers in supportive work program had higher social skills compared to workers in sheltered work program. Further, Grossman (1983) also noticed that many individual with MR have significant limitation in social responsibility and personal independence.

5.9.7 Major Findings of the Relationship between (a) Work Readiness Skills and School Experience (b) Work Readiness Skills and Pre-Vocational Training Experience among Students with Mild and Moderate Mental Retardation

1. The study findings revealed that there is positive relationship at high level between work readiness skills and school experience among students with mild MR which is significant at the 0.01 level.
2. The study findings revealed that there is positive relationship at high level between work readiness skills and pre-vocational training experience among students with mild MR which is significant at the 0.01 level.

3. The study findings revealed that there is positive relationship at high level between school experience and pre-vocational training experience among students with mild MR which are significant at the 0.01 level.

4. The study findings revealed that there is positive relationship at high level between work readiness skills and school experience among students with moderate MR which is significant at the 0.01 level.

5. The study findings revealed that there is positive relationship at high level between work readiness skills and pre-vocational training experience among students with moderate MR which is significant at the 0.01 level.

6. The study findings revealed that there is positive relationship at high level between school experience and pre-vocational training experience among students with moderate MR which are significant at the 0.01 level.

5.9.8 **Major Findings of the Relationship between (a) Vocational Competency and School Experience (b) Vocational Competency and Vocational Training Experience among Students with Mild and Moderate Mental Retardation**

1. The study findings revealed that there is negative relationship between vocational competency and school experience among students with mild MR which is significant at the 0.01 level.

2. The study findings revealed that there is positive relationship at high level between vocational competency and vocational training experience among students with mild MR which is significant at the 0.01 level.
3. The study findings revealed that there is negative relationship between school experience and vocational training experience among students with mild MR which are significant at the 0.01 level.

4. The study findings revealed that there is positive relationship at high level between vocational competency and school experience among students with moderate MR which is significant at the 0.01 level.

5. The study findings revealed that there is positive relationship at high level between vocational competency and vocational training experience among students with moderate MR which is significant at the 0.01 level.

6. The study findings revealed that there is positive relationship at high level between school experience and vocational training experience among students with moderate MR which are significant at the 0.01 level.

5.9.9 Tenability of Hypotheses

1. The study findings revealed that there is no significant difference between male and female students with mild mental retardation in work readiness skills. Hence null hypothesis 5 is accepted.

2. The study findings revealed that there is no significant difference between male and female students with moderate mental retardation in work readiness skills. Hence null hypothesis 6 is accepted.

3. The study findings revealed that there is no significant difference between male and female students with mild mental retardation in vocational competency. Hence null hypothesis 7 is accepted.

4. The study findings revealed that there is no significant difference between male and female students with moderate mental retardation in vocational competency. Hence null hypothesis 8 is accepted.
5.9.10 Major Findings of the Special Schools Variation in (a) Work Readiness Skills and (b) Vocational Competency

1. The students with mild MR in the special schools of Kodagu district exhibited more independent level of work readiness skills compared to the students with mild MR in the special schools of other districts.

2. The students with moderate MR in the special schools of Mysore district exhibited more independent level of work readiness skills compared to the students with moderate MR in the special schools of other districts.

3. The students with mild MR in the special schools of Mysore district exhibited higher level of vocational competency compared to the students with mild MR in the special schools of other districts.

4. The students with moderate MR in the special schools of Bangalore district exhibited higher level of vocational competency compared to the students with moderate MR in the special schools of other districts.

5.10 EDUCATIONAL IMPLICATIONS OF THE STUDY

1. Understanding the rights within the law and responsibilities within the society are essential for the students with mental retardation to avoid exploitation of their innocence from the society. So all the special schools for mental retardation should offer training in the subcompetencies in civic activities.

2. All the special schools for mental retardation should offer training in the subcompetencies of Raising children- Family living, human relationship and human sexuality. This helps the students with mental retardation to prepare them for a successful family living.
3. To lead an independent life in the society more training should to be offered in all the special schools for mental retardation related to home living, knowledge of using banking facilities, vending machines, restaurant dining, driving car and knowledge about paying tax also. This helps the students with MR to learn self maintenance skills rather than life long dependent on others.

4. All the special schools for mental retardation should enhance the decision making and problem solving skills in the students with MR. This helps to stimulate higher order thinking in them.

5. For a successful job placement, learning interview skill is also important. All the special schools for mental retardation should offer training in this skill and help the students to lead an economically independent life.

6. More training should be given to students with mild and moderate MR, in which they are exhibiting dependent level of work readiness skills. Especially on leading peer group in simple activities under social behaviour skills, numbering, purchasing, financing and timing subskills under functional academics skills, washing cloths and cooking subskills under domestic behaviour skills, understanding and completing a task under occupational skills. That helps the student to acquire and exhibit independent level of the work readiness skills required for vocation.

7. More training should be given to enhance vocational competency of the students with mild and moderate mental retardation in which they are exhibiting low to moderate level of vocational competency. Especially in the domain- Motor and Cognition Skills. So that students with mental retardation exhibit high level of vocational competency.
5.11 SUGGESTIONS FOR FURTHER STUDY

1. A study can be done with a larger sample covering all the special schools for MR in Karnataka state, so that more generalisable findings would be obtained.

2. A similar exploratory study can be done in other states of India, so that more students with MR can be benefited.

3. Comparison between special schools for MR offering and not offering training in the LCCE.

4. A study can be done on the other level of retardation - severe and profound, to explore the programmes conducted to them in the special schools.