# Factors That Affect the Participation of Female Students in Apparatus Gymnastic Practical Classes: The Case of Madda Walabu University Sport Science Students

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## Abstract

This study aims to assess the factors that affect the participation of female students in apparatus gymnastic practical class at Madda Walabu University among sport science students. To accomplish this purpose across sectional descriptive survey design, which is supplemented by qualitative research, was employed. The study was carried out at Madda Walabu University which is found in Bale zone, Oromia regional state in Ethiopia. In this study, both probability (lottery sampling) and non-probability (purposive) sampling technique were employed to obtain the representative sample units. That means 15 female students were selected randomly while five (5) instructors were selected purposively. At all about 20 or (44.4%) of the population samples were involved in the study. Questionnaire was the main instrument of data collection. While interviews were also utilized to substantiate the data gained through the questionnaire. Percentage, mean, standard deviation and independent sample t test were employed to analyze the quantitative data and qualitative data which was obtained through interview were analyzed using thematic analysis. The results of the study revealed that, students have no experience or back grounds about the apparatus gymnastic before they joined the university, their interests to learn apparatus gymnastic and their attitude towards apparatus gymnastic were very low. In addition the situations like shortage of time given for apparatus gymnastic course, female students' lack of confidence in practical class, lack of favorable condition which enables them to practice apparatus gymnastic in the university and shortage of teaching materials in the university were the factors that contributed for the decrease of students' interest. The point of the recommendations include: The University's management with the community should adjust the facilities such as standardized gymnasium and water supply for bathing during practices and should have to allocate the budget in order to fulfill gymnastic materials like: uneven bars, trampolines, balance beam, floor exercise mats, vaulting boxes, different balls and ropes as well as spring boards and others. The university managements have to appreciate and encourage sport science instructors and community to produce and utilize relevant instructional materials, which are locally made to enhance the teaching learning process in apparatus gymnastic.

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## 1. Background of the Study

## 1.1 Introduction

Education is the major foundations of societal programs human beings adopt nature according to their need by the basic and effective instrument. Without education, development will not occur. Education particularly formal is therefore essential; if not the determining ingredients in nation building development is also a principal means of improving the welfare of individuals. Concerning this Lockheed and Verspoor (1991) argued that, education is a cornerstone of economic and social development. It improves the productive capacity of societies, their political, economic and scientific institutions; it plays a role in the promotion of respect for human rights and democratic values, creating the condition for equality, mutual understanding, and cooperation among people Physical education is one of the components of the general education in Ethiopian general education curricula; it is given at all educational levels and includes various disciplines of sport it incorporates different categories such as but not limited to Gymnastic, Athletics, Football, basketball, volley ball, hand ball, miner games etc.

It is generally accepted that physical activity confers benefits to psychosocial health, functional ability and general quality of life and has been proven to reduce the risk of coronary heart disease and some cancers. (Powell KE, 199,313) here, physical activity refers to 'any bodily movement produced by skeletal muscles that results in energy expenditure.

There is an international consensus that participation in physical activities can offer a great deal to individuals, communities and nations. To carry out this participation, a curriculum that consists of different learning areas is needed. Physical education program, as a crucial learning area for the overall development of students, is one and an integral part of the curriculum.

It is a definite and functional education that aims to develop the pupil's physical, social, emotional and mental capacities to the optimum.

Wiles and Hawes (1986:19) stated that physical education is affective learning area that provides students with opportunities to progressively develop knowledge, skills attitudes and values to come health individuals with the ability and confidence to manage their own life style. On the other hand many girls around the world are not currently able to take advantage of the benefits of regular sports and physical activities due to inequitable access and opportunities.

Gymnastics is an activity of ancient origins and modern tensions. Most large and medium size cities and towns have a private gymnastics school or offer gymnastics activities via a park district, public school, Turners, Sokol, or YMCA. People may justifiably ask the term is derived from Greek word meaning to exercise naked. Media attention toward gymnastics has continued to grow, making gymnastics one of the top television-audience draws. Gymnastics at the top levels continues to draw attention. It has developed a large and vigorous "fan" following, as well and developed some controversy as it has undergone modern growing pains. Little information has been offered regarding the benefits of gymnastics to those who are headed for Olympic glory and those do not destined to reach such levels. (Cooper phyllips, 1993

On a simple level barriers to participation in gymnastic activities include high costs of, poor access to facilities and unsafe environments. Other more complex issues relating to identity and shifting social networks also have a great influence. Flintoff and Scraton (2001:5) noted the disruptive influence of girls in apparatus gymnastic practical class as another major reason for girls' non- participation. The competitive nature of physical education classes and the lack of support for girls from teachers reinforced these problems. Girls were marginalized in physical education class by boys and many described not being able to get involved in games or even getting to use equipment. Teachers were found to be complicit in this marginalization by not challenging the disruptive behavior of boys in class. Coakley and white (1992:20) noted that boys were also disruptive out of class and some boys actively discouraged their girlfriends from participating in sports as it made them. Coakley and White both argue that gender stereotyping has serious negative effects on the participation of girls. Realistic role models for all body types and competency levels were needed rather than the current 'sporty' types.

Without an understanding of the personal and environmental challenges associates with participation in gymnastic activity, establishing effective programs is difficult. Hence, this study tried to identify the factors that affect participation of female students in apparatus gymnastic practical class in Sport science 2<sup>nd</sup> and 3<sup>rd</sup> year students at Madda walabu University.

## 1.2. Statement of the Problem

Sport gymnastic is one of the essential disciplines of physical education that enable people to be healthy, both physically and mentally. Girls also tend to underrate their ability to perform at sports and age less likely than their male peers to view themselves as talented. Participation in physical activity includes numerous health benefits such as reducing or preventing cardiovascular diseases, reducing stress and physical and emotional well being (WHO, 1996).

As a result of unfavorable situations at different levels, majority of females are unable to realize their potential and in most cases remain inactive. Unfortunately, even when individuals with unhealthy want to increase their physical activity levels. Therefore, investigating what were the conditions that affect the participation of female students in gymnastics practical class for sport science students in Madda walabu University is timely and relevant.

#### 1.3. Basic research question

I. What are the factors that affect the participation of female students in apparatus gymnastic practical class among Sport science students in Madda Walabu University?

II. What are the possible Solutions?

#### 1.4. Objective of the Study

The general objectives of this Study were to investigate the factors that affect the participation of female students in apparatus gymnastic practical class at MaddaWalabu University among Sport science students

## 1.4.1. Specific Objective

- To assess the conditions/factors/ that affect female student's participation in apparatus gymnastic practical class.
- To provide the possible suggestions to improve female student's participation in apparatus gymnastic practical class.

## **1.5. Significance of the Study**

The researcher is primarily intended to assess the factors that affect female students' participation in apparatus gymnastic practical class with specific reference of Madda walabu University Sport Science department. Yet, no research is done on the same problem at this area. Therefore, conducting this study will have the following

benefits:-

- > The finding would show the major challenges of female students in gymnastic.
- > It may help student to develop positive attitude towards gymnastic.
- > It may help to create better understanding about the purpose of gymnastic
- It may help female students to identify the challenges to participate in apparatus gymnastic practical class.
- > It may provide some information to the baseline for improvement.
- It may create awareness about the importance of female participations apparatus gymnastic practical class.
- > It may give a purposeful recommendation for other physical education teachers
- The finding of the study may also serve as a corner stone to others who have intention to study the topic further.

#### 2. Review of Related Literature

#### 2.1. Conceptual Definition of Gymnastic

Most individuals think the concepts of gymnastic as only of its physical components, such as fitness and appearance. But the actual concept of physical education has several dimensions. Some dimensions of physical education are health, emotional, social and spiritual. Physical education experiences should provide a student with instructions in activities and skills that have great value to adults. (Atkinson, 1961:10) Similarly, gymnastic is effective leaning area that provides students with opportunities to progressively develop knowledge, skills, attitudes and values to become healthy individuals with the ability and confidence to manage their own life style (Wiles and Hawes, 1986:19).

To Duna (1958) Physical education is the process of education, which is concerned with in the individuals' voluntary movement capabilities and directly related mental, emotional and social responses. From these definitions, it is understood that lack of female participation provides lack of learning experience, lack of activates for the purpose of favorably effecting knowledge, poor attitudes and lack of group participation. These often become problems and burdens on the society unless increasing female participation at every level of the schools. This idea is supported by Molvaer (1989:1) as follows: physical education as term: not meant for and elite or for a few rather it is a knowledge that must reach the masses. Therefore the art and science of engaging female's participation in physical activity in a process of learning for the designed behavior for the preservation of physical education is to develop the attitude of the society.

Many people do take part in regular physical activity and sport and use the benefits to their health, development, enjoyment and friendships. Physical activity and sport plays a key part in people's physical, social and mental development. Benefits of physical activity have been well documented and are numerous. Regular physical activity, in its broadest sense, provides people of all ages with substantial physical, social and mental health gains and wellbeing throughout their life span (Biddle, Fox and Boutcher, 2000).

The benefits of physical activity and sports have been recognized by many scholars. Messer J. and Stone W. (1995) stated regular physical activity, active play and sports can be a practical means to achieve numerous health gains either directly or indirectly through its positive impact on other major risks, in particular high blood pressure, high cholesterol, obesity, tobacco use and stress. Social inequality, poverty and in equal table access to resource, including health care, result a high burden of non communicable diseases (NCDs) among women worldwide. Although women generally tend to live longer with NCDs than men, they are often in poor health. Regular physical activity can improve woman's' health help prevent many of the diseases and conditions that are major causes of death and disability for women around the world. Many women suffer from disease processes that are associated with inadequate participation in physical activity. Cardiovascular diseases account for onethird of deaths among women around the world and half of all deaths in women over 50 years old in developing countries. Diabetes affects more than 70 million women in the world and its prevalence in projected to double by 2025. Osteoporosis is a disease in which bones become fragile and more likely to break and is most prevalent in post- menopausal women. Breast cancer is the mostly commonly diagnosed cancer in women. Physical Activity has also been associated with improved psychological health by reducing levels of stress, anxiety and depression. This is particularly important for women who demonstrate an incidence of depression that is reported to be almost double that of men in both developed and developing countries. It has also been suggested that physical activity can contribute to building self-esteem and confidence and can provide a vehicle for social integration and equality for women in society.

#### **3. Research Methods and Materials**

#### 3.1. Study Area Description

Study was conducted at Madda walabu university which is found in Bale zone Oromia region state located at south east Ethiopia, 430 kilometers far from Addis Ababa the capital city of the country.

## 3.2 Research Method and Design

In order to assess the factors that affect female participation in apparatus Gymnastic practical class, the crosssectional descriptive study design was employed. This is because; the cross sectional descriptive study design is used to gather information from a population at a single time (Gratton & Jones, 2004). And both quantitative and qualitative approaches were used to get reliable result.

## 3.3 Sources of Data

To achieve the stated objectives, date was collected from Sport science instructors and Sport science female students. The decision to use these subjects as a source of data was based on the expectation that, they have a better experience and information about the topic.

## 3.4. Study Population

The populations of this study were all Second and third year sport science department female students about thirty five (35) and ten (10) instructors those who have direct relationship with the course. With the total of 45 population from Madda walabu University sport Science department.

#### 3.5. Sample Size and Sampling Techniques

In this study, both probability (lottery sampling) and non-probability (purposive) sampling technique were employed to obtain the representative sample units. That means fifteen (15) female students were selected randomly while five (5) instructors were selected purposively. At all about 20 (44.4%) of the population samples were involved in the study.

## 3.6. Instruments of Data Collection

In order to acquire the necessary information from the study participants, two types of data collecting instruments were employed. These are: Questionnaire and interview

#### 3.6.1. Questionnaire

Both closed and open ended questionnaire were employed to collect quantitative and qualitative data from selected female students. This is because questionnaire is convenient to conduct survey and to acquire necessary information from large number of respondents with short period of time.

## 3.6.2. Interview

An interview is the verbal questions asked by the interviewer and verbal responses provided by the interviewee (Gall et al., 2007). For this study, Semi-structured type of interview which prepared in English language was used to gather in-depth qualitative data from five (5) sport science instructors.

## 3.7. Data analysis and interpretation

The data gathered from participants was analyzed using frequency; percentages, means and independent sample t-test. The independent t-test was employed to compare 2<sup>nd</sup> and 3<sup>rd</sup> year female students' participation level. This means data collected through questionnaire were analyzed and interpretation was made with the help of the percentage mean, standard deviation and independent t-test. While the data obtained through interview were qualitatively analyzed and results were triangulated with the quantitative findings.

#### 4. Analysis and Interpretation of the Data

This chapter deals with analysis and interpretation of the data gathered from the respondents through questionnaires and interviews. Thus, the quantitative as well as qualitative data analysis was incorporated in this chapter. The qualitative part was supposed to be complementary to the quantitative analysis.

## 4.1 Characteristics of the participants

The respondents were asked to indicate their background information and in view of that, they responded their background information. The details of the respondents' characteristics were given in table-1 below.

| Table 1: Characteristics | s of the Respondents |
|--------------------------|----------------------|
|--------------------------|----------------------|

|                          | Items                       |           | Respondents |            |     |  |  |
|--------------------------|-----------------------------|-----------|-------------|------------|-----|--|--|
|                          |                             | Tea       | achers      | Students   |     |  |  |
|                          |                             | <u>No</u> | %           | N <u>o</u> | %   |  |  |
|                          | Male                        | 4         | 80          | -          | -   |  |  |
| Sex                      | Female                      | 1         | 20          | 15         | 100 |  |  |
|                          | Total                       | 5         | 100         | 15         | 100 |  |  |
| 0                        | 20-25                       | -         | -           | 15         | 100 |  |  |
| Age                      | 26-35                       | 5         | 100         | -          | -   |  |  |
| $\overline{V}$           | Total                       | 5         | 100         | 15         | 100 |  |  |
| 0                        | 1 <sup>st</sup> degree      | -         | -           | -          | -   |  |  |
| ati<br>al<br>vel         | 2 <sup>nd</sup> Degree      | 5         | 100         | -          | -   |  |  |
| Educatio<br>nal<br>Level | 3 <sup>rd</sup> degree(PhD) | -         | -           | -          | -   |  |  |
| Ш                        | Total                       | 5         | 100         | -          | -   |  |  |
| Work                     | 1-4 years                   | 2         | 40          | -          | -   |  |  |
| experience               | 5-10 and above year         | 3         | 60          | -          | -   |  |  |
|                          | Total                       | 5         | 100         | -          | -   |  |  |

As the information obtained from respondents shows in table-1 4(80%) of teachers were males while 1 (20%) of teachers and 15(100%) of the students were females. Regarding to age, as can be seen from the above table, 5 (100%) of the teachers (instructors) were between 26-35 years old. But all 15(100%) of students were between 20-25 years old. From this one can deduce that majorities of the teachers are young and they enthusiastically perform their duties.

The table also indicates that, 5 (100%) of the Sport Science instructors have 2<sup>nd</sup> degree or masters' degree. Yet, the Ethiopian higher education and training policy suggests that teachers (instructors) those who teach in University level should have a minimum of 2nd degree. Therefore, we can conclude that the instructors have equivalent educational level to serve their students.

Table-1, above show that, 2 (40%) of instructors have 1-4 years work experiences. The left 3 (60%) of them have 5-10 years old work experiences. It is clear (from the table) that, the majority of respondents' experiences were above 5 years. This shows that, they have a relatively better and deep understanding of the teaching profession and various programs carried out in the University. This in turn might enable them to provide genuine and correct responses to the questions presented to them. Beside this, they might be in good stand to identify the major problems in the course.

Table-2 Students' Response towards factors that affect their participation in apparatus Gymnastic through closed ended questionnaire

| No.      | Items  | Respondents |           |         |  |
|----------|--|-------------|-----------|---------|--|
|          |  | Response    | Frequency | Percent |  |
| 1        | Do you have experience about practical activities before | No          | 11        | 73.3    |  |
|          | joined Madda walabu University?                          | Yes         | 4         | 26.7    |  |
|          |  | Total       | 15        | 100.0   |  |
| 2        | Do you have interest to learn apparatus gymnastic        | No          | 11        | 73.3    |  |
|          | practical class?   | Yes         | 4         | 26.7    |  |
|          |  | Total       | 15        | 100.0   |  |
| 3        | Do you have positive attitude towards apparatus          | No          | 10        | 66.7    |  |
|          | gymnastic?   | Yes         | 5         | 33.3    |  |
|          |  | Total       | 15        | 100.0   |  |
| 4        | Does the teacher motivate you in apparatus gymnastic     | No          | 5         | 33.3    |  |
|          | practical class separately from male students?           | Yes         | 10        | 66.7    |  |
|          |  | Total       | 15        | 100.0   |  |
| 5        | Does the teacher precede the activities from simple to   |             | 5         | 33.3    |  |
|          | complex in apparatus practical class?                    | Yes         | 10        | 66.7    |  |
|          |  | Total       | 15        | 100.0   |  |
| 6        | Do you think that the time given for apparatus           | No          | 12        | 80.0    |  |
|          | gymnastic is enough to master the activity?              | Yes         | 3         | 20.0    |  |
|          |  | Total       | 15        | 100.0   |  |
| 7        | Do you feel afraid during apparatus gymnastic            | No          | 5         | 33.3    |  |
|          | practicing?  | Yes         | 10        | 66.7    |  |
| <u> </u> |  | Total       | 15        | 100.0   |  |

| No.   | Items  | Respondents |           |         |  |
|---|--|-------------|-----------|---------|--|
|   |  | Response    | Frequency | Percent |  |
| 8   | Does your University have enough teaching material?        | No          | 10        | 66.7    |  |
|   |  | Yes         | 5         | 33.3    |  |
|   |  | Total       | 15        | 100.0   |  |
| 9   | Is there favorable condition in the university to practice | No          | 9         | 60.0    |  |
|   | apparatus gymnastic?                                       | Yes         | 6         | 40.0    |  |
|   |  | Total       | 15        | 100.0   |  |
| 10  | Do you think that apparatus gymnastic exercise is          | No          | 4         | 26.7    |  |
|   | important as other subject?                                |             | 11        | 73.3    |  |
|   |  | Total       | 15        | 100.0   |  |
| 11 Would you think that gymnastic exercise is |  | No          | 5         | 33.3    |  |
|   | difficult than other sports?                               | Yes         | 10        | 66.7    |  |
|   |  | Total       | 15        | 100.0   |  |
| 12  | Does your teacher demonstrate the basic techniques of      | No          | 4         | 26.7    |  |
|   | apparatus gymnastic practically?                           | Yes         | 11        | 73.3    |  |
|   |  | Total       | 15        | 100.0   |  |

As indicated in above Table-2, the students were asked whether they have experience about practical activities before joined Madda walabu University or not. Accordingly 11(73.3%) of female students responded that they have no experience about gymnastic practical activities before joined the University and 4(26.7%) of them responded that they have experience about practical activities before joined the University. Thus, the majorities of the female students which is about 11(73.3%) responded that they have no experience about gymnastic practical activities before joined the university. So, based on the information obtained from female students, it is possible to conclude that the female students have no experience about apparatus gymnastic practical activities before joining the university.

With regard to item no. 2 in the same table, female students were also asked whether they have interest to learn apparatus gymnastic practical class or not. About 11(73.3%) of them were responded 'No' while, the left 4 (26.7%) of female students answered 'Yes'. From this, it can be realized that majority of female students have no interests to learn apparatus gymnastic practical class.

As it has been illustrated in table above, respondents were requested to indicate their perception about their attitude towards apparatus gymnastic practical class. In this regard, 10(66.5%) of them replied that they have no positive attitude towards apparatus gymnastic practical class whereas, 5 (33.5%) of the female students were agreed that they have positive attitude towards apparatus gymnastic practical class. Consequently, it is possible to suggest that the female students have no positive attitude towards apparatus gymnastic practical class. Consequently, it is possible to suggest that the female students have no positive attitude towards apparatus gymnastic practical class the large percent 10 (66.5%) of the respondents. Regarding this Data obtained from conducted interview state:

"The all students have low interests in apparatus gymnastic compare contrast to basic gymnastic. Specially, some of the female students have low interests while the majorities of them have no interests towards this course. In my observation /understanding/ this is maybe because of lack of better enthusiastic/teaching) materials in our university"

In the same table, respondents were asked to indicate their agreement concerning the motivation that the teacher gives them in apparatus gymnastic. Accordingly, 5 (33.3%) of the female students were answered 'No'. This means that the teacher not motivates female students in apparatus gymnastic practical class. In other hand 10 (66.7%) of them answered 'Yes'. Which indicate that the teacher motivate the female students in apparatus gymnastic practical class. In general the majorities of the students 10(66.7%) of them responded 'Yes'. Hence, one can recognize that the teachers motivate female students in apparatus gymnastic practical class separately from male students.

As it can be expressed in above table-2, respondents were asked to indicate their perception concerning to the teacher's procedure on practical application. Regard to this 5(33.3%) of the students responded 'No' which means the teacher not proceed the activities from simple to complex in apparatus practical class. In counter ways 10 (66.7%) of the students replied 'yes' which means that the teacher proceed the activities from simple to complex in apparatus practical class. As anyone can see from the table above the majorities 10 (66.7%) of the respondents decided that the teacher proceed the practice from simple to complex. Therefore based on the above information (data) it is possible to conclude that the teacher have a good methodology of teaching. Because the methodology of teaching says the activities must be from simple to complex.

Table above, investigates the perception of the respondents in relation to the time given for apparatus gymnastic practical class. Accordingly, 12(80%) of the students agreed that the time given for gymnastic practical class is not enough. While 3 (20%) of the students replied that the time given for gymnastic practical class is enough. From this data one can understand that there is the shortage of time to practice the apparatus

gymnastic practical. As depicted in Table above, the respondents were asked to indicate their feeling concerning to their confidence during practical class. In this direction the 5 (33.3%) of students responded that they not feel afraid during apparatus gymnastic practical class. However, the majority 10 (66.7%) of them answered that they feel afraid during apparatus gymnastic practical class. Accordingly it is possible to generalize that female students have no confidence in gymnastic practical class.

With regard to Table-2, students were asked whether their university have enough teaching materials. The students 10 (66.7%) were responded 'No' while, the left 5 (33.3%) of students answered 'Yes'. From this, it can be realized that there are no enough apparatus gymnastic teaching materials in the university. In addition to this the data obtained from interview also indicated that:

"There is the shortage of practical teaching materials in university as all and especially for apparatus gymnastic there is no even basic apparatus such as: uneven bars, balance beam, trampoline, vaulting boxes and others practical teaching materials in our university and this have negative impact on the students' interests which leads to low participation and poor achievements'

In Table 2, the respondents were also asked to put their perception if there were favorable condition which enables them to practice apparatus gymnastic in their university. Concerning the issue 9 (60%) of students and 6 (40%) of students answered 'No' and 'Yes' respectively. The majorities of the respondents responded that there is no favorable condition which enables them to practice apparatus gymnastic in their university. In the same Table, respondents were asked to indicate their attitude concerning the importance of apparatus gymnastic exercise. Accordingly, 5 (33.3%) of the students were replied 'No'. Which means that the apparatus gymnastic exercise not such important for them. In other hand the majorities 10 (66.7%) of students answered 'Yes'. Which indicate that the apparatus gymnastics' exercise is important for them.

As it has been illustrated in Table 2, respondents were requested to indicate their thought whether apparatus gymnastic is more difficult than other practical courses. In this regard, students 5 (33.3%) replied that apparatus gymnastic is not more difficult than other practical courses. Whereas, 10 (66.7%) of the female students were agreed that apparatus gymnastic course is more difficult than other sport. Consequently, it is possible to suggest that the apparatus gymnastics practice was more difficult than other courses. Concerning this the data obtained from conducted interview with instructors listed as follows that:

"The most of the students consider as apparatus gymnastic is very difficult to practice it. Particularly, female students think that apparatus gymnastic is the most difficult subject than any other subjects. Since they consider like this they have no moral to practice and to score the better result in their academic performance"

As it can be expressed in Table 2, respondents were asked to indicate their observation whether the instructors correctly demonstrate the basic techniques of apparatus gymnastic practically. Regard to this 4 (26.7%) of the female students responded 'No' which means that the instructors do not demonstrate the basic techniques in apparatus gymnastic practically. In counter ways majority 11(73.3%) of the students replied that the instructors correctly demonstrate the basic techniques in apparatus gymnastic practically. In counter ways majority 11(73.3%) of the students replied that the instructors correctly demonstrate the basic techniques in apparatus gymnastic practices. In addition the data gathered from conducted interview represents as following:

"We try our best to demonstrate the basic techniques of apparatus gymnastic as far as the curriculum and available materials allow us. But according to the current situation of our university the equipment is inadequate and some of the materials needed to practice apparatus gymnastic were not available in the university. Therefore such problems affect the participation of female students in special ways than male students"

Table-3 Students' Response towards availabilities of facilities and apparatus gymnastics' materials in the University

| Item               |                      |   |        |         | Independent t-test |         |
|--------------------|----------------------|---|--------|---------|--------------------|---------|
|                    | Respondents          | Ν | Mean   | S.D     | Т                  | P-value |
| Uneven bars        | 2 <sup>nd</sup> year | 7 | 2.1429 | .69007  | 1 (59              | 0.121   |
|                    | 3 <sup>rd</sup> year | 8 | 1.6250 | .51755  | 1.658              |         |
| Mixed bars         | 2 <sup>nd</sup> year | 7 | 1.2857 | .48795  | -1.635             | 0.126   |
|                    | 3 <sup>rd</sup> year | 8 | 1.8750 | .83452  |                    | 0.126   |
| Trampolines        | 2 <sup>nd</sup> year | 7 | 1.5714 | .78680  | 121                | 0.906   |
| 1                  | 3 <sup>rd</sup> year | 8 | 1.6250 | .91613  | 121                |         |
| Balance beam       | 2 <sup>nd</sup> year | 7 | 2.0000 | 1.00000 | 0.226              | 0.825   |
|                    | 3 <sup>rd</sup> year | 8 | 1.8750 | 1.12599 |                    |         |
| Floor exercise Mat | 2 <sup>nd</sup> year | 7 | 2.1429 | .69007  | 259                | 0.000   |
|                    | 3 <sup>rd</sup> year | 8 | 2.2500 | .88641  | 258                | 0.800   |
| vaulting boxes     | 2 <sup>nd</sup> year | 7 | 1.8571 | .89974  | 0.950              | 0.359   |
| Spring boards      | 3 <sup>rd</sup> year | 8 | 1.5000 | .53452  | 1.681              | 0.117   |



| Item                         |                      |   |        |        | Independent t-test |         |
|------------------------------|----------------------|---|--------|--------|--------------------|---------|
|                              | Respondents          | Ν | Mean   | S.D    | Т                  | P-value |
| Different Balls and ropes    | 2 <sup>nd</sup> year | 7 | 2.2857 | .48795 | 1.665              | 0.120   |
|                              | 3 <sup>rd</sup> year | 8 | 2.0000 | .75593 | 1.005              | 0.120   |
| Standardized Gymnasium       | 2 <sup>nd</sup> year | 7 | 2.1429 | .69007 | 0.383              | 0.710   |
| materials                    | 3 <sup>rd</sup> year | 8 | 2.0000 | .75593 |                    | 0.710   |
| Water facilities for bathing | 2 <sup>nd</sup> year | 7 | 1.8571 | .69007 | 0.296              | 0.772   |
| after practice               | 3 <sup>rd</sup> year | 8 | 1.7500 | .70711 |                    | 0.772   |

Note. The mean difference is significant at  $\alpha = 0.05$  level.

As indicated in Table 3, the two groups of respondents ( $2^{nd}$  year and  $3^{rd}$  year students) rated the extent of availability of Uneven bars with the mean score for  $2^{nd}$  year students (M = 2.14, SD = 0.69) and the mean score for  $3^{rd}$  year students (M = 1.62, SD = 0.51). This revealed that, the availability of uneven bar was poor. The analysis of independent t test (t (15) = 1.65, p=0.121, p >  $\alpha$  at  $\alpha$ = .05 level) revealed that the means difference between the two group is not significant. Similarly, the data obtained from the interview conducted with instructors revealed that, the availability of uneven bar in the university was poor.

Also, Table 3 shows that, respondents indicated their responses on the availability of mixed bars in their university.  $2^{nd}$  year and  $3^{rd}$  year students rated relatively similarly with (M = 1.28, SD = 0.48 and M = 1.87, SD = 0.83). The students' responses indicate that the availability of mixed bars were very poor. Similarly, the analysis of independent t test (t (15) = -1.635, p=0.126, p >  $\alpha$  at  $\alpha$ = .05 level) revealed that there is no significant difference between the mean scores of the studied groups regarding the availability of mixed bars. On the other hand, the interviews conducted with the instructors indicated that there was no adequate different bar in the university.

With regard trampoline, Table-3 shows that, the two groups of respondents rated. This means, the mean scores for  $2^{nd}$  year students and  $3^{rd}$  year were comparable (M = 1.57, SD = 0.78 and M = 1.62, SD = 0.91) revealing that the availability of trampoline in their university were very poor. In line with this, the data obtained from interview indicated that there is no even single trampoline in the university. As depicted in Table 3, the availability of balance beam in their university was rated similarly both by the  $2^{nd}$  and  $3^{rd}$  year female students with the mean scores of (M = 2.00, SD =1.00 and M = 1.87, SD = 1.12) respectively. This implies that, the availability of balance beam in the university were very poor. Bothe section rated in the same manner indicating that the two groups had similar views on the issue of balance beam.

Likewise, Table 3 illustrates that the respondents' perceptions about the availability of flower exercise mats. In this regard, the mean value for  $2^{nd}$  year students (M =2.14, SD =0.69) and  $3^{rd}$  year students (M =2.25, SD = 0.88) collectively indicate that the availability of flower exercise mats were adequate. In support of this, the qualitative data obtained from interview depicted that there were flower mats in the university but it is not much enough for all students in order to make more practice. This means the flower mat in their university were poorly available.

As it can be seen in Table 3, the participant level of agreement regarding the availability of vaulting boxes in their department/university/ was found relatively very poor and similar for both groups. Additionally, the data obtained from the qualitative interview revealed that there is no vaulting box in the university at all. With regard to the availability of spring boards, Table 3 shows that, the participant students rated poorly, but the results show similarity in the extent of rating. Accordingly,  $2^{nd}$  year students with mean score (M = 2.28, SD =0.48) and  $3^{rd}$  year students mean score (M = 1.75, SD = 0.70) indicate that the availability of spring board in the university were poor.

In terms of availability of different gymnastic balls and ropes, the result in Table 3 depicts that; available of different gymnastic balls and ropes in the university were poor. In this regard, the participating had different views as represented in the mean value for  $2^{nd}$  students (M = 2.57, SD =0.53) and  $3^{rd}$  year students (M = 2.00, SD = 0.75). These results indicated that there were means differences among the respondents but the difference is not statically significant. Because, the analysis of independent t test (t (15) = -1.66, p=0.120, p >  $\alpha$  at  $\alpha$ = .05 level) revealed that there is no significant difference between the mean scores of the studied groups. Regarding the availability of standardized gymnasium material, Table 3 shows that, it was rated poorly by the two groups. Accordingly, the mean scores of the  $2^{nd}$  year student (M = 2.14, SD =0.69) and  $3^{rd}$  year students (M = 2.00, SD = 0.75) which points out that the standardized gymnasium in the university were poorly available. This shows that, students were not able to practice apparatus gymnastic. Beside these, the data obtained from interviews held indicate that, there was no standardized gymnasium in the university or the available gymnasium in their university not for fill the minimum requirement.

In terms of water facilities for bathing after practice, the result in Table 3 depicts that; water facilities for bathing after practice in the university was poor. In this regard, the participating had similar views as represented in the mean value for  $2^{nd}$  students (M = 1.85, SD =0.69) and  $3^{rd}$  year students (M = 1.75, SD = 0.70). These results indicated that there were very little means differences among the respondents but the difference is not

statically significant. Thus the analysis of independent t test (t (15) = 0.29, p=0.77, p >  $\alpha$  at  $\alpha$ = .05 level) revealed that there is no statistical significant difference between the mean scores of the studied groups. Also, interviews carried out revealed a similar response, supporting the idea that there was no water facility for bathing after practicing the apparatus gymnastic.

#### 5. Conclusion and Recommendation

#### 5.1. Conclusion

Based on the findings the following conclusions were drawn:

This study has demonstrated that, majority of the Madda walabu university sports science female students had inadequate apparatus gymnastic materials like: Uneven bars, mixed bars, trampoline, balance beam, floor exercise mat, vaulting boxes, spring boards, different balls and rope and poor water facilities for bathing. This could lead to students' dissatisfaction with their education and low participation in apparatus gymnastics practical class.

This study also demonstrated that some of the activities directly related to apparatus gymnastics practices like students' experience about practical activities before joined the university, interest to learning apparatus gymnastic practical class, their attitude towards apparatus gymnastic were below the average. These means the students have no experience or back grounds about the apparatus gymnastic before they joined the university, their interests to learn apparatus gymnastic and their attitude towards apparatus gymnastic were very low.

Concerning to the teacher motivation in apparatus gymnastic practical class for female students separately from male students and teacher procedure to teach the activities from simple to complex in apparatus practical class, the result of this study showed that, the instructors motivate female students as much as possible and follow the correct procedure (sequences of activities from simple to complex). But the situations like shortage of time given for apparatus gymnastic, female students' lack of confidence in practical class, lack of favorable condition in the university to practice apparatus gymnastic and shortage of teaching materials in the university were the factors that contributed for the decrease of students' interest.

Finally, the findings in this study showed that the students had good attitude about the benefits of gymnastic exercise like other subject and teachers tries to demonstrate the basic techniques of apparatus gymnastic practically as per the materials allowed them. But both the  $2^{nd}$  and  $3^{rd}$  year female students' belief that apparatus gymnastic exercise is more difficult than other sport activities.

## 5.2. Recommendations

Based on the findings of the study, the researcher put recommendations as follows:

As it was seen from the study the existing apparatus gymnastic facilities in the university were inadequate and there were scarcity of apparatus gymnastic materials. Therefore, the university's management with the community should adjust the facilities such as standardized gymnasium and water supply for bathing during practices.

The government should allocate the budget in order to fulfill gymnastic materials like: uneven bars, mixed bars, trampolines, balance beam, Floor exercise mats, vaulting boxes, different balls and ropes as well as spring boards.

The university managements have to appreciate and encourage sport science instructors and community to produce and utilize relevant instructional materials, which are locally made to enhance the teaching learning process in apparatus gymnastic.

To enhance students' participation in apparatus gymnastic the instructors should increase the female students' interests using different mechanisms. For example giving rewards for good performers.

The university administrative and sport science department instructors should work to build positive attitudes in female students towards apparatus gymnastic. Thus their participation will increase.

Government and other concerned body should revise the curriculum in order to allocate the appropriate time (enough) time for the course to develop the basic techniques of apparatus gymnastics.

Teachers have to create good vision in the students mind in order to develop their self confidence towards the subject and avoid their perception about the difficult of apparatus gymnastic course compare to other courses.

All the concerned bodies should have to tries their best to make the favorable conditions in the university for the female students

Finally, the researcher recommends a more detailed and comprehensive study in the area to strengthen the findings reported in this study.

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