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Improving Female Students' Academic Achievements: Special Evidence from 2nd Year Management Department Students of Bonga University, Ethiopia

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ABSTRACT: *Action Research is a formative study of progress commonly practiced by teachers in schools. It enables a teacher to craft most appropriate strategy within its own teaching environment. Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. This paper is aims to improve the academic performance of female students with special evidence from 2nd year management department of Bonga University. further, factors affecting the academic achievement of female students were examined. Finally, the role of teachers in improving female student academic performance were investigated. In doing so, the researcher adopted interview, focused group discussion and observations as data collection instruments. In addition, the researcher, prepared schedule composed of Proposed plan, action and evaluation for achieving the goals of this project. The collected data were analyzed using descriptive statistics such as mean and Paired sample T- test. The finding of this Action research project revealed that; Lack of proper Tutorial class has significant effects on female students' achievement with average mean of 3.55, followed by lack of pear learning with mean score of 3.40. further, the overall Average Score of female students Before intervention was 3.98. but, After the researcher and course instructor made intervention which described in methodology parts the overall Average Score of female students has increased to 6.65. The researcher recommends the female students to give due consideration for their education and to read cooperatively with their colleagues. Further, Teachers should encourage female students through providing enough and timely tutorials. Finally, Bonga university shall establish female students club that actively serves all female students of the university through preparing training and conferences on which they exchange experiences with each other if possible with other universities female students.*

***Key words**: Action research, Academic achievement, Female students, Higher diploma program.*

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1. Introduction

1.1. Background and Rationale of Study

Action Research is a formative study of progress commonly practiced by teachers in schools. Basically an action research is a spiral process that includes problem investigation, taking action & fact-finding about the result of action. It enables a teacher to adopt/craft most appropriate strategy within its own teaching environment. Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. It is a cyclical process that never

ends but always provides a conclusion with more ideas to bring upon progress and improvement (Yasmeen, 2008).

Majority of first year students at tertiary institutions are faced with enormous challenges ranging from department selection, adaptation, to poor academic performance. The constant failure and the accompanying feelings of incompetence could be discouraging and demoralizing, resulting in them skip classes and drop out of the university prematurely.

As candidates of higher diploma program, we have conducted action research project on improving female students' academic performance in case of 2nd year management department students. The rationale behind selection of this title is the low academic achievement of female students which lasted for one and half years since their joining of our university. There are many factors attributed toward the occurrence of this outcomes. over all we assumed that; the student's previous performance, low facility in our university, the new environment, female students' attitude toward education, lack of peer learning, lack of tutorial by teacher and lack of interaction among females' students are among the leading factors those create unfavorable achievement of female students comparing to male students.

While conducting this project the researcher will be strived to tackle these all problems and dig out other reasons behind female students' low achievement. There are many Action research project conducted on the area of improving female students' achievement specially in secondary and preparatory schools but focuses only on specific subjects from science fields. As all of us knew, in many universities of our country the teachers' attitude toward university student is almost negative which claims both female and male students have equal space for competition and it is up to them to graduate successfully or fail. This attitude affects many of our female students who needs special treatments from their teachers but left unsuccessful due to low interaction with their teachers. Currently, many Action research projects are underway to change this attitude in universities and help female students to improve their academic performance by solving some problems they faced after joining the university. Our project is also among those projects which mainly focused on improving the academic performance of female students of second year management department.

1.2. General Objective

The overall objective of this action research project is Improving academic achievement of female students of second year management department in Bonga University.

Specific objectives are: -

- To determine the role played by the lecturer in improving the academic performance of female students in management department.
- To identify factors those can affect the female students' academic scores.
- To enhance cooperative learning and competition among female students.

2. Literature Review

2.1. Theoretical Concept

The origins of Action Research (AR) are unclear in the literature but generally Kurt Lewin is considered the 'father' of AR (Holter & Schwartz-Barcott, 1993; Kemmis & McTaggert, 1990; Zuber-Skerrit, 1992), who first coined the term, in his paper about Minority Problems (Kurt, 1946). Its function in educational system began with the Science in Education Movement of late nineteenth century in which scientific method was applied to education (Masters, 1995) followed by the UK originated Teacher-Researcher Movement advocating that all teaching should be based upon research (McKernan, 1991). Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process" (Thomas, Krantz, & Ramirez, 1986) AR is a formative study of progress that is simply "Learning by Doing". Scientifically, it can be described as a systematic inquiry that is collective, collaborative, self-reflective and undertaken by participants (students, teacher, colleagues or any other stakeholder) in an educational situation in order to improve the rationality of their own educational practices, as well as their understanding of these practices and the situations in which these practices are carried out, with an aim to contribute to the practical

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concerns of immediate problematic state, being limited in available resources in accordance with typical classroom circumstances (modified from (Kemmis & McTaggert, 1990; McCutcheon & Jung, 1990; Rapoport, 1970)).

There are many ways in which AR can be practiced in a particular setting. It is a cyclical process that never ends but always provides a conclusion with more ideas to bring upon progress and improvement. Whatever the settings and participants are, usually it has been carried out into four consecutive phases.

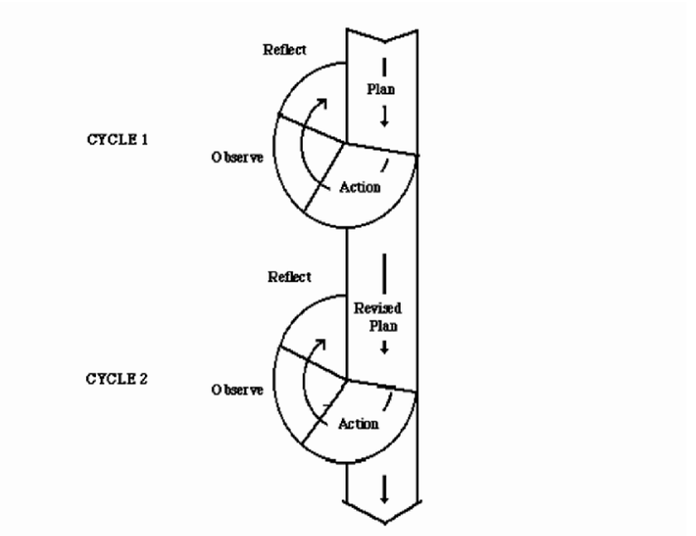


Figure-1.

Figure1 shows a simple model of the cyclical nature of the typical AR process, each cycle has four steps: Plan, Act, Observe, Reflect.

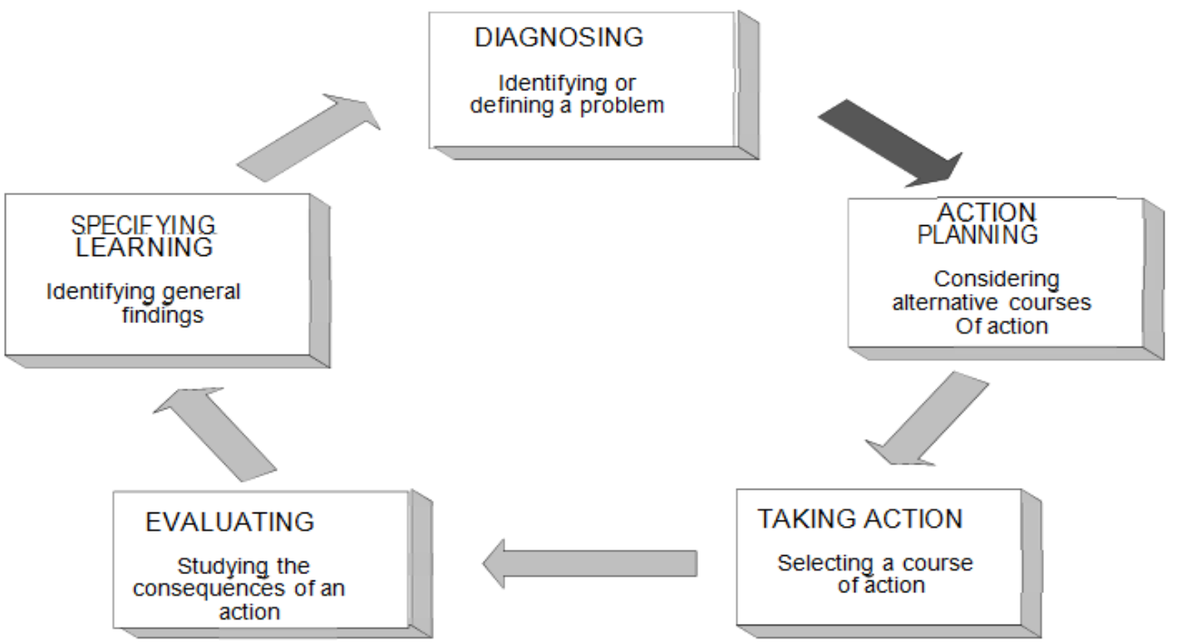


Figure-2. Detailed Action Research Model (Adapted from Gerald (1983)).

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Initially, a problem is identified. This is followed by a collective postulation of several possible solutions, from which a single plan of action emerges and is implemented. Data on the results of the intervention are collected and analyzed, and the findings are interpreted in light of how successful the action has been. At this point, the problem is re-assessed and the process begins another cycle. This process continues until the problem is resolved (Gerald, 1983; McKay, 1992). What gives action research its unique position is the set of principles that guide the research. Richard (1989) provides a comprehensive general overview of six key principles. These can be considered in any of the educational settings.

1) Reflexive critique*:* An account of a situation, such as notes, transcripts or official documents, will make implicit claims to be authoritative, i.e., it implies that it is factual and true. The principle of reflective critique ensures people reflect on issues and processes and make explicit the interpretations, biases, assumptions and concerns upon which judgments are made. In this way, practical accounts can give rise to theoretical considerations.

Dialectical critique*:* Reality is consensually validated, which is to say it is shared through language.

Phenomena are conceptualized in dialogue; therefore, a dialectical critique is required to understand the set of relationships both between the phenomenon and its context, and between the elements constituting the phenomenon. The key elements to focus attention on are those constituent elements that are unstable, or in opposition to one another. These are the ones that are most likely to create changes.

2) Collaborative Resource: Participants in an action research project are co-researchers. The principle of collaborative resource presupposes that each person's ideas are equally significant as potential resources for creating interpretive categories of analysis, negotiated among the participants.

3) Risk: The change process potentially threatens all previously established ways of doing things, thus creating fears among the practitioners. One of the more prominent fears comes from the risk to ego stemming from open discussion of one's interpretations, ideas, and judgments. Initiators of action research will use this principle to allay others' fears and invite participation by pointing out that they, too, will be subject to the same process, and that whatever the outcome, learning will take place.

4) Plural Structure: The nature of the research embodies a multiplicity of views, commentaries and critiques, leading to multiple possible actions and interpretations. This means that there will be many accounts made explicit, with commentaries on their contradictions, and a range of options for action presented. A report, therefore, acts as a support for ongoing discussion among collaborators, rather than a final conclusion of fact.

5) Theory, Practice, and Transformation*:* For action researchers, theory informs practice, practice refines theory, in a continuous transformation. In any setting, people's actions are based on implicitly held assumptions, theories and hypotheses, and with every observed result, theoretical knowledge is enhanced. The ensuing practical applications that follow are subjected to further analysis, in a transformative cycle that continuously alternates emphasis between theory and practice.

In the present study, Practical Action Research (PAR) mode has been carried out at the university level. It is described with many other names in literature including: participatory AR, Collaborative AR, Action learning etc. (O'Brien, 2001). It focuses on improving learning by means of a self-reflecting process, exploring & solving problems (McNiff, 1988). It follows the typical spiral of AR as shown in Figure 2. The researcher (teacher) becomes essentially facilitator or catalyst, and participants (students in this study) become co-learners in PAR; nobody is considered the expert (Walker, 1993). PAR is subjective and therefore not always neutral. PAR requires mutual respect, adaptability, humility, trust & holistic approach to problem solving.

2.2. Empirical Review of Literature

There are many Action research project conducted on the area of improving female students' achievement specially in secondary and preparatory schools but focuses only on specific subjects from science fields. The rationale behind selection of this title is the low academic achievement of female students which lasted for almost one and half years since their joining of our university. There are many factors attributed toward the occurrence of this outcomes. over all we assumed that; the student's previous performance, low facility in our university, the new environment, female students' attitude toward education, lack of peer learning, lack of tutorial by teacher and lack of interaction among females' students are among the leading factors those create unfavorable achievement of female students comparing to male students.

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The finding of research conducted on females' student's achievement in merti secondary school reveals Female students were not getting enough tutorial class; The teaching and learning process of chemistry teachers were not supported by the practical work or laboratory, there is low interaction between female and male students, female students attitude toward education is poor, and awareness of family regarding the female students education is also low (Adane Gebre Silassie, 2017)

We proposed to upgrade this research to university level and make immediate intervention to solve main problems hindering female students from high achievement. The following diagram (conceptual framework) shows some of independent factors affecting female student achievement at university levels.



3. Methodology

3.1. Data Collection Tools

There are many data collecting techniques including Questionnaires, Interview, observations, focus group discussions and so, on. Throughout this Action research project, we have used Interview, focused group discussion and observation as basic tools of data collection. We observe many lessons delivered for our target groups, the researcher made interview with selected female students regarding their attitude toward education and their reaction toward the environment, their future plan to change their achievement and many more points were raised. finally, the researchers made discussion with targeted female students regarding the overall issues related to Action research project. They are invited to become the part of study and to contribute through ideas sharing for a better outcome. Everyone was told to take himself as a co-investigator and motive for a positive change. female students happily agreed to take part in the project in which they were the identical partner. Class performance was chosen as criteria to assess the gradual transformation and samples were collected in form of class observation, students' responses collected on an assignments and class tests.

3.2. Target Population

Target population for our research project is second year female students of management departments. As determined on the title of our action research we limited scope of study population to one department. The reason is most researcher recommended that action research project should conducted on specific area of

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study and its findings would be generalized for whole societies. Further, the time constraints in key factor which limits our target population.

3.3. Sample Size and Techniques

Sample were used instead of the whole population for many reasons. some of basic necessity of taking samples were; There could be resource (time, finance, manpower, etc.) limitations which would make it difficult to study the whole population, Sampling provides much quicker results than does a census, and there is also an argument that the quality of a study is often better with sampling than with a census Abdi, (2012/13).However, in our action research project we select census rather than sampling because ,our target population is very few and in such a case the most recommended method is applying census. The total number of female students in the second-year management department are 3**0** and we incorporated all of them in our action research project

3.4. Data Analyzing Techniques

Data collected by using those mentioned tools has been analyzed using descriptive statistics like mean, standard deviation, and Paired sample T-test. Those collected data has been processed using Statistical package for social science (SPSS V-20).

3.5. Proposed Action, Intervention and Evaluation

The following table summarizes our proposed action, implementation of our action, and evaluation of the action.

Proposed Action	**Intervention of action**	**Evaluation**
We discus about the differences of male and female students academic scores	Taking the previous tests results and comparing for male and female students	The basic difference between the male and female students academic scores observed
What are the basic causes to these differences of scores	Observing and interviewing the targeted female students about the causes of poor performance	There are a Lott of factors observed and responded by the female students.
We proposed to deliver tutorial class for female students of management department on course principle of accounting II	As per our plan the researcher delivered two tutorial classes for female students on predetermined course	After learning those tutorial classes, female students' performance has been slightly improved. this is proved by taking their test result from course instructor.
Making discussion with targeted female students regarding their attitudes toward education, challenges they may face during learning teaching process and many more points.	Researcher arranged two discussion schedules with all female students of 2nd year management department and implement as per plan. We raised many points and discussed with them. they also think themselves as co-researchers and demonstrate their idea freely.	Immediate feedback from female students shows as making such discussion with the teachers creates moral in each of them and encourages them for making intense competition with male students.
Making four lesson observations in the class of targeted female students	Researchers observed two sessions and evaluated the class participation of targeted female students.	During our observation session we have seen slight change between the first and the second observation. Female students' participation has more or less increased on the second observation session.

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Making interview with course instructor considering the female student's performance after and before intervention**.**	After making class observation and discussion with female students, we made interview with course instructor regarding those female students' performance.	He told us some of female students who engaged in the project are improving their result. During conducting the project instructor gave one test before project and two tests during action research period. The result of all female students has been improved on the 3rd test.

3.6. Data Analysis and Discussion

During the intervention phase of our project the researcher make observations of the lesson delivered by course instructors, interview with selected female students, provide tutorials and make focused group discussions with targets female students. Specially, while discussing with female students we raised different issues and questions for female students regarding factors affecting their achievement. They told us many factors which affect their achievement and we summarized them as follows; lack of enough facility in school such as good reference and text books in the library, new school environment leads to climate changes for instance it becomes very hot during afternoon session but cold at night , some female students attitude toward education is low which expressed in terms of their confidence on exam, the student's experience of practicing cooperative learning is also very minimum. Especially female students prefer to read with male students than reading with other female students. According to female students' opinion the most important factors affecting their achievement is lack of enough and timely Tutorial on each subject.

After having discussion with Targeted female students, we tried to select some of the basic factors affecting student's achievement and analyzed it using SPSS V-20 in order to identify the most challenging factors among them. In doing so, as revealed in the following table, Tutorial has significant effects on female students' achievement with average mean of **3.55,** followed by pear learning with mean score of **3.40**. if students did not develop the ability of peer learning most frankly their achievement will be decreased. Reading the updated books and other materials can also significantly contributes to the student's achievements. But, as we have said before, our university still did not fulfil those learning materials which in turn affects the achievement of students especially female students. As depicted in the following table, both new school environment and female students' attitude toward education are among the factors which have low effects on female students' achievements.

Table-1.1. Factors Affecting the female students' achievements

Factors	Mean	Std. Deviation
Low Facility in the University	**3.10**	**1.119**
New School Environment	**2.75**	**1.293**
Female Students' Attitude Toward Education	**2.70**	**1.129**
Lack of Peer Learning,	**3.40**	**.681**
Lack of Tutorial by Teacher	**3.55**	**.605**

Paired sample T-tests are used when we are interested in changes in scores for subjects tested at Time 1, and then again at Time 2 (often after some intervention or event). The samples are 'related' because they are the same people tested each time.

We are also interested to test the average difference between female students' achievement Before intervention and After Intervention. We received test I and Test II results of principles of Accounting II from Course instructors for 30 female students of management department. We insert this data in to software (SPSS) for purpose of checking whether those intervention has brought changes on female student's achievements. As revealed in the following table the tutorial class provided for female students, focused group discussion by researcher, observation of lesson provided to them has brought significant changes on their achievements which described using average score. Specifically, the overall Average Score of female

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students Before intervention was **3.98.** but, After the researcher and course instructor made intervention which described in methodology parts the overall Average Score of female students has increased to **6.65.**

We generalized these outputs by saying, sufficient tutorial class provided only for female students, the encouragement of peer learning, developing the ability of reading from different sources, having confidence during exam session and others factors are collectively plays a great role in improving the female student's achievement.

Table-1.2. Paired Samples Statistics output using SPSS V.20

	Pair 1	
	Students Achievement Before intervention	**Students Achievement After intervention**
Mean	**3.98**	**6.65**
N	30	30
Std. Deviation	1.642	1.496
Std. Error Mean	.367	.335

3.7. Finding

As universities are dynamic socio- technical systems, lecturers need to have a broad view of how the system works, hence change and transformation are inevitable. There should be acquisition of new knowledge and skills for sustainability and growth. Furthermore, it encourages harmonious relationship between the lecturers and students, which is based on norms and values as enshrined in the constitution of the university.

Based on this assumption, our action research is directed on enhancing the female students' academic achievement especially on second year management students. But, even if giving tutorial class, using different teaching methodologies and facilitating cooperative learning is core activities to improve the female student's academic achievement; the other factors can also affect the female students' academic achievement as found in our action research. Such as language problem to understand the teacher's idea and course concept, lack of recognition and motivation for top scorers among females, Short period of learning time, shyness of female students to ask unclear questions, lack of commitment for the aim of their learning, lack of cooperative learning with their friends, …. etc. all these can affect the female students' academic achievement.

In addition to these, our action research and intervention on the female students shows that:

- Female students academic scores are slightly improved than the before the action.
- The female students' active commitment and moral has increased for the accounting subject.
- Competition within the female students are created to score good result.
- The female students understanding level of cooperative learning especially on the calculation courses has been improved.
- sufficient tutorial class provided only for female students, the encouragement of peer learning, developing the ability of reading from different sources, having confidence during exam session and others factors are collectively plays a great role in improving the female student's achievement.

3.8. Recommendation

As we know basically an action research is a spiral process that includes problem investigation, taking action & fact-finding about the result of action. It enables a teacher to adopt/craft most appropriate strategy within its own teaching environment. Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. As a result of this action research is conducted in Bonga University, 2nd year management female students to identify the factors which lead to poor academic performance than male students and improving female students' academic achievements. The researchers forward the following important recommendation for concerned stake holders.

For Female Students

- ✓ It is better move for female students if they develop both independent and peer learning abilities.
- ✓ Female students should remove negative attitude toward education and better develops their self-confidence.

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- ✓ Female students shall improve their interaction with each other so that cooperative learning ability will be developed.
- ✓ Female students should have active commitment for the learning to achieve good score.

For Teachers

- ✓ Teachers should encourage female students through providing enough and timely tutorials
- ✓ Teachers shall provide motivational speech mainly for female students at least for five minutes at the end of each class.
- ✓ Teachers should provide advisory services for students specially for females.
- ✓ Teachers should use a combination of different teaching styles as we learnt in HDP training to enhance the female students' understanding levels.
- ✓ Female teachers should play important role to change the attitude of females on education.

For Bonga University

- ✓ University shall establish female students club that actively serves all female students of the university through preparing training and conferences on which they exchange experiences with each other if possible with other universities female students.
- ✓ University should give more focus on fulfilling learning teaching materials like; purchasing recent books, constructing special libraries.
- ✓ Encouraging the researchers by supporting financially so that all problems of university will be solved.
- ✓ University should provide competition session for the female students and use recognition and motivational factors for top scorers among females.

3.9. Conclusion

Majority of first year students at tertiary institutions are faced with enormous challenges ranging from department selection, adaptation, to poor academic performance. The constant failure and the accompanying feelings of incompetence could be discouraging and demoralizing, resulting in them skip classes and drop out of the university prematurely.

This Action research project is conducted mainly to improve the female students' achievements in case of second year management department. Although, the researcher has not enough time for covering all expected objectives, we strived to complete this project by achieving some of basic predetermined objectives. As identified on the intervention phase of this project, there are many factors attributed toward the occurrence of low achievement of female students. over all the student's previous performance, low facility in our university, the new environment, female students' attitude toward education, lack of peer learning, lack of tutorial by teacher and lack of interaction among females' students are among the leading factors those create unfavorable achievement of female students comparing to male students.

The researcher made the test to check whether the intervention can improve the achievements of female students by applying Paired sample T-test. The finding of this test shows that, there is a significant change on female students average score before the intervention has been taken place and after intervention. Mean average score before intervention is **3.98** however the mean (average) score after intervention is **6.65.** To sum up, providing timely tutorial classes for female students separately, encouraging female students to develop ability of cooperative and peer learning, motivating them, and helping them through giving special advisory services can significantly improves the female students' Academic achievements. But still it needs the attention and cooperation of continuous activities of all stake holders to bring change on the female students' whole academic performances, since it cannot be brought at once.

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