Launching of Plagiarism Detection Software (PDS)

21 May, 2016

Prof. M. Zahidul Haque, SPM
Prof. Dr. Md. Sekender Ali, DSPM

Controlling Plagiarism by using Digital Agricultural Theses
Archive of Bangladesh (CP:3655)
Higher Education Quality Enhancement Project
University Grants Commission of Bangladesh
Sher-e-Bangla Agricultural University, Dhaka

GUIDELINES FOR USING THESES PLAGIARISM DETECTION FACILITY OF SHER-E-BANGLA AGRICULTURAL UNIVERSITY, DHAKA

BACKGROUND

A digital agricultural theses archive is developed by the 1st round sub-project (CP:534) of Higher Education Quality Enhancement Project (HEQEP). The MS and PhD theses/dissertations of the following five universities of Bangladesh are the content of this archive:

- Sher-e-Bangla Agricultural University (SAU), Dhaka
- Bangladesh Agricultural University, Mymensingh
- Bangabandhu Sheikh Mujibur Rahman Agricultural University, Gazipur
- Sylhet Agricultural University, Sylhet
- Patuakhali Science & Technology University, Patuakhali

The agricultural theses/dissertations of the above mentioned archive can be accessed/reviewed at http://www.saulibrary.edu.bd/daatj .

All MS and PhD or similar level students of Bangladesh in agricultural disciplines have to submit theses/dissertations for their degree. Often they copy from previous theses/dissertations without the proper acknowledgements which is known as 'plagiarism', an academic misconduct of scientific paper writing. Thesis/dissertation that is found to be not satisfied the plagiarism standard is subject to penalize by rejecting the thesis/dissertation for the purpose of academic degree. Therefore, to ensure the quality of the theses/dissertations and prevent this scientific misconduct, this guideline is prepared.

LEVELS OF THESES PLAGIARISM

LEVEL-1(L-1): Level-1(L-1) plagiarism of any MS/PhD or equivalent thesis/dissertation is upto 30% similarity with any other previous individual thesis/dissertation. The extent of plagiarism at this Level is acceptable for awarding degree.

LEVEL-2(L-2): Level-2(L-2) plagiarism of any MS/PhD or equivalent thesis/dissertation is more than 30% similarity with any other previous individual thesis/dissertation. The extent of plagiarism at this Level is not acceptable for awarding degree.

DETECTION TOOL

The plagiarism detection facilities are developed under the HEQEP Sub-project CP-3655 through the establishment of the Plagiarism Detection Center (PDC), which supports the use of technology tools to detect plagiarism, and shall actively encourage the utilization of these tools in teaching and learning. The developed Plagiarism Detection Software (PDS) can detect plagiarized documents from the internal digital theses archive of Sher-e-Bangla Agricultural University (SAU). PDC will be established at the library of SAU. Sub-PDC will also be established at all the MS/MBA/PhD offering Departments, Institutes, Faculties or similar entities of the university.

AIMS OF DETECTION SOFTWARE

The aims of the detection tool in SAU include the following:

- To control plagiarism of MS/PhD or equal level theses/dissertations
- To mitigate the duplication of research work by detecting similarities with previous theses/ dissertations by using PDS
- To enhance the capabilities and uniqueness of thesis/dissertation documentation
- To educate and raise awareness among students and faculties on good academic practices

DESIGN OF PLAGIARISM DETECTION SOFTWARE

Plagiarism Detection Software (PDS) is developed using the Java programming language, Oxford word dictionary for root word findings, Apache Lucene result search mechanism, Vector Cosine result clustering algorithm, term frequency-inverse document frequency calculation, etc. Any MS and PhD or equivalent level student may prepare his/her thesis/dissertation by coping from previous MS/PhD or equivalent level theses/dissertations without the proper acknowledgement. Concerning this issue, this PDS is developed based on the existing digital agricultural these archive of SAU as the source.

STRATEGIES

All MS/PhD or equivalent level research students of SAU will be advised to submit the soft copies (PDF form) of their theses/dissertations to the Sub-PDC of SAU (Department/Entity) as per Flow Chart of Plagiarism Detection Activity (Figure 1). Thereafter, plagiarism test will be run and based on the satisfactory results, the university authority of SAU may award their degree by accepting their theses/dissertations.

The activity flowchart of this process is presented below:

Updating the existing digital archive of agricultural theses/dissertations and linking the archive to PDC

Installing PDS on the computer of the PDC at SAU Library and Sub-PDC at MS/MBA/PhD degree offering entities (Departments, Institutes, Faculties) of the university

Initial submission of the soft copy (PDF form) of the thesis/dissertation to the respective Sub-PDC by the research student and **Testing Plagiarism** (A plagiarism testing report will be given by the Sub-PDC after submission.)

If the plagiarism of the submitted thesis/dissertation is not more than 30% (L-1), then it will be allowed for submission for evaluation.

If the submitted thesis/dissertation is found to be plagiarized by more than 30% (L-2) with any previous thesis/dissertation, the student will get two more chances to resubmit his/her thesis/dissertation after rewrite for attaining the acceptable level of plagiarism.

Evaluation of thesis/dissertation, Defense and Final Examination

Success?

Failure?

Re-enrollment for thesis/dissertation or action as per SAU procedure

Final submission of corrected soft copy (PDF) of the thesis/dissertation to the respective Sub-PDC after final examination and getting clearance from the respective Supervisory/Advisory committee

The finally submitted thesis will go through another round of plagiarism test and student will be awarded degree once his/her thesis is found to be satisfied the acceptable level of plagiarism (L-1). Student who fails to satisfy the specified requirement will get further one chance to resubmit the thesis/dissertation after rewrite for attaining the acceptable level of plagiarism. The final thesis/dissertation will be sent to the central PDC by the Chairman/Entity Head for including in the existing digital theses archive.
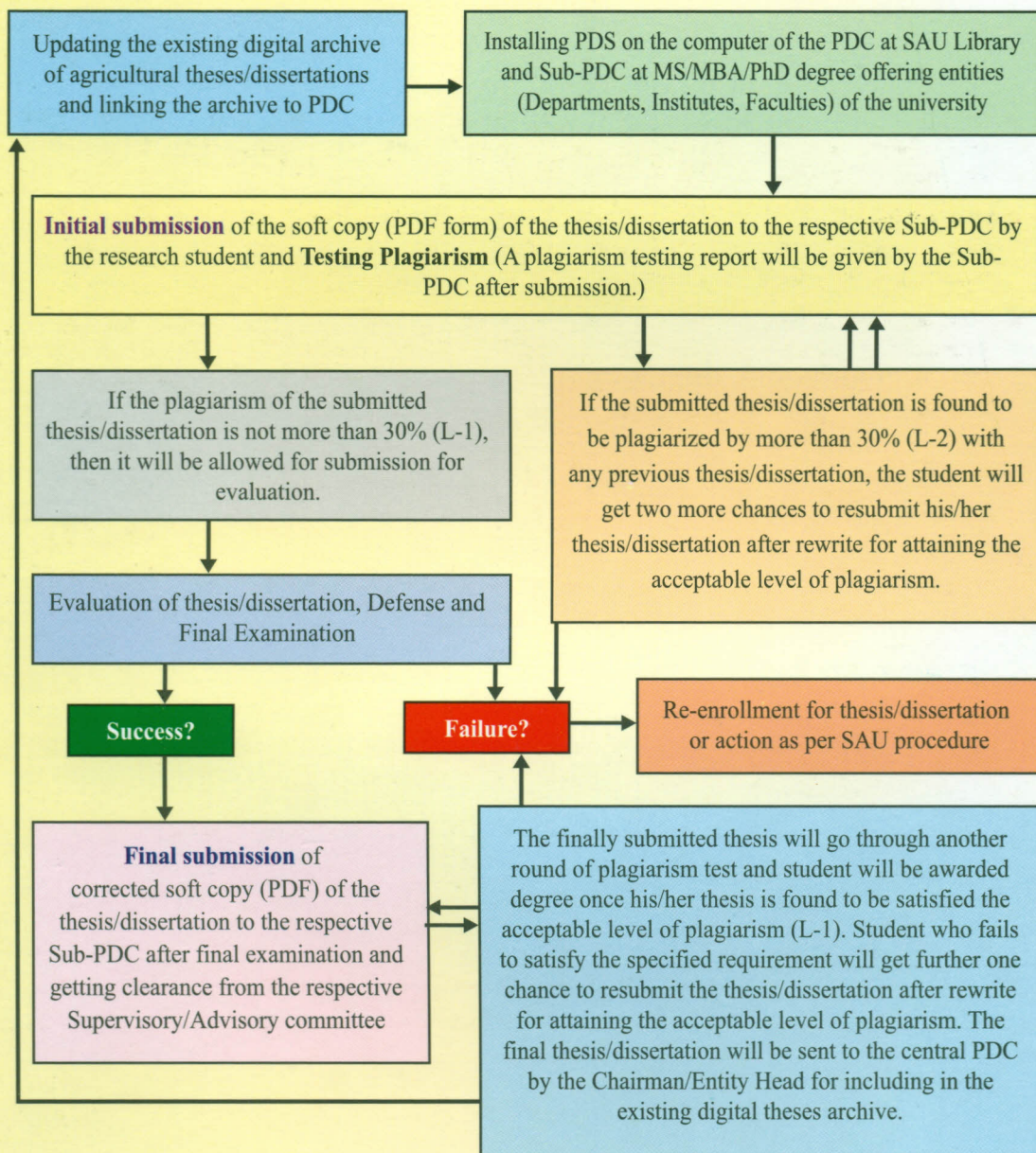
Figure 1: Flow Chart of Plagiarism Detection Activity

ADDITIONAL ACTIVITIES TO BE DONE

- The existing digital agricultural theses archive of SAU is the source of the present PDS. Therefore, the Chairman/Entity Head of the departments/entities will take necessary action to submit the previous theses/dissertations of their departments/entities to the central PDC for updating the content of the existing digital agricultural theses archive.

- In case of initial submission, the research students will submit soft copy of their theses/dissertations as per SAU theses/dissertations submission format in a single PDF file (from abstract to conclusion without frontal pages, references and appendices) to the Sub-PDC two weeks before the submission deadline. Abstract page must contain the title of the thesis/dissertation and the name of the research student.

- Respective Sub-PDC (at department/entity level) will provide the plagiarism test report after testing the plagiarism of the PDF soft copy of the thesis/dissertation (from abstract to conclusion) to the Supervisor of the concerned student.

- After getting clearance from Supervisory/Advisory committee, the Chairman/Entity Head of the respective department/entity will forward the thesis/dissertation (hard copy) for further steps like evaluation, defense, final examination, etc.

- After final examination, the student will submit soft copy of his/her final corrected thesis/dissertation (from abstract to conclusion in a single PDF file) to his/her Supervisor. The Supervisor will send the PDF soft copy to the respective Chairman/Entity Head. The Chairman/Entity Head of the respective Department/Entity will check the plagiarism percentage (from abstract to conclusion) from the Sub-PDC under his/her control.

- Student must submit their final complete thesis/dissertation (hard copy and softcopy in PDF file) to the Supervisor who will forward it to the Chairman/Entity Head of the respective department/entity.

- Finally, the Chairman/Entity Head will send the hard copy to the library for preservation and soft copy to the PDC at SAU library for including in the existing digital theses archive.

EXPECTED RESULTS

- Digital archive of agricultural theses/dissertations of Sher-e-Bangla Agricultural University will be improved and updated.

- Plagiarism of agricultural theses/dissertations will be controlled.

- Originality of the MS and PhD theses and dissertations of Sher-e-Bangla Agricultural University will be increased.

- The Supervisors of the MS/PhD students will be able to discourage their students from copying past theses/dissertations.

- The process will help to fulfill the **digitization aim of the present Government of Bangladesh**.