A Synopsis of STOU Research Productivity

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STOU's research vision and missions

Research productivity produced by higher education institutions' faculty members and researchers has long been emphasized and required by Thailand's ministry of education with the goal to present pleasant outlook of Thai universities among international universities and to increase educational quality delivered by the higher educational institutions in Thailand. In responding to the requirements, Sukhothai Thammathirat Open University established the Institute of Research and Development (IRD) in 1992 with the mission to conduct the research focusing on distance education which reflects the identity of STOU and could be used for creating quality education in distance education context of STOU. Later, other research areas beyond distance education has also been recognized and supported. Since then, research activities at STOU have been carried out by IRD. With greater emphasis of research development and innovation mandated by the Ministry of Higher Education, Science, Research and Innovation (MHESRI), IRD has its vision to create research products recognized at national and international levels for developing distance learning and society. With that vision, IRD established six missions:

- Support institutional and distance educational research
- Promote basic research for knowledge creation and country development
- Create networks of national and international research cooperation
- Disseminate and promote applications of research findings
- Enhance research capability of future researchers both internal and external researchers
- Use research results to support STOU strategic management

With such vision and missions, IRD designs its organization structure with 5 centers/sections illustrated in figure 1 to drive research productivity.
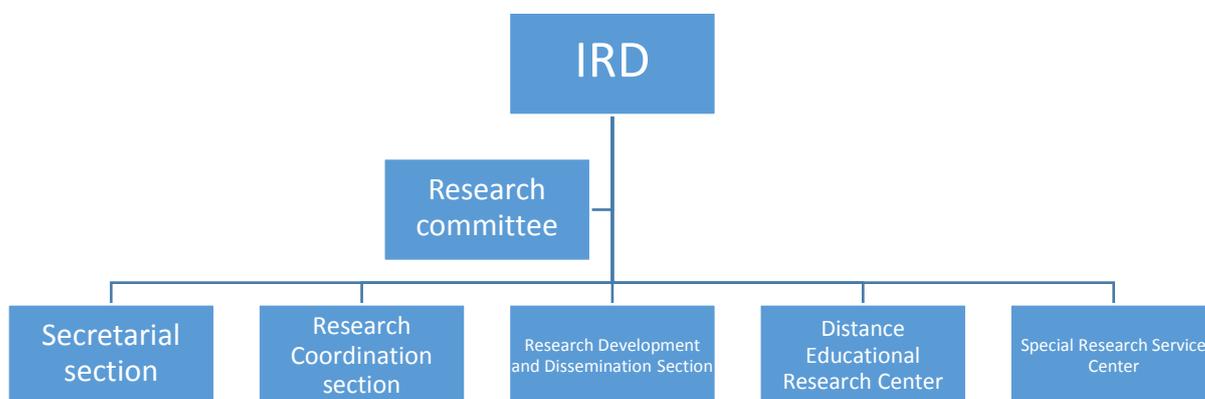

Figure 1. IRD's organizational structure

Research activity

       IRD is a supportive research organization at STOU. Research support activities carried out by IRD has 5 dimensions:

       1. Grant research projects

       2. Develop research skills for faculty members and researchers

       3. Organize annual research conference

       4. Award distinguish quality research

       5. Develop and provide dissemination platforms

Figure 2 STOU Research activities

STOU Research Policy and Productivities

Similar to traditional universities, STOU has determined that research is one of the four key functions of the university. In addition, STOU had determined that its research framework must comprise research in three main categories as follows:

- Research on distance education system. This research category consists of research for development of distance education system, research for development of instructional media, and research for application of distance education as instrument for social development.
- Research for development of various disciplines. This research category consists of research studies on disciplines under responsibility of each school (faculty) of the university to be conducted by instructors in that particular school; for example, research in education, research in political science, research in economics, etc.
- Research for national development. This research category consists of research studies based on framework for national development in various aspects such as science, technology, environment, human resource development, economic development, etc.

At present, STOU instructors and researchers of the university's Institute for Research and Development are interested in conducting research that will lead to construction of new products and services for the university. Consequently, the university has embarked on development of its main research plan by studying from the National Strategy Plan and the 5-year and 20-year Strategy Plans for University Development in order to identify research topics for each year. The university also gives importance to providing research funds for research on distance education system that are in line with the university's vision for being a leading open university at the international level. Research funds are also provided for research on development of innovations, applied research, multi-disciplinary research in response to solving national development problems in the future, commercial research (R2BIZ), and research on social problems and local wisdom. Furthermore, the university organizes activities to facilitate the communication process and public relations of research fund recipients, to support the increase of channels for publication of research works in the national and international journals. The university organizes training workshops for instructors and researchers on how to write research proposals in application for research funds from various research fund sources, and training activities on research data analysis. The university also encourage administrators of every work unit to apply results of research on distance education and institution research for administration of their own work unit and the university and applying research results for provision of academic services to the society.

Every instructor in the university must conduct research as a part of his/her work performance. The university encourages the instructors to conduct research for instructional development, applying research results in writing textbooks or instructional documents, and enhancing research skills of their students. The university offers research funds to instructors every year on a continuous basis. There are many categories of research funds; some are intended for new researchers, while others are intended for experienced researchers.

In addition to encouraging and supporting the instructors to do research, STOU also supports its instructors to cooperate in doing research with instructors and personnel of other institutions both within the country and abroad. In the case of cooperation with researchers in other countries, many STOU instructors received research funds for cooperative research studies with instructors of foreign universities. Also, STOU has projects for research cooperation with four open universities in Asia, namely, Open University of Malaysia, Turbuka University of Indonesia, Hanoi Open University of Vietnam, and University of the Philippines

Open University. These projects are cooperative research projects for development of distance education system. As a results, researchers from these universities have learned and gained experiences in doing research, sharing research results and applying the best practice from each institution to benefit their own institution. The important impact of these project is that it creates good cooperation and the spirit of helping each other among these universities.

STOU has allocated budgets about 20 million baht annually to offer research opportunity in terms of variety research grants for researchers shown in figure 3. Actually, research projects conducted at STOU received funding from many sources (i.e., STOU funding and external agents). Figure 3 summarizes the number of research projects conducted by STOU researchers and the corresponding funding received since 2009, classified by the source of funding. It can be seen from the figure that the largest numbers of research projects (1522 projects) received funding from external agents and produced the largest amount of funding (1722.44 million bath). The second highest number of research projects are from the STOU distance education research funding (n=217 projects with 26.7 million baht granted)
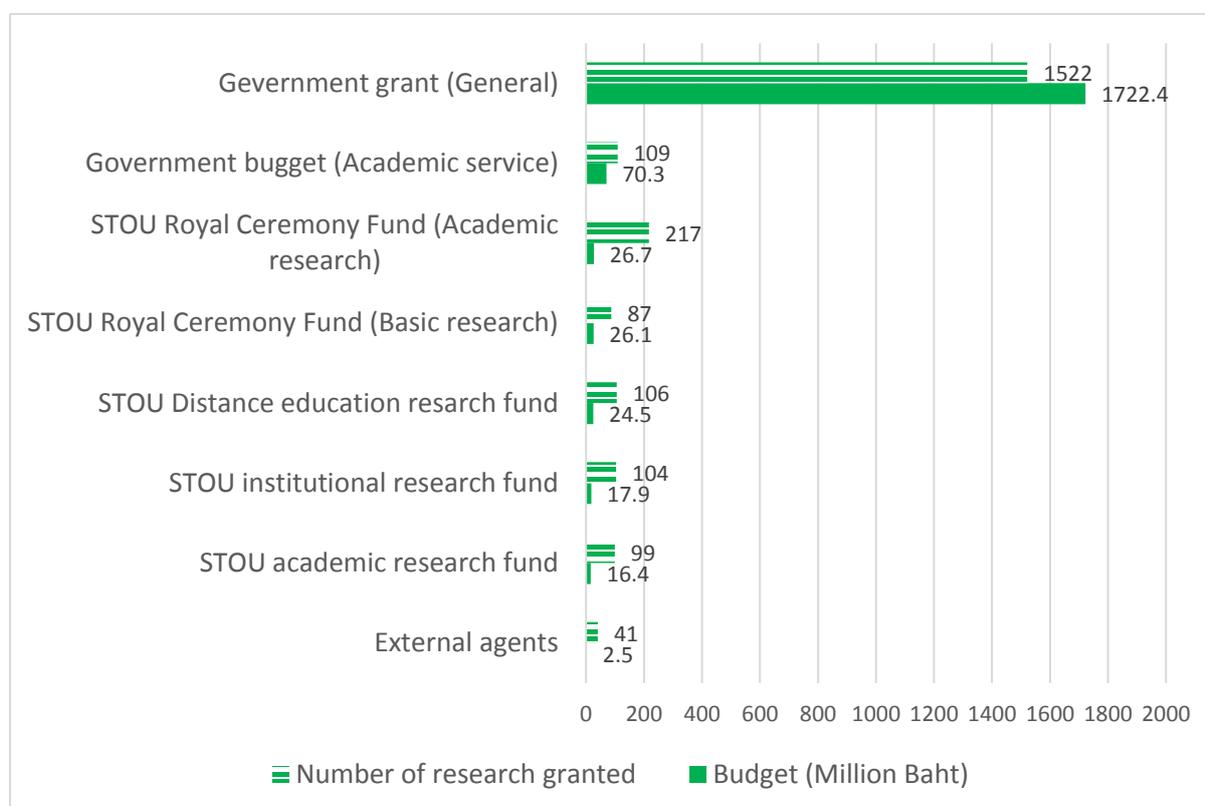

Figure 3 the number of research projects and funding from 2009 to 2019

Research findings in the last five years

Figure 4 shows the number of completed research projects from 2015 to 2019. These numbers show a large number of research in education in various aspects that reflect the identity of STOU research. It is not surprised that the largest number of research projects granted by STOU funding is the research in the development of distance education instruction (n=25), followed by distance training (n=16), educational media & technology (n=10), curriculum evaluation (n=9), educational assessment (n=16), research support & evaluation (n=2), student service (2), human resource (n=2), student dropout (n=2),and the development of registration. It is important to note that the presented numbers are a collection of completed research projects and the ongoing research projects are excluded.
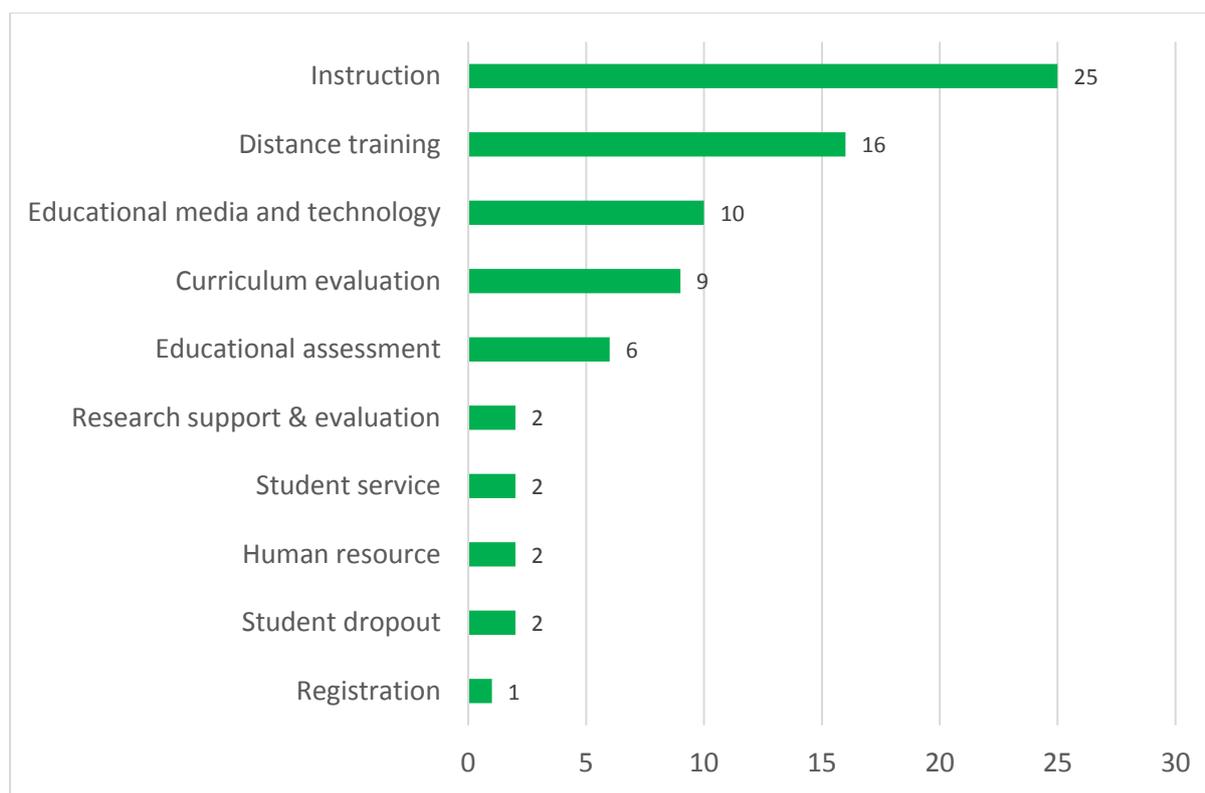
Figure 4 Number of completed research projects granted by STOU from 2015 to 2019

The following section provides the succinct review of the aforementioned ten research areas carried out by STOU researchers in the last 5 years in order to provide readers insight regarding specific research that have been conducted at STOU.

1. Instruction

Instructional design is a key component of teaching and learning in the context of distance education of STOU. Designing a sound teaching approach will have positive consequences on student learning. STOU has invested on the development of instruction strategies through research. The finding of such research are used to develop teaching strategies for STOU. For example, there are research on the development of intelligent online distance learning model, a cooperative research among OU5 universities on online instruction development, an advanced programing instructional model, the development of information, media and digital literacy in distance higher education, and a benchmarking research project exploring comparative higher education policy.

2. Distance training

Research and devilment in distance training at STOU were funded with regard to responding to one of STOU research missions which is the provision of STOU services to communities. Nearly all services were related to the provision of learning and training provided to Thai people throughout the country through various distance education formats. Examples of research and development in this category include a web-based instruction for strengthening leadership of school administrators, the distance training on assessing preschool students' development and learning, a virtual library, and intelligent books for hearing impaired students.

3. Educational media and technology

Educational media and technology play important roles in creating viable learning and instruction in distance education that support student learning through personalized learning approaches achieved by the advancement of educational technology. Therefore STOU has allocated significant funding to conduct research and development in this area. Also the distance media fund was founded to produce media and technology to support teaching and learning at STOU. Examples of research and development in this area include the blended educational media, designing sound media production, e-book teaching development, and virtual classroom model.

4. Curriculum evaluation

Curriculum implementation is the process of transferring contents in terms of knowledge and skills to students. Judging the effectiveness and limitations of that implementation is one of the curriculum development has long been required by the Ministry of Higher Education. Given the significance of curriculum evaluation, STOU has provided finding to faculty members to assess the effectiveness of curriculum. There are numerous research conducted at different levels to assess quality of teaching and curriculum. There are survey research exploring satisfaction of different stakeholders such as graduate users concerning quality of students graduating from STOU. Also there is a number of research on the feasibility of new curriculum.

5. Educational assessment

Educational assessment is a part of instruction and is used to collect data regarding student learning which is important to provide evidences of instructional success. The uses of appropriate educational assessment will not only help student learns but also support STOU missions regarding the provision of quality distance education. Because of the importance of educational assessment, some research projects were granted to develop educational assessment methods for distance education that could provide valid and reliable assessment results. Examples of this research in this area include the cooperative research among OU5 universities in models and challenging in educational measurement and evaluation in open education, a comparative study on educational measurement and evaluation in AAOU, student grading guidelines, the development of STOU quality assurance indicators, the digital literacy assessment of STOU students and faculty members, and the development of English proficiency assessment administration (STOU-EPT).

6. Research support & evaluation

There are a number of research in research support and evaluation that was conducted by IRD researchers. Some research in this research category are survey research carried out to explore STOU researchers' needs so as to provide supports that meet their needs. Moreover, there are some research projects that evaluate the effectiveness of STOU research activities such as granting process, guidelines on the promotion of distance education research, and the development of research funding.

7. Student service

Students entering STOU's educational programs are diverse in demographic background and qualification and hence they have different preferences and needs. Therefore, student services are important and should be designed such that their needs and preferences are fulfilled. There are some research projects conducted to develop effective student services to STOU students. Examples of research in this area include the development of electronic student support system, the development of successful student service model in distance education, the guidelines on quality of graduate development, student communication model, and the cooperative research among OU5 universities in educational services that support successful learning in distance education.

8. Human resources

There are research on development of manpower at STOU. For example, there are a research on planning STOU human resources, and the STOU staff psychological training aimed at enhancing their organizational values.

9. Student dropout

Due to a large number of students who could not complete their study in distance learning of STOU, there are some research projects funded by IRD to find answers to the questions such as why students could not finished their study and what are solutions to student dropout. Examples of research in this category include the investigation of factors influencing STOU student retention, and factors affecting student dropout.

10. Registration

With regard to the development of appropriate registration system of STOU, there is a research project that was funded to examine and develop the STOU registration system.

Future research and expected research outcomes

STOU has a research mission outlined in the STOU development plan to conduct research and produce research results that will support the growth and well-being of community, society, and nation. Specifically, there are two focused research areas including the distance education related research and the innovation research. The distance education related research will focus on research bringing about new pedagogical knowledge, advanced educational technology, and models to create or deliver effective education to students. Moreover, STOU has a strong determination to support more research in science and technology in responding to the country strategy.