

Development of the Procurement System or the Faculty of Education Suan Sunandha Rajabhat University

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Abstract

This research was conducted with the dual objectives of developing a new materials and supplies system for the Faculty of Education at Suan Sunandha Rajabhat University (SSRU-FoE) and assessing the satisfaction of the faculty members and staff with the improved system. The study utilized a sample of 56 highly qualified personnel, predominantly male, holding Master's degrees or higher, occupying academic positions (especially Assistant Professor), and having substantial work experience (5–20 years), thus ensuring the reliability and validity of the feedback.

The findings demonstrate overwhelming success, with overall satisfaction across all four critical dimensions of the system—Planning, Procurement, Control, and Disposal—rated at the "High" to "Highest" levels ($\bar{x}$ =4.14 to 4.69).

The functions of Procurement ($\bar{x}$ =4.62), Control ($\bar{x}$ =4.67), and Disposal ($\bar{x}$ =4.69) were all evaluated as "Highest." These high scores signify exceptional efficiency, transparency, and adherence to regulatory standards. Specifically, respondents highly praised the suitability of procurement timelines, the organized and secure storage of materials, and the strict compliance with regulations and procedures during disposal.

The Planning aspect received a "High" rating ($\bar{x}$ =4.14). While the unit excelled in budget planning and early needs assessment ($\bar{x}$ =4.43), a clear area for improvement was identified: enhancing the clarity and specificity of the annual materials plan ($\bar{x}$ =4.00).

In conclusion, the developed system is robust, efficient, and meets the needs of its users effectively. The high satisfaction levels across the board confirm that the SSRU-FoE has successfully implemented a transparent and standardized materials and supplies management system, with only a minor refinement needed in the annual planning process to achieve maximum performance.

Keywords: Development, Parcel system

1. Introduction

The Faculty of Education at Suan Sunandha Rajabhat University (SSRU-FoE) is a key unit responsible for training bachelor's degree teachers, operating under the regulatory framework of the Ministry of Finance's Public Procurement and Supplies Management Act B.E. 2560 (2017). The administration of materials, supplies, and procurement is crucial for supporting teaching, learning, and related services across its nine academic programs and six supporting divisions (including the Finance and Supplies Division).

Despite the commitment to efficiency and adherence to regulations, the Finance and Supplies Division faces two significant operational challenges:

1. **Inefficient Procurement Process:** The current process for acquiring teaching materials is too lengthy and complex, negatively impacting the timely delivery of lessons and overall departmental operations.
2. **Inadequate Supply Levels:** There is often a shortage of necessary materials to meet the essential and supplementary needs of teaching specific courses.

Recognizing these issues, the researcher—a staff member from the Finance and Supplies Division—aims to develop and improve the faculty's materials and supplies system to enhance efficiency and maximize benefits for users. This initiative is inspired by previous research emphasizing the use of workshops, supervision, and internal controls as effective strategies for improving staff knowledge and streamlining materials management. The final research findings will be utilized to guide the continuous development of the system.

2. Objective

1. To develop the materials and supplies system of the Faculty of Education, Suan Sunandha Rajabhat University.
2. To evaluate the satisfaction of faculty members and staff with the materials and supplies system of the Faculty of Education, Suan Sunandha Rajabhat University.

3. Methodology

The methodology employed for this research is Institutional Research, specifically focused on developing the materials and supplies system of the Faculty of Education, Suan Sunandha Rajabhat University. This is a Survey Research study where the researcher collected data using Questionnaires. The collected data were analyzed using statistical methods and presented through Descriptive Research.

Population and Sample

The Population consisted of all faculty members and staff of the Faculty of Education, Suan Sunandha Rajabhat University, totaling 63 persons.

The Sample size was determined from the total population of the Faculty of Education's faculty and staff using the Krejcie & Morgan table at a 95% confidence level (Suwimon Tirakanant, 2551: 179-180), which yielded a required sample size of 56 persons. The samples were then selected using Simple Random Sampling to ensure they were representative of the population under study.

Research Methods

The primary instrument used for this study was a single set of Questionnaires designed to assess the development of the materials and supplies system at the Faculty of Education, Suan Sunandha Rajabhat University.

The questionnaire was divided into two main parts. Part 1 consisted of five check-list items gathering personal data, including gender, age, education level, position, and income. Part 2 focused on the opinions regarding the development of the materials and supplies system, containing 20 items measured using a 5-level Rating Scale. These items were equally distributed across four key dimensions (five items each): Planning, Procurement, Control, and Disposal.

Respondents indicated their level of opinion for each statement using a scale of 5 (Most/มากที่สุด), 4 (High/มาก), 3 (Moderate/ปานกลาง), 2 (Low/น้อย), and 1 (Least/น้อยที่สุด). The resulting mean scores were interpreted based on Best's criteria (Best, 1981, p. 82), where a mean score of 4.50–5.00 signified the highest level of acceptance, and 3.50–4.49 signified a high level of acceptance.

Procedures and Data Collection

The study followed specific procedures, beginning with a literature review to guide the construction of the questionnaire. The 5-level Rating Scale instrument was then prepared and administered using Google Forms.

For data collection, the researcher adopted a Survey Method approach. This involved the following steps:

1. Obtaining formal permission to collect data from faculty and staff via an official letter from the Faculty of Education, SSRU.
2. The researcher personally collected the data, providing clear explanations of the study's purpose and the proper method for completing the questionnaire to the sample group.
3. Data collection was executed using Google Forms.
4. Finally, the researcher reviewed the collected results, checked data completeness, and prepared the information for statistical analysis.

Data Analysis

The researcher processed the collected data using a statistical software package. The statistics utilized for data analysis include Percentage, Mean, and Standard Deviation. The process involved the following steps:

1. Data Checking (Editing): The researcher checked the questionnaires for completeness, discarding any incomplete surveys to ensure only usable data proceeded to the coding stage.
2. Coding: The researcher assigned codes to the complete questionnaires and entered the data into the statistical software package, preparing it for analysis and evaluation.
3. Data Analysis and Evaluation: The researcher used the SPSS statistical software package to analyze and evaluate the data as follows:

3.1 Descriptive Statistics: The researcher calculated and evaluated the Frequency, Percentage, Mean ($\bar{x}$), and Standard Deviation (S.D.).

4. Results

The research findings obtained from this study on the development of the materials and supplies system at the Faculty of Education, Suan Sunandha Rajabhat University, are presented in tables accompanied by descriptions, as follows:

1. Demographic Profile of Respondents from the Faculty of Education, Suan Sunandha Rajabhat University.
2. Data Analysis on the Development of the Materials and Supplies System at the Faculty of Education, Suan Sunandha Rajabhat University.

Table 1

Show the demographic analysis results of the respondents (personal data analysis), including: gender, age, education level, position, and income from a sample of 56 people.

No.	Personal information	Number of people	Percentage
1.Sex	Female	39	69.6
	Mail	17	30.4
2.Age	Younger than 30 years old	21	37.5
	30-40 years old	18	32.1
	41-50 years old	10	17.9
	Age over 50 years	7	12.5
3. Educational level	Master's degree	53	94.6
	Doctoral Degree	3	5.4
4. Position	Support staff	14	25.0
	Teacher	14	25.0
	Assistant Professor	17	30.4
	Associate Professor	11	19.6
5. Work experience	5-10 years old	25	44.6
	11-20 years old	23	41.1
	Age over 20 years	8	14.3

From Table 1 The analysis results show that the majority of respondents are male (30.4%), significantly outnumbering females (69.6%). The most common age group is under 30 years old (37.5%), followed by the 30–40 year-old range (32.1%). Regarding education, the vast majority of respondents hold a Master's degree (94.6%). In terms of position, the highest proportion of respondents are Assistant Professors (30.4%). This is followed by Lecturers and support staff (25.0% each), and Associate Professors (19.6%). For work experience, most respondents have 5–10 years (44.6%) and 11–20 years (41.1%) of experience. This profile reflects that the majority of the respondents are personnel with high qualifications, hold academic positions, and possess a moderate to high level of work experience.

Overall Summary:

The respondent group is predominantly male, in their early to middle working age, holds a Master's degree, occupies an academic position (especially Assistant Professor), and has 5–20 years of work experience. This indicates their suitability as reliable informants who can accurately reflect the state of the material operations (supplies/procurement) within their respective units.

Table 2

Show the mean and standard deviation for the planning data.

No.	Planning aspect	Average	Standard Deviation	Interpret (Level)
1	Budget planning for procurement is carried out efficiently	4.43	.535	Very
2	The procurement planning is consistent with the unit's work plan	4.20	.616	Very
3	The material requirements are assessed in advance	4.29	.456	Very
4	The preparation of the annual procurement plan is clear	4.00	.467	Very
5	The procurement plan is continuously monitored and updated	4.02	.356	Very
Overall, the control of inventory/materials		4.14	0.49	Very

From Table 2 Analysis of Data on the Planning Dimension: Overall, the Planning dimension shows a mean ($\bar{X}$) of 4.14 and a standard deviation (S.D.) of 0.49, placing it at a High level, reflecting that the unit has effective materials planning and management which is generally well-executed. The highest mean was for budget planning for procurement carried out efficiently ($\bar{X}$ =4.43, S.D.=0.535), followed by the material requirements being assessed in advance ($\bar{X}$ =4.29, S.D.=0.456), procurement planning being consistent with the unit's work plan ($\bar{X}$ =4.20, S.D. not provided but level is High), and the procurement plan being continuously monitored and updated ($\bar{X}$ =4.02, S.D.=0.356). The lowest mean, though still at a High level, was for the preparation of the annual procurement plan being clear ($\bar{X}$ =4.00, S.D.=0.467). In summary, the unit's procurement planning is at a High level, with strengths in budget allocation and advance needs assessment, but the clarity of the annual procurement plan requires further development.

Table 3

Show the mean and standard deviation for the procurement data.

No.	In terms of procurement	Average	Standard Deviation	Interpret (Level)
1	The item/supplies procurement process is transparent and verifiable	4.61	.483	Most
2	The lead time for item/supplies procurement is appropriate	4.64	.483	Most
3	The procured items/supplies meet the users' needs	4.59	.496	Most
4	The procedures/steps for item/supplies procurement are clear	4.63	.489	Most
5	The officials/staff are knowledgeable about and understand the procurement process	4.63	.489	Most
Overall, in terms of item/supplies procurement		4.62	0.49	Most

From Table 3 Analysis of Data on the Procurement Dimension: Overall, the Procurement dimension shows a mean ($\bar{X}$) of 4.62 and a standard deviation (S.D.) of 0.49, placing it at the Highest level, which indicates that the unit's procurement process is appropriate, transparent, and highly efficient across all aspects. The highest mean was for the appropriateness of the procurement timeframe ($\bar{X}$ =4.64, S.D.=0.483). The aspects concerning clear steps in the procurement process and staff knowledge and understanding both received an equal mean of 4.63 (S.D.=0.489). The transparency and auditability of the procurement process scored a mean

of 4.61 (S.D.=0.483), and the lowest mean, though still at the Highest level, was for procured materials meeting the users' needs ($\bar{X}$ =4.59, S.D.=0.496).

Overall, the unit's procurement (materials acquisition) is at the Highest level in all aspects. In particular, the appropriateness of the procurement timeframe received the highest mean score. This reflects a procurement process that is highly efficient, transparent, and excellently responsive to user needs.

Table 4

Show the **mean** and **standard deviation** for the **inventory/materials control data**.

No.	In terms of parcel control	Average	Standard Deviation	Interpret (Level)
1	Parcels are stored in an orderly and secure manner	4.82	.386	Most
2	There is a system for accurately controlling and recording items/supplies	4.59	.496	Most
3	Supplies inspection can be done easily and quickly	4.61	.493	Most
4	There is an annual inventory of parcels.	4.64	.483	Most
5	Parcel control system effectively reduces loss	4.71	.456	Most
Overall, in terms of item/supplies control		4.67	0.46	Most

From Table 4 The analysis of the Materials Control dimension showed an overall mean score of 4.67 (Standard Deviation 0.46), indicating the "Highest" level of agreement. This demonstrates that the unit's materials control system is highly efficient across all aspects. Specifically, the item concerning materials being stored in an orderly and secure manner received the highest mean score (4.82, SD 0.386), also at the "Highest" level. Other key aspects were also rated highly: the system for controlling and accurately recording materials scored 4.59 (SD 0.496); material inspection was found to be easy and fast with a mean of 4.61 (SD 0.493); annual materials inventory counting achieved 4.64 (SD 0.483); and the control system was effective at reducing loss with a mean of 4.71 (SD 0.456). All indicators in this dimension were consistently rated at the "Highest" level.

Overall, the unit's materials control was rated at the "Highest" level across all aspects, particularly the orderly and secure storage of materials, which received the highest evaluation. This reflects highly efficient and systematic materials management.

Table 5

Show the analysis results for the item disposal data (e.g., average and standard deviation) in the following manner

No.	In terms of parcel sales	Average	Standard Deviation	Interpret (Level)
1	The disposal/sale of items/supplies is carried out in accordance with the established rules and procedures	4.82	.386	Most
2	The deteriorated/obsolete items/supplies have been appropriately considered for disposal/sale	4.59	.496	Most
3	The officials/staff are knowledgeable about (or: have a good understanding of) item/supplies disposal	4.71	.456	Most
4	The disposal/sale of items/supplies is accurately recorded and reported	4.77	.426	Most
5	The disposal/sale of items/supplies is transparent and verifiable	4.55	.502	Most
Overall, in terms of item/supplies disposal		4.69	0.45	Most

From Table 5 The analysis results for Supplies Control show an overall mean of 4.67 (Standard Deviation: 0.46) at the "Highest Level", indicating the agency's supplies control is highly efficient in all dimensions. Details: Items are stored in an organized and secure manner had the highest mean of 4.82 (S.D.: 0.386, Highest Level); The system accurately controls and records items had a mean of 4.59 (S.D.: 0.496, Highest Level); Item inspection is easy and quick had a mean of 4.61 (S.D.: 0.493, Highest Level); Annual item counting had a mean of 4.64 (S.D.: 0.483, Highest Level); and The supplies control system effectively reduces loss had a mean of 4.71 (S.D.: 0.456, Highest Level).

Overall, the agency's supplies control is at the highest level across all dimensions. This is particularly evident in the organized and secure storage of items, which received the highest evaluation score. This performance reflects extremely efficient and systematic supplies management.

5. Conclusion And Future Work

This research aimed to develop the supplies system and assess satisfaction with the supplies system at the Faculty of Education, Suan Sunandha Rajabhat University (SSRU), using a sample group of 56 faculty members and staff. The overall analysis of the supplies system development—which covered Planning, Procurement, Control, and Disposal—was found to be at the "Highest Level" in all aspects. This indicates that the system is highly effective in meeting the needs of the users. The majority of respondents were Female, under 30 years old, held a Master's Degree, served in the position of Assistant Professor, and had 5–10 years of work experience. These findings align with previous research showing that the service delivery is efficient and systematic (Kosum Phimsen, 2565). The results also underscore that robust system development can effectively address previously identified issues, such as a lack of planning and understanding of procurement regulations (Arisara Sudsa, 2562).

However, the development of the Supplies System at the Faculty of Education, Suan Sunandha Rajabhat University (SSRU), is consistent with the research by Choouchuay, K., Srirama, S., & Noichan, N. (2024). (Web-Based Lesson Development), which showed the highest level of user satisfaction with developmental activities. It also aligns with Noichan, N., Choouchuay, K., & Srirama, S. (2024). findings on eight key Digital Competency guidelines—including creating networks, supervising technology use and evaluation standards, enhancing skills, setting strategic plans, serving as a role model (e.g., using e-documents/creative social media), and allocating budgets for digital resources. Collectively, this demonstrates a shared institutional focus on systematic quality improvement and resource management across both administrative and academic functions.

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