



MANAGING THE ASSESSMENT OF LEARNING OUTCOMES FOR GRADUATE STUDENTS IN THE AGRICULTURE, FISHERIES, AND ENVIRONMENT FIELDS AT CAN THO UNIVERSITY, VIETNAM

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Abstract:

This research investigates the management of learning outcome evaluation activities for postgraduate students in the Agriculture – Fisheries – Environment Fields at Can Tho University, Vietnam. Conducted with 33 management staff and lecturers and 105 postgraduate students, the study addresses the urgent need to enhance high-quality human resources in the context of globalization and a knowledge-based economy. It systematically reviews theoretical foundations and evaluates current practices through surveys and data analysis, revealing a significant perception gap between management, lecturers, and students regarding the fairness and effectiveness of online assessments. Additionally, management staff rated their capacity to implement modern evaluation methods as low, indicating a need for mindset change and professional development. In response, the research proposes comprehensive management measures, including raising awareness among staff, improving planning, innovating organizational approaches, strengthening supervision, and enhancing quality assurance conditions. Recommendations are made for the Vietnamese Ministry of Education and Training, Can Tho University, faculties, lecturers, and postgraduate students to improve evaluation quality and better align learning outcomes with labor market demands. Limitations include the study's focus on select faculties and evaluation management, suggesting further research is needed to broaden applicability.

Keywords: learning outcome evaluation, postgraduate education, quality management, higher education, Can Tho University

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1. Introduction

Can Tho University is not only a key institution for undergraduate and postgraduate education in the Mekong Delta region but also a cultural and scientific-technical center for the area. Over the years, the university has continually improved and developed, evolving from a limited number of academic programs into a comprehensive, multidisciplinary institution. According to the 2023 Annual Report, Can Tho University offers 119 undergraduate programs, 51 master's programs, 21 doctoral programs, and currently has 2,546 postgraduate students (Can Tho University, 2023).

Le Van Nhung *et al.* (2023), citing the 2014 report by the UNESCO Institute for Statistics, highlighted that the demand for higher education continues to rise across Asia, particularly in postgraduate programs, to ensure a sufficient supply of highly qualified researchers in the future. The training of high-level human resources and the increasing demands on postgraduate education management—including the management of learning outcomes assessment for graduate students—are essential in the current educational development context.

In practice, postgraduate learners—whether working professionals or recent graduates—represent a group that shares similarities with, yet differs from, undergraduate students. Therefore, the assessment of their learning outcomes must be managed effectively for the following reasons:

- To ensure greater fairness and transparency, as assessment methods can significantly impact graduate students' academic results.
- To accurately reflect student competencies and reduce academic dishonesty: Properly evaluating the level of understanding and the ability to apply knowledge is especially important in graduate education, where critical thinking and problem-solving are highly emphasized.
- To innovate teaching and learning methods, creating opportunities to improve instructional strategies for faculty and learning approaches for graduate students.
- To enhance educational quality management by enabling better monitoring, adjustment, and improvement of assessment activities.
- To optimize resource use: Effective assessment management helps institutions maximize resources such as time, personnel, and facilities used for examinations and evaluations.
- To promote sustainability in education, contributing to the development of a stable and sustainable training system that helps learners achieve expected outcomes.
- To integrate technology into assessment management, enabling more accurate and effective monitoring of student performance and teaching effectiveness.
- To establish a responsive feedback system that supports graduate students' learning more efficiently.

Based on these reasons, the topic “Managing the Assessment of Learning Outcomes for Graduate Students in the Agriculture – Fisheries – Environment Fields at

Can Tho University” has been selected as the focus of this thesis. The study aims to contribute to the improvement of assessment systems in education, particularly in graduate programs where the demand for high-quality training and assessment management remains critical.

2. Literature Review

2.1. Fundamental Concepts

2.1.1 Management

Management is a multi-faceted concept viewed through various lenses such as philosophy, economics, cybernetics, and modern management theories. Despite different perspectives, it is commonly seen as a purposeful and organized process where a manager uses resources effectively to achieve specific goals.

- Goal- and control-based view: Management is a process of directed influence by a manager toward achieving goals. Cybernetics defines it as control, while Vietnamese scholars (Nguyen Quoc Chi, Bui Minh Hien) highlight the need for skill and flexibility.
- Resource-focused view: Management aims to optimize the use of human, financial, and physical resources. Economists see it as rational resource use (Tran Kiem), with added focus on cost-efficiency (Koontz) and human coordination (Hersey & Blanchard).
- Function-based view: Classic theorists like Taylor and Fayol define management through functions such as planning, organizing, directing, and controlling. It emphasizes task efficiency, structure, and supervision.
- Philosophical view: Marx viewed management as a function arising from the socialization of labor, highlighting its social dimension.
- Despite different approaches, management always involves purposeful action by a subject toward achieving goals using appropriate resources and methods.

Core Functions of Management (Condensed):

- Planning: Setting objectives and creating action plans. A clear plan aligns efforts and defines roles to meet goals.
- Organizing: Structuring people and tasks to execute plans effectively and ensure collaboration.
- Directing: Guiding and motivating members based on plans to ensure smooth task execution.
- Controlling: Monitoring progress, identifying issues, and adjusting actions to stay aligned with goals and standards.

In essence, management is an organized, goal-driven process for maximizing effectiveness in changing environments.

2.1.2. Educational Management

Education is a core social activity essential to human development. It involves the transmission and acquisition of historical–social knowledge and cultural values across generations (Nguyen Thi My Loc *et al.*, 2012; Tran Luong *et al.*, 2018). Based on this foundation, educational management has emerged as a specialized field within social management, with various interpretations.

M.L. Kondakov (1985) defines educational management as a set of organizational, staffing, planning, and financial measures ensuring the stable and qualitative operation of educational institutions. Dang Quoc Bao (1997) expands this to include the coordination of efforts across all sectors and age groups, guiding the national education system as a whole.

In summary, educational management is an organized, systemic process through which managers influence the components of education to achieve set goals. These influences must align with objective laws and support socio-economic development.

A. Levels of Educational Management:

- State-level management: Implemented at macro levels (e.g., Ministry, Departments), involving conscious, systematic efforts to direct the education system towards national development goals (Nguyen Ky *et al.*, 1984).
- Institution-level management (school management): Involves leadership actions aimed at teachers, students, parents, and community stakeholders to effectively achieve a school's educational objectives (Tran Kiem *et al.*, 2005).

B. Key Components of Educational Management (Tran Kiem *et al.*, 2005):

- Managerial Subject: Individuals or groups (e.g., principals, school boards) authorized by law to influence educational processes using specific tools and methods.
- Managed Object: Depending on the level, this may include the entire education system or specific components like teaching staff, students, facilities, and curricula.
- Goals of Educational Management: These are essential for guiding the entire management process and vary depending on the level of management. Goals are defined as desirable and feasible future states (Tran Kiem & Nguyen Xuan Thuc, 2005).
- External Stakeholders: Parties outside the education system but closely related to it, such as parents, unions, and local socio-political organizations.
- Management Methods: Include various techniques used to achieve objectives. These can be categorized by content and mechanism (e.g., administrative, socio-psychological, economic, goal-based) or by function (planning, organizing, directing, controlling).
- Management Tools: These include legal documents (laws, regulations), economic and technical instruments, and internal mechanisms (rules, plans) used to guide and assess educational activities (Nguyen Van Ho, 2006).

2.1.3. Inspection, Measurement, and Evaluation

According to Nguyen Cong Khanh *et al.* (2017), inspection is the process of measuring, examining, or testing one or more characteristics of a product and comparing the results against requirements to determine conformity. This concept mainly applies to product quality control.

Tran Thi Tuyet Oanh (2014) defines measurement as the process of quantitatively describing how well an individual performs in a specific area.

Evaluation is described by the ISO 9000:2015 standard as a systematic, independent, and documented process to obtain objective evidence and assess it to determine the degree of conformity to evaluation criteria.

Nguyen Duc Chinh (2008) views evaluation as the systematic collection and processing of information to determine the extent to which objectives have been achieved. It also involves gathering data on learners' competencies and qualities to inform future teaching and learning decisions.

According to Dang Ba Lam (2003), evaluation is a systematic process involving collecting, analyzing, and interpreting information to assess how well learners have achieved educational goals.

In summary, evaluation includes planning, collecting and analyzing data, processing results, and reporting to stakeholders. It essentially involves making judgments about learners' value based on collected evidence compared to set objectives.

2.1.4 Inspection, Measurement, and Evaluation in Education

According to Vu Ngoc Khanh (2003) and Tran Thi Tuyet Oanh (2014), inspection in education is the process of gathering information about learning outcomes at various stages to strengthen and improve teaching and learning effectiveness. Inspection is closely linked to evaluation, providing data to compare against educational objectives.

Measurement in education involves using tools such as observation forms, interviews, and tests to quantify phenomena for evaluation purposes (Nguyen Cong Khanh, 2017).

Researchers like Dang Ba Lam (2003), Tran Ba Hoanh (1995), and Tran Thi Tuyet Oanh (2014) define evaluation in education as the systematic collection and analysis of information to judge educational results against goals and standards. Evaluation not only records current status but also suggests solutions and improvements, serving as a core feedback mechanism to drive educational innovation and development. Thus, evaluation in education is a comprehensive process where inspection and measurement provide essential data to compare with goals, aiming to enhance and develop the education system.

Tran Ba Hoanh (1995) classifies educational evaluation by object and purpose—national education system, educational units, teachers, and students. In contrast, Tran Thi Tuyet Oanh (2014) takes a broader view, including teaching activities, student training, and all educational components, emphasizing a more detailed and comprehensive approach.

According to Tran Ba Hoanh, evaluation responsibilities are distributed: the Ministry of Education evaluates the national system; management and inspection bodies evaluate educational institutions; teachers evaluate students. Tran Thi Tuyet Oanh argues for a more holistic approach where all participants—students, teachers, and related forces—are evaluation subjects, stressing the need for tailored standards and criteria for each group to ensure accuracy, fairness, and relevance.

2.1.5. Learning

According to Vu Ngoc Khanh (2003), learning is the process of acquiring knowledge and practicing skills under the guidance of teachers, closely linked with teaching activities. Nguyen Ho Huyen Diep (2017) describes learning as an active, intentional process where learners engage to master knowledge, skills, and develop intellectual capacity, supported by instructors and learning tools. Managing postgraduate learners' activities is purposeful, organized, and planned to help them achieve the best outcomes in study and research.

A. Learning Outcomes

Stephen Adam (2006) defines learning outcomes as clear statements of what learners are expected to know, understand, or demonstrate at the end of a learning stage. These outcomes combine knowledge, skills, attitudes, and competencies gained from educational experiences. Tran Thi Tuyet Oanh (2014) adds that learning outcomes reflect the degree to which learners meet set goals and how they compare with peers. Despite different expressions, all definitions agree that learning outcomes precisely specify what learners should acquire in knowledge, skills, and attitudes after completing a learning phase.

B. Learners (Graduate Students)

In international contexts, terms like graduate student or postgraduate student refer to those studying at master's or doctoral levels without implying age or study mode distinctions, reflecting a trend toward flexible, integrated postgraduate education. Vu Ngoc Khanh (2003) initially defined "learners" as adults in non-regular education settings with age limits, but in Vietnam's postgraduate context, the term now broadly refers to master's students regardless of age or study form. In military and security fields, "learners" denote those enrolled in training programs. This study uses "learners" to mean master's students in universities. Postgraduate learners are typically adults with mature psychological, physical, and personal traits, showing strong motivation, quick thinking, good memory, creativity, and responsibility—qualities essential for effective learning management.

2.2. Organization and Implementation of Student Learning Outcome Evaluation Management at Universities

According to Tran Kiem (2008), organizing management functions requires attention to operational methods, clear authority for each department, ensuring horizontal and vertical coordination, and proper staffing. The evaluation of student learning outcomes is an integral part of teaching and learning. It includes assessment of courses (theory, practice, internship) and guidance and evaluation of theses or graduation projects, as regulated in Circular 23/2021/TT-BGDĐT.

A. Key Factors to Ensure Quality:

- Develop clear regulations on teaching, practice, and assessment methods aligned with training objectives.
- Improve lecturer quality by ensuring professional competence and responsibility.
- Innovate teaching methods and apply technology to encourage student autonomy and creativity.
- Monitor teaching quality through regular supervision and feedback from students and stakeholders.

B. Role of Management Staff:

- Decentralize and allocate responsibilities with a proper organizational structure to ensure effective evaluation implementation.
- Execute evaluation plans scientifically, including exam creation, management, and grading.
- Assign staff and lecturers appropriately to maximize their evaluation capabilities.
- Clearly define the duties and authority of vice principals, departments, training units, and lecturers.
- Organize training and issue necessary regulations and documents related to evaluation processes.

2.3. Inspection and Evaluation in Managing the Assessment of Student Learning Outcomes at Universities

Inspection and evaluation in educational management refer to the process of reviewing and monitoring actual practices to assess the current situation, detect errors, and make timely adjustments to achieve set objectives (Nguyen Thi My Loc, 2012). Regarding the assessment of student learning outcomes, this activity plays a crucial role in ensuring training quality and benefiting learners. Its main purpose is to identify issues promptly and implement solutions to ensure students fully acquire knowledge and develop skills according to graduation standards, meeting professional requirements. This is essential for improving the quality of highly qualified human resources and contributing to socio-economic development.

The inspection and evaluation work includes the following main contents:

- Inspecting and evaluating training objectives: Monitoring the implementation of learning outcome evaluation goals to ensure they align with stakeholder needs,

the university's mission, and expectations about learners' competencies and career prospects.

- Inspecting and evaluating training content and methods: Reviewing the drafting and updating of training programs (curricula), collecting feedback from stakeholders, and ensuring program suitability with goals and standards. Also, inspecting and guiding lecturers to innovate teaching methods, diversify training organization, and promote student self-study to improve teaching effectiveness.
- Inspecting and evaluating teaching-learning activities and course assessments: Supervising lecturers to comply with requirements, schedules, and teaching regulations. Checking that the assessment of student learning outcomes matches the objectives, forms, and methods set, aiming to identify strengths and address weaknesses to enhance quality.
- Inspecting and evaluating the training environment and conditions: Monitoring democratic practices within the university, building school culture, reviewing and updating management documents and regulations. Evaluating facilities, library systems, materials, and student support services.

University leadership must establish inspection and evaluation procedures and criteria that ensure objectivity, fairness, and reliability to make appropriate management decisions. Promoting the positive purpose and significance of inspection and evaluation activities helps motivate and build trust among staff, lecturers, and students. The process of inspecting and evaluating the management of student learning outcome assessment is conducted through specific steps:

- Develop standards, objectives, and inspection and evaluation plans.
- Prepare for inspection and evaluation activities.
- Conduct inspection and evaluation.
- Compare actual results with established standards and objectives.
- Propose measures to leverage strengths and overcome limitations.

2.4 Related Studies

The management of learning outcome assessment is a crucial aspect of teaching and learning, as assessment plays a central role in measuring student achievement and informing instructional decisions. As a result, it has attracted significant attention from researchers and policymakers worldwide.

International studies show diverse approaches to improving educational effectiveness. McCaffery (2010) highlights the practical role of administrators and provides tools for effective university governance in the U.S. and the U.K., while Shattock (2010) focuses on strategic and financial management models. Vieira (2007), studying education policy in Brazil, demonstrates a strong link between school governance and student learning outcomes.

In the U.S., the National Institute for Learning Outcomes Assessment (NILOA, 2014) found that from 2009 to 2013, colleges and universities expanded their use of both direct and indirect assessment methods—from three to five on average—reflecting a shift

toward more comprehensive evaluations. Tools such as rubrics, portfolios, and classroom-based assessments became more widely adopted, supported by initiatives like the Multi-State Collaborative project, which encouraged standardized reporting across institutions.

Desalegn Chalchisa (2014) emphasized the need for improved assessment practices in Ethiopian universities, citing the lack of coherent policy and faculty training as major obstacles. Similarly, Goff *et al.* (2015) published a handbook to guide faculty and academic leaders in designing and evaluating programs and learning outcomes, especially at the program level. Adrian Curaj *et al.* (2015) identified learning outcome assessment as the "final frontier" in European higher education reform. Coates argued that outdated assessment methods, such as handwritten exams, must be replaced to meet demands for quality and transparency. Despite initiatives like the Assessment Transparency Model (ATM), significant structural and cultural challenges remain.

Across different contexts, scholars agree that managing learning outcome assessment effectively is key to improving educational quality. Achieving this requires investment in human and material resources, robust policy frameworks, and enhanced faculty capacity.

Vietnamese scholars have extensively explored the management of student learning outcome assessment across various education levels. Nguyen Phuc Chau (2010) emphasized that assessment management, as part of teaching management, must ensure accurate measurement while promoting learners' self-assessment skills. Tran Kiem (2016) proposed a theoretical framework for managing English learning assessments in military academies to effectively meet learning outcomes.

At the macro level, Lam Quang Thiep (2023) highlighted opportunities and challenges in Vietnam's higher education reform and international integration. Several authors, including Dang Loc Tho (2014) and Chu Van Hac (2017), developed comprehensive models for planning, organizing, and supervising assessment activities, especially under competency-based approaches. Tran Duc Hieu (2016) called for reforms in credit-based assessment systems to include diverse, multi-dimensional, and IT-integrated methods. Dao Thanh Hai (2019) focused on vocational education, offering a competency-based assessment management toolkit. Pham Xuan Thu (2021) and Duong The Viet (2022) used the CIPO and PDCA models to propose management solutions aligned with labor market demands and course-level outcome standards. In primary education, Tran Thi Huong Giang (2021) designed a framework to manage assessments for developing student competencies, drawing on both local and international practices.

In higher education, Nguyen Thi Ha Phuong (2021) and Nguyen Thi Thu Phuong (2022) provided targeted strategies to enhance evaluation processes and faculty capacities. Nguyen Thu Trang (2022) introduced a four-domain competency model for teacher training and a process to align assessments with program outcomes. Lastly, Nguyen Bich Ngoc (2024) addressed English assessment in military institutions, proposing practical improvements to meet required standards. Despite widespread interest, research on assessment management at the master's level remains limited,

underscoring the need for more focused studies tailored to graduate learners and institutional contexts.

3. Research Methodology

This study focused on the research questions and specific objectives as follows:

3.1 Research Questions

- 1) What theoretical foundations support the management of assessment of learning outcomes for graduate students in the Agriculture, Fisheries, and Environment fields at Can Tho University?
- 2) What is the current status of managing the assessment of learning outcomes for graduate students in the Agriculture, Fisheries, and Environment fields at Can Tho University in recent years?
- 3) What measures can be proposed to improve the quality of managing the assessment of learning outcomes for graduate students in the Agriculture, Fisheries, and Environment fields at Can Tho University?

3.2 Research Objectives

- 1) To systematize the theoretical basis for managing the assessment of classroom learning outcomes of graduate students.
- 2) To survey the current status of managing the assessment of learning outcomes of graduate students in the Agriculture, Fisheries, and Environment fields at Can Tho University.
- 3) To propose management measures for improving the assessment of learning outcomes of graduate students in the Agriculture, Fisheries, and Environment fields at Can Tho University.

3.3 Participants

Among them, 33 questionnaires were collected from management staff and teaching lecturers.

Table 3.1: Information on the Number of Management Staff and Teaching Lecturers

Survey Subject Characteristics	Frequency	Percentage (%)
Gender		
Male	19	57.58
Female	14	42.42
Work Seniority		
Under 10 years	3	9.1
10 to under 20 years	3	9.1
20 to under 30 years	6	18.2
Over 30 years	21	63.6
Age		
31 - 35 years old	1	3.0
36 - 40 years old	3	9.1
Over 40 years old	29	87.9
Position		
Management Staff (Head/Deputy Head of units or departments)	3	9.1
Staff in charge of postgraduate specialization	4	12.1
Postgraduate Lecturers	23	69.7
Postgraduate Assistants	3	9.1
Fields		
Fisheries University	5	15.15
Agriculture University	10	30.3
College of Environment and Natural Resources	18	54.55

This table summarizes survey data from university management staff and lecturers (n=33), detailing gender, work seniority, age, position, and work unit. The majority of respondents are male (57.58%) and have over 30 years of experience (63.6%). Most are over 40 years old (87.9%), reflecting a mature workforce. Positions are mainly postgraduate lecturers (69.7%), with smaller groups in management, specialized staff, and assistants. Respondents come from three main units: College of Environment and Natural Resources (54.55%), Agriculture University (30.3%), and Fisheries University (15.15%). This distribution highlights diverse academic backgrounds and experienced personnel involved in postgraduate education management and teaching.

Table 3.2: Information on Number of Participants (n=105)

Survey Subject Characteristics	Frequency	Percentage (%)
Gender		
Male	55	52.4
Female	50	47.6
Status		
Cohort 2021-2023	5	4.8
Cohort 2022-2024	12	11.4
Cohort 2023-2025	29	27.6
Cohort 2024-2026	59	56.2
Graduated	13	12.4
Age		
Under 25 years	24	22.9
26 - 30 years	36	34.3
31 - 35 years	21	20.0
36 - 40 years	21	20.0
Over 40 years	3	2.9
Ethnicity		
Kinh	101	96.2
Khmer	1	1.0
Hoa	2	1.9
Others	1	1.0
Faculty/School		
Agriculture University	49	46.7
Fisheries University	17	16.2
College of Environment and Natural Resources	39	37.1

This table summarizes the survey sample of 105 postgraduate students. Gender distribution is almost equal, with 52.4% male and 47.6% female. Students come from various cohorts, mostly from 2024-2026 (56.2%). The majority are aged between 26 and 40 years. Ethnically, most are Kinh (96.2%). The participants are from three faculties: Agriculture (46.7%), Environment and Natural Resources (37.1%), and Fisheries (16.2%). This diverse sample represents different stages and backgrounds within the postgraduate community.

3.4 Research Methods

3.4.1 Questionnaire Survey Method

The questionnaire survey aims to collect information from a large number of subjects to achieve high reliability for the study. The questionnaire was developed based on theoretical foundations regarding the evaluation activities of postgraduate student learning outcomes at universities, specifically focusing on the management of such evaluation activities for postgraduate students in the fields of Agriculture – Fisheries – Environment at Can Tho University, as well as factors influencing these evaluation activities.

3.4.2 Survey Content

The survey investigates the current status of learning outcome evaluation activities and the management of these activities for postgraduate students in Agriculture – Fisheries – Environment at Can Tho University.

3.4.3 Survey Procedure using Questionnaires

- **Phase 1:** Design questionnaires tailored to each target group.
- **Phase 2:** Randomly select 10 subjects for a pilot survey. Process the pilot results to identify errors and make corrections. Finalize the questionnaires based on the pilot adjustments. The official questionnaires include a General Information section and an Opinion section.
 - **Form 1:** For management staff and lecturers, including general information (open questions about name, gender, work seniority, position, working unit) and opinion questions (5 questions on the current status of learning outcome evaluations, 5 questions on the management status of evaluations, and 1 question on the influence of factors affecting the management of learning outcome evaluations).
 - **Form 2:** For postgraduate students, including general information (open questions about name, gender, status – cohort/graduated, training program, faculty/institute/school) and opinion questions (5 questions on the current status of learning outcome evaluations and 1 question on the influence of factors affecting management of these evaluations).
- **Phase 3:** Upload the survey content and questions to Google Forms (an online form creation tool) and send the survey links via email to management staff, lecturers, and postgraduate students at the Agriculture School, Fisheries School, and Faculty of Environment and Natural Resources at Can Tho University.
- **Phase 4:** Process the collected data by transferring it from Google Forms to Microsoft Excel and SPSS 27.0 software, then clean and analyze the survey results.

3.4.2 Data Processing Method Using Mathematical Statistics

Descriptive statistical methods were applied to process data collected from closed-ended questions in the questionnaires. A 5-point Likert scale was used, with the lowest value being 1 (minimum) and the highest 5 (maximum). The interval value was calculated by the formula: $(\text{maximum} - \text{minimum})/N = (5-1)/5 = 0.8$. Survey results were aggregated based on the level of evaluation for each content item, with specific conventions.

The questionnaires, after cleaning and coding, were processed using SPSS 27.0 software. Quantitative data obtained through the surveys were analyzed by descriptive statistics, including the mean and standard deviation. From the processed results, averages and percentages (%) were derived, then compared, analyzed, and synthesized to draw conclusions about the current status of learning outcome evaluation activities for postgraduate students in Agriculture – Fisheries – Environment Fields at Can Tho University.

4. Findings and Discussion

4.1 Current Status of the Importance of Learning Outcome Evaluation for Postgraduate Students in Agriculture – Fisheries – Environment at Can Tho University

The current status of the perceived importance of learning outcome evaluation for postgraduate students in the Agriculture – Fisheries – Environment fields at Can Tho University was surveyed based on five key aspects. The survey subjects included management staff and lecturers (n=33) and postgraduate students (n=105). The survey results are presented in Table 4.1.

Table 4.1: Survey Results on the Current Status of the Importance of Assessing the Learning Outcomes of Postgraduate Students

No.	Content	Total	Mean	Std. Dev.	Management & Lecturers	Postgraduate Students	Rank
1	Helps lecturers adjust teaching activities	138	4.28	0.771	4.21	4.30	1
2	Helps lecturers adjust testing and evaluation activities	138	4.25	0.809	3.94	4.34	2
3	Helps postgraduate students adjust learning activities	138	4.21	0.787	4.09	4.25	3
4	Helps postgraduate students develop competencies in knowledge, skills, autonomy, and responsibility	138	4.17	0.770	4.12	4.18	5
5	Provides real-time information for management staff to give timely directions	138	4.19	0.868	4.03	4.24	4
	Overall Average		4.22	0.80			

To ensure data reliability, the study analyzed Cronbach's Alpha for five variables, resulting in a high coefficient of 0.937 (>0.7) and item-total correlations between 0.806 and 0.868 (>0.3), confirming excellent reliability. This supports the trustworthiness of the study's conclusions. Both management/lecturers and postgraduate students agreed on the importance of assessment, with average scores above 4.17 out of 5. The top-rated item was "Helps lecturers adjust teaching" (4.28), showing lecturers value assessment feedback for improving teaching methods.

Postgraduate students rated the importance of all items higher than management/lecturers, especially for "Helps lecturers adjust assessment" (4.34 vs. 3.94). This reflects students' expectations for fair, accurate assessments directly affecting their learning outcomes. While "Helps students develop competencies" scored lowest (4.17), it remains important. The results highlight the assessment's vital role in enhancing

training quality at Can Tho University but suggest a need to improve feedback and lecturer training for more comprehensive assessment practices.

4.2. Current Status of Implementing Principles of Assessing Learning Outcomes of Postgraduate Students

The current status of implementing principles for assessing learning outcomes of postgraduate students in the Agriculture – Fisheries – Environment Fields at Can Tho University was surveyed across 7 items, targeting management staff and lecturers with a sample size of 33. The survey results are presented in Table 4.2.

Table 4.2: Survey Results on the Implementation of Principles
in Assessing Learning Outcomes of Postgraduate Students

No.	Content	N	Mean	Std. Dev.	Rank
1	Ensuring objectivity	33	3.91	0.843	2
2	Ensuring fairness and transparency	33	3.94	0.827	1
3	Ensuring comprehensiveness, covering educational requirements	33	3.73	0.839	3
4	Ensuring regularity and continuity according to a specific plan	33	3.91	0.805	2
5	Ensuring effectiveness, appropriate to effort and time invested	33	3.70	0.770	4
6	Ensuring development, motivating learners	33	3.70	0.770	4
7	Suitable for the characteristics and requirements of each subject	33	3.73	0.674	3
	Overall Average		3.80	0.79	

The survey reflects the Management Staff and Lecturers' views on implementing assessment principles. Overall, they rated it as Good (mean = 3.80) with moderate opinion variation. The highest scores were for fairness, transparency (3.94), objectivity, and regularity (3.91), showing confidence in the assessment process.

Lower scores were given to effectiveness and learner motivation (3.70), indicating concerns about how well assessments promote student progress and motivation. The results show that assessment principles are acceptably applied at Can Tho University in the Agriculture – Fisheries – Environment fields but highlight the need to improve effectiveness and learner development.

4.3 Current Awareness of the Importance of Managing the Assessment of Learning Outcomes of Postgraduate Students

The current awareness of the importance of managing (M) the assessment of learning outcomes for postgraduate students in the Agriculture – Fisheries – Environment group at Can Tho University was surveyed based on four items, with the survey group being management staff and lecturers (n=33). The survey results are presented in Table 4.3.

Table 4.3: Survey Results on the Current Status of the Importance of
Managing the Assessment of Learning Outcomes of Graduate Students

No.	Content	N	Mean	SD	Rank
M1	Defining training objectives, output standards, planning goals and directions	33	4.15	0.795	1
M2	Organizing, connecting, leveraging capacity and effectively coordinating resources	33	3.97	0.770	3
M3	Ensuring activities follow the plan and achieve effectiveness	33	4.12	0.781	2
M4	Monitoring and supervising activities; promptly detecting errors and making adjustment decisions	33	3.94	0.788	4
	Overall Average		4.05	0.78	

The survey data in Table 4.3. analysis shows strong consensus among managers and lecturers on the importance of management functions in overseeing graduate student learning assessments. The overall mean score of 4.05 (on a 5-point Likert scale) indicates a clear recognition of this role, with a standard deviation of 0.78 reflecting consistent views across respondents. The highest-rated functions were "Defining training objectives, output standards, and planning" (mean = 4.15) and "Ensuring activities follow the plan and achieve effectiveness" (mean = 4.12), emphasizing the critical role of planning and implementation in management.

Planning was prioritized as the foundational management function, reflecting modern management theory that effective assessment systems begin with clear goals and concrete plans. Leading/directing came second, underscoring the importance of guiding and ensuring the execution aligns with plans. Organizing (3.97) and controlling (3.94) were rated slightly lower, suggesting that if planning and leading are done well, these functions support the process but are perceived as less decisive. This highlights a need to strengthen supervision and adjustment mechanisms.

Overall, the results affirm the vital role of management in assessment quality at Can Tho University, especially in Agriculture – Fisheries – Environment fields, and point to the need for balanced emphasis across management functions.

4.4 Current Status of Organizing the Implementation of the Management Plan for Assessing Learning Outcomes of Graduate Students

The current status of organizing (O) the implementation of the management plan for assessing learning outcomes of graduate students in the Agriculture – Fisheries – Environment fields at Can Tho University was surveyed through 5 items with the target group of management staff and lecturers (n=33). The survey results are presented in Table 4.4.

Table 4.4: Survey Results on the Current Status of Organizing the Implementation of the Management Plan for Assessing Learning Outcomes of Graduate Students

No.	Content	N	Mean	Std. Dev.	Rank
O1	Implementation of training and assessment objectives and plans	33	3.85	0.870	2
O2	Organizing the implementation of planned assessment methods and forms	33	3.85	0.834	2
O3	Organizing the development of the training and assessment environment	33	3.76	0.708	4
O4	Organizing the storage of related documents	33	4.09	0.765	1
O5	Organizing activities to support students	33	3.79	0.857	5
	Overall Average		3.87	0.81	

The management team and lecturers at Can Tho University rated the organization and implementation of the management plan for assessing graduate students in Agriculture – Fisheries – Environment as Good (Mean = 3.87) with a moderate consensus (SD = 0.81). This score is higher than those for planning (3.76) and directing (3.74), revealing an interesting paradox: although organization is perceived as less important, they feel more confident and effective in this function.

A notable strength is the organization and storage of records (Mean = 4.09), indicating a well-standardized, strictly followed process crucial for quality assurance, transparency, and legal compliance. The activities of implementing training goals and assessment methods both scored well (3.85), reflecting consistent and disciplined execution of approved plans. However, organizing the development of the training and assessment environment (3.76) and supporting student activities (3.79) scored lowest, suggesting challenges in creating a motivating, fair environment and providing proactive, diverse support services. This highlights a gap between operational efficiency and strategic development.

In general, they show strong administrative and procedural capabilities but tend to focus more on compliance than on fostering a supportive learning environment. To improve quality, management should move beyond procedural adherence toward building a positive assessment culture and enhancing student-centered support services.

4.5 Discussion

The management of assessment activities for postgraduate students in Agriculture – Fisheries – Environment Fields at Can Tho University is stable and performed well, with an overall average score of 3.82 (Good). The system is based on clear processes and regulations, ensuring reliable operations.

However, there is a clear gap between operational management—focused on task execution and administrative compliance—and strategic management, which involves innovation and continuous improvement. While operational tasks are handled effectively, strategic initiatives show limitations and lack consensus.

Students perceive more systemic barriers than the management team, highlighting the need for improvements focused on learner-centered approaches and stronger strategic management.

4.5.1 Strengths

- **Effective Planning and Implementation:** Strong alignment between planning and execution with well-defined standards (mean ~3.85-3.88).
- **Excellent Administrative Management:** High-quality document and record management (mean 4.09) ensures transparency and supports quality assurance.
- **Consistent Monitoring:** Regular supervision and assessment checks (mean 3.94) maintain compliance and system stability.

4.5.2 Limitations

- **Limited Innovation in Planning:** Less focus on data analysis and creative solutions during planning.
- **Weak Academic Environment and Support Services:** Support activities and environment development score lower (~3.76-3.79), needing enhancement.
- **Slow Adoption of Modern Tools:** New assessment tools like rubrics are underutilized (mean 3.58).
- **Improvement Cycle Needs Strengthening:** Good at monitoring but less effective in proposing and implementing improvements (mean 3.48).

4.5.3 Causes

- Heavy workload and organizational structure limit strategic focus.
- Cultural inertia favors familiar methods over innovation.
- Need for continuous skill development and better feedback mechanisms.

4.6 Conclusion

The system excels in operational stability but requires investment in strategic capacity to foster innovation and learner-centered improvements, ensuring sustainable quality development.

4.6.1 Suggestions

4.6.1.1 Raising Awareness Among Management Staff and Lecturers about the Importance of Management Learning Outcome Evaluation

Survey results revealed a major challenge: a significant perception gap between management, lecturers, and graduate students regarding the fairness of online assessments. Plus, management staff rated their ability to implement modern evaluation methods, like peer assessment, as low. This indicates that innovation efforts will likely fail without first changing this mindset. Thus, raising awareness among management and teaching staff about the importance of managing evaluation activities is essential to building consensus and a strong foundation for improvement.

The goal is to deepen staff understanding of evaluation's significance, encouraging responsibility, self-development, mastery of standards, improved management skills, transparency, accountability, and effective problem-solving. Most importantly, it reinforces their role in ensuring quality assurance to enhance training and better meet labor market needs. Achieving this requires staff to internalize government and university policies on higher education, especially postgraduate training, creating unified awareness of core training objectives. Continuous capacity-building through forums, workshops, and training helps update regulations, share experiences, and improve skills. Leadership must strengthen supervision and establish incentives to motivate research and management contributions. A culture of innovation and continuous improvement is key to maximizing potential.

Effective implementation involves coordinated efforts: assessing staff awareness, integrating evaluation management into the university's mission, and enhancing communication to build system-wide consensus. Regular training and knowledge-sharing platforms, alongside a professional, democratic work environment with clear regulations and communication, are critical. Reward systems should encourage creativity and dedication.

Success depends on clear leadership, timely communication, and a supportive workplace that fosters proactive staff development and sustainable management capacity.

4.6.1.2 Improving the Planning Process for Graduate Students' Learning Outcome Evaluation Activities

Despite recognizing the importance of planning, the management team shows weaknesses in collecting and analyzing information to establish goals and plans. Plans are often based on operational experience rather than a thorough analysis of actual needs and context. To address this, it is necessary to shift from task-based to strategic planning, ensuring that plans are evidence-based and clearly oriented towards quality enhancement. Strengthening information gathering and analysis will allow the development of well-informed, goal-driven plans that better serve training quality improvement efforts.

5. Conclusion and recommendations

5.1. Conclusions

In the era of globalization and the knowledge economy, enhancing the quality of highly skilled human resources is essential. For universities, managing the evaluation of postgraduate students' learning outcomes is a crucial task directly affecting training quality. At Can Tho University, especially within the Agriculture – Fisheries – Environment fields, this responsibility is vital for supplying high-quality human resources to meet sustainable development goals.

One aspect laid out a solid theoretical framework for managing learning outcome evaluation, providing a foundation for survey design and practical analysis. This part examined the current management situation in the targeted faculties, identifying strengths, weaknesses, and their causes based on survey data. This practical insight serves as the basis for proposing relevant interventions.

Another respect suggested several management solutions to improve evaluation activities, including raising awareness among management and faculty, improving planning, innovating organizational leadership, strengthening supervision, and developing quality assurance conditions. These measures were detailed with clear purposes, content, implementation methods, and prerequisites, and received strong support from staff, indicating good potential for practical application.

Despite these achievements, the study has limitations. It surveyed only three postgraduate units, so findings may not fully represent the entire university. The research focused mainly on evaluation management and did not deeply explore other influencing factors like finance or human resources. Also, the recommendations may require adaptation when applied to other postgraduate units at Can Tho University.

5.2 Recommendations

5.2.1 For the Vietnamese Ministry of Education and Training

It is necessary to develop clear standards and evaluation tools to ensure graduate outcomes meet labor market and international requirements. Strengthening supervision and quality improvement mechanisms for master's training programs at universities is essential. Additionally, establishing a centralized information system to accurately and securely manage training data, enabling integration with other systems, is important.

For Can Tho University

It is crucial to enhance the quality management of learning outcome evaluations by applying standards, conducting regular supervision, and defining clear management responsibilities. The university must invest in information technology, including specialized management software, AI, and data analytics, while improving the faculty's technological capacity. Improving faculty quality through recruitment, training, and encouraging the adoption of modern assessment methods is necessary. Furthermore, expanding international cooperation to exchange experiences and update evaluation standards according to global advances should be actively pursued.

5.2.2 For the Agriculture, Fisheries, and Environment units

Collaboration on updating training programs by collecting feedback from stakeholders to align curricula with market needs and ensure consistency with evaluation reforms is important. Supporting faculty development to enhance expertise and update assessment methodologies is necessary. Strict quality standards must be applied with regular monitoring and clear assignment of management responsibilities. Building a supportive learning environment that facilitates postgraduate students' interaction and engagement is essential.

5.2.3 For Lecturers

Lecturers need to continuously update their professional knowledge and apply diverse, practical, and technology-supported assessment methods. They should foster an open communication environment, provide effective guidance, and supervise high-quality research work. Active participation in curriculum and evaluation reform to meet market and scientific demands is encouraged.

5.2.4 For Postgraduate Students

It is necessary for students to clearly understand course objectives and assessment regulations to plan their studies efficiently and avoid mistakes. Students should maintain a proactive and serious attitude toward learning, meeting deadlines and fulfilling responsibilities. They are encouraged to provide constructive feedback to improve training programs and evaluation activities. Students must make full use of available resources such as libraries and laboratories to support their learning and research.

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Conflict of Interest Statement

The author declares no conflicts of interest.

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