**Feedbacking techniques for the external assessors**

**lead to effective practice for vocational schools**

Associate Professor Dr. Parinya Meesuk

and Dr. Angwara Wongrugsa

Emails: parinya\_m@rmutt.ac.th

angwara\_w@rmutt.ac.th

**Abstract**

This research aims to 1) synthesize effective and efficient feedback techniques (Best Practices) from external quality assessments of vocational education institutions over a 10-year period, and 2) identify necessary practices and techniques for providing appropriate and feasible feedback in external quality assessments of vocational education institutions in the digital age.

In the first phase of the research, feedback from external assessors was analyzed from 200 external quality assessment reports over the past 10 years. Data was also collected through an online questionnaire from 400 government and private vocational education institutions. The second phase involved synthesizing the findings from phase one to identify practices and techniques necessary for providing appropriate and feasible feedback in the digital age.

The research findings indicate that while external assessments offer various types of feedback, effective and efficient feedback must be clear and positive. This includes writing and communicating feedback comprehensively, with each point clearly separated by standards, presenting feedback as individual points or as essays with clear topics, providing additional suggestions, having a systematic presentation of feedback, offering examples, and referencing institutional data.

Furthermore, the synthesis of practices and techniques for providing appropriate feedback in the digital age revealed five key actions for assessors: 1) Using empirical data from the institution as an introduction to feedback; 2) Providing feedback in a point-by-point format covering all standards; 3) Offering feedback with adequate informational detail; 4) Ensuring feedback aligns with the institution’s goals, educational context, and potential; and 5) Making feedback specific and including examples to maximize its utility for improving vocational education management.

**Keywords**

Feedbacking Techniques, External Quality Assessments, Vocational Education, Digital Age

**Background**

In Thailand, education management encompasses formal education, non-formal education, and informal education across all levels and types, including general and vocational education. There has been ongoing effort to develop processes and improve education quality continuously, aiming to enhance human resources as a key driver for national development.

According to the Thai Education Situation Report for 2018/2019 by the Office of the Education Council (2020), the development of vocational education, with the goal of increasing the proportion of vocational students, has not yet achieved its targets. The current situation highlights the need for producing and developing a workforce that aligns with national demands to boost competitiveness and international cooperation. Although the National Education Plan set a quantitative goal to raise the ratio of vocational to general upper-secondary students to 60:40 by 2016, and the Ministry of Education aimed for a 50:50 ratio in 2017 by adjusting student admissions and considering scholarships and employment opportunities, there remains a tangible increase in societal interest and expectations regarding vocational education at the policy level.

However, past performance has shown that despite rising expectations and interest, vocational education still faces various issues, including the quality of graduates, teaching and learning management, teacher quality, vocational education standards, collaboration, government support, management, and societal attitudes towards vocational education (Jutamanee Kraykunachai, Kulchalee Jongchareon, Sangwan Ngadkrotok, and Pruanchalee Phukchanka, 2017).

To address these issues, there has been a focus on improving vocational education quality through quality assurance mechanisms. Notably, the Office of the Education Council has proposed elevating external quality assurance and oversight as a significant reform strategy (Office of the Education Council, 2018). Additionally, the Office of the Vocational Education Commission has implemented policies to evaluate educational quality at the vocational certificate (VQC) and vocational diploma (VQD) levels, assessing both public and private vocational institutions nationwide. The results of these evaluations are used to enhance institutional quality and classification (Sak Kongsuwan, 2019). This emphasis on quality development and evaluation has become increasingly significant, as evaluations are now used as indicators to reflect educational quality through standardized criteria aligned with desired vocational education development directions (Jutamanee Kraykunachai, Kulchalee Jongchareon, Sangwan Ngadkrotok, and Pruanchalee Phukchanka, 2017).

Despite having undergone three rounds of external quality assessments, with over 34,000 institutions having completed the third round, the situation within vocational education institutions remains mixed. According to the results from the third round of vocational education quality assessments, 442 institutions have received certification reports, and 402 institutions have met the assessment criteria, representing 91%. However, many institutions have yet to utilize the results of these assessments effectively. This lack of utilization can be attributed to various factors, including uncertainty about how to apply the results, lack of follow-up from educational committees or supervisory bodies, insufficient recognition of the importance of the results by educational staff, and a failure to use the informational data gathered. Continuous oversight and follow-up on the application of assessment results are lacking, leading to a scenario where quality assurance efforts are primarily focused on collecting documents to support external evaluations rather than using the assessment results as part of institutional development (Piyawat Tantrajin, Waraporn Thaimak, and Waiwat Yuinshin, 2017).

With technological and social changes necessitating adjustments in the quality assessment and assurance processes, it is evident that the procedures must evolve to accommodate these changes. The external quality assessment process, as defined by the Office for National Education Standards and Quality Assessment (ONESQA), concludes with reporting both verbally and in written format. Analyzing data to provide feedback involves a blend of science and art, requiring evaluators to employ effective techniques to ensure the feedback is practical and useful. Therefore, studying the formats and techniques for providing feedback from external assessors is crucial. It is essential for external evaluators to perform their roles appropriately, especially in vocational education institutions, which differ from basic education institutions in their teaching and learning management. Identifying the characteristics and types of feedback that are most suitable will help improve the development of effective feedback methods, which can then be used to assess and enhance the quality of educational institutions moving forward.

**Research Objectives**

1. To synthesize effective and efficient feedback techniques (Best Practices) from external quality assessments of vocational education institutions over a 10-year period.
2. To synthesize necessary practices and techniques for providing appropriate and feasible feedback in the external quality assessments of vocational education institutions in the digital age.

**Scope of Research**

This research on feedback techniques from external assessors aims to identify practices leading to effective outcomes for vocational education institutions. The scope of the research is outlined as follows

**Scope of Variables**

**1. Effectiveness Variable:**

This research examines the effectiveness variable by studying the performance outcomes based on the recommendations received by institutions from external assessors during previous quality assessments. This variable does not involve or rely on effectiveness theory but focuses on the practical application and outcomes of the recommendations.

**2. Feedback Techniques Variable:**

The research investigates feedback techniques by analyzing data from external quality assessment reports and conducting interviews with relevant stakeholders. The study synthesizes feedback techniques leading to effective practices using data from the third and fourth rounds of quality assessments. These rounds focus on development and have varied data collection methods.

**Scope of Content**

The research incorporates the concept of “Meta-cognition”. It applies the Meta-cognitive approach, traditionally used to analyze one's own thinking, to analyze the thinking of others. This expanded conceptual framework is used to enhance practical applications and effectiveness in providing feedback.

This framework and approach will help in understanding and improving the quality of feedback provided during external assessments, ensuring that it is both practical and beneficial for the development of vocational education institutions.

**Preliminary Agreements**

This study utilizes feedback data from external assessors involved in quality assessments conducted over the past 10 years. Therefore, a retrospective approach is necessary. The research design includes data collection from multiple sources to ensure the highest accuracy, including document analysis of historical data, reliable secondary data, interviews, and surveys.

**Definitions**

**1. Feedback:** Refers to the provision of information about an individual's knowledge, skills, or performance following an educational quality assessment. The primary goal is to bridge the gap between current capabilities and the expected targets. Feedback can be provided either verbally or in writing.

**2. Types of Feedback and Recommendations:** Refers to the nature of communication, both positive and negative, from external assessors aimed at improving institutional performance. Feedback can be categorized into written reports and verbal feedback.

**3. Feedback Formats:** Refers to the procedures followed by external assessors in delivering feedback and recommendations. This includes the use of institutional data as a basis, the assessors' operational methods, verbal feedback, written feedback, and the review process.

**4.Use of Institutional Data as a Basis:** Involves external assessors thoroughly studying institutional reports and documents (such as SAR reports) before the evaluation. This includes meetings with relevant stakeholders to build a mutual understanding, verbal inquiries from involved individuals, using actual institutional data for feedback, and observing reactions, behaviors, or relevant events.

**5.Assessor's Operational Methods:** Refers to the clear, non-overlapping roles of each external assessor. The assessment is carried out according to defined scopes and issues, with all findings and data discussed collectively for evaluation analysis.

**6. Verbal Feedback:** Involves the external assessor immediately presenting observations and feedback verbally to relevant individuals or groups.

**7.Written Feedback:** Refers to the external assessor providing feedback in written form, including reports and digital platforms.

**8. Review Process:** Involves allowing institutions to comment on and verify the accuracy of the feedback and observations provided by the external assessors.

**9.Feedback Techniques:** Involves providing feedback based on empirical evidence, highlighting strengths or areas of improvement in the institution's performance. This includes describing the reasons behind the assessment results, setting improvement goals, allowing inquiries for clarity, demonstrating communication skills, and maintaining a friendly demeanor during feedback.

**10. Effective Feedback:** Refers to feedback that adheres to effective feedback principles, aligns with assessment results, provides actionable guidance, is contextually appropriate, and feasible for implementation. This includes promoting engagement, offering positive feedback for development, providing clear and relevant information, focusing on performance rather than individuals, timely feedback, consistency in feedback format, and detailing procedural steps and sources of assistance.

**11.Performance Effectiveness:** Refers to the achievement of goals based on the recommendations provided by external assessors during the previous quality assessments. This includes complete adherence to both verbal and written recommendations, effective utilization of recommendations in subsequent quality improvement plans, achievement of defined quantitative and qualitative goals, tangible institutional development, inspiration for further development, collaborative efforts, and staff satisfaction.

**Theoretical Framework for the Research**

The theoretical framework for this research incorporates concepts related to feedback, including the provision of feedback, different types of feedback formats and techniques, and their effectiveness. The study draws on data from the third round of quality assurance assessments and analyzes how feedback effectiveness correlates with the outcomes observed from collected data. The framework synthesizes feedback practices, blending traditional effective feedback methods with contemporary approaches to create a comprehensive model for effective feedback in the context of vocational education.

**1. Traditional Effective Feedback (Traditional Effective Feedback):**

This concept involves established practices and techniques for delivering feedback effectively. It emphasizes clarity, relevance, and actionable guidance in feedback provided to educational institutions. The focus is on ensuring that feedback is constructive, clear, and aimed at improving performance.

**2. Meta-cognition Approach:**

This approach involves reflecting on one's own thought processes and applying this reflection to analyze and improve others' thinking. In the context of feedback, it means understanding how assessors' own thinking influences their feedback and using this understanding to provide more effective and reflective feedback to institutions.

**3. Problem-solving Approach:**

This approach focuses on identifying and addressing specific problems through structured feedback. It involves analyzing issues faced by institutions and providing targeted recommendations that facilitate problem resolution and enhance overall performance.

The integration of these approaches aims to synthesize feedback techniques that are not only appropriate and feasible but also genuinely effective. The framework is visualized in the following diagram:

**The provision of feedback by external assessors in past external evaluations of vocational education institutions**



**Effectiveness of Practices**

**Feedback Styles and Techniques of External Assessors in Past External Quality Evaluations of Vocational Education Institutions**

**Quantitative data from questionnaires**

**- Best practices in providing feedback**

**- Techniques for providing feedback**

**Qualitative data from the synthesis of external assessor reports**

**- Best practices in providing feedback**

**- Techniques for providing feedback**

**Focus group discussions and interviews**

**- Assessor group**

**- School administrator group**

**- Teacher group and stakeholders**

Necessary Practices and Techniques

Characteristics of appropriate, feasible, and effective feedback in providing suitable and practical feedback during external quality evaluations of vocational education institutions in the digital era.

**Figure 1.1: Conceptual Framework for the Research**

**Research Methodology**

**Population and Sample**

**Population:**

The population for this research includes:

1. External quality assessment reports from the Office for National Education Standards and Quality Assessment (ONESQA) from the third and fourth rounds, totaling 1,307 reports.

2. Public and private vocational education institutions across the country, numbering 879.

3. External assessors for vocational education institutions from the third round, numbering 224 individuals, and from the fourth round, numbering 180 individuals.

**Sample:**

The sample for the study is divided into three parts according to the research phases, comprising:

1. **Document Samples:** External quality assessment reports from vocational education institutions over the past 10 years, with a total of 200 reports selected using proportional stratified sampling based on institution size.
2. **Survey Samples:** Vocational education institutions (both public and private), totaling 400 institutions, with a sample size of at least 25% of the population. For the 872 vocational education institutions, 400 were selected, divided into 200 public institutions and 200 private institutions. Data was collected from three respondents per institution (administrators and teachers), resulting in a total of 1,200 respondents.
3. **Focus Group Samples:** A total of 225 individuals including administrators, teachers, stakeholders, and external assessors of vocational education institutions, distributed across five regions: Bangkok and its vicinity, Central, Northern, Southern, and Northeastern regions. Focus group discussions were conducted via online meetings, categorized by institution size and sample characteristics.

**Research Instruments:**

The research tools consist of four items:

1. **Document Synthesis Form:** For synthesizing feedback from external assessors in external quality assessment reports of vocational education institutions over the past 10 years.
2. **Online Questionnaire:** Regarding feedback from external assessors and the adherence to their recommendations by vocational education institutions.
3. **Focus Group Discussion Guide:** For discussions with administrators, teachers, stakeholders, and external assessors of vocational education institutions.
4. **Synthesis Form:** For synthesizing practices and techniques necessary for providing appropriate and feasible feedback in the context of digital-era external quality assessments.

**Development of Research Instruments:**

The development of the online questionnaire on feedback from external assessors and adherence to their recommendations involved the following steps:

1. Reviewing relevant documents and research.

2. Defining relevant variables and synthesizing operational definitions.

3. Designing the questionnaire structure based on the variables identified from document review.

4. Formulating questions based on operational definitions.

5. Drafting the questionnaire with two sections: general information about respondents and opinions on feedback from external assessors and adherence to recommendations, with a total of 35 questions.

6. Presenting the draft questionnaire to five experts for content validity analysis, using the Index of Item-Objective Congruence (IOC) with a threshold of 0.5. The analysis found that all questions had an IOC value of 1.00.

7. Revising questions according to expert feedback.

8. Creating the online questionnaire using Google Forms.

9. Pilot testing the questionnaire with 30 participants, finding that the response time was approximately 15-20 minutes.

10. Analyzing the reliability of the questionnaire by assessing internal consistency using Cronbach’s Alpha Coefficient, with a threshold of 0.7 for each variable. The analysis showed that all variables had Cronbach’s Alpha coefficients above 0.7:

- *Feedback Format Variable*: Cronbach’s Alpha = 0.970

- *Feedback Techniques Variable*: Cronbach’s Alpha = 0.928

- *Performance Effectiveness Variable*: Cronbach’s Alpha = 0.976

**Research Procedures**

The research process is divided into two phases:

**Phase 1:** Synthesis of Best Practices for Providing Effective Feedback Based on External Quality Assessments from the Past 10 Years

1. Review Relevant Literature and Research:

Study documents and previous research related to external quality assessments and feedback techniques.

2. Develop and Refine Research Tools for Phase 1:

2.1 *Online Questionnaire:* About feedback from external assessors and adherence to their recommendations in past assessments.

2.2 *Document Synthesis Form*: For analyzing feedback from external assessors in external quality assessment reports over the past 10 years.

2.3 *Focus Group Discussion Guide*: For discussions with administrators, teachers, stakeholders, and external assessors of vocational education institutions.

3. Coordinate Data Collection:

Manage and facilitate data collection through the online questionnaire and focus group discussions.

4. Analyze Feedback from External Assessors:

Review and synthesize feedback from 200 external quality assessment reports from the past 10 years to identify categories and techniques of feedback.

5. Collect Data via Online Questionnaire:

Survey 400 vocational education institutions (both public and private), receiving 1,292 completed responses, exceeding the target by 7.67%.

6. Collect Data through Focus Groups:

Conduct focus group discussions with administrators, teachers, stakeholders, and external assessors, ensuring sample alignment with synthesized feedback recommendations and categorizing based on government and private institution affiliation.

7. Analyze Focus Group Data:

Analyze data from focus groups to identify trends and insights related to feedback practices.

8. Summarize and Synthesize Feedback Practices:

Compile and summarize the patterns and techniques for providing effective feedback based on past assessments and adherence to recommendations.

**Phase 2:** Synthesis of Practices and Techniques for Providing Appropriate and Feasible Feedback in the Digital Era

1. Synthesize Practices and Techniques:

- Use findings from Phase 1 to develop and synthesize practices and techniques for providing suitable and feasible feedback in the context of digital-era external quality assessments.

2. Develop Digital Era Feedback Practices:

- Create and refine practices and techniques for giving feedback that is relevant and actionable in the digital age.

**Data Analysis and Statistical Methods**

The data analysis for this research is divided into quantitative and qualitative analyses as follows:

**1. Qualitative Data Analysis:**

1. **Document Analysis:** Review and analyze documents, content, and consensus.
2. **Analysis of Feedback Practices and Techniques:** Utilize document analysis, focus group discussions, and content analysis.
3. **Assessment of Feedback Suitability:** Conduct a tracer study with external assessors to review past practices.
4. **Technique Analysis:** Compare feedback techniques across three experience levels of external assessors—senior, mid-level, and junior—using content analysis and comparative methods.

**Research Findings**

The research findings can be summarized according to the research objectives as follows:

**1. Best Practices for Providing Effective Feedback from External Quality Assessments Over the Past 10 Years:**

The study identified that effective feedback from external assessors includes several characteristics:

**- Positive and Clear Feedback:** Effective feedback is specific, positive, and communicated clearly. It should address all relevant issues comprehensively, with each point articulated distinctly and separated according to standards. Feedback can be presented as clear, separate points or as coherent essays with clear themes.

**- Systematic Presentation:** Feedback should be systematic, identifying the relevant agencies clearly and focusing on continuous improvement. Examples should be provided to help institutions implement the recommendations effectively. The feedback should be communicated in a manner that positively impacts the institution, emphasizing development and providing actionable guidance.

**- Examples:**

- "The institution should use comparative data on graduate assessments from at least the past three years, categorized by department/field, to identify strengths and areas needing improvement. This data should guide projects aimed at enhancing student quality annually, through diverse activities that meet graduate characteristics."

- "The institution should find ways to maintain or improve student quality standards annually by collecting individual student data, classifying them into categories like outstanding, average, and at-risk. Particularly for at-risk students, the institution should monitor and create personalized activities to help them complete their programs."

- "School administrators should support the establishment of an IT center for producing modern instructional media. For example, the center could produce short clips demonstrating repair and maintenance techniques, like those offered by a Fix-It Center, to facilitate online learning during the COVID-19 pandemic."

**2. Necessary Practices and Techniques for Providing Appropriate and Feasible Feedback in the Digital Era:**

**- Empirical Data Use:** Feedback should be based on empirical data from the institution to address specific problems or promote certain operations. Although commendations are positive, institutions need factual, constructive communication. The feedback should clarify development goals and provide actionable steps for better outcomes.

**- Specificity and Clarity:** Feedback should be presented as discrete points, each addressing one specific issue and covering all relevant standards. This approach allows for clear consideration of each issue and provides unambiguous guidance for institutional action.

**- Appropriate Information Volume:** Feedback should include an appropriate amount of information—neither too much nor too little—and prioritize the most critical issues first.

**- Alignment with Context:** Recommendations should align with the institution’s objectives and context. For instance, feedback should be tailored to whether the institution is a private entity, a dual-system focus, a small institution, a short-term curriculum provider, or an agricultural institution. Different types of institutions have varied educational goals, and assessors should avoid using a one-size-fits-all approach.

**- Specificity and Examples:** Feedback must be specific and avoid generalities. It should include examples, particularly of projects or operational guidelines, without imposing mandatory actions. Assessors should discuss the feasibility and potential of recommendations with the institution before finalizing them.

**Discussion of Research Results**

The researcher presents an analysis of three key issues based on the research findings:

**1. Techniques for Providing Feedback:** Positive, Clear Feedback vs. Unclear Positive and Negative Feedback

The study found that the effectiveness of feedback techniques is highly influenced by the clarity and positivity of the feedback. Effective feedback techniques include:

1. **Clear Positive Feedback:** Feedback that is positive and clearly articulated tends to enhance the development outcomes of vocational institutions. Positive feedback significantly influences the attitudes of teachers and administrators, which are critical factors in utilizing evaluation results effectively. This aligns with the study by Thatsani Sirinun, Saranya Janchoosakul, and Pinda Srasunan (2017), which highlighted that the most important factors for leveraging external evaluation results are the attitudes of the institution's staff, including their perspectives on evaluation, the vision of the administrators, and their leadership qualities. Positive feedback encourages acceptance and understanding, regardless of its clarity. Institutions with a positive attitude towards evaluations are more open to both verbal and written feedback, leading to effective utilization and development based on recommendations.
2. **Differences in Feedback Techniques and Performance Between Government and Private Institutions**

The study observed significant differences in feedback techniques and performance between government and private institutions due to their differing objectives:

- **Government vs. Private Institutions:** Private institutions often operate with greater autonomy and flexibility compared to government institutions. They are managed like businesses, allowing quicker adaptation of innovations and technologies, which affects how feedback is provided and implemented. For example, private institutions might face budget constraints that influence their ability to act on recommendations, whereas government institutions might have more consistent financial support.

- **Impact on Feedback Effectiveness:** Private institutions, despite their operational freedom, might view feedback as adding unnecessary costs, which can lead to lower implementation effectiveness compared to government institutions. Therefore, feedback from external assessors should be tailored to the specific context and objectives of each type of institution, rather than applying a uniform standard.

**3. Qualifications of External Assessors**

The qualifications and characteristics of external assessors are crucial for effective evaluation:

**- Evaluation Framework**: According to the fourth round of external quality assessment by the Office for National Education Standards and Quality Assessment (ONESQA), external evaluations must align with the internal quality assurance systems of institutions and their governing bodies. Assessors must ensure that evaluations meet set standards and are accountable for the educational outcomes, as well as motivate institutions towards international standards.

**- Criteria for Assessors:** External assessors need to have the right qualifications to ensure they can provide challenging and stimulating evaluations that contribute to quality enhancement. This involves understanding the context of the institutions they evaluate and adhering to relevant legal and educational standards. Proper qualification and training for assessors are essential for maintaining the credibility and effectiveness of external evaluations.

In summary, effective feedback requires clarity and positivity, should be contextually tailored to different types of institutions, and demands qualified assessors who can ensure that evaluations are both accountable and empowering.

**Recommendations for Applying Research Findings**

**1. Recommendations for the Office for National Education Standards and Quality Assessment (ONESQA)**

**1.1 Professional Development for Assessors**: ONESQA should use the findings from this research to periodically enhance the quality of all assessors. This includes fostering a deeper understanding of educational management knowledge and raising awareness about effective communication and feedback techniques. This will ensure that external quality assessments are accurate, credible, and contextually relevant, ultimately helping institutions use evaluation results to plan their development.

**1.2 Enhancing Online Reporting Systems:** ONESQA should improve its online reporting system to capture more detailed feedback. This will lead to clearer, more comprehensive communication and better understanding by educational institutions, facilitating the use of evaluation results for further development.

**1.3 Monitoring and Improving External Assessments:** ONESQA should implement the feedback techniques identified in this study to enhance the effectiveness of external evaluations. By incorporating these methods into their monitoring processes, ONESQA can ensure that the evaluation practices are more efficient and impactful.

**2. Recommendations for Evaluation Units and External Assessors**

Evaluation units and external assessors should adopt effective feedback techniques found through this study. This will help them provide clear and efficient feedback during external evaluations, leading to continuous quality improvement for further improvement of the educational institutions.

**3. Recommendations for Educational Institutions**

**3.1 Raising Awareness and Understanding:** School administrators should promote continuous development awareness among all staff members. They should ensure that self-assessment reports are comprehensive, accurate, and reflective of the institution’s context. This will provide valuable data for external evaluations and maximize the usefulness of feedback.

**3.2 Improving Assessors' Skills:** Governing bodies should review and adapt the feedback techniques of external assessors to enhance their skills. This will ensure that assessors are effective and align with external quality assurance requirements.

**Recommendations for Future Research**

1. Investigate Specific Criteria for External Assessors: Future research should explore the specific characteristics required for external assessors in vocational education institutions. Understanding these traits can lead to better assessor selection and training.

2. Develop Training Materials and Courses: Research and development of training materials or courses focused on improving the feedback skills of external assessors are needed. This can enhance their effectiveness and ensure they are well-equipped to provide useful feedback.

3. Study Quality Assurance Mechanisms for Assessors: Investigate the models and mechanisms for quality assurance of external assessors. This can help in creating standardized practices and maintaining high assessment standards.

4. Explore Work-Based Qualification Concepts: Research on quality assurance in vocational education institutions should consider work-based qualification concepts. This approach could provide insights into how practical work experience can be integrated into quality assessment frameworks.

By addressing these recommendations, stakeholders can significantly enhance the effectiveness and efficiency of educational quality assessments and ensure that feedback mechanisms contribute to continuous improvement in educational settings.

**References**

Anyman, W., & Boonanan, P. (2022). Developing competencies of external evaluators in the 21st century to support the effectiveness of vocational education assessment in Thailand. *Sripatum University Journal of Humanities and Social Sciences, 22 (2),* 7-19.

Jutthamanie, K., Chongjaroen, K., Ngadkrotok, S., & Phukchancha, P. (2017). Causal relationship model of management factors affecting the quality of vocational education institutions. *Panya Phiwat Journal, 9 (2*), 171-184.

Kongsuwan, S. (2019). Quality of education in vocational education institutes and agricultural vocational education institutes. *Journal of Research and Innovation in Vocational Education, 3 (1),* 1-10.

Office of the Education Council. (2018). *Thailand education report 2018*. Prikwan Graphic.

Office of the Education Council. (2020). *Thailand education situation 2018/2019: Education reform in the digital age.*

Office of the Private Education Commission. (2022). *Role of private schools*. Retrieved from [https://sites.google.com/site/prachasampan56/bthbath-khxng-rongreiyn-xekchn]

Piyawat, T., Thaima, W., & Yuinasin, W. (2017). Developing management approaches for private schools in Bangkok to enhance the utilization of external evaluation results. *Veridian E-Journal, Silpakorn University, Thai Edition, Humanities, Social Sciences, and Arts, 10 (1),* 861-877.

Tatsirin, S., Janchoosukkul, S., & Srasunan, P. (2017). Causal factors influencing the use of external evaluation results for improving the quality of small basic education institutions in the Northeastern region. *Veridian E-Journal, Silpakorn University, Thai Edition, Humanities, Social Sciences, and Arts, 10 (2),* 2102-2116.