



Research Paper

## Adaptive Final Assessment Exam of Accounting Modules to the Context of the Covid-19 Epidemic: A Case at Hanoi University of Industry, Vietnam

Pham Thanh Trung<sup>1</sup>, Nguyen Thi Thu Huong<sup>2\*</sup>

<sup>1</sup> Testing and Assessment Center, Hanoi University of Industry, Vietnam

<sup>2</sup>VNU-School of Interdisciplinary Studies, Vietnam National University, Hanoi

\*Corresponding Author: Nguyen Thi Thu Huong

**ABSTRACT:** The complicated developments of the Covid-19 epidemic have greatly affected teaching, learning, and examining activities at higher education institutions. This study presents the current state of adaptation in the final assessment exam. The result of the study is a portrayal of an online final assessment exam developed by the Hanoi University of Industry. The exam forms have been adapted flexibly and conducted online through the e-learning system to ensure fairness and objectivity. The system of assessing learning outcomes at Hanoi University of Industry is continuing to be perfected to meet the requirements of testing activities. This is also a lesson for other higher educations in developing a learning performance assessment system that strongly applies information technology to be able to perform well in the current epidemic situation.

**KEYWORDS:** Covid-19 epidemic, final assessment exam, Hanoi University of Industry.

Received 13 July, 2021; Revised: 27 July, 2021; Accepted 29 July, 2021 © The author(s) 2021.  
Published with open access at [www.questjournals.org](http://www.questjournals.org)

### I. INTRODUCTION

Hanoi University of Industry (HaUI) is a higher education institution providing graduate programs like doctoral programs and master programs and undergraduate programs with technical field and economic field. HaUI with over 30,000 students is studying in 7 groups of majors with more than 40 training majors [1]. The rate of students having a job after graduation one year is 95.12%. Accounting is a discipline with a long history of training in the socio-economic sector of the University. The head office of the Faculty of Accounting - Auditing is located in the B-Campus of HaUI. The Accounting Faculty of the University offers training services from bachelor programs, master programs, and doctoral programs [2].

The Covid-19 epidemic appeared in 2019 and began to have an impact on the economic and social aspects of Vietnam starting in 2020 with the first patient in January 2020 [3, 4]. For the education system, the Covid-19 epidemic has changed a significant impact on teaching and learning outcomes, including both process assessment and final course assessment at all levels [5]. The epidemic brings challenges but also gives opportunities to nurture sustainable teaching development [6, 7]. Particularly for higher education, with the characteristics that learners have the ability to self-study and use audio-visual media and devices, thus the application of technology in the teaching process and learning outcome assessment has been easily applied. Several higher education institutes set their online teaching-learning model, for example, Mizoram University [5]. The final course assessment activity or subsequent semester exam is an important step in the training process at higher education. The final course assessment activity is associated with teaching activity [8], but it has also been affected and changed a lot during the Covid-19 pandemic. The impact of the epidemic requires higher education institutions to take adaptive measures and research to assess the situation to adjust solutions for the subsequent semester exam and final exam.

Many studies have presented the importance of the final assessment exam activity in teaching, as well as research on the exam format or conditions to promote the effectiveness of the final assessment exam. In addition, the final assessment should have a variety of forms of assessing students' learning outcomes to match the course content as well as promote initiative and objectivity for the learners and teachers [9]. Moreover, in order to promote the effectiveness of teaching methods, it is also necessary to have synchronous solutions for

both the awareness of lecturers and students and to ensure facilities [5, 8]. Solutions to manage the examination and assessment of learning outcomes must be proposed based on a thorough analysis of the actual situation at each unit [10]. However, there has been little research on adapting, changing the method and form of the final course assessment exam in the context of the current complicated Covid-19 epidemic. Meanwhile, many higher education institutions in Vietnam still do not have specific and effective solutions for the end-of-course assessment.

Therefore, this study explores the situation of the adaptive final modules assessment exam, specifically the accounting courses at HaUI. Since then, the study has analyzed and evaluated the application of exam forms in the context of the "new normal environment" of the Covid-19 epidemic. The presented results of the study are also lessons for other higher education institutions to conduct final assessment exam activities in order to adapt to the complicated developments of the epidemic, especially, higher education institutes in Vietnam where is an emerging economy.

## **II. LITERATURE REVIEW**

The undergraduate accounting program comprises theoretical modules and experimental modules, and experimental teaching is an important part of undergraduate accounting programs [11]. The whole educational system has been collapsed during the lockdown period of the COVID-19 epidemic at the global level [5]. The higher education institutes face the problem of efficiently converting existing resources for online education [5] and improve the perception and computer skills of students and teaching staff to enhance performance in a new normal teaching environment [7]. The final assessment exam activity has a variety of forms of assessing students' learning outcomes to match the course content [9]. Scientific assessment of accounting programs is useful for enhancing teaching quality [11]. In the pandemic context, online classes are the best choice for global higher education. However, the main challenges in the "new normal environment" are the electronic environment and support of higher education, computer literacy level, academic staff readiness, and students' readiness for online learning [12]. The traditional face-to-face teaching had to be moved online but the online assessment of the learning process is the biggest challenge [13]. In order to promote the effectiveness of teaching methods, it is also necessary to have synchronous solutions for both the awareness of lecturers and students and to ensure facilities [5, 8], and the assessment must be based on the objectives of training programs and other elements of teaching at universities [11]. Solutions to manage the examination and assessment of learning outcomes must be proposed based on a thorough analysis of the actual situation at each unit [10].

In general, in the Covid-19 pandemic context, the students were most satisfied with the support provided by teachers [7]. The lack of computer skills of students and teaching staff still causes difficulties in the organization of the online exam (e-exam) and affects fairness and objectivity.

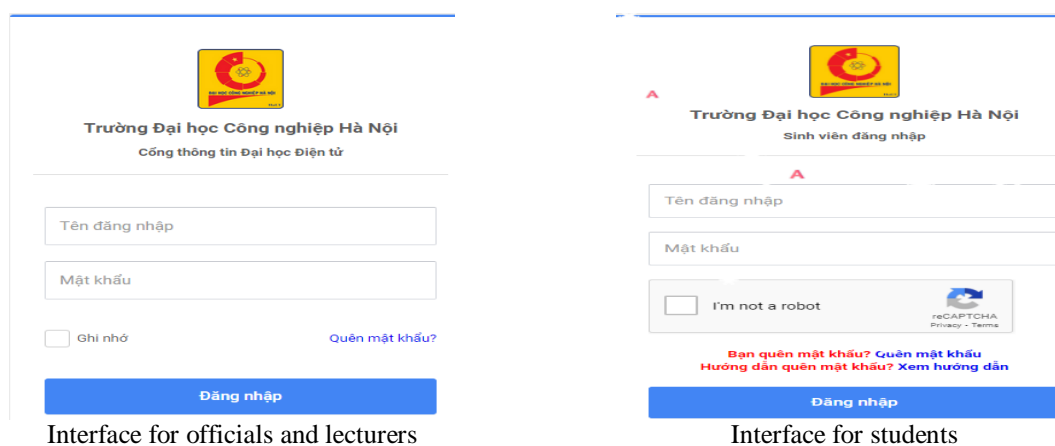
## **III. THE RESULTS OF THE POTRAYAL OF ADAPTIVE FINAL ASSESSMENT EXAMS OF THE ACCOUNTING PROGRAMS AT HANOI UNIVERSITY OF INDUSTRY**

Final assessment examinations activities are conducted at the Testing and Assessment Center of HaUI. The development goal of this center is "Quality - efficiency - fairness - creativity". The testing system is guaranteed in terms of facilities such as servers, workstations, camera-installed exam rooms, and centralized examination rooms [14].

Since the outbreak of the Covid-19 epidemic in January 2020, teaching and learning activities have been significantly affected higher education institutions in general and HaUI in particular. Specialized departments at HaUI have developed and integrated teaching applications into the university's e-university system on the website <https://dhcnhn.vn> for staff, lecturers, and <https://sv.dhcnhn.vn> for students. Initially, from 2020, teaching and learning activities have been carried out through the e-university system with activities ranging from teaching decentralization, online teaching registration, and activities to review the teaching schedule of the faculty and activities to carry out teaching in the classroom.

For the assessment activities at the end of the semester in 2020 and the first semester of 2021, the exam will still be conducted directly at the Testing and Assessment Center. However, from 2021, when the Covid-19 epidemic develops complicatedly, so final course exams of educational institutions were significantly impacted. With higher education institutions, due to the characteristics of the study programs, there are many methods and forms of course assessment. Therefore, the implementation of the final course assessment is more complicated and difficult to ensure objective, accurate, and fair test objectives.

For the accounting major at HaUI, the modules are designed with a variety of teaching methods and methods of assessing learning outcomes. The assessment exam for the accounting major is currently being implemented mainly including written exam (combined with multiple choice test), oral question and answer exam, experimental exam, end- assignment. The forms of the final exam for this course are conducted through the e-university system and ensure fairness and objectivity in the course of the final exam.



Interface for officials and lecturers  
Interface for students  
**Figure 1:** Login interface of the e-university system of HaUI

The forms of writing exam (combined with multiple choices), oral question and answer exam are still conducted according to the same process as the face-to-face examination with the support of the Zoom tool integrated into the e-learning system to control students entering the online exam and conduct the exam. After finishing the test, students submitted the answer in PDF format on the e-learning system. The test results will be encrypted and transferred to marking activities that ensuring safety, security and publicity during the. The grading teachers will conduct the grading according to authority and the marks will be entered directly on the e-learning system that helping provide information about exam results quickly to students. All exam procedure records are fully and properly maintained in accordance with established procedures to help ensure the accuracy and appropriateness of regulatory and process compliance activities.

During the second semester of the academic year 2020-2021, the assessment activities at the end of the course according to the registered exam forms of the Faculty of Accounting - Auditing are carried out on time, exactly in accordance with the requirements. Adaptations in the development of the e-university system, the integration of technology such as ZOOM tool and the coordination between departments in the HaUI have helped the teaching and final assessment exam activities at the HaUI not interrupted. And the final assessment exam activities still ensure the principles of exam organization.

During the transition from face-to-face exam to online exam, giving online instructions and guidance for teachers and students is extremely essential [15]. Testing and Assessment Center of HaUI has issued specific guidelines for students and teachers and organized training sessions for teachers on administering and marking the online exam. All instructions are transferred to the Student Affairs Department and the official staff of Faculty to inform and guide students. And these guidances are published in e-learning system. The procedures of issuing and guiding online exam are described in Appendix A.

#### IV. CONCLUSIONS AND POLICY RECOMMENDATIONS

##### 5.1 Conclusions

The context of Covid-19 epidemic is so complex. Changes in the socio-economic context along with the strong development of information technology have helped the teaching and assessment activities of learning outcomes also change. The portrayal of online exam activities at HaUI is a typical example for quickly adapting to the epidemic context, strongly applying information technology to teaching activities and assessing activities. The development of e-university system at HaUI benefit online learning model. The results indicate that all teaching activities and assessing activities is till performed normally in the “new normal environment” thank to applying and integrating technology. Developing an e-university model at HaUI is a lesson for higher education institutions so that learning and assessment of learning outcomes are not interrupted.

##### 5.2 Policy recommendations

From the survey results at HaUI, the study proposes recommendations for higher education institutions. With the development of the epidemic, it is very difficult to organize teaching activities and assessment exams at the end of the course in the near future. Therefore, higher education institutions need to have specific solutions to develop their own e-university system. The development of the e-university system needs to ensure that the principles are consistent with the characteristics of the organization and management and the implementation process at the educational institution. In addition, the development of an e-university system needs to strongly integrate existing information technologies so that it can bring advantages and convenience to both teachers and learners. In particular, the course evaluation exam is a part, an activity in the process of the higher education institution. Therefore, the design and development of an e-university system that integrates the

online exam system requires a database of departments such as training departments, specialized faculties. Furthermore, the development of e-university system need a synchronize coordination an unified database in the entire system of higher education institutions.

## REFERENCES

- [1]. Hanoi University of Industry. 2020; Available from: <https://www.hau.edu.vn/en/html/infomation>.
- [2]. Faculty of Accounting and Auditing. Available from: <https://www.hau.edu.vn/en/html/auditing-accounting>.
- [3]. Bach Mai hospital. "Cuộc chiến" chống dịch COVID-19 tại Việt Nam: 100 ngày nhìn lại [The "war" against COVID-19 in Vietnam: 100 days of looking back]. 2020; Available from: <http://bachmai.gov.vn/tin-tuc-va-su-kien/tin-trong-nganh-menuleft-34/6232-cuoc-chien-chong-dich-covid-19-tai-viet-nam-100-ngay-nhin-lai.html>.
- [4]. Dinh Viet Hung, et al., Reduce Impact of Climate Change in Flood Area of Quang Binh Province by Crop Rotation. *Quest Journal of Research in Environmental and Earth Sciences*, 2021. **7**(6): p. 53-58.
- [5]. Mishra, L., T. Gupta, and A. Shree, Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 2020. **1**: p. 100012.
- [6]. Sá, M.J. and S. Serpa, The COVID-19 pandemic as an opportunity to foster the sustainable development of teaching in higher education. *Sustainability*, 2020. **12**(20): p. 8525.
- [7]. Aristovnik, A., et al., Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, 2020. **12**(20): p. 8438.
- [8]. Tô Thùy Linh, Một số đề xuất đổi mới hình thức, phương pháp kiểm tra đánh giá kết quả học tập cho sinh viên tại Trung tâm giáo dục quốc phòng Huế [Some proposals for reforming forms and methods of testing and assessing learning outcomes for students at Hue National Defense Education Center]. *Hue University Journal of Science: Social Sciences and Humanities*, 2017. **126**(6A).
- [9]. Nguyễn Thị Thu Hằng, Lê Thị Thu Hiền, and Nguyễn Thị Ngọc Ánh, Đa dạng hóa các hình thức đánh giá kết quả học tập của sinh viên: Ứng dụng mô hình đánh giá thực trạng trong giảng dạy học phần vật lý đại cương [Diversifying forms of assessing students' learning outcomes: Applying the current assessment model in teaching general physics]. *Tạp chí Khoa học và công nghệ, Đại học Thái Nguyên*, 2019. **186**(10).
- [10]. Nguyễn Văn Tuấn and Phùng Đình Mẫn, Giải pháp quản lý công tác kiểm tra, đánh giá kết quả học tập của sinh viên tại Trung tâm đào tạo từ xa - Đại học Huế [Solution to manage the examination and assessment of students' learning outcomes at Distance Learning Center - Hue University]. *Hue University Journal of Science: Social Sciences and Humanities*, 2012. **76**(7).
- [11]. Li, X. and S.-d. Gan. The evaluation of undergraduate accounting experimental teaching. in *Proceedings of the 6th International Asia Conference on Industrial Engineering and Management Innovation*. 2016. Springer.
- [12]. Almazova, N., et al., Challenges and opportunities for Russian higher education amid COVID-19: Teachers' perspective. *Education Sciences*, 2020. **10**(12): p. 368.
- [13]. García-Peñalvo, F.J., et al., Recommendations for Mandatory Online Assessment in Higher Education During the COVID-19 Pandemic, in *Radical Solutions for Education in a Crisis Context*. 2021, Springer. p. 85-98.
- [14]. Testing Center. Available from: <https://www.hau.edu.vn/vn/html/trung-tam-khao-thi>.
- [15]. Chang, C.-L. and M. Fang. E-Learning and online instructions of higher education during the 2019 novel coronavirus diseases (COVID-19) epidemic. in *Journal of Physics: Conference Series*. 2020. IOP Publishing.

**Appendix A.** Procedure of issuing and guiding the organization of e-exam at HaUI

