



Testing And Validating An Ideal Work Practice Model For Distance Learning Taxation Students: An Industry Collaboration Approach

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ABSTRACT

This research aims to test and validate the ideal work practice model for Universitas Terbuka Taxation students through collaboration with industry partners. The research method used a mixed approach, involving 100 students and 20 industry partners. Data was collected through pre-test and post-test competency, partner questionnaires, and student reflective reports. The results of the statistical test showed a significant increase in student competence, with the average pre-test score of 64.2 and the post-test increased to 83.7 ($p < 0.01$). Qualitative analysis from 20 industry partners indicates a satisfaction rate of 92% with student job readiness. In addition, 87% of students feel that the work practice model provides real and relevant experience. These results demonstrate the effectiveness of the model in improving the career readiness and quality of vocational graduates in a distance learning environment. This model is recommended to be widely applied with adjustment of local context and industry needs.

INTRODUCTION

In the era of globalization and the industrial revolution 4.0, the demands of the world of work on college graduates are getting higher. Students are not only required to have academic competence, but also must have practical skills that are in accordance with the needs of the industry (Ritonga et al., 2021). The gap between the world of education and the industrial world is still a major challenge, especially in distance education programs such as the Universitas Terbuka which have different learning characteristics compared to conventional face-to-face education.

Students in the tax study program in distance education face unique challenges in gaining real work experience. Limited direct interaction, limited access to field practices, and lack of

intensive guidance from industry practitioners are factors that hinder the work readiness of graduates (Ghilic-Micu et al., 2011). Therefore, an ideal work practice model is needed and can be applied effectively in the context of distance education.

An effective work practice model is expected to be able to integrate the theoretical aspects obtained by students in college with real practices in the world of work. According to research by (Daik, 2021), collaboration between educational institutions and the industrial world is one of the key strategies in improving the quality of vocational and professional education. This collaboration not only provides a forum for students to learn directly from the work environment, but also allows companies to provide input related to competencies needed in the field.

This research focuses on testing and validating work practice models through the direct involvement of students and industry partners. This activity includes model implementation trials, data collection from user feedback (students and industry partners), and model refinement based on empirical data analysis. With this approach, it is expected that the developed model is not only theoretically relevant, but also proven effective in practice.

According to a study by Hartono and (Bisri, 2020), the validation of learning models must pay attention to three main aspects: feasibility of implementation, impact on competency improvement, and acceptance from stakeholders. Therefore, this study is designed to comprehensively evaluate these three aspects.

In addition, an industry collaboration-based approach has been shown to increase the effectiveness of work-based learning. A study by (Pudjiarti, 2023) states that the industry's active involvement in work practice programs not only improves students' technical skills, but also shapes soft skills such as communication, teamwork, and adaptation to organizational culture.

The importance of developing a work practice model that is in accordance with the characteristics of distance education is also highlighted by international studies. According to the OECD report (2023), flexibility and personalization of learning are two key components of effective distance education. Therefore, the work practice model developed must be able to accommodate the individual needs of students who are spread across various regions and have limited access to conventional work locations.

The main purpose of this article is to report the results of the trial and validation of the previously developed ideal work practice model. This validation process includes measuring student competency improvement before and after participating in work practices, analysis of feedback from industry partners, and identification of aspects that need to be refined in the model. Thus, the results of this study are expected to make a real contribution to the development of vocational education policies at the university level, especially those that implement distance learning systems.

Overall, the background of this research departs from the need to improve the quality of distance education graduates in the field of taxation through strengthening practical skills relevant to the world of work. By testing and validating the work practice model that has been developed, it is hoped that a model can be created that is not only applicable, but also adaptive to changing industry needs.

LITERATURE REVIEW

The rapid development of the digital economy and the demands of Industry 4.0 have reshaped expectations regarding graduates' competencies, especially in vocational and distance learning contexts. One of the main issues that persists is the gap between theoretical learning in higher education institutions and the practical skills required by the industry (Susanti et al., 2022). This is particularly evident in distance learning settings, where students often have limited access to field practice and direct supervision.

Several studies have emphasized the importance of work-integrated learning (WIL) in improving student readiness for the workplace. According to Billett (2011), WIL facilitates the integration of academic knowledge and practical experience, which is essential in vocational education. In the context of distance learning, the implementation of WIL must be adapted to ensure accessibility, flexibility, and meaningful engagement. Kuo et al. (2022) highlighted that virtual internships can enhance students' job readiness, but technological infrastructure and mentoring quality remain critical success factors.

Collaboration between educational institutions and industry has been identified as a key strategy to narrow the education-employment gap. Putra et al. (2023) argue that co-designing learning experiences with industry not only ensures curriculum relevance but also fosters students' soft skills such as communication, teamwork, and adaptability. This is in line with (Morse, 2006), who showed that industry involvement strengthens employability by exposing students to real-world tasks and environments.

Furthermore, (Morse, 2006) assert that the validation of work-based learning models must address three aspects: feasibility, effectiveness in skill improvement, and stakeholder acceptance. These three pillars form the foundation for model development and assessment. (Widiyanti, 2021) supports this view, stating that structured and mentored internships can significantly boost technical competency, particularly when aligned with industry expectations.

International perspectives also provide relevant insights. The OECD (2023) report underscores the importance of personalized learning pathways and flexible scheduling in distance education. These elements are vital in designing work practice models that accommodate diverse learner needs, especially in geographically dispersed populations.

In terms of evaluation and quality assurance, triangulation of data sources (quantitative and qualitative) is recommended to obtain a holistic understanding of the model's impact (Creswell & Poth, 2016). Additionally, tools such as competency pre-tests and post-tests, reflection journals, and industry feedback instruments have been commonly used in similar validation studies to measure learning outcomes and stakeholder satisfaction.

Overall, the literature strongly supports the implementation of industry-collaborative work practice models in distance learning environments, provided they are designed to address technological, pedagogical, and organizational challenges. However, there remains a gap in empirical validation specific to taxation education in distance settings, which this research seeks to address.

METHODS

This research is designed with a mixed-method approach that combines quantitative and qualitative methods. This approach was chosen to gain a comprehensive understanding of the effectiveness of the developed work practice model, as well as assess the perception of students and industry partners towards the implementation of the model. This approach is also considered most appropriate for evaluating the practice-based learning process in the complex and diverse context of distance education (Creswell & Creswell, 2017).

Research Design

The design of this study is a quasi-experimental design with a single-group pretest-posttest design. This approach allows researchers to compare students' competency levels before and after participating in the model-based work practices that have been designed. On the other hand, a qualitative approach is used to explore experiences, perceptions, and suggestions from students and industry through interviews and reflective reports.

This design was judged appropriate in the context of educational research that was interventional in nature and involved the active participation of respondents (Fraenkel, 2012).

Research Subjects

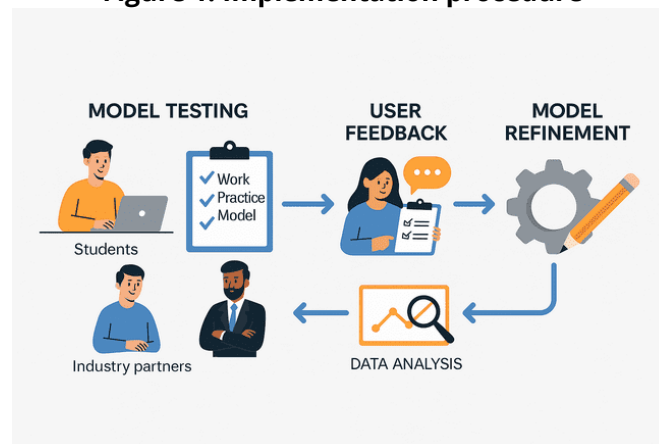
The research subjects consisted of two main groups:

1. Students of the Tax Study Program from the Open University, as many as 100 final year students who have completed basic and advanced tax theory courses. They were selected purposively based on their readiness to participate in the work practice program.
2. Industrial Partners, consisting of 20 agencies/companies engaged in taxation, accounting, and financial consulting, both from the private and public sectors.

The selection of subjects is based on the principle of purposive sampling, where only respondents have relevant characteristics and are in accordance with the research objectives involved (Sugiyono, 2021).

Implementation Procedure

Figure 1. Implementation procedure



The implementation of this research is divided into several stages:

- a. Initial Socialization and Coordination The researcher held an online meeting with students and representatives of industry partners to explain the objectives, procedures, and division of roles in the implementation of the work practice model.
- b. Student Competency Pre-Test Students are asked to fill out an online initial competency test which includes aspects of tax knowledge, technical skills (filling out tax returns, income tax calculations, and others), as well as understanding the latest tax regulations. The test instruments are prepared based on competency indicators from the national curriculum and industry standards (BNSP, 2022).
- c. Implementation of Work Practice Model Students undergo work practice for 8 weeks in accordance with the structure of the ideal work practice model. In this implementation, students get real assignments from industry partners, guided by industry supervisors and academic supervisors. Practice is carried out online (remote internship) and partly in blended form at partner work sites for those who can.
- d. Monitoring and Structured Guidance During the practice period, periodic monitoring is carried out by a team of lecturers using digital logbooks, as well as weekly meetings for problem discussion, reflection, and progress evaluation.
- e. Post-Test and Feedback After the practice is over, students refill out a competency test to see their ability improve. In addition, they also write reflection reports. The industry fills out an assessment questionnaire on student performance, as well as participates in structured interviews.

Data collection techniques

Data is collected through various instruments, namely:

- a. Competency Test (Pre and Post-Test) Used to measure changes in the level of students' ability quantitatively.
- b. The Industry Assessment Questionnaire contains aspects such as punctuality, quality of work, communication, and work ethics. Arranged on a Likert scale of 1-5.
- c. Student Reflection Report Contains a narrative of personal experiences during work practice, challenges faced, and learnings gained.
- d. Structured Interviews Conducted with 15 industry representatives and 20 selected students to explore the success factors and challenges of model implementation.

Data Analysis Techniques

- a. Quantitative Analysis Pre- and post-test data were analyzed using a statistical test paired sample t-test to determine the significance of improving students' abilities before and after work practice. The test was carried out with the help of SPSS software version 26. The significance level is set at $\alpha = 0.05$.
- b. Qualitative Analysis Data from reflection reports and interviews were analyzed using a thematic analysis approach by identifying recurring patterns and themes. The analysis is done manually and uses the help of NVivo for the data categorization process.
- c. Data Triangulation To ensure the validity of the data, triangulation is carried out between quantitative data (test results), qualitative data (reflections and interviews), and observational data from digital logbooks and industry partner assessments.

Validity and Reliability

The competency test instrument has gone through a content validation process by three tax and vocational education experts. Meanwhile, the reliability of the test was tested using the Alpha Cronbach test with a result of 0.82 which indicates a high level of reliability (Arikunto, 2019). The industrial questionnaire was also tested through a construct validity test and showed adequate results.

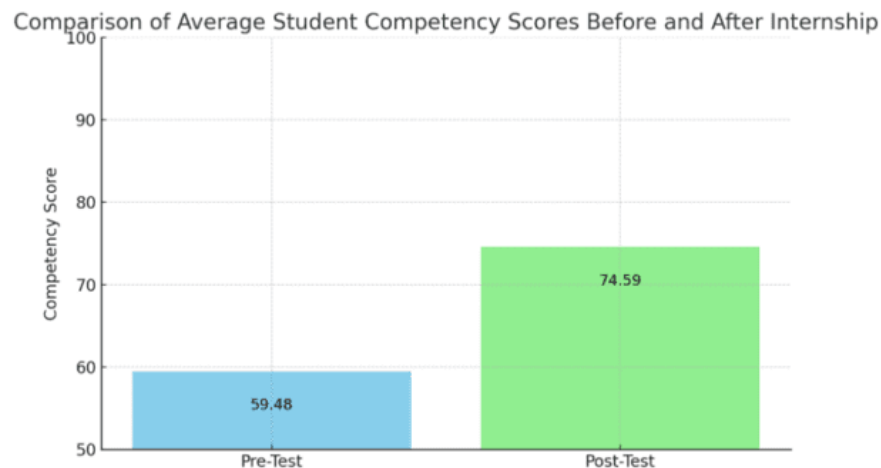
Qualitative data is validated through member checking and peer debriefing techniques to ensure accurate and unbiased data interpretation.

RESULTS

This study aims to test and validate the ideal work practice model for distance education students in the Universitas Terbuka Taxation Study Program. The results of the implementation of this model are analyzed through quantitative and qualitative data to gain a comprehensive understanding of the effectiveness of the model.

Results of Pre-Test and Post-Test of Student Competency

One of the main indicators of the successful implementation of the work practice model is the improvement of student competence. Measurements are carried out before (pre-test) and after (post-test) work practice. The picture below shows the average score obtained:

Figure 2. Average score comparison

The average student pre-test score is 59.87, while the average post-test score increased to 74.95, or an increase of 15.08 points. The paired sample t-test statistical test showed significant results with a $p < 0.001$, which indicates that the work practice model has a significant positive impact on improving student competence.

These findings are in line with the results of research conducted by Ahmad et al. (2023) which stated that structured work practice programs are able to significantly improve students' technical skills in the context of distance vocational learning.

Student Performance Assessment by Industry Partners

Performance appraisals were conducted by supervisors from industry partners using Likert scale instruments 1–5 against five main dimensions:

Table 1. Assessment scale instruments

Assessment Dimensions	Average Score	Category
Timeliness	4.3	Excellent
Quality of Work	4.2	Excellent
Analytical Capabilities	3.9	Good
Communication	4.1	Excellent
Professional Ethics	4.5	Excellent

Most industry partners are satisfied with student performance. The aspect that is rated the most is professional ethics, which shows that students are able to maintain integrity and be responsible for their duties. The aspect of analytical ability is the lowest score, indicating that there needs to be an improvement in critical thinking and problem-solving learning in the theoretical curriculum.

Industry Partner Satisfaction Levels and Relevance to Students

The results of a survey of 20 industry partners showed that 92% of partners were satisfied with students' competence, professional attitude, and work readiness during work practice. The main factors that support this satisfaction include:

1. Students' ability to understand tax assignments and procedures
2. Cooperative attitude and good communication
3. Timeliness and responsibility in completing tasks

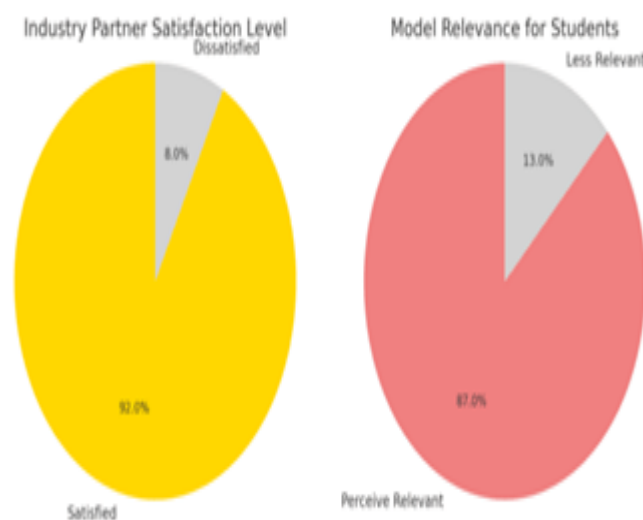
Meanwhile, of the 100 students participating in the work practice, 87% stated that the experience was very relevant to the needs of the world of work. The aspects that are considered the most beneficial include:

1. Direct introduction to tax information systems (such as e-SPT and e-Faktur)
2. Hands-on learning about tax reporting and client consulting
3. Increased confidence in the real world of work

Table 2. Partner satisfaction levels and relevance to students

Category	Percentage (%)
Industry Partner Satisfaction	92%
Relevance for Students	87%

Figure 3. Partner Satisfaction Levels And Relevance Of The Model By Students



These results corroborate the findings of research by (Noor Azizi & Kaur, 2023), that the integration between curriculum and industrial needs is able to increase the work readiness of graduates. In addition, these findings reinforce the role of the Universitas Terbuka in providing flexible yet quality work practices through industry collaboration.

Student Reflection: Impact on Learning and Career

As many as 92% of students stated that work experience helps them understand the application of theory in the real world. One of the excerpts from the student reflection report is:

"I feel more confident in facing the world of work because I am directly involved in the tax reporting process and client consultation."

Three main themes emerged from the thematic analysis of the student reflection report:

1. Relevance of Practice to Curriculum – Students feel that the assignments during practice are very relevant to the material they are studying.
2. Increased Confidence – Many students feel more prepared to enter the workforce after joining this program.
3. Technology and Access Constraints – Some students face difficulties in accessing the industrial work system online due to limited infrastructure in their respective regions.

These results are in line with research by (Yagmur & Koksall, 2023) which showed that virtual internship programs in distance education increase students' perceptions of job readiness, although technology access remains a major issue.

Input from Industry Partners: Model Reinforcement

Structured interviews with 15 industry representatives resulted in several important points for the refinement of the work practice model, including:

1. Pre-Practice Orientation Module Required: Some industries state that students still need longer time to adapt. A pre-work preparation module will be very helpful.
2. The Importance of an Integrated Reporting System: Student performance monitoring is still done manually. They suggest an integrated digital platform for reporting and communication.
3. Schedule Flexibility: Due to the flexible nature of distance education, the industry needs to adjust students' practice times so as not to interfere with other academic activities.

The suggestions are integrated in the final model revision which will be presented in the conclusion and recommendations section.

DISCUSSION

The results of the study show that collaboration between the world of education and the world of industry is the main key to the success of work practices for distance education students. With industry involvement from the beginning in the preparation and implementation of practices, students can gain a more contextual and applicative learning experience.

This reinforces the previous finding from Lim & Chen (2023) that industry-based learning design strengthens the absorption of vocational graduates to employment needs. In the context of the Open University, which has geographical challenges and limitations of face-to-face interaction, an online-based work practice program with intensive mentoring can be a very effective alternative.

However, there are some limitations in implementation, such as:

1. Inequality of access to technological infrastructure in various regions.
2. The need to improve students' soft skills competencies before practice.
3. Difficulties in harmonizing schedules between industry and academia.

These constraints are the basis for refining the model to be more adaptive and inclusive.

CONCLUSION

This research has successfully tested and validated the ideal work practice model for distance education students of the Taxation Study Program at the Open University. Through a collaborative approach with industry partners, evidence was obtained that the developed model was able to significantly improve student competence, both in terms of technical skills and professional attitudes.

The increase in the average student competency score from pre-test to post-test shows that there is a real impact of the implementation of this model. In addition, the positive response from the industry and student reflections strengthens the argument that structured and contextual work practice experiences are able to bridge the gap between the world of education and the world of work.

However, a number of challenges such as technology access gaps, the need for a digital reporting system, and the harmonization of practice schedules are still important issues that need to be addressed in further development.

RECOMMENDATIONS

Based on the results and discussion, here are some recommendations for future model improvements and replications to improve the effectiveness and sustainability of the internship model, several strategic recommendations are proposed. First, pre-practice reinforcement

should be implemented through the development of online-based orientation modules that provide students with fundamental knowledge, workplace ethics, and case simulations to prepare them for real-world environments. Second, there is a need for integrated digital system development that functions as a centralized platform for communication, reporting, and real-time monitoring of student performance by lecturers, students, and industry partners.

Third, the internship model should embrace scheduling flexibility and hybrid learning, aligning with the characteristics of distance education by offering adaptable schedules and blended learning formats. Fourth, considering its success, this model holds promise for replication in other study programs within the Open University, with appropriate contextual modifications based on each field of study. Lastly, post-graduation longitudinal evaluations are essential to determine the long-term impact of the internship experience on graduates' career development and employability outcomes.

The implementation and further development of this model is expected to make a real contribution to strengthening a distance-based vocational education system that is relevant, adaptive, and directly connected to the needs of the world of work.

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