

**EVALUATION OF THE KIRK PATRICK MODEL FOR ENTREPRENEURSHIP COURSES IN THE MANAGEMENT AND ACCOUNTING STUDY PROGRAM AT THE FACULTY OF ECONOMICS AND BUSINESS, UNIVERSITAS WIJAYA KUSUMA SURABAYA (UWKS)**

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**Abstract:** *This research provides a description of how the Kirkpatrick Evaluation Model is implemented in evaluating the Entrepreneurship Course for Management and Accounting students at the Faculty of Economics and Business, Universitas Wijaya Kusuma Surabaya. Evaluation tools varied across the model's four levels. The assessment of student outcomes, like business plan proposals, was conducted through performance evaluation. Adopting a mixed-methods descriptive design, the research applies qualitative and quantitative analysis, with an independent sample t-test used to examine differences. Participants included 60 students from the Management and Accounting Study Programs within the Faculty of Economics and Business at Universitas Wijaya Kusuma Surabaya. Data were gathered via closed questionnaires, and the reliability of these instruments was verified using Cronbach's Alpha. Student learning evaluation was obtained through performance assessment rubrics. The results indicate that the Kirkpatrick Evaluation Model in the Entrepreneurship Course Learning Program is highly effective, and there is no significant difference between students in the Management and Accounting study programs.*

**Keywords:** *Kirkpatrick Evaluation Model, Performance Assessment, Entrepreneurship*

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## 1. Introduction

Entrepreneurship is a compulsory course in the Management and Accounting Study Programs of the Faculty of Economics, Wijaya Kusuma University Surabaya. This course is directly related to the application of business planning as a form of implementation of students' entrepreneurial competencies. Given the complex, applied, and multidimensional characteristics of the Entrepreneurship course, a learning evaluation system is needed that is capable of comprehensively revealing students' potential, abilities, and competency achievements (Hidayah & Avisca, 2021). Improving academic standards can be achieved through enhancing the quality of learning and developing appropriate assessment models, because the effectiveness of a learning system is closely related to the evaluation approach used.

Evaluation is an important component in the learning process that cannot be overlooked by lecturers. As the foundation of quality learning, evaluation is a continuous process (Hariyanti et al., 2025). Evaluation is generally defined as a systematic procedure for determining the value or

usefulness of a program, activity, or learning outcome based on certain criteria. In the educational context, evaluation functions to measure the achievement of predetermined learning objectives (Rahmadani, 2025). National Study Committee on Evaluation (as cited in (Stark & Thomas, 1994)) states that evaluation encompasses determining the decisions to be made, identifying relevant information, and collecting and analyzing data to produce a summary of information useful to decision-makers. This view is reinforced by Griffin & Nix (1991), who state that measurement, assessment, and evaluation are hierarchical processes, where measurement relates to comparing observational results with criteria, assessment relates to interpreting evidence, and evaluation relates to judging the value and implications of learning outcomes or behavior.

In Entrepreneurship learning, evaluation has a strategic role because lecturers need to obtain accurate information regarding students' level of mastery (Ramdani et al., 2023). This information can be obtained through various methods such as written tests, assignments, oral question-and-answer sessions, observation of learning activities, and portfolios. Evaluation is not only aimed at determining students' final grades, but also serves as a means of continuously improving the quality of entrepreneurship education. Therefore, learning evaluation needs to be carried out holistically and continuously by assessing both the learning process and the outcomes achieved. The quality of learning methods and the appropriateness of the evaluation framework are determining factors in achieving educational objectives.

Evaluation also provides an overview of students' understanding of the curriculum as well as feedback for lecturers and institutions to improve the quality of educational programs. Through evaluation, lecturers can determine the effectiveness of the learning strategies used. Therefore, lecturers are not only required to possess pedagogical competence, but also professional competence in designing and implementing learning evaluations that are appropriate to the characteristics of the Entrepreneurship course. Learning evaluation should not only focus on final outcomes, but must also consider resources, methods, and the overall impact of learning.

The development of information technology has also influenced learning and assessment systems in higher education. However, in practice, learning evaluation is still dominated by traditional paper-and-pencil tests. This model has several weaknesses, including only assessing the knowledge aspect, being less capable of measuring higher-order thinking skills, not evaluating the learning process, and being less capable of authentically portraying students' abilities. In addition, traditional tests tend to have a single correct answer, are unable to demonstrate students' thinking processes, and have yet to measure all aspects of competency required in contextual and applied entrepreneurship learning.

As noted by Widoyoko (2009), Brikerhoff (2000) states that successful evaluation requires seven key elements, namely determining the focus of evaluation, developing the design, collecting information, analyzing and interpreting, reporting, managing the process, and evaluating the evaluation itself. This indicates that evaluation must be carried out systematically from the planning stage through to the assessment of evaluation results. Therefore, a comprehensive, systematic, and appropriate Entrepreneurship learning evaluation model is needed to improve the quality of learning and students' competency achievement.

Although the Kirkpatrick Model has been widely used in the evaluation of entrepreneurship training and e-learning, its application to formal credit-based entrepreneurship courses in higher education remains limited, particularly in Management and Accounting study programs (Sari & Solichin, 2023). Previous studies have largely only evaluated Level 1 (reaction) and Level 2 (learning), while Level 3 (behavior) and Level 4 (results) are rarely measured quantitatively, so the actual impact on students' entrepreneurial competencies has not been clearly depicted

(Ernawati et al., 2022). Furthermore, comparative studies between study programs such as Management and Accounting remain limited, and the methods used are generally only quantitative or simple descriptive, making them unable to comprehensively portray the factors influencing students' abilities and behavior (Cahapay, 2021). The Kirkpatrick Model, originally developed for professional training evaluation, has also not been widely modified for the context of higher education and the multidimensional competencies of students. Therefore, research employing a mixed methods approach and valid instruments is needed to comprehensively measure all levels of evaluation (Ambu-Saidi et al., 2024)

Based on the background and problem formulation that have been described, this study aims to determine the application of the Kirkpatrick Model evaluation in the Entrepreneurship course learning program in the Management and Accounting Study Programs of the Faculty of Economics and Business, Wijaya Kusuma University Surabaya. In addition, this study also aims to analyze the effectiveness of the Kirkpatrick Model evaluation and the forms of assessment used at each level of evaluation. Each level in the Kirkpatrick Model uses a different assessment model to obtain a comprehensive picture of students' abilities in each competency within the Entrepreneurship course. The assessment results at each level are then analyzed using descriptive analysis. This study also aims to analyze significant differences in the application of the Kirkpatrick Model evaluation in the Entrepreneurship course between the Management and Accounting Study Programs.

## **2. Literature Review**

### **Kirkpatrick Model**

The Kirkpatrick Model is a highly regarded framework for training evaluation, prized for its comprehensiveness, simplicity, and broad applicability. Its comprehensive nature stems from its capacity to assess all dimensions of a training program. Meanwhile, its simplicity lies in its logical progression, ease of comprehension, and clear, straightforward categorization system. From the perspective of usability, this model can be employed to evaluate a wide range of training types under various circumstances. According to Kirkpatrick (1998), evaluation is conducted across four levels, as follows:

#### **1. Level 1 (Reaction)**

The primary objective of Level 1 evaluation is to measure how satisfied participants are with the training's implementation. The degree of this satisfaction acts as a benchmark for the quality of the program's execution. Ultimately, a positive perception of the training's structure and process boosts participants' learning motivation and enthusiasm. At this level, organizations (companies) typically focus on the perceived value and benefits gained by participants in relation to organizational goals, as material for evaluating training needs. Meanwhile, training providers usually pay more attention to facilities and the delivery of materials. Assessing participant reactions is a simple task, most commonly conducted via a questionnaire. This feedback mechanism aims to capture trainees' perspectives on the quality of the instructors and organizers. Accordingly, the optimal distribution times for this instrument are post-session, post-training, or immediately prior to the training's official end.

#### **2. Level 2 (Learning)**

Level 2 evaluation focuses on assessing how well participants comprehend the training material or the degree to which they have assimilated the information presented. A training program is considered successful when these aspects show improvement, as determined by comparing measurements taken before and after the training. Compared to measuring reactions,

evaluation at Level 2 presents greater difficulty and requires more time. Instruments like written tests and practical performance tests are employed for this purpose. While written tests assess gains in knowledge and attitudes, performance tests measure improvements in skills. A before-and-after testing approach is used to quantify the degree of advancement in each aspect.

### 3. Level 3 (Behavior)

The objective of Level 3 evaluation is to gauge the transfer of learned behaviors to the job, measuring changes in participants' work performance upon returning to their roles. The behaviors in question are those directly linked to the training material. Evaluation can be carried out through observation, questionnaires, interviews with managers, or analysis of performance records. This process aims to pinpoint behavioral changes resulting from the program. Because pre-training performance data is often lacking, it is recommended to establish a baseline by recording participants' work behaviors prior to the training.

### 4. Level 4 (Result)

At Level 4, the evaluation focuses on determining the tangible effects of altered work behavior on the organization's productivity. Relevant metrics for this analysis encompass gains in production, quality enhancements, cost reductions, declines in accident frequency or severity, lower turnover rates, or growth in profits.

## **Kirkpatrick Concept**

Kirkpatrick is a prominent figure in human resource development (HRD), specializing in the assessment of training programs. He created the widely recognized Kirkpatrick Four-Level Evaluation Model. As defined by Kirkpatrick (1998), this model assesses training effectiveness across four progressive stages: Reaction (Level 1), Learning (Level 2), Behavior (Level 3), and Results (Level 4).

Assessing participant reactions to a training program essentially measures participant satisfaction, akin to evaluating customer experience. A program's effectiveness is indicated when participants find the process engaging and satisfying, which in turn motivates them to learn and apply the content. Satisfaction with the training process fosters participant motivation and elicits positive feedback. Conversely, dissatisfaction demotivates participants and discourages their engagement in future training.

Kirkpatrick (1998) defines learning as changes in participants' attitudes, knowledge, or skills resulting from a program. This definition frames the three key instructional components as knowledge, attitudes, and skills. A participant has learned if they show improvement in one or more of these elements. It is important to differentiate Level 3 (behavior) from Level 2 (learning) evaluation. Level 2's attitude assessment captures internal changes occurring within the training context. In contrast, Level 3's behavioral assessment is external, examining whether these internal changes translate into observable workplace actions after the course. The criterion for success at Level 3 is this practical application. Level 4 evaluation then shifts focus to the broader organizational outcomes generated by the program.

Within the teaching and learning process, this model focuses evaluation on the ultimate outcomes attained by students. The purpose of the evaluation is to gain insight into both the results and the dynamics of student learning, as well as to pinpoint any challenges encountered. Evaluation is fundamentally connected to the act of assessment, whether it concerns final results or the educational journey itself. The role of evaluation is twofold, it facilitates the development of a learning program and its instructional framework, and it assesses the program's merit against specific standards. This process establishes whether a program is dependable, credible, and worthy of continuation, or if it requires modification and improvement. In the educational

process, evaluation stands as an essential task that every educator must undertake. Through this assessment, educators gain insight into learners' academic development, cognitive abilities, specific aptitudes, interests, social dynamics, attitudes, and overall personality. The evaluation process itself plays a critical role in determining the attainment of learning objectives. As such, evaluation activities are crucial for measuring the extent of success achieved by both students and educators in the teaching-learning process.

Assessment activities constitute a core element in the teaching-learning process. Assessment is the process of systematically and measurably gathering information, whether qualitative or quantitative. Assessment is used to provide information to students about how they are performing or the extent of their mastery in learning (Joan B, 1994). The function of assessment is to acquire information regarding students' knowledge and actions, thereby supporting reasoned judgments for multiple purposes. Its essential nature is that of an evolving, iterative practice that regularly yields evidence of student growth and success in meeting learning objectives (Joan B, 1994)

Assessment and evaluation carry distinct meanings. According to the Task Group on Assessment and Testing (TGAT), assessment encompasses all approaches used to appraise an individual's or group's performance (Griffin & Nix, 1991). Popham (1995) describes it in education as a structured effort to identify a student's standing relative to specific educational variables. Similarly, Boyer and Ewel (in Stark & Thomas, 1994) characterize assessment as procedures that yield data on individual students, curricula, programs, institutions, or entire institutional systems. In essence, assessment is a process of interpreting measurement-derived data, tailored to the learner's traits and the nature of the subject matter.

### **The Kirkpatrick Model in Entrepreneurship Education Evaluation**

The Kirkpatrick evaluation model is one of the most widely used training and education evaluation frameworks because it provides four levels of evaluation, namely reaction, learning, behavior, and results. This model enables evaluation to be carried out systematically, starting from participants' responses to the long-term impact of the program. In the context of education and training, this model is frequently used to assess the effectiveness of learning programs through measuring participant satisfaction, knowledge improvement, behavioral change, and the impact of learning outcomes on organizations or the social environment. Research on educator training evaluation shows that the Kirkpatrick model is capable of identifying improvements in participants' knowledge and skills after completing a training program, while simultaneously assessing positive responses to learning materials and methods (Didin & Jahani, 2025).

Nevertheless, several studies indicate that the Kirkpatrick model has limitations, particularly in the complex context of higher education. One of the main criticisms is the difficulty of proving causal relationships between evaluation levels and the tendency to focus on early levels such as reaction and learning. Studies on educational management training evaluation show that this model has strengths as a basic evaluation framework, but needs to be combined with other evaluation approaches in order to capture the complexity of modern educational systems (Long & Quang, 2025). Furthermore, the development of Kirkpatrick-based frameworks also shows that this model often needs to be modified with additional quantitative methods such as indicator analysis and sensitivity testing to improve the validity of evaluation results (Paul et al., 2024).

In the context of higher education and entrepreneurship, the Kirkpatrick model is still widely used in empirical research. Research on entrepreneurship program evaluation shows that the Kirkpatrick model is effective for assessing participant satisfaction, improvement in entrepreneurial knowledge, as well as changes in participants' entrepreneurial intentions and

readiness (Cumberland et al., 2024). Additionally, research by Sakthi & Moshi (2021) on training-based entrepreneurship programs shows that the Kirkpatrick model is capable of measuring changes in entrepreneurial culture and participant behavior after attending entrepreneurship education programs. Septriani et al. (2022) in their research also show that evaluation at the reaction and learning levels can directly describe the effectiveness of entrepreneurship learning materials and processes.

In entrepreneurship education, each level of Kirkpatrick evaluation can be operationalized specifically. At the reaction level, evaluation is carried out by measuring students' satisfaction with entrepreneurship learning methods, the relevance of real business materials, and the quality of learning facilitators. This is in line with training evaluation research that uses participant satisfaction questionnaires to assess responses to learning programs (Aulia, 2020). At the learning level, evaluation is carried out by measuring improvements in entrepreneurial knowledge, business skills, and understanding of business opportunities through tests, project assessments, or student portfolios. The implementation of Kirkpatrick-based learning evaluation shows that improvements in academic outcomes and participants' skills can be measured through academic evaluation and performance assessment (Badu, 2012).

Furthermore, at the behavior level, evaluation is focused on changes in students' entrepreneurial behavior, such as the implementation of business ideas, participation in business incubators, and involvement in real entrepreneurial activities. At the results level, evaluation is carried out by measuring long-term impacts, such as increased entrepreneurial intentions, the formation of new businesses, and graduates' contributions to the entrepreneurial ecosystem. Entrepreneurship program evaluation shows that the Kirkpatrick model is capable of measuring the long-term impact of training on participants' entrepreneurial readiness and culture (Sakthi & Moshi, 2021).

Overall, although the Kirkpatrick model has limitations in explaining causal relationships between levels and in capturing the complexity of the higher education context, this model remains relevant for use in entrepreneurship education evaluation. The use of this model will be more optimal when combined with other evaluation approaches and adapted to the characteristics of entrepreneurship education programs that are contextual and practice-based.

### **3. Research Method**

#### **Research Approach**

This research was conducted to examine how the Kirkpatrick Evaluation Model is applied in the Entrepreneurship course for Management and Accounting students at the Faculty of Economics and Business, Universitas Wijaya Kusuma Surabaya. Employing a quantitative descriptive approach, data regarding the model's implementation were gathered using multiple instruments. Questionnaires, validated for reliability with Cronbach's Alpha, were used to collect data at Kirkpatrick's first level. In addition, data on student learning outcomes were obtained from assessments administered during the learning process.

#### **Population and Sample**

All active students registered for the Entrepreneurship course within the Management and Accounting programs at the Faculty of Economics and Business, Universitas Wijaya Kusuma Surabaya, during the even semester of 2020/2021 constituted the population for this research. The sampling technique utilized was a complete census. The total population of this research comprised students divided across several classes. The sample for this research was taken by conducting a census of two classes from the total population. The sample size in this study was

30 students per class.

### Research Variables and Indicators

- a) Reaction Variable (Level 1): The aspect measured is students' satisfaction with the course implementation, including course materials, organization, facilities, and lecturer competence.
- b) Learning Variable (Level 2): The aspect measured is students' understanding of the course material, including midterm and final exam results.
- c) Behavior Variable (Level 3): The aspect measured is changes in student behavior after attending the Entrepreneurship course (via direct observation or questionnaire distribution).
- d) Results Variable (Level 4): The aspect measured is the impact of changes in student behavior on attendance levels (temporarily in this study).

### Data Collection Procedures

The research procedure included three stages: preparation, implementation, and final stage. The preparation stage involved determining learning materials in the Semester Lesson Plan (RPS), preparing course contracts, developing assessment rubrics, and designing questionnaires. The implementation stage encompassed the execution of the learning process, classroom activities as part of process evaluation, and the assessment of student work outcomes through performance assessments using rubrics as a means of evaluating learning outcomes. The final stage included data collection, data tabulation, analysis and discussion of research findings, and the preparation of research reports and scientific articles.

Data collection was structured around the four components of the Kirkpatrick Evaluation Model: evaluating reaction, learning, behavior, and results. Student reactions were measured via a questionnaire-style reaction sheet designed to capture their perceptions of how the learning process was conducted. Learning evaluation was conducted through performance assessments using evaluation rubrics that include assessment dimensions, scoring scales, and performance standards. The rubrics used comprised both holistic and analytical rubrics; however, this study employed a holistic rubric to comprehensively describe the quality of student performance.

**Table 1. Assessment Criteria Rubric**

Level	Criteria
Very Good	Course Materials, Course Implementation, Course Facilities, and Lecturer Competence
Good	Course Materials, Course Implementation, Course Facilities, and Lecturer Competence
Fair	Course Materials, Course Implementation, Course Facilities, and Lecturer Competence
Poor	Course Materials, Course Implementation, Course Facilities, and Lecturer Competence

### Data Collection Methods

Distribution of questionnaires based on research variables, namely creating a list of questions to be given to students taking Entrepreneurship courses.

### **Data Analysis Techniques**

- a. Validity and Reliability Testing of the Research Questionnaire
- b. Data Analysis Using the Kirkpatrick Model, comprising the following steps:
  - 1) Summing the response scores from all respondents for each question item.
  - 2) Determining the highest possible score on the measurement scale.
  - 3) Calculating the total number of respondents.
  - 4) Calculating the weight for each question item using the Kirkpatrick formula.  
(All calculations were performed with the assistance of MS Excel software.)
- c. Independent Two-Sample Difference Test (Independent Sample t-Test), with calculations conducted using SPSS software.

The data collection instruments for each Kirkpatrick level are described as follows:

- a) Level 1 - Reaction: Measures students' satisfaction with the implementation of lectures (materials, delivery, facilities, lecturer competence) using a questionnaire (reaction sheet). This questionnaire has been tested for validity and reliability using Cronbach's Alpha.
- b) Level 2 - Learning: Measures students' understanding of lecture materials through performance assessment evaluated using a holistic rubric, encompassing midterm (UTS) and final exam (UAS) scores.
- c) Level 3 - Behavior: Measures changes in students' behavior after attending lectures through direct observation and/or a behavior questionnaire.
- d) Level 4 - Results: Measures the impact of behavioral changes on students' performance, which in this study is represented by student attendance data.

## **4. Results and Discussion**

### **4.1. Results**

#### **Research Results Description**

The implementation of the Kirkpatrick evaluation model was conducted within the learning process of the Entrepreneurship course. The learning schedule was aligned with the credit weight of the course. The results of the data analysis on the learning process, utilizing the Kirkpatrick evaluation model in the Entrepreneurship course, are elaborated across four evaluation aspects. An analysis was performed for each aspect to obtain information about students' competencies in the Entrepreneurship course. The data gathered for each evaluation level employed different assessment methods.

#### **Reaction Evaluation**

Success in a learning program or course is reflected in student satisfaction regarding the teaching techniques, educational media, and assessment practices. Partner (2009) contends that the interest, attention, and motivation of learners are crucial, as people learn more effectively when they have a positive response to their learning surroundings. Thus, the accomplishment of educational goals is inherently linked to student engagement and motivation during the process. Learning improves when students view the environment positively. To gauge satisfaction, students provided feedback on specific aspects, including course content, facilities, the lecturer's presentation style, and the instructional media provided.

Figure 1 illustrates the student happiness levels in relation to the educational process. The data reveals that for the Management class (A), 57.08% of students rated the learning process as very satisfactory, 28.05% as satisfactory, 8.65% as less satisfactory, and 3.27% as unsatisfactory. For the Accounting class (B), 48.39% of students rated the learning process as very satisfactory, 29.03% as satisfactory, 6.45% as less satisfactory, and 3.23%



as unsatisfactory.

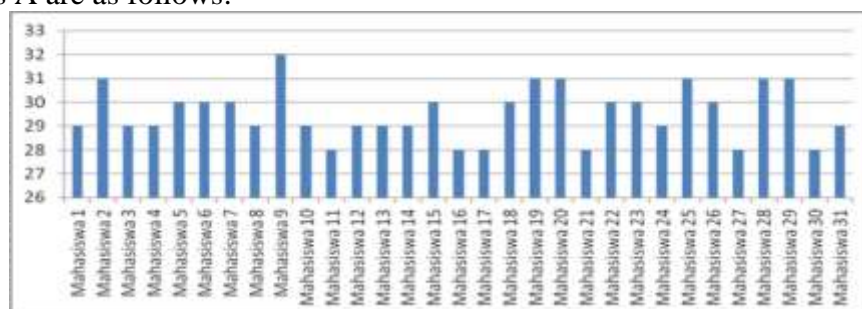
**Figure 1. Results of the evaluation of student reactions to the implementation of learning**

### Learning Evaluation

To assess aspects of student learning processes and outcomes that conventional testing overlooks, alternative forms of evaluation are essential. One such form is performance assessment, which engages students in real-world tasks that yield constructive feedback and are deeply meaningful for developing their potential. Experts have critiqued the reliance on traditional paper-and-pencil tests in learning, noting that they measure only subject-matter knowledge and do little to advance students' course-specific competencies.

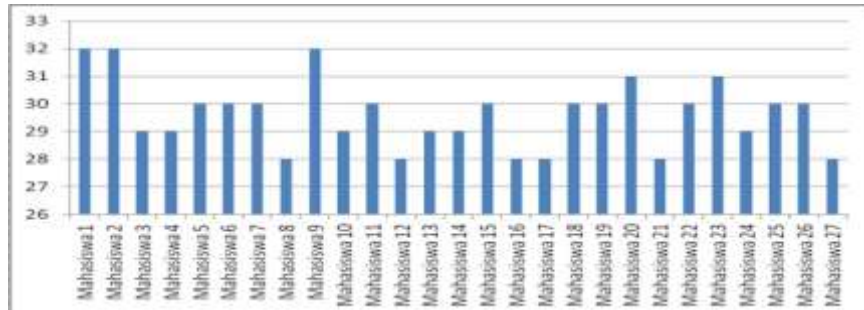
To gauge how effective a learning program is, a learning evaluation must be performed. Such an evaluation concerns three dimensions: changes in student attitudes, improvements in their knowledge, and enhancements in their skills. A lack of change in these aspects indicates that learning has not been successful. Since learning evaluation predominantly assesses outcomes, performance assessment is the method used to evaluate the knowledge gained, attitude adjustments, and skills developed.

Each student is individually evaluated on their knowledge, attitudes, and skills. The evaluation rubric yields a highest possible score of 32 and a minimum of 8. The scores for students in Class A are as follows:



**Figure 2. Learning Evaluation Results for Class A Students through Performance Assessment**

The average student score is 29.55, which is equivalent to 92.33%. This indicates that the competency of Class A students in the Entrepreneurship course is highly satisfactory.



Meanwhile, the scores for Class B students are as follows:

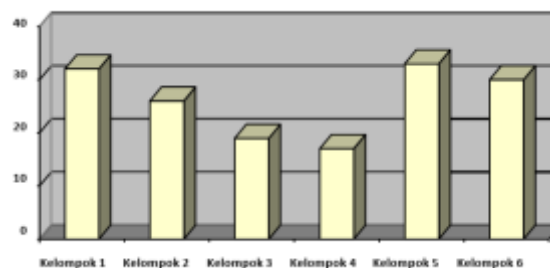
**Figure 3. Learning Evaluation Results for Class B Students through Performance Assessment (the average student score is 29.63, which is equivalent to 92.59%)**

### Behavior Evaluation

In the Entrepreneurship course, behavior evaluation centers on changes in how students act in relation to the benefits of the material. Success is measured by students' ability to implement entrepreneurial principles using simulations and case studies that reflect MSME business phenomena from daily life.

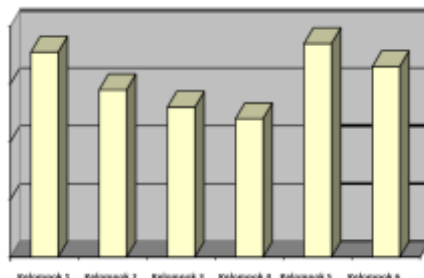
This evaluation stage is conducted by assessing student work in the form of business plans derived from entrepreneurial concepts related to the phenomena of MSME businesses in daily life. To evaluate student outcomes, an assessment instrument is established that can assess student performance related to the application of entrepreneurial concepts. In this evaluation section, the researcher uses a group presentation assessment rubric to obtain an overview of the application of entrepreneurship concepts.

The assessment of student business plans, in the form of proposals/applications for business planning that apply entrepreneurial concepts, is conducted in groups. The results displayed in Figure 3 depict the outcomes of the six student groups in Class A. The data was obtained through observation while student groups presented the proposals they had created. The assessment was carried out based on the prepared rubric, and the results were then compiled as illustrated in Figure 3. The rubric has a range from 0 to 36, with 36 being the top score. The scoring aligns with the criteria outlined in Table 2 for each aspect. Students were evaluated across ten aspects of their presentations, which focused on implementing entrepreneurial concepts in real-life or business contexts. Scores ranged from a high of 33 to a low of 22, with an average score of 27.83.



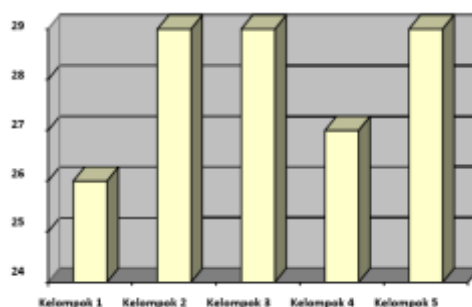
**Figure 4. Group Scores for Business Plan Proposal Assessment of Class A Students**

Meanwhile, the average for each assessment aspect of Class A students' proposals is shown in Figure 5.



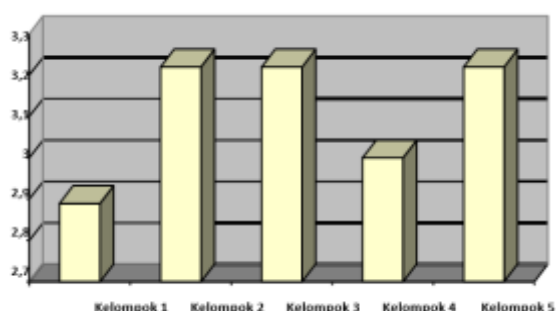
**Figure 5. Average Assessment Results of Class A Students' Proposals for Each Aspect**

Employing an identical methodology, a comparable assessment was carried out for Class B to collect data concerning student performance in applying entrepreneurial concepts to daily life or alternative business phenomena. For all groups, the evaluation across ten aspects revealed that the highest score was 29, the lowest score was 26, and the average score was 28. An overview of the scores for the student proposals related to the application of entrepreneurial concepts is shown in Figure 6.



**Figure 6. Group Assessment Scores for Student Proposals in Class B**

In the meantime, Figure 7 illustrates the mean score for each category of the proposal evaluation for students in Class B.



**Figure 7. Average Group Assessment Results for Student Projects in Class B**

#### 4.2. Discussion

The outcomes of the data analysis demonstrate that the Entrepreneurship course program successfully adopted the Kirkpatrick evaluation model, offering a thorough assessment of the students' abilities. The level of student understanding of the material taught in the Entrepreneurship course is highly satisfactory (very high). Information about students' abilities

was obtained from their final grades. This is because the evaluation model used is able to encompass all aspects of each student's performance. Moreover, the assessments applied are not limited to written tests but are also based on performance evaluations.

Given that the Entrepreneurship course heavily involves business canvases and case studies (business simulations), it is deemed necessary to implement business planning as a supporting tool in entrepreneurial learning activities. In this study, the learning activities incorporated MSME Business Canvases as one of the simulation tools. The utilization of business plans was also evaluated among students, which falls under Level 1 of the Kirkpatrick Model evaluation.

The research findings illustrated in figure 1 indicate that, overall, students are satisfied with or approve of the implemented learning model. Overall, the acquired data suggest that the Kirkpatrick evaluation model can be effectively applied to evaluate the Entrepreneurship instructional program. This is due to the model's capacity to capture changes in student attitudes, behaviors, skills, and end results within the course. Furthermore, students have begun to feel more confident in expressing their talents and potentials. They perceive that any effort related to the course or entrepreneurial concepts will be recognized and evaluated accordingly.

These findings align with recent studies indicating that the Kirkpatrick Model is effective for evaluating learning in higher education. Badu (2012) reported that using the four levels of Kirkpatrick in learning evaluation provides a comprehensive overview of the learning process, competency achievements, and behavioral changes among learners. Additionally, Suratno et al. (2018) emphasized that applying the Kirkpatrick model in educational program evaluation enhances the accuracy of learning outcome measurements, as each level has distinct yet complementary assessment indicators.

The evaluation for the Entrepreneurship course, which involves case study simulations and business canvases, whether related to business phenomena or daily life which should ideally employ an evaluation model capable of influencing students' attitudes or behaviors toward the subject's characteristics. Lecturers can modify existing rubric models to better align them with the course's specific features.

Program evaluation should ideally be conducted by each lecturer or institutionally at the study program level. This practice aims to improve the learning process and further develop students' talents and potential. The four-level Kirkpatrick evaluation model is highly effective for collecting detailed information from students. Each level employs distinct assessment methods, and performance-based evaluation proves especially useful in helping students consistently showcase their full range of abilities. The use of performance assessment in entrepreneurship education is further supported by recent research, which indicates that authentic assessment measures student competencies more representatively compared to written tests. Machsunah et al. (2023) state that assessment instruments based on the Business Model Canvas can reveal students' conceptual understanding more deeply, particularly in aspects of business planning and entrepreneurial decision-making. This reinforces the findings of this study that performance assessment is a crucial instrument for developing students' entrepreneurial skills.

The first Kirkpatrick level (Student Reaction) in the Entrepreneurship course evaluates student satisfaction with course materials, the lecturer's delivery quality, and the learning media used. Consequently, this stage centers on gauging learner contentment. The second level assesses cognitive learning aspects, where students' knowledge and abilities are measured via performance evaluation to uncover their full range of talents and potential. At this level, criteria are clearly defined. For conceptual understanding, the criterion "Demonstrates understanding of Entrepreneurial concepts and the accuracy of the material" measures how well students grasp course content. This mastery is crucial for future tasks like business plan development and

simulations.

The third level of the Kirkpatrick evaluation model is crucial for the Entrepreneurship course program, as it measures students' ability to apply entrepreneurial concepts to cases related to MSME (Micro, Small, and Medium Enterprises) business phenomena or daily life situations. In the Entrepreneurship course, students are given the opportunity to create a business canvas related to simulations, apply entrepreneurial concepts, and then deliver presentations. The presentation results provide information on the extent of students' mastery of the concepts they have learned. At the behavior level, changes in attitude and the application of competencies in real-world contexts indicate the success of the learning process. Research on other educational program evaluations using the Kirkpatrick Model demonstrates that assessments at the learning and behavior levels can capture changes in participants' competencies within an applicative context. This supports the finding that students are able to apply entrepreneurial concepts in practical tasks and simulations (Suratno et al., 2018).

The last stage of the Kirkpatrick evaluation model for the Entrepreneurship course focuses on final exam performance as a measure of academic achievement. Student success is most clearly demonstrated at the third level, where evaluation extends first-level criteria by requiring concept application through tools like business simulations and the business model canvas. Students create simulation models for a business phenomenon or a daily life phenomenon by applying entrepreneurial concepts. The results obtained through group assignments are then presented as one of the assessment aspects in the established rubric. Evaluating the learning process is the main aspect for understanding all the capabilities possessed by each student or learner. The Kirkpatrick evaluation model provides lecturers or educators with the convenience to conduct a comprehensive evaluation of students' potential. The Entrepreneurship course, characterized by business simulations and business canvas modeling, requires an evaluation model capable of thoroughly exploring student performance.

The research results indicate that the application of the Kirkpatrick Model in evaluating the Entrepreneurship course is not only effective in measuring student reactions and learning but also reflects behavioral changes and outcome achievements after the learning process. This aligns with findings from other studies showing the effectiveness of the Kirkpatrick Model in the context of comprehensively evaluating learning programs through its four evaluation levels (Effendi et al., 2022), which cover reactions, learning, behavior, and results among participants. It is also consistent with findings from evaluations of entrepreneurship training programs that show improvements in participants' attitudes, knowledge, and behavior in entrepreneurial practice (Liliana & Dwikurnaningsih, 2020).

Further, research applying the Kirkpatrick Model to field practice learning programs also reports that all four evaluation levels can comprehensively capture changes in participants' knowledge and experience, reinforcing the relevance of this model in higher education and professional learning contexts (Sari & Solichin, 2023). Although the Kirkpatrick Model is often used in non-academic training, other literature reviews state that it can still be employed to measure the impact of formal education holistically, despite existing limitations in the context of causal relationships between levels that need consideration in higher education research (Bates, 2004). Thus, using the Kirkpatrick Model in the context of an Entrepreneurship course provides a broader evaluation perspective, covering aspects from students' initial motivation to the observable impact of concept application, both at the behavioral level and in final learning outcomes.

Using the Kirkpatrick model's four evaluation levels in the Entrepreneurship course yields an overall profile of student proficiency. A student's command of the subject can be assessed

through various facets using multiple assessment systems. A diverse assessment framework reveals students' complete potential and skills relative to all course indicators. Moreover, the rubrics employed across the Kirkpatrick levels motivate learners to display everything they know about the competencies covered. To gain a full overview of student competencies, the learning process should be designed with consideration for both the evaluation model and the forms of assessment utilized.

A well-designed assessment process capable of illuminating every aspect of student potential promotes an engaged and effective learning environment. Students consequently direct their energy toward problem-solving and clearly communicating their knowledge of the subject. Regarding the Entrepreneurship course, which involves the use of business canvases for business simulations, assessments of business feasibility studies or performance are highly necessary. A evaluation method that heavily depends on written exams may find it challenging to assess how well students have mastered the skills required in this class. Lecturers in higher education serve the evaluative function of assessing whether established goals and materials have been achieved. In their role as assessors of learning outcomes and processes, they must consistently track student advancement. This monitoring yields feedback on the instruction delivered, enabling lecturers to enhance their teaching practices and achieve greater learning effectiveness.

For the Entrepreneurship course, lecturers can conduct evaluation both during and after the instructional process. This assessment should be based on the competency levels students have attained. To be effective, evaluation must be an ongoing practice. Limiting assessment to the end of the term may fail to capture the progress made throughout the course. The evaluation process should be designed to yield information on the attainment of learning objectives and to reveal student intelligence across cognitive, affective, and psychomotor domains.

The Kirkpatrick evaluation model and accompanying rubrics have elicited a positive student response, demonstrated through the high standard of individual and group outputs. Academic evaluations further confirm positive results, indicating that program effectiveness is closely tied to learner feedback and achievements. Therefore, evaluators must consider desired outcomes, target learners, and the scoring rubric during the assessment process.

The research findings indicate that the Entrepreneurship course successfully implemented the Kirkpatrick evaluation model effectively, assessing students' competencies ranging from reaction, learning, and behavior, to results. Students' understanding of the material, measured through final grades and performance evaluation, was in the very high category. The combination of written exams, business canvas simulations, and case studies enabled a comprehensive assessment of students' knowledge, skills, and attitudes. Students demonstrated increased confidence in expressing their entrepreneurial potential and recognized that their efforts in the course were being evaluated in a meaningful way.

However, achievements at the results level may be influenced by external factors beyond the course itself. These factors include prior entrepreneurial experience, access to resources or mentors, social networks, and exposure to real business environments. For example, students who were already involved in family businesses or entrepreneurial communities tended to be more successful in simulations and practical assignments, even when classroom instruction was the same. Economic conditions or the availability of startup funding could also affect their motivation and ability to apply the skills learned. Awareness of the influence of these external factors is important for understanding evaluation outcomes and designing interventions that bridge classroom learning with real-world application.

Beyond the main finding that the Kirkpatrick evaluation model is effective in assessing the reaction, learning, behavior, and results aspects of entrepreneurship learning, it is also important

to consider external factors that may influence students' achievements outside the classroom context. This is in line with the findings of Febyanti et al. (2022) which show that self-efficacy, family environment, and entrepreneurship education significantly influence students' entrepreneurial intentions. This indicates that students' social environment and personal characteristics also determine overall entrepreneurship learning outcomes, including the final results measured in the Kirkpatrick model.

Based on these findings, there are several practical implications for curriculum development and instructional design. First, it is important to incorporate learning components that strengthen self-efficacy and family support, for example by involving parents or mentors in the entrepreneurship learning process. Second, the integration of technology-based learning, such as e-commerce and digital business tools, can enhance students' applied skills while also expanding the learning context beyond the classroom. Third, project-based formative assessment and collaboration with industry partners or MSME communities can help students apply concepts in real settings, so that achievement outcomes more accurately reflect their actual competencies. Thus, in addition to the Kirkpatrick evaluation model, a holistic curriculum approach needs to consider external factors and broader learning experiences so that learning outcomes truly reflect students' readiness in the context of real-world entrepreneurship. Accordingly, although the Kirkpatrick model is effective in assessing various aspects of student learning, a comprehensive curriculum approach needs to consider external factors, continuous assessment, and practical learning opportunities to ensure that students are able to effectively apply entrepreneurial concepts outside the classroom.

## **5. Conclusion**

The evidence presented leads to the conclusion that the implementation of the Kirkpatrick Model evaluation in the Entrepreneurship course learning program has proven to be highly effective in revealing students' abilities, particularly concerning the achievement of course competencies. Through the application of this evaluation, students are expected to be able to develop at least one business canvas or business plan as an application of entrepreneurship concepts, especially within the context of MSMEs and business simulations. The course's characteristics serve as the primary basis for determining the learning evaluation tool, as it relates to efforts to uncover all talents and potentials possessed by students.

Furthermore, students' understanding of a course cannot be optimally measured through traditional or written tests alone, making performance assessment a more comprehensive alternative for determining students' overall abilities. The use of assessment rubrics in performance evaluation can also foster more active and creative learning. In the learning process, the role of instructors who possess good teaching abilities and can conduct effective evaluations is essential, as evaluation activities are an inseparable part of learning program planning. The evaluation of the learning process must also be conducted comprehensively, covering both the learning process and student learning outcomes, so that students' abilities regarding the course competency indicators can be identified more accurately.

The use of the Business Model Canvas in entrepreneurship learning is also supported by research indicating that the BMC can develop students' entrepreneurial mindset through indicators such as motivation, decision-making, and practical entrepreneurial behavior in both online and face-to-face learning (Hanoum, 2024; Nurseto et al., 2024). This demonstrates that the BMC functions not only as a business planning tool but also as a pedagogical instrument to motivate students to comprehensively understand business dynamics, making it relevant for integration into simulation-based learning evaluation.

The theoretical implications of this research indicate that the Kirkpatrick Model evaluation can provide comprehensive information on how to assess students' abilities holistically. Meanwhile, practically, the Kirkpatrick Model evaluation can serve as an alternative for instructors to gain a more accurate overview of students' abilities, both in the Entrepreneurship course and in other courses with similar characteristics. The results of this study also show that the implementation of the Kirkpatrick Model evaluation in the learning process of the Entrepreneurship course in the Management and Accounting Study Programs, Faculty of Economics and Business, Universitas Wijaya Kusuma Surabaya, can enhance the effectiveness of student learning activities and explore student abilities through MSME business simulation activities. This research is expected to positively impact the development of learning evaluations in other courses, particularly those with practical and applied characteristics. Assessments in each learning process need to be conducted variably to optimally depict students' potential, ultimately improving overall student learning outcomes.

This research was conducted by following the stages or levels of the Kirkpatrick Model evaluation but still has several limitations. These limitations include the research sample size consisting of only two classes, thus limiting the scope of generalizing the results. Additionally, the observation process for each aspect within the assessment rubric and the number of students sampled also influenced the limitations of this study. This research was only conducted in the Management and Accounting Study Programs, Faculty of Economics and Business, Universitas Wijaya Kusuma Surabaya, with a sample size of 60 students. Therefore, future research is hoped to be conducted on a broader scale, both in terms of population size and sample size, so that the obtained results are more representative and can be generalized more widely.

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