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FnB CLASS.COM PLATFORM DIGITAL-BASED INTERACTIVE LEARNING MEDIA TO ENHANCE TABLE SETTING COMPETENCY IN VOCATIONAL HOSPITALITY EDUCATION

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Abstract

Table setting is a foundational competency in Food and Beverage (F&B) Service, yet conventional media in vocational hospitality classrooms offer limited opportunities for repeated, feedback-rich practice. This study aimed to develop FnB Class (fnbclass.com), a web-based interactive learning platform that combines structured materials, a drag-and-drop table set-up simulator, assessment, and teacher monitoring, and to examine its feasibility. The platform was developed through the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). Feasibility was evaluated with a 14-indicator, five-point questionnaire completed by 43 eleventh-grade hospitality students from two classes at SMKN 32 Jakarta, after expert validation (media 84%, material 87%). Data were analysed descriptively using the mean, standard deviation, and percentage of the ideal score. The platform obtained an overall mean of 4.58 (91.7%), categorised as very feasible; indicator means ranged from 4.21 to 4.74, with the highest scores for interest in using the media and the medium as a source of knowledge. Material presentation scored lowest (84.2%) and is the main priority for revision. Ratings differed between the two classes (97.2% and 85.3%). The findings support FnB Class as a feasible digital medium for table-setting instruction; the study addresses feasibility only, not learning effectiveness.

Keywords: ADDIE model; digital learning media; media feasibility; table setting; vocational hospitality education

INTRODUCTION

Vocational hospitality education prepares learners for operational roles in hotels and restaurants, and Food and Beverage (F&B) Service is one of its core competencies. Table setting, the preparation of covers, cutlery, glassware, linen, and service equipment according to the menu and the style of service, is among the first practical skills that learners must master. It is taught together with napkin folding, meal service styles, and table manners in F&B Service courses (Hastuti et al., 2024). Accuracy at this stage underpins hygiene, service quality, and the first impression that guests receive, which is why table setting is treated as a gateway skill for later service competencies.

Practice-oriented subjects such as table setting depend on physical laboratories, complete sets of tableware, and limited instructor time. Learners therefore receive few repetitions, and corrective feedback usually arrives only when the teacher can observe each learner. Simulation and game-based approaches are often proposed to widen practice opportunities, but Koelling et al. (2020) noted that evidence on the effectiveness of simulation in hospitality education remains limited and is complicated by inconsistent learner assessments. Digital media can relax some of these constraints by allowing learners to rehearse independently, at their own pace, and outside the laboratory (Gunawan et al., 2025).

The wider literature on digital technology in vocational education is encouraging. Zhang et al. (2024) surveyed 424 vocational students and found that digital technology usage was positively related to student satisfaction, with learning experience and learning engagement acting as mediators. A systematic review of multimedia tools reported that such tools can make abstract concepts concrete and can give teachers insight into where each learner stands (Abdulrahaman et al., 2020). Studies in Indonesian vocational schools have likewise developed web-based modules and examined their effect on academic performance and retention (Tarigan et al., 2023; Yanto et al., 2023). At the same time, Alenezi et al. (2023) reminded that integrating digital education brings challenges, so that the design and quality of the medium matter as much as the technology itself.

Within hospitality education, digital innovations take several forms. A gamified course raised student engagement and satisfaction in a quasi-experimental comparison, although assessment performance did not differ between the gamified and non-gamified terms (Hadinejad & Zare, 2024). Virtual reality (VR) has been reviewed as a promising environment for practising hospitality skills (van der Meulen & de Vries, 2023, 2025), and a systematic review of 13 studies concluded that VR can improve engagement, conceptual understanding, and technical skills in table service (Gunawan et al., 2025). VR, however, typically requires specialised hardware. More modest media have also been produced for food-service subjects, such as a flipbook on table set-up (Hastuti et al., 2024) and a mobile menu book (Gunawan et al., 2023), but these mainly deliver content. Browser-based media that combine structured materials, a practice simulator, assessment, and teacher monitoring in one controlled system are still rarely documented for table setting.

FnB Class (https://fnbclass.com) was developed by the Family Welfare Education (PKK) study program of Universitas Negeri Jakarta as a closed learning platform for F&B Service. It offers structured materials, a drag-and-drop table set-up simulator, evaluation, and monitoring of learner competence in one system. This article reports how the platform was developed with the ADDIE model and how feasible it is according to eleventh-grade hospitality students who used it. Three research questions guide the study: (1) How was FnB Class developed through the ADDIE stages? (2) How feasible is the platform according to expert validation and students' ratings on 14 indicators? (3) Which aspects should be prioritised for revision? The study is limited to the feasibility of the medium; it does not test learning effectiveness.

LITERATURE REVIEW

Table-Setting Competency in Vocational Hospitality Education

In this study, table-setting competency is understood as the combination of (a) knowledge of cover types, service styles, and the function of each piece of equipment, (b) psychomotor accuracy in positioning items according to standard, and (c) professional attitudes such as hygiene, orderliness, and attention to detail. Instructional media for this competency in Indonesia have so far taken the form of flipbooks (Hastuti et al., 2024), mobile applications for food-service learning (Gunawan et al., 2023), and, more recently, VR for table manners (Gunawan et al., 2025). The first two emphasise knowledge, whereas the psychomotor component, which is the core of table setting, is better served by activities in which learners actively place items and receive feedback.

Interactive Digital Media and Principles of Multimedia Learning

Mayer (2021) reviewed more than 200 experiments and formulated 15 evidence-based principles for multimedia instruction grounded in the cognitive theory of multimedia learning, which holds that people learn more deeply from words and pictures combined than from words alone when the material is designed well. Cognitive load theory adds that novel information is processed in a working memory of limited capacity, so instructional design should manage the processing load imposed on learners (Sweller et al., 2019). These perspectives are directly relevant to the quality indicators that students are asked to judge in digital media: the clarity of text and images, the order of presentation, the clarity of terms and symbols, and the fit of examples. Reviews of multimedia tools also point to benefits for teachers, who can follow learners' positions in the learning process (Abdulrahaman et al., 2020), while Alenezi et al. (2023) warn that challenges accompany digital integration.

Gamification, Simulation, and Feedback

A meta-analysis of gamified learning found small but significant positive effects on cognitive ($g = 0.49$), motivational ($g = 0.36$), and behavioural ($g = 0.25$) outcomes, with effects depending on design choices such as game fiction and the combination of competition and collaboration (Sailer & Homner, 2020). A further meta-analysis integrated quantitative studies to clarify when, where, and how gamification should be used in education (Huang et al., 2020). In tourism and hospitality, students' intention to use a gamified application depended on perceived benefits, perceived costs, and attitudes toward learning and innovation (Aguiar-Castillo et al., 2020). Hadinejad and Zare (2024) show the other side of the picture: engagement and satisfaction rose, but assessed performance did not differ. Feedback is another mechanism relevant to simulators. A meta-analysis of 435 studies reported a medium average effect of feedback on learning ($d = 0.48$) and a larger impact on cognitive and motor skills than on motivational and behavioural outcomes (Wisniewski et al., 2020). Taken together, these studies suggest that feedback-rich simulation is promising for psychomotor skills such as table setting, while also showing that favourable perceptions do not automatically translate into better performance.

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ADDIE Model and Student Responses as Evidence of Feasibility

The ADDIE model organises instructional development into five phases: analyse, design, develop, implement, and evaluate (Branch, 2009). It is widely used because its phases are generic enough to be applied to many kinds of learning products, and because evaluation can feed back into earlier phases. Learners' responses are one important source of evidence in the evaluation phase. Student experience is related to satisfaction with digital technology (Zhang et al., 2024), and, in a study of 782 higher vocational students, perceived enjoyment was the strongest predictor of the intention to continue using a smart learning platform ($\beta = 0.52$), followed by perceived usefulness ($\beta = 0.38$), whereas system quality alone had no significant effect (Li et al., 2025). Student ratings therefore indicate whether a medium is likely to be accepted and used again, although they are not a substitute for expert validation or learning-outcome data.

Research Gap

Existing table-setting media largely deliver content, VR-based solutions require resources that many vocational schools may not have, and evidence on simulation in hospitality education is still inconsistent. This study addresses the gap by documenting the development of a browser-based platform that integrates materials, a drag-and-drop simulator, assessment, and teacher monitoring, and by reporting its feasibility from the perspective of vocational hospitality students.

METHOD

Research Design

The study used a research and development approach following the ADDIE model (Branch, 2009). The first three phases produced the platform; the implementation phase placed it in real classes; and the evaluation phase collected learners' responses to judge its feasibility. This article concentrates on the implementation and evaluation phases and summarises the earlier phases. Before implementation, the platform was validated by a media expert (Ralibi, M.Pd.) and a material expert (Nur Rahmah, S.Pd., Head of the Hospitality Program at SMKN 70 Jakarta). Table 1 presents the activities and outputs of each phase.

Table 1. ADDIE phases, activities, and outputs in the development of FnB Class

Phase	Main activities	Output
Analysis	Reviewing the learning outcomes for table setting in F&B Service; characterising eleventh-grade hospitality learners; identifying constraints of practice (equipment, practice time, monitoring of learners).	Requirements for materials, simulator, assessment, and monitoring
Design	Structuring a six-level path from the recognition of equipment to fine dining; storyboarding materials, video, and galleries; designing drag-and-drop simulator tasks and the XP and badge scheme; preparing the feasibility questionnaire.	Platform blueprint and instrument
Development	Building the web platform with student, teacher, and administrator roles; producing content; implementing the simulator, evaluation module, and dashboards; setting up controlled access (approval and class codes).	Working platform at fnbclass.com
Implementation	Registering students; using the platform in class with teacher supervision in XI Perhotelan 1 and 2, SMKN 32 Jakarta.	Use by 43 students (6 November 2026)
Evaluation	Expert validation (media expert 84%; material expert 87%); collecting student responses with the 14-indicator questionnaire; descriptive analysis; identifying revision priorities.	Validated platform; feasibility category and revision list

Product Description

FnB Class is a closed learning platform with separate roles for students, teachers, and administrators. According to the platform's public description, it provides (a) a six-level competency path from the recognition of equipment to fine dining; (b) digital materials, video, galleries, and references that can be updated through an

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administrator dashboard; (c) a drag-and-drop table set-up simulator for testing the position of equipment; (d) badges and experience points (XP) that record each learner's level status; (e) a teacher dashboard for managing classes, monitoring activity, reviewing evaluations, and assigning remedial work; and (f) controlled access through administrator approval, teacher approval, class codes, and account status. Assessment is recorded in real time.

Participants and Setting

Participants were 43 eleventh-grade students of the Hospitality program at SMKN 32 Jakarta, drawn from two intact classes: XI Perhotelan 1 (n = 23) and XI Perhotelan 2 (n = 20). Four respondents who had not completed all items were excluded before analysis. The students used the platform in class and completed the questionnaire online on 6 November 2026. Participation was voluntary, responses were analysed anonymously, and no names are reported. The authors are also the developers of the platform, which is a potential source of bias that is acknowledged in the limitations.

Procedure and Ethical Considerations

Students accessed FnB Class through their class codes and used its materials and simulator during class time under teacher supervision. After use, each student completed the questionnaire online, and the responses were exported to a spreadsheet for analysis. Participation was voluntary, no personal identifiers were analysed or are reported, and respondents are referred to only in aggregate. Because the study evaluates a learning medium and collects only opinion data, no intervention beyond normal classroom use was applied to the students.

Instrument

Feasibility was measured with a 14-indicator questionnaire rated on a five-point scale (1 = lowest, 5 = highest). The indicators cover text clarity, image clarity, image appeal, fit with the material, material presentation, ease of understanding the material, systematic order of presentation, sentence clarity, clarity of symbols, clarity of terms, fit of examples with the material, ease of learning, interest in using the media, and the medium as a source of knowledge. For interpretation, the indicators were grouped into four aspects: visual display (indicators 2 and 3), language and readability (1, 8, 9, and 10), content and presentation (4, 5, 6, 7, and 11), and learning benefit (12, 13, and 14).

Expert Validation

Before the student trial, the platform was reviewed by two experts. The media expert, Ralibi, M.Pd., reviewed the display, navigation, and technical quality of the platform. The material expert, Nur Rahmah, S.Pd., Head of the Hospitality Program at SMKN 70 Jakarta, reviewed the accuracy of the table-setting content, its suitability for the learning outcomes of F&B Service, and the clarity of the language used. Each expert expressed the assessment as an average percentage, which was interpreted with the same criteria as the student ratings (Table 2).

Data Analysis

Responses were analysed descriptively using the mean, the standard deviation (SD), and the percentage of the ideal score calculated with Equation (1). The percentage was interpreted with the five-level criteria in Table 2. Only complete responses were analysed, so every indicator has the same number of ratings (n = 43).

$$P = (\Sigma x / (n \times 5)) \times 100\% \quad (1)$$

Table 2. Interpretation criteria for the percentage of the ideal score

Percentage of ideal score	Category
81–100%	Very feasible
61–80%	Feasible
41–60%	Fairly feasible
21–40%	Less feasible
≤ 20%	Not feasible

Internal consistency was estimated with Cronbach's alpha on complete cases and interpreted cautiously, because a very high alpha offers limited evidence of reliability and may indicate redundancy among items (Taber, 2018). The two classes were compared descriptively and, as an exploratory check, with a Mann–Whitney U test on respondents' mean scores. No inferential claim is made about the wider population.

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RESULTS AND DISCUSSION

Development of FnB Class through the ADDIE Phases

Image 1 summarises how the five ADDIE phases were realised for FnB Class. The analysis phase clarified the table-setting learning outcomes, learner characteristics, and practical constraints, and translated them into platform requirements. The design phase organised content into a six-level path, so that learners progress from the recognition of equipment to fine dining, and defined the simulator tasks and the XP and badge scheme. The development phase produced the working platform at fnbclass.com, including the materials, the drag-and-drop simulator, the evaluation module, and the teacher and administrator dashboards. The implementation phase placed the platform in two classes, and the evaluation phase combined expert validation with the student responses. Both are reported below.

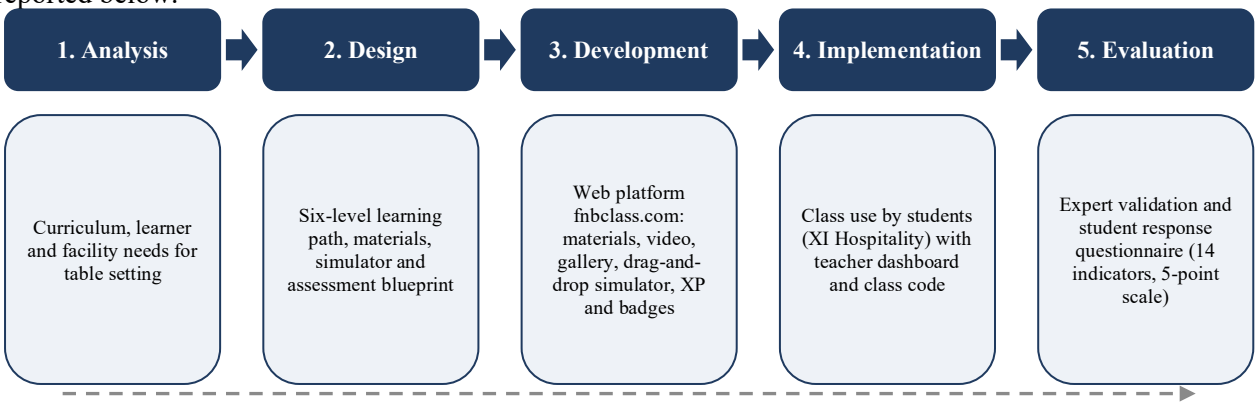


Image 1. ADDIE phases applied to the development and evaluation of FnB Class

Image 2 shows two interfaces of the platform. Panel (a) is the public page, which identifies FnB Class as a closed learning platform for hospitality education, offers separate registration for students and teachers, and summarises the six-level learning path and real-time assessment. Panel (b) shows the table set-up simulator for the guided Basic Cover scenario. The learner reads the instruction and a model image, then drags items from the equipment drawer, which is grouped by category (spoon, fork, glass, plate, knife, napkin, and cup), onto the dashed placement zones on the table; items can also be clicked to rotate or flip them. A checklist lists the seven required items, a timer and a hint counter are displayed, and the learner can reset, request a hint, open a guide, or submit the arrangement for checking. The task header states the passing criterion as an accuracy of at least 80% within a target time of 120 seconds.

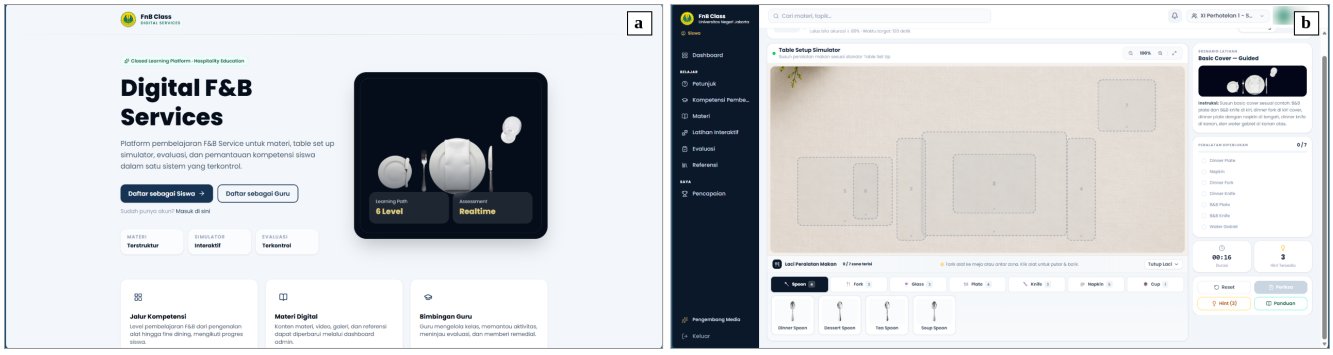


Image 2. Interface of FnB Class: (a) public landing page before login and (b) the table set-up simulator (Basic Cover, guided) with the equipment drawer

Read against the literature, several design features correspond to recognised principles. The staged path is consistent with the idea of managing the information that learners must process at any one time (Sweller et al., 2019). Combining text, images, and video follows the multimedia approach described by Mayer (2021). The simulator can give learners feedback on the position of each item, a feature that is promising for motor skills (Wisniewski et al., 2020). Badges and XP are gamification elements that have shown positive effects on learning outcomes in meta-analyses (Sailer & Homner, 2020). The teacher dashboard addresses the benefit of monitoring learners' progress noted by Abdulrahaman et al. (2020). These correspondences describe the design rationale; they do not, by themselves, demonstrate that each feature produces a learning effect in this study.

Feasibility According to Expert Validation and Student Ratings

Expert validation gave favourable results. The media expert's average was 84% and the material expert's average was 87%; both fall in the very feasible category (Table 2), with the material expert's assessment slightly higher than the media expert's. This suggests that the content was judged somewhat more favourable than the display and technical quality, which is consistent with the student data, where the visual-display aspect was the lowest of the four. Table 3 presents the results for the 14 indicators. The overall mean was 4.58 (SD = 0.88 across 602 ratings), equal to 91.7% of the ideal score, which falls in the very feasible category. The mean of respondents' individual averages was 4.58 (95% CI [4.35, 4.81]). All 14 indicators were in the very feasible category, with means from 4.21 to 4.74. Across all ratings, 75.2% were 5 and 90.7% were 4 or 5.

Table 3. Student ratings of FnB Class on 14 feasibility indicators (N = 43; scale 1–5)

No.	Indicator	n	Mean	SD	% of ideal	Category
1	Text clarity	43	4.51	1.05	90.2	Very feasible
2	Image clarity	43	4.47	1.05	89.3	Very feasible
3	Image appeal	43	4.58	0.76	91.6	Very feasible
4	Fit with the material	43	4.63	0.98	92.6	Very feasible
5	Material presentation	43	4.21	0.71	84.2	Very feasible
6	Ease of understanding the material	43	4.58	0.98	91.6	Very feasible
7	Systematic order of presentation	43	4.65	0.78	93.0	Very feasible
8	Sentence clarity	43	4.56	0.96	91.2	Very feasible
9	Clarity of symbols	43	4.58	0.91	91.6	Very feasible
10	Clarity of terms	43	4.65	0.84	93.0	Very feasible
11	Fit of examples with the material	43	4.65	0.92	93.0	Very feasible
12	Ease of learning	43	4.65	0.81	93.0	Very feasible
13	Interest in using the media	43	4.74	0.69	94.9	Very feasible
14	Medium as a source of knowledge	43	4.70	0.74	94.0	Very feasible
	Overall	**602**	**4.58**	**0.88**	**91.7**	**Very feasible**

The highest-rated indicators were interest in using the media (M = 4.74; 94.9%), the medium as a source of knowledge (M = 4.70; 94.0%), and ease of learning (M = 4.65; 93.0%). The lowest were material presentation (M = 4.21; 84.2%), image clarity (M = 4.47; 89.3%), and text clarity (M = 4.51; 90.2%). Image 3 shows that the learning-benefit indicators clustered at the upper end, while the presentation and visual indicators were comparatively lower.

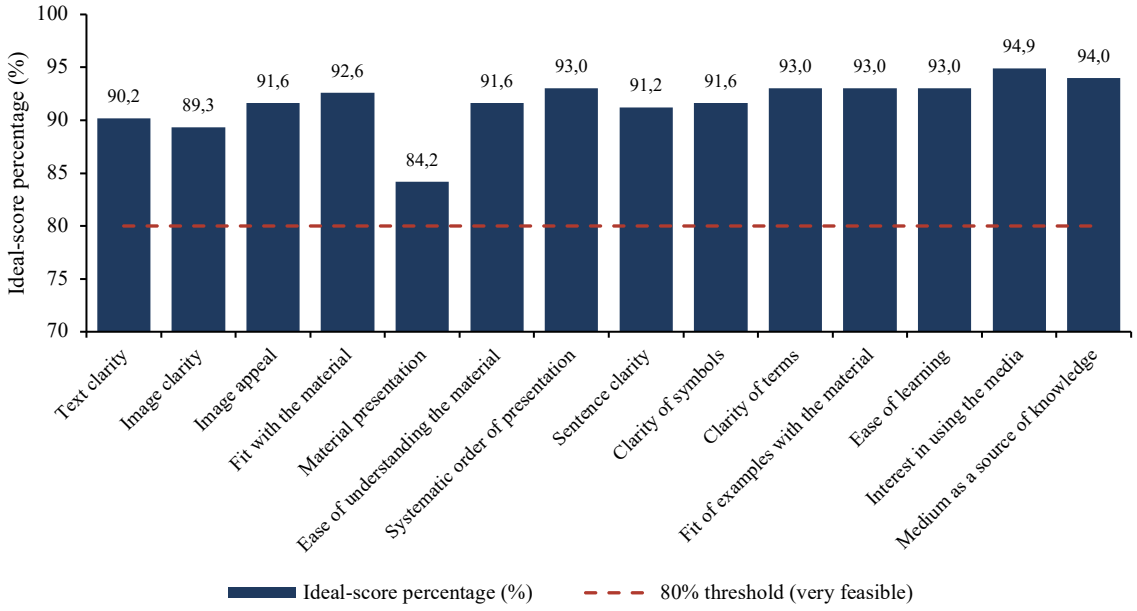


Image 3. Percentage of the ideal score for the 14 indicators (vertical axis begins at 70%)

Feasibility by Aspect and Class, and Data Quality

Table 4 shows that the four aspects were similar, ranging from 90.5% (visual display) to 94.0% (learning benefit). The two classes differed more clearly. XI Perhotelan 1 rated the platform at 97.2% (M = 4.86, SD = 0.52), whereas XI Perhotelan 2 gave 85.3% (M = 4.26, SD = 1.08); both fall in the very feasible category, but the second class was more heterogeneous. The difference in respondents' mean scores was not statistically significant in the exploratory test (U = 286.5, p = .156) and should be read as descriptive.

Table 4. Feasibility by aspect and by class

Group	n (ratings)	Mean	SD	% of ideal	Category
By aspect					
Visual display (indicators 2–3)	86	4.52	0.92	90.5	Very feasible
Language and readability (1, 8, 9, 10)	172	4.58	0.94	91.5	Very feasible
Content and presentation (4, 5, 6, 7, 11)	215	4.54	0.89	90.9	Very feasible
Learning benefit (12, 13, 14)	129	4.70	0.75	94.0	Very feasible
By class					
XI Perhotelan 1 (23 students)	322	4.86	0.52	97.2	Very feasible
XI Perhotelan 2 (20 students)	280	4.26	1.08	85.3	Very feasible
Overall					
All 43 students	602	4.58	0.88	91.7	Very feasible

Table 5 shows the indicator-level means by class. XI Perhotelan 1 gave a mean of 4.74 or higher on 13 of the 14 indicators, with several at the maximum of 5.00. XI Perhotelan 2 gave means between 3.95 and 4.50. The gap was widest for text clarity (5.00 vs. 3.95), clarity of symbols (5.00 vs. 4.10), fit of examples with the material, systematic order, and clarity of terms (all 5.00 vs. 4.25). Material presentation is the exception: the two classes rated it similarly (4.17 vs. 4.25), which suggests that this indicator reflects a shared perception rather than a class-specific one.

Table 5. Mean ratings per indicator by class

No.	Indicator	XI Perhotelan 1	XI Perhotelan 2	Difference
1	Text clarity	5.00	3.95	+1.05
2	Image clarity	4.74	4.15	+0.59
3	Image appeal	4.87	4.25	+0.62
4	Fit with the material	4.83	4.40	+0.43
5	Material presentation	4.17	4.25	-0.08
6	Ease of understanding the material	4.83	4.30	+0.53
7	Systematic order of presentation	5.00	4.25	+0.75
8	Sentence clarity	4.83	4.25	+0.58
9	Clarity of symbols	5.00	4.10	+0.90
10	Clarity of terms	5.00	4.25	+0.75
11	Fit of examples with the material	5.00	4.25	+0.75
12	Ease of learning	4.87	4.40	+0.47
13	Interest in using the media	4.96	4.50	+0.46
14	Medium as a source of knowledge	4.96	4.40	+0.56

At the respondent level, 35 of 43 students (81.4%) had an average in the very feasible range, 6 (14.0%) in the feasible range, 2 (4.7%) in the less feasible range, and none in the not feasible range. The lowest averages were 1.86, 1.93, and 3.07, all from XI Perhotelan 2. Cronbach's alpha was .97 (n = 43). Following Taber (2018), such a high value should not be read as proof of a well-validated scale: it more likely reflects the tendency of respondents to rate all indicators similarly, which is typical of ceiling-level evaluations.

Discussion

Overall feasibility. The results indicate that students regarded FnB Class as very feasible, and the strongest ratings concerned motivation and learning ease rather than technical quality. This pattern is compatible with evidence that digital technology usage is associated with student satisfaction through learning experience and engagement (Zhang et al., 2024) and that enjoyment and perceived usefulness are central to continued use of learning platforms (Li et al., 2025). It is also compatible with the small positive motivational effects reported for gamification (Sailer & Homner, 2020). Because the questionnaire did not isolate individual platform features, however, the present data cannot attribute the high ratings to the simulator, the badges, or any other single component.

Aspect-level reading. The four aspects were rated almost equally, which indicates that no single dimension of the medium was a weak point. Learning benefit was highest (94.0%), followed by language and readability (91.5%), content and presentation (90.9%), and visual display (90.5%). The ordering is consistent with the view that the perceived value of a digital platform rests more on the experience it gives learners than on its technical qualities alone (Li et al., 2025). The visual-display aspect was marginally the lowest and deserves attention, because images carry much of the information in table setting, where learners must see the exact position, orientation, and spacing of each item (Mayer, 2021).

Scope of the evidence. This article concerns the feasibility of the medium only. The ratings reflect students' perceptions of clarity, suitability, and ease of learning; they do not test learning effectiveness, and no claim is made about changes in competency. Hadinejad and Zare (2024) found higher engagement and satisfaction in a gamified hospitality course without a difference in assessed performance, which is a reminder that favourable perceptions and learning outcomes are distinct questions. Feasibility evidence is nevertheless a necessary step before a medium is used more widely, and it shows which parts of the medium need to be revised first.

Material presentation as the main revision priority. Although it was still in the very feasible category, material presentation was the lowest indicator overall, and the two classes rated it almost identically (M = 4.17 in XI Perhotelan 1; M = 4.25 in XI Perhotelan 2). Image clarity and text clarity followed. From the perspective of multimedia learning and cognitive load, these indicators point to the density, pacing, and visual quality of the content rather than to its accuracy, since fit with the material (92.6%) and the order of presentation (93.0%) were rated high. Table 6 summarises the evidence and the revisions proposed, which draw on the principles reviewed by Mayer (2021) and Sweller et al. (2019).

Table 6. Revision priorities derived from student ratings

Priority	Evidence from this study	Proposed revision
1. Material presentation	Lowest indicator (M = 4.21; 84.2%); rated similarly by both classes (4.17 and 4.25).	Review the length and density of each level; define key terms before simulation tasks; split long content into shorter units.
2. Image clarity	89.3%; 83.7% of ratings were 4 or 5; XI Perhotelan 2 (M = 4.15) lower than XI Perhotelan 1 (M = 4.74).	Use higher-resolution images, annotated close-ups, and a consistent viewing angle; test display on low-end phones.
3. Text clarity	90.2%; 86.0% of ratings were 4 or 5.	Shorten instructions and use plain wording; add a glossary of service terms.
4. Low-rating respondents	Three respondents in XI Perhotelan 2 with averages of 1.86, 1.93, and 3.07.	Conduct brief interviews and review usage records (device, connectivity, onboarding) before the next implementation.

Differences between classes. The variation in XI Perhotelan 2 deserves follow-up. Several explanations are possible, such as differences in device quality, connectivity, familiarity with the platform, or attentiveness while completing the questionnaire, but this study collected no data that could distinguish among them. Interviews with the low-rating students and a review of the platform's usage records are recommended before the next implementation.

Practical implications. A browser-based simulator is a lower-barrier complement to the immersive VR environments reviewed by van der Meulen and de Vries (2023, 2025) and Gunawan et al. (2025). The two were not compared here, and laboratory practice remains necessary. The controlled access, class-code, and teacher-dashboard features respond to the challenges of integrating digital education emphasised by Alenezi et al. (2023), but their sustained use will also depend on teacher readiness and school infrastructure.

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Recommendations for classroom use. FnB Class is best used as a pre-training and rehearsal tool that precedes, and then runs alongside, laboratory practice: learners study terminology and cover layout in the materials, rehearse placement in the simulator, and only then handle real tableware, so that scarce laboratory time goes to tactile skills, speed, and professional conduct. Teachers can use the dashboard to see who has not progressed through a level and to assign remedial work. This sequence is a recommendation to be tested rather than a finding of this study.

Limitations. The study has several limitations. Data come from one school and two intact classes, and participants rated the medium after a single period of use. Expert validation involved one media expert and one material expert, so expert judgement rests on two reviewers and only average percentages are available, and the study does not test learning effectiveness. Ratings were close to the ceiling, four respondents were excluded for incomplete answers, and the authors developed the platform they evaluated, which may influence interpretation. Future research should therefore (a) include more expert reviewers and report item-level validation results, (b) examine learning effectiveness in a separate study, (c) analyse learning records such as levels, XP, and error patterns in the simulator, and (d) test the platform in several schools and over a longer period to examine retention.

CONCLUSION

FnB Class was developed through the five ADDIE phases as a browser-based platform that integrates a six-level learning path, digital materials, a drag-and-drop table set-up simulator, assessment, and teacher monitoring. Expert validation rated the platform as very feasible (media expert 84%; material expert 87%), and 43 eleventh-grade hospitality students did the same overall ($M = 4.58$; 91.7% of the ideal score), with all 14 indicators in the very feasible category and the highest ratings for interest in using the media, the medium as a source of knowledge, and ease of learning. Material presentation (84.2%), image clarity, and text clarity are the priorities for revision, and the greater variability in one class calls for follow-up with the students concerned. These findings support the use of FnB Class as a feasible digital medium in table-setting instruction. The study is limited to feasibility and does not address effectiveness. Schools and teachers can meanwhile use the platform as a complement to laboratory practice, and developers can use the revision priorities reported here to improve the next version.

NOTATION

P = percentage of the ideal score (%); Σx = total of the scores given by respondents (points); n = number of valid ratings (count); 5 = maximum score per indicator (points); M = mean score (points); SD = standard deviation (points); α = Cronbach's alpha (dimensionless); U = Mann–Whitney statistic; p = probability value.

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