

## Contextualized self-learning modules in food and beverage services on improving the ALS Learners' Performance

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### Abstract

The Contextualized Self-Learning Module (CSLM) is designed to enhance learners' performance by providing practical learning experiences. Despite its significance, integrating the CSLM into the Alternative Learning System (ALS) remains a challenge, as many ALS learners struggle to grasp new concepts due to frequent interruptions and extended periods away from formal education. This study emphasizes exploring the comparative effect of the contextualized self-learning module and the existing learning materials in Food and Beverage Services. Quasi-experimental and developmental research designs were employed, using a modified questionnaire as the primary data collection tool. The study involved respondents from two schools. Findings revealed that the utilization of the contextualized module showed a substantial increase in their performance. A high level of competence was demonstrated in all areas of practical assessment, and all learners reported a strong self-assessed understanding of key competencies. Moreover, learners are satisfied and engaged with the use of contextualized self-learning modules. However, despite these positive outcomes, several challenges were encountered by ALS learners. Some learners pointed out difficulties related to technological constraints, language barriers, particularly with English, and financial limitations. They also encountered minor issues in applying theoretical concepts, often requiring assistance, additional materials, or accommodations.

**Keywords:** CSLM; Food and Beverage Services; Performance; Challenges; ALS Learners

### 1. Introduction

The effectiveness of a Contextualized Self-Learning Module (CSLM) in enhancing the individual performance of the Alternative Learning System (ALS) within the domain of Food and Beverage Services is emphasized in the study. This research aimed to explore how contextualized instructional materials can improve the practical skills and knowledge retention of ALS senior high school learners with diverse educational backgrounds. It also delved into creating a more engaging learning environment that aligns theoretical knowledge with real-world applications in Food and Beverage Services, thereby ensuring skill development and targeting the FBS NC II for greater employability as one of the curricula exits of senior high school in the Department of Education.

Several studies highlighted the importance of contextualized learning in non-traditional settings. Santos [1] carried out the research and established that when learners use modules, engagement rises as well as achievement. Similarly, in connection with classroom contexts, Nasheeda et al. [2] found that educational techniques are associated with improving what students know, in addition to encouraging them to overcome academic difficulties within the formal learning context. Furthermore, Arzadon et al. [3] came up with materials that suit ALS students, and Anduyan [4] proposed the way in which self-efficacy of the blended learning modules and motivation [5] affected student performance.

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Despite the above insights, however, there are significant gaps in current studies on the use of Contextualized Self-Learning Modules (CSLMs) as they apply specifically to ALS programs dealing with Food and Beverage Services. The existing literature examined several aspects of alternative education but still pays little attention to the direct effects of contextualized self-learning on the acquisition of practical skills in the professional field [6]. Moreover, very few empirical studies exist to evaluate the way such modules could be incorporated into ALS curricula and thereby improve the performance of learners in real-life settings.

A survey among the teachers of TVL conducted in the Surigao del Sur Division, Caraga Region, depicts that the teachers showed high competency in fields like Home Economics and ICT, but the teachers had serious problems in the absence of teaching-aid materials. The shortage of such self-learning modules especially inhibits the effective provision of TVL disciplines and restricts the access of the learners to real-life practice, which is essential to vocational education [7]. Also, a study on the establishment of the ALS Senior High School program acknowledged the lack of curriculum guides specially designed to suit ALS learners and the challenges in making a module. The problems further increase because there is a lack of trained ALS SHS teachers and a lack of a lot of resources, which together hinder the success of the program.

In addition, there are some extra issues to deal with because the school curriculum is largely founded upon the one of Senior High School. The current learning system cannot be of much assistance to ALS learners because trying to comprehend the challenging information and fulfill the high writing requirements can be a challenge for them. It makes it even more difficult when students study in technical-vocational fields like Food and Beverage Services because most lesson plans do not suit their environment and learners at all [8].

This study aims to bridge these gaps by providing a targeted analysis of the effectiveness of CSLMs in improving the practical competencies of ALS learners in Food and Beverage Services. By aligning instructional content with real-life vocational tasks and local contexts, the research intends to demonstrate how contextualized learning materials can enhance both engagement and individual performance among ALS Senior High School learners.

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## 2. Material and methods

This study employed a combination of Quasi-Experimental Design and Developmental Research Design to determine the results of the contextualized self-learning module (CSLM) about Food and Beverage Services for ALS senior high school students. The respondents of the study were Alternative Learning System (ALS) senior high school learners in Grade 12 who were trained in Food and Beverage Services.

This study thoroughly investigated ways to include contextualized modules. The researchers adapted an instrument to assess the performance of ALS learners between conventional and experimental groups. On the other hand, a unified and validated questionnaire in Food and Beverage Services in the division of Agusan del Sur had been adopted. To strengthen the questionnaire, it was pre-tested by some students, reviewed by specialists in education and technology integration, and tested for reliability with the help of statistics. The researcher distributed the validated questionnaire to students who were not part of the sample.

Data was analyzed using basic descriptive statistics such as mean and standard deviation to interpret the levels of concern regarding the contextualized self-learning module. Pearson product-moment correlation coefficient to identify the significant relationship between the demographic profile and the use of contextualized learning modules

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## 3. Results and discussion

The data from Table 1 demonstrates a difference in the effectiveness of instructional methods on the theoretical knowledge of the learners. The experimental group that used the contextualized Self-Learning Module (SLM) demonstrated a remarkable gain in competency mastery, with the mean post-test score increasing to 32.6 from a pre-test of 25.8, compared to the control group's modest post-test mean score of 22.3 from a pre-test of 20.8. Specifically, the difference in score gains between the control and experimental group supports the pedagogical advantage of contextualized instruction, which is typically designed to make learning more relevant by integrating real-life applications and learner-centered tasks. Furthermore, the results demonstrate that the contextualized self-learning module was more effective than traditional teaching methods in enhancing theoretical knowledge and potentially preparing students for practical applications in the field. Thus, this supports the integration of CSLMs in technical and vocational education and may serve as a model for improving outcomes in similar programs.

Supporting this finding, educational research states the importance of contextualizing learning resources, which help learners relate theoretical knowledge to practice, leading to enhanced performance [9]. Additionally, self-learning modules enable learners to determine the study pace, which accommodates different learning styles and promotes the ability of independent learning [10]. On the other hand, discussion is still an effective instructional strategy; however, it might not be enough to meet individual learning needs and offer enough practice opportunities, which is a possible reason behind the lesser improvements in the control group.

**Table 1** Learners' Pre-test and Post-test in Theoretical Knowledge Using Contextualized Self-Learning Module that Enhances Knowledge and Skills in Food and Beverage Services

Group	Pre-test		Post-test	
	Mean	SD	Mean	SD
Control	20.8	5.27	22.3	6.37
Experimental	25.8	3.86	32.6	6.82

The findings in Table 2 reveal that the respondents demonstrated a high level of competence in all areas of practical assessment, with an overall mean score of 4.89, indicating an excellent performance. This outcome suggests that ALS learners developed the necessary hands-on skills to perform effectively in real-world Food and Beverage Services settings, likely because of consistent engagement with performance-based tasks. Overall, the data suggests that the instructional program effectively equipped ALS learners with both technical and customer service-related skills, preparing them to meet industry standards with confidence.

Among the skill indicators evaluated, "preparing the dining room" emerged as the area with the highest mean score of 4.92, highlighting the learners' strong ability to carry out customer-facing responsibilities such as responding promptly and accurately to inquiries and asking appropriate questions to complete reservations. The strong performance in this area suggests that ALS learners were able to simulate or experience realistic service scenarios during training, which likely contributed to the mastery of soft skills such as courtesy, attentiveness, and responsiveness. Although "providing food and beverage service" recorded a slightly lower mean of 4.86, it still falls within the excellent category, indicating consistent proficiency in delivering service tasks. This suggests that tasks requiring simultaneous coordination, technical precision, or physical execution may require more time to perfect, or might have posed slightly greater challenges for ALS learners.

These findings align with existing literature highlighting the effectiveness of competency-based learning and hands-on training in Technical-Vocational Education and Training (TVET) programs. As shown by Patiar et al. [11], practical training in the right context greatly enhances learners' ability to use theoretical knowledge when they are working in the hospitality industry. Besides, Siddique et al. [12] note that carrying out practical assessments aids in testing skills and readies learners for starting work. Although guessing what visitors need to score the lowest, the excellent rating shows that the learners have good skills and are almost qualified for the service industry.

**Table 2** Skills Demonstrated in Practical Assessments Using Contextualized Self-Learning Module that Enhance Knowledge and Skills in Food and Beverage Services

Indicators	Mean	Adjectival Rating
Prepare Dining Room	4.92	Excellent
Welcome Guest	4.88	Excellent
Promote Food and Beverage Products	4.90	Excellent
Provide Food and Beverage Services	4.86	Excellent
Provide Room Service	4.91	Excellent
Receive and Handle Guest Concerns	4.89	Excellent
Over-all Mean	4.89	Excellent

Table 3 presents the self-assessment responses of ALS senior high school learners regarding their understanding and perceived mastery of six core competencies in Food and Beverage Services. The data clearly show that 100% of the respondents answered “Yes” for each of the listed competencies, with 0% responding “No” across the listed competencies. This response pattern reflects a very strong level of self-confidence among learners in their ability to perform both technical and service-related tasks.

For Table Setting, ALS learners expressed complete confidence in their ability to professionally organize and prepare dining spaces. This indicates that the instructional activities effectively emphasize key hospitality principles such as cleanliness, proper layout, and service readiness, all of which are foundational to delivering high-quality guest experiences. In the area of Food Preparations, the learners’ responses suggest a strong sense of competence in managing initial customer interactions, including welcoming guests, taking food orders, and promoting menu items. For Customer Service, the data reveals that learners feel fully capable of delivering comprehensive service functions, including providing food and beverage services, room service, and handling guest concerns professionally.

The program helped participants improve their technical side as well as their confidence in serving hospitality the way the industry expects. This follows educational theories that self-evaluation makes learning more independent and helps increase understanding of what a learner can do. In Bandura’s view, people who feel confident in their ability to perform something are more likely to continue working, face difficulties, and achieve the task [13].

Furthermore, in the context of technical vocational education, self-assessment allows learners to reflect on their strengths and areas for improvement, increasing their readiness for employment [14]. The positive self-assessment also supports the effectiveness of learner-centered instructional materials such as contextualized Self-Learning Modules, which encourage engagement and comprehension [15].

**Table 3** Learners’ Self-assessment of Understanding Key Topics

Competencies	Yes	No
Table Setting: Prepare Dining or Restaurant Area of Service	100%	0%
Food Preparations: Welcome Guests and Take Food Orders	100%	0%
Food Preparations: Promote Food and Beverage Products	100%	0%
Customer Service: Provide Food and Beverage Services to Guests	100%	0%
Customer Service: Provide Room Service	100%	0%
Customer Service: Receive and Handle Guest Concerns	100%	0%

The findings in Table 4 reveal that there was no significant relationship between any of the demographic variables and the use of contextualized learning modules, provided that all p-values were larger than the 0.05 level of significance. This result led to the decision to fail to reject the null hypothesis, indicating that learners’ demographic backgrounds did not relate to their usage of the contextualized modules, regardless of whether they were in control or experimental group. This implies that the learning tool was completely accessible and effective across varied learner profiles, highlighting the adaptability of contextualized instructional materials.

These findings are consistent with previous research asserting that well-designed contextualized modules can transcend individual differences, offering equitable learning opportunities to diverse groups of learners. Based on the study of Zhang [16], using learning materials that are simple and relate to the learners equally benefits users from varied backgrounds. Modular learning’s performance is not closely tied to social characteristics, Bacomo et al. [17], meaning that the quality of instruction plays a bigger role in determining results. Thus, we can see that using contextualized modules benefits students since they support many ways of learning, regardless of student diversity.

**Table 4** Significant Relationship between Demographic Profile and the Use of Contextualized Learning Modules

Variables Tested		Computed r	p-value	Decision	Remarks
Pest Control	Sex	0.303	0.395	Failed to reject $H_0$	Not Significant
	Age	0.310	0.383	Failed to reject $H_0$	Not Significant
	Marital Status	0.342	0.334	Failed to reject $H_0$	Not Significant
	Distance	0.282	0.431	Failed to reject $H_0$	Not Significant
	Socio-econ	0.025	0.946	Failed to reject $H_0$	Not Significant
Post Experimental	Sex	0.310	0.383	Failed to reject $H_0$	Not Significant
	Age	0.021	0.955	Failed to reject $H_0$	Not Significant
	Marital Status	0.317	0.372	Failed to reject $H_0$	Not Significant
	Distance	0.263	0.463	Failed to reject $H_0$	Not Significant
	Socio-econ	0.108	0.766	Failed to reject $H_0$	Not Significant

Table 5 presents the results of learners' satisfaction and engagement with the use of contextualized Self-Learning Modules. The results indicated that the overall score for satisfaction was 4.66, and this was known as "very much satisfied." Both "Learning objectives and the assessment activities are aligned" and "I was able to review the module materials without technical difficulties" were given the highest scores, with a mean of 4.80 each. It proves that the structure and design of the modules allowed students to easily access and use the learning materials and quizzes together. Even though the lowest mean score was 4.60, which is only one point off the "very much satisfied" mark, it still suggests that learners were not dissatisfied with the module's effectiveness.

Regarding how happy students are to engage in learning, the mean is 4.64, which is rated as "very much satisfied." The results were observed in two items: "I kept my enthusiasm for the class all the time" and "Self-paced learning helped me stay eager to study." It means the modules could maintain learners' engagement and encourage them to be passionate about their studies. A few learners had a low mean of 4.40, though it does show they understood the value of the module in real situations. In summary, the modules were both enjoyable and beneficial, which supports how well they were taught.

**Table 5** Learners' satisfaction and engagement levels

Learner's Satisfaction	Mean	Adjectival Rating
My learning needs were met by the module's material.	4.60	Very Much Satisfied
The directions were clear and easy to follow.	4.70	Very Much Satisfied
The visual aids improved my comprehension of ideas.	4.40	Very Much Satisfied
The learning objectives and the assessment activities are aligned.	4.80	Very Much Satisfied
Without technical issues, I was able to evaluate the module materials.	4.80	Very Much Satisfied
Over-all Mean	4.66	Very Much Satisfied
Learner's Engagement		
I willingly put in more time to study the module.	4.60	Very Much Satisfied
I kept my interest in the module activities the entire time.	4.80	Very Much Satisfied
I used the concepts from the module in real-world scenarios.	4.40	Very Much Satisfied
I was more motivated to learn because of the self-paced format.	4.80	Very Much Satisfied
I went over earlier lectures and resources to make sure I understood the ideas.	4.60	Very Much Satisfied
Over-all Mean	4.64	Very Much Satisfied

Learner satisfaction and engagement are critical indicators of the effectiveness of educational materials, particularly in flexible learning environments. These findings aligned with the study of Moore and Kearsley [18], a well-structured learning material that aligns objectives with assessments increases learner satisfaction and supports deeper cognitive engagement. The results of this study resonate with these findings, suggesting that alignment and technical usability contribute significantly to positive learner experiences. Furthermore, contextualized modules have been shown to increase motivation and interest, as learners appreciate the relevance to real-life contexts [19].

Table 6 presents the National Certificate II (NC II) assessment results for ALS Senior High School Learners specializing in Food and Beverage Services. The data shows that the experimental group achieved a 100% passing rate, while the control group achieved a 90% passing rate. These findings suggest the possible efficacy of the contextualized learning module applied by the experimental group. The ideal passing rate indicates that the learners who had an interaction with the contextualized module were more ready to take the NC II assessment, not only showing theoretical knowledge but also the practical skills applied in the practical assessment. In contrast, although the control group also performed well, the slightly lower passing rate may reflect limitations in traditional discussion-based teaching methods when compared to the nature of the module.

The results suggest that the contextualized learning resources could be used to promote the national standards-based competencies. The fact that all experimental learners passed the NC II assessment means that the module was effective in cementing the competencies demanded by TESDA, thus enabling learners to take the certification and be equipped to face the world of work. This justifies the involvement of contextualized modules within the ALS programs to foster academic success and preparedness for the industry.

Contextualized learning has enhanced performance in competency-based tests, especially in technical-vocational education environments. The findings closely relate to those in the study with Gilmore-Blanton [20]; it is expected that learners taught through instructional resources founded on real-life situations will have a higher probability of excelling in performance-based assignments. In the same way, Generalao et al. [21] indicated that contextualized instruction reinforces engagement and comprehension among learners and leads to an increased rate of certification in TESDA-promoted examinations such as NC II. Besides, the Department of Education and TESDA equally promote the use of modular and contextualized learning materials in Alternative Learning Systems to cater to the needs of different learners, as well as to boost the level of employability [22].

**Table 6** NC II Assessment of ALS Senior High School Learners in the Food and Beverage Services

Groups	No. of Students Passed	Percentage
Experimental	10	100%
Control	9	90%

#### 4. Conclusion

This study investigated a contextualized self-learning module that enhances performance in the Food and Beverage Services sector. Learners in the ALS program who used contextualized Self-Learning Modules performed significantly better than those taught through traditional group discussions. Additionally, learners' sex, age, marital status, distance from the school, and socioeconomic background did not have a significant impact on either their engagement or performance using the contextualized modules. This suggests that the modules were accessible, inclusive, and effective across diverse learner profiles, thereby validating their suitability for broad application within the ALS context.

The improved results of the experimental group in the post-test show that contextualized teaching helps students relate academics to daily life. These findings support previous research asserting that instructional materials grounded in real-world contexts enhance learners' academic performance by making learning more relevant, engaging, and practical. This affirms the potential of contextualized Self-Learning Modules as powerful tools for improving outcomes in alternative education settings.

Similarly, the findings on learner satisfaction and engagement reveal that the contextualized Self-Learning Modules were highly effective in delivering a meaningful and accessible educational experience. Finally, the 100% NC II assessment passing rate among the experimental group strongly highlights the module's capacity to prepare ALS learners for national certification. Compared to the control group's 90% passing rate, the results suggest that the contextualized module better equips learners with both theoretical and practical skills aligned with TESDA standards.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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