Academic Education Publishing House
Higher Education and Practice Vol. 1 No. 7, 2024

Design and Development of Task-Driven-based Mobile Learning Module

Xingquan Zou[1], Mahizer bin Hamzah[2,*]
[1]*Faculty of Human Development, Universiti Pendidikan Sultan Idris (UPSI), Tanjung Malim, Perak, Malaysia*
[2]*School of Teacher Education, Ping Ding Shan Normal University, Pingdingshan, Henan, China*
**Corresponding Author.*

Abstract: Through the pedagogical model, modern teaching theory and practice are unified; the pedagogical model becomes a fusion of theory and practice and a condensed form of modern teaching. In this study, a prototype of a task-driven-based mobile learning module was designed by reviewing relevant literature and analyzing the ideas and insights in the literature. Then, 18 experts with expertise and experience in mobile learning, task-driven, pedagogy, pedagogical technology, instructional technology, instructional design, and course pedagogy were selected, and an expert survey was used to obtain expert opinions and reach a consensus, and a task-driven-based mobile learning module was finalized through the Fuzzy Delphi Medium analysis method. The task-driven-based mobile learning module will provide task-driven and mobile learning used in teaching as a guidance that can be used for reference.

Keywords: Task-driven; Mobile Learning; Fuzzy Delphi; Teaching Module; Teaching Design

1. Introduction

The task-driven teaching method, a student-centered teaching model, can combine with the other methods to better improve teaching quality. By utilizing the mobile learning platform and employing a task-driven teaching method, teachers can leverage the benefits of both fragmented and flexible mobile learning while emphasizing students' independent learning abilities and knowledge acquisition, thereby combining the advantages of mobile learning and classroom learning [1]. This study aims to develop a standardized model that optimizes the integration of task-driven and mobile learning.

2. Research Design

The published literature as a whole provides a database from which the authors seek to identify any interpretable trends or draw overall conclusions on the merits of existing conceptualizations, propositions, methods, or findings [2]. Descriptive review is to determine the extent to which a body of knowledge in a particular research topic reveals any interpretable pattern or trend with respect to pre-existing propositions, theories, methodologies or findings [3]. The design of an educational model that can be used as an intervention requires the support of a multidisciplinary team of experts [4].

In this study, Preliminary design of the task-driven-based mobile learning module prototype through literature analysis, and then,the fuzzy Delphi technique (hereafter referred to as FDM) isidentified as the most suitable element when integrating the design of task-driven mobile learning models because expert consensus was required.

2.1 Fuzzy Delphi

The Delphi method is an empirical judgement method that uses multiple rounds of letters to ask experts for their opinions on forecast events in an anonymous manner, and the organizers collect them together to finally obtain a relatively consistent expert forecast opinion. The main purpose of the Delphi method is to obtain the consensus of experts so as to seek the consensus of experts on a specific forecast object [5].

The Delphi method has been effective for achieving consensus among experts with differing opinions to resolve complex issues and enables a group decision to be made rather than an individual decision [6]. The Delphi method has been used to predict the advent of

new technologies and the development of new models and products. The logical consensus among a panel of experts is obtained after the experts are given sufficient opportunities to consider their views [7].

2.2 Sampling in the Study

The sampling requirements for the fuzz Delphi are: The number of experts on the panel may vary substantially from 10 to 50 [8]. As 15 to 20 experts are recommended for product development [9]. This study will use 15 experts. It is important that experts have a high degree of authority, unique insights, rich experience, and a high theoretical level so as to provide correct opinions and valuable judgements [10].

2.3 Instrument Design and Distribution

The instruments used for the expert advice were two forms designed to investigate the applicability and significance of indicators at various levels in relation to higher level indicators.

In the Expert Opinion Request Form, experts are invited to give a range of suitability and importance of each lower-level indicator to the upper-level indicator, and the subjective opinion of the experts is translated into objective data. Each evaluation indicator consists of two parts: (1) Importance: evaluates the importance of the indicator to the previous tier of evaluation dimensions and fills in a single value to indicate the importance of the indicator. (2) Acceptable range: evaluates the acceptable range of the indicator's importance to the previous layer of evaluation dimensions and fills in the maximum and minimum values. After identifying the experts to be consulted, the first round of consultation was conducted by obtaining the consent of the above experts via email with the expert consultation form, the thesis research plan, and the prototype of the task-driven mobile learning-based module.

The second round of the expert opinion request form was to obtain expert consensus on the module adjustments, based on the results of the first round of analyses. The form for the second round had only one part: A request form for the suitability of adjusting the elements of the task-driven mobile learning module. The form was distributed again to the 18 experts by email.

3. Analysis of Data

After the analysis of the literature of "task-driven teaching mode" and "mobile learning model", the module is as shown in Figure 1:

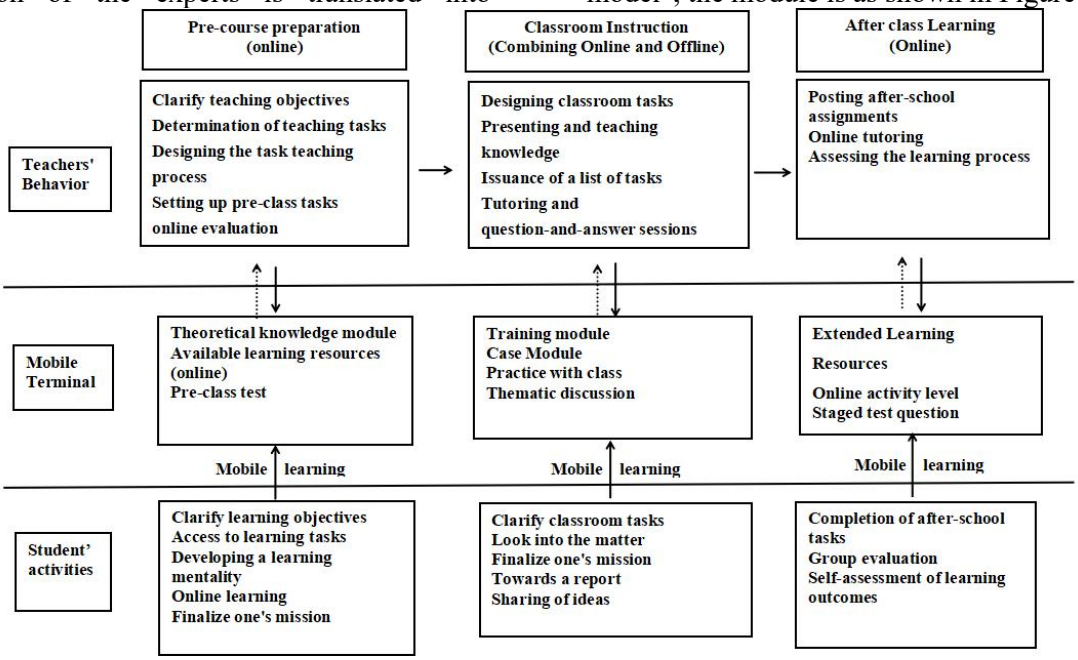

Figure 1. The Prototypes of Task-Driven-based Mobile Learning Module

3.1 Analysis of the Results of the First Round of Survey on the Suitability of TDML Module Elements

After collating the results of the questionnaire from all the experts, the results of it are analysed according to the triangular fuzzy function of the fuzzy Delphi method. This method was used to determine whether the indicators are scientific and reasonable. The

data that need to be calculated mathematically are mainly calculated with the help of excel and professional teachers of higher mathematics. The meanings of the indicators are now explained in Table 1 [11]:

Table 1. The Meaning of Indicators

Indicators	Definition
Gi	Consensus value among experts: a higher consensus value indicates a higher degree of consensus among experts and a higher degree of appropriateness or importance of the indicator
C	The smaller of the intervals given by the expert is called the conservative value C.
O	The larger of the expert intervals is called the optimistic value O.
C_L^i	the minimum conservative value.
C_M^i	average conservative value.
C_U^i	maximum conservative value.
O_L^i	minimum optimistic value
O_M^i	average optimistic value
O_U^i	maximum optimistic value, in the remaining data.
Mi	geometric mean value Mi= $O_M^i - C_M^i$
Z^i	the gray fuzzy space $Z^i = C_U^i - O_L^i$
Threshold value	The geometric mean again of the minimum, maximum and geometric mean of all the indicators to be screened under a given indicator.

3.1.1 Analysis of Data from the Pre-course Preparation Phase

Data from Table 2 were analyzed element by element. Results and findings are as follows.

Clarify teaching objectives: With a consensus value of 8.778, it can be noticed that the maximum conservative value is less than the minimum optimistic value in both indicators ($C_U^i < O_L^i$). This is the first scenario of the data analysis, which indicates that the experts are very much in favour of "clear teaching objectives" and there is no room for ambiguity, so the consensus value of "Clarify teaching objectives" is the average of the optimistic mean and the conservative mean.

Table 2. The Results of the Elements of the Pre-Course Preparation Phase

	Elements	C_U^i	O_L^i	Z^i	M^i	M^i-Z^i	G^i
Teacher's behavior	Clarify teaching objectives	8	7	-1	1.889	2.889	8.778
	Determination of teaching tasks	9	9	0	1.778	1.778	8.889
	Designing the task teaching process	9	9	0	1.722	1.722	8.917
	Setting up pre-class tasks	9	9	0	1.556	1.556	8.720
	Online evaluation	8	9	1	1.611	0.611	8.510
Mobile Terminal	Theoretical knowledge module	9	9	0	1.555	1.555	8.889
	Available learning resources (online)	9	9	0	1.722	1.722	8.809
	Pre-course test	9	9	1	1.722	0.722	8.567
Student's activity	Clarify learning objectives	9	9	0	1.333	1.333	9.000
	Access to learning tasks	9	9	0	1.389	1.389	8.917
	Developing a learning mentality	8	9	2	1.056	-0.944	Num
	Online learning	9	9	0	1.389	1.389	9.083
	Finalize one's mission	9	6	0	1.722	1.722	8.806

Determination of teaching tasks: Calculating the data, it can be found that the maximum conservative value of the element is equal to the minimum optimistic value ($C_U^i = O_L^i$), which can be regarded as the result of the first type of data analysis, the experts are more agreeable to the "Determination of the teaching task", there is no ambiguity, so the "Determination of teaching tasks" is the average of the optimistic mean and conservative mean, and the consensus value is 8.889. The consensus value is the average of the optimistic mean and the conservative mean, and the consensus value is 8.889.

Designing the task teaching process: The calculated data shows that the maximum conservative value of the element is equal to the minimum optimistic value ($C_U^i = O_L^i$). Zi is equal to zero. There is no fuzzy space. The consensus value of "Designing the task teaching process" is the average of the optimistic mean and the conservative mean. Additionally, the consensus value is 8.917.

Setting up pre-class tasks: As with the previous two elements, the maximum conservative value of this element is equal to the minimum optimistic value ($C_U^i = O_L^i$). There is no fuzzy

space, and the consensus value is calculated to be 8.720.

Online evaluation: Comparison found that the maximum conservative value of this element is greater than the minimum optimistic value ($C_U^i > O_L^i$), Zib is equal to 1. (Mi —Zi) value is equal to 1.611, with the grey fuzzy space Zi smaller than the geometric mean value of the expert's evaluation Mi. These results indicate that there is a fuzzy space in experts' opinions, the fuzzy space is small; that is to say, although the experts and the scholars have different opinions, the differences are not big. According to the second case of data analysis, the consensus value of "Online evaluation" is 8.510.

There are 3 sub-elements under the "Mobile Terminal" module. The consensus values for these elements are, respectively: theoretical knowledge module (8.955), available learning resources (online) (8.864), pre-course test (8.567). From the tabular data, it can be found that, both the conservative and optimistic values of "theoretical knowledge module" and "available learning resources (online)" are large. The maximum conservative value in both indicators is equal to the minimum optimism value ($C_U^i = O_L^i$). This shows that the experts are more appreciative of both elements. However, the data in the Table 2 shows that the minimum conservative value for "pre-course test" is only 5. In addition, the maximum conservative value of the indicator is greater than the minimum optimistic value ($C_U^i > O_L^i$). These two findings indicate that there are experts who hold different opinions from the rest of the experts on the element of "pre-course test", which leads to the existence of grey space.

There are five sub-elements in the "Student's activity" module, and the consensus values of the four elements are respectively: clarify learning objectives (9.000), access to learning tasks (8.917), online learning (9.083), finalize one's mission (8.806). The above consensus values are high and the maximum conservative value of these elements is less than or equal to the minimum optimistic value ($C_U^i \le O_L^i$). There is no grey space. These indicate that experts are more agreeable to all four elements, suggesting that these elements have gained a high degree of consensus from the experts.

Calculation of the data for the element "developing a learning mentality" shows that the maximum conservative value of this element is greater than the minimum optimistic value ($C_U^i > O_L^i$), with the grey fuzzy spatial sub Zi=2, greater than the geometric mean Mi (Mi=1.056). This suggests that there is no consensus opinion, and it is impossible to calculate the consensus value. This means that some experts who have different views form others. Also the average conservative value and average optimistic value are low. Consequently, this element was considered as not gaining consensus from the experts and can be deleted.

3.1.2 Analysis of Data from the Classroom Instruction Phase

Designing classroom tasks: Comparison found that the maximum conservative value of this element is greater than the minimum optimistic value ($C_U^i > O_L^i$), Z^i is equal to 1, and the grey fuzzy space Z^i is smaller than the geometric mean M^i of the experts' evaluation, which indicates that there is a fuzzy space in the experts' opinions. In addition, the minimum conservative value of this element is 5, which indicates that individual experts have different opinions about this element. What is more, according to the calculation the consensus value is 8.602; the recognition is not high either.

Table 3. The Results of the Elements of the Classroom Instruction Phase

	Elements	C_U^i	O_L^i	Z^i	M^i	M^i-Z^i	G^i
Teacher's behavior	Designing classroom tasks	8	7	1	1.778	0.778	8.602
	Presenting and teaching knowledge	9	9	0	1.278	1.278	9.083
	Issuance of a list of tasks	9	9	0	1.222	1.222	9.055
	Tutoring and question-and-answer sessions	8	9	1	1.278	0.278	8.739
	Evaluation of mandate completion	9	9	0	1.556	1.556	8.889
Mobile Terminal	Training module	9	9	0	1.444	1.444	8.722
	Case Module	8	9	-1	1.556	2.556	8.5
	Practice with class	9	9	0	1.444	1.444	8.833
	Thematic discussion	8	9	-1	1.667	2.667	8.722
Student's activity	Clarify classroom tasks	9	9	0	1.5	1.5	8.805
	Look into the matter	9	9	0	1.389	1.389	8.861

	Finalize one's mission	9	9	0	1.667	1.667	8.889
	Towards a report	8	6	2	1.889	-0.111	7.7772
	Sharing of ideas	9	9	0	1.556	1.556	8.833

Presenting and teaching knowledge: With a consensus value of 9.083, it can be seen that the maximum conservative value of the two indicators is less than the minimum optimistic value ($C_U^i = O_L^i$). This means that the experts are very much in favour of "clarifying the teaching objectives" and there is no room for ambiguity. Therefore, the consensus value for "Presenting and teaching knowledge" is the average of the optimistic and conservative mean values.

Issuance of a list of tasks: Calculating the data, it can be found that the maximum conservative value of this element is equal to the minimum optimistic value ($C_U^i = O_L^i$), the experts are more agreeable to "determining teaching tasks". There is no room for ambiguity, so the consensus value of "publishing a list of tasks" is the average of the optimistic mean value and the conservative mean value, and the consensus value is 9.055. Therefore, the consensus value of "Issuance of a list of tasks" is the average of the optimistic mean and the conservative mean, and the consensus value is 9.055.

Tutoring and question-and-answer sessions: Comparison found that the maximum conservative value of this element is greater than the minimum optimistic value ($C_U^i > O_L^i$); and Z^i is equal to 1. The grey fuzzy space Z^i is smaller than the geometric mean M^i of the expert evaluation. This indicates that there is a fuzzy space in the experts' opinions, but the fuzzy space is small. Although experts and scholars have different opinions, but the difference is not big. The final consensus value of "Tutoring and question-and-answer sessions" is 8.739.

Evaluation of mandate completion: Calculating the data, it can be found that the maximum conservative value of this element equals to the minimum optimistic value ($C_U^i = O_L^i$), Z^i is equal to zero, and no fuzzy space detected. Therefore, the consensus value for "Evaluation of task completion" is the average of the optimistic mean and the conservative mean; and the consensus value is 8.889.

In the classroom teaching stage, there are four subelements under the "Mobile terminal" module. The consensus values of these elements are: training module (8.722), case module (8.5), practice with class (8.833), thematic discussion (8.722). From the data in the Table 3, it can be found that the conservative values and the optimistic of "training module", "thematic discussion", "practice with class" are large; and the maximum conservative value of the three indicators is less than or equal to the minimum optimistic value ($C_U^i \le O_L^i$). It shows that experts recognize these three elements. From the data, it can be seen that the minimum optimistic value for "Case Module" is 6. However, the maximum conservative value in the indicator is greater than the minimum optimistic value ($C_U^i < O_L^i$). This means that few experts disagree with the element "Case Module". But there is no grey space and degree of consensus is high. What is more the element has been approved by the experts.

In the classroom teaching stage, there are five sub-elements under the "Student's activity" module, among which the consensus values of the four elements are: clarify classroom tasks (8.805), look into the matter (8.889), look into the matter (8.861), towards a report (8.833). The above consensus values are higher, and the maximum conservative values of these elements are all less than or equal to the minimum optimistic value ($C_U^i \le O_L^i$). There is no gray space, indicating that experts recognize these four elements. This shows that these elements have gained a high degree of consensus among experts.

In the Table 3, we can see that the maximum conservative value of "Towards a report" is greater than the minimum optimistic value ($C_U^i > O_L^i$). Z^i has a value of 2. The gray fuzzy space Z^i is larger than the geometric mean M^i of the expert evaluation, which means that there is no consensus. This demonstrates that some experts and scholars are completely different from other experts. As a result, the "towards a report" can be adjusted in combination with expert opinion.

3.1.3 Analysis of Data from the After-school Learning Phase

Data from Table 4 were analyzed element by

element. Results and findings are as follows.

There were three sub-elements under "Teacher's behavior", among which the consensus value of "Posting after-school assignments" was 8.944, and the consensus value of "Assessing the learning process "was 8.722. According to the analysis data, both the conservative and optimistic values of "Posting after-school assignments" and "Assessing the learning process" are large, and the maximum conservative value in both indicators is equal to the minimum optimism value ($C_U^i = O_L^i$), it shows that the experts are more appreciative of both elements. However, the minimum conservative value of the sub-element "Online tutoring" is only 5, and the maximum conservative value of this element is greater than the minimum optimistic value ($C_U^i > O_L^i$). This indicates that there are experts who hold different opinions, but the grey fuzzy space Zi (with a value of 1) is smaller than the geometric mean Mi (with a value of 1.833) of the experts' evaluations, this indicates that there is a fuzzy space for the experts' opinions, but the fuzzy space is small and the differences are not significant, and the consensus value is calculated as 8.585.

Table 4. The Results of the Elements of the After-School Learning Phase

	Elements	C_U^i	O_L^i	Z^i	M^i	M^i-Z^i	G^i
Teacher's behavior	Posting after-school assignments	9	9	0	1.333	1.333	8.944
	Online tutoring	8	7	1	1.833	0.833	8.585
	Assessing the learning process	9	9	0	1.667	1.667	8.722
Mobile Terminal	Extended Learning Resources	8	9	-1	1.611	2.611	8.583
	Online activity level	9	8	1	1.167	0.167	8.472
	Staged test question	8	7	1	1.333	0.333	8.389
Student's activity	Completion of after-school tasks	9	9	0	1.111	1.111	9.278
	Group evaluation	8	9	-1	1.556	2.556	8.444
	Self-assessment of learning outcomes	9	8	1	1.444	0.444	8.736

There are three sub-elements under the module "Mobile terminal" in the after-school learning phase. It can be found that the maximum conservative value of "Extended Learning Resources" is less than the minimum optimistic value ($C_U^i < O_L^i$), which is the first case in the data analysis, indicating that the experts are very much in favour of "Extended Learning Resources" and there is no room for ambiguity. Therefore, the consensus value of "Extended Learning Resources" for expansive resources is the average of the optimistic mean and the conservative mean, with a value of 8.583.

The other two elements, "Online activity level" and "Staged test questions", have a maximum conservative value greater than the minimum optimistic value ($C_U^i > O_L^i$), which indicates that some experts hold different opinions from others on these two elements. It is also interesting to note that the average conservative values of the above three elements are not high, and these elements can be revised and improved by taking into account the other opinions of the experts.

There are three sub-elements under "student's activity" in the after-school learning phase. The maximum conservative value of "Completion of after-school tasks" is less than the minimum optimistic value ($C_U^i = O_L^i$), which means that experts agree on the sub-element "Completion of after-school tasks". There is no room for ambiguity. The consensus value of "Completion of after-school tasks" is the average of the optimistic. The conservative mean, with a value of 9.278, is a high level of approval.

The value of Zi for "Group evaluation" is -1, which means that the maximum conservative value is less than the minimum optimistic value ($C_U^i < O_L^i$). This indicates that the experts approve of the sub-element "Group evaluation". There is no fuzzy space. Nonetheless, the average conservative value of this element is low. The consensus value is 8.444, which is not high enough to continue analysing the experts' opinions and suggestions on this element.

The maximum conservative value of the element "Self-assessment of learning outcomes" is greater than the minimum optimistic value ($C_U^i > O_L^i$), which means that there are experts with different opinions, but the grey fuzzy space Zi (value of 1) is smaller than the geometric mean value of the experts' evaluations Mi (value of 1.444), which means that the fuzzy space is small and there is not much difference.

3.2 Analysis of the Results of the Survey on Task-Driven-based Mobile Learning Module Corrections

According to the results of the first round of data analysis and expert opinions, 20 items of the adjustment model are compiled, and the results of the second round of expert opinions are analyzed as follows:

Table 5. Analysis of Task-Driven-based Mobile Learning Module Modification Suitability Survey Results

Item	C_U^i	O_L^i	Z^i	M^i	M^i-Z^i	G^i
Modify the “mobile terminal” to “mobile Online Platform”.	8	9	-1	1.722	2.722	8.861
The vertical and horizontal dimensions of the module design are exchanged and differentiated by rectangular boxes.	9	9	0	1.556	1.556	8.833
Modified to “setting up pre-class learning tasks”.	9	9	0	1.722	1.722	8.806
The online evaluation is changed to “evaluation of pre-course task achievement”.	9	9	0	1.556	1.556	8.833
The “design the task teaching process” was changed to “designing instructional tasks and breaking them down”.	8	9	-1	1.778	2.778	8.722
The available learning resources (online) are reduced to: online learning resources.	9	9	0	1.5	1.5	8.972
Add “knowledge modules on technology applications”.	9	8	1	1.389	0.389	8.667
Delete “developing a learning mentality”.	9	9	0	1.333	1.333	9.111
Modified to “acceptance of learning tasks”.	9	9	0	1.444	1.444	9.056
Modified to “online independent study”.	9	9	0	1.611	1.611	8.972
Delete “designing classroom tasks”.	8	9	-1	1.722	2.722	8.806
Add “presenting the degree of completion of pre-course tasks”.	9	9	0	1.333	1.333	9.167
Add “answering pre-Class assignment doubts”.	8	9	-1	1.667	2.667	8.833
Intermodulation of training and case modules.	9	9	0	1.833	1.833	8.806
Delete “towards a report”.	9	9	0	1.5	1.5	9.083
Modified to “online monitoring of task completion”.	9	9	0	1.556	1.556	8.889
Add “online feedback of task completion”.	8	9	-1	1.778	2.778	8.889
Modified to “Assessment of the mandate completion process”.	9	9	0	1.444	1.444	9.111
Modified to “Online activity participation”.	8	9	-1	1.722	2.722	8.75
Add “Students randomly assess each other”.	8	9	-1	1.556	2.556	8.72

Based on the data in the Table 5, it can be concluded that, except for the “increasing the technical application knowledge module”, the maximum conservative value of the other items is less than or equal to the minimum optimistic value ($C_U^i \le O_L^i$). There is no ambiguity space, and the consensus value is relatively high, indicating that the above amendments are recognised by the experts. The maximum conservative value of “Increase technical application knowledge module” is greater than the minimum optimistic value ($C_U^i > O_L^i$), Zi is equal to 1, and the value of (Mi - Zi) is equal to 1.308, and the grey fuzzy space Zi is smaller than the geometric mean value of the experts’ evaluation Mi. These indicate that there is a fuzzy space in the experts’ opinions. However, the fuzzy space is small and experts and scholars have different opinions, the differences are not large.

Based on the above analysis, in the second round of expert consultation, the proposal on the amendment of the Task-Driven-based Mobile Learning module gained the consensus of the experts. The corrected module is shown in Figure 2 below.

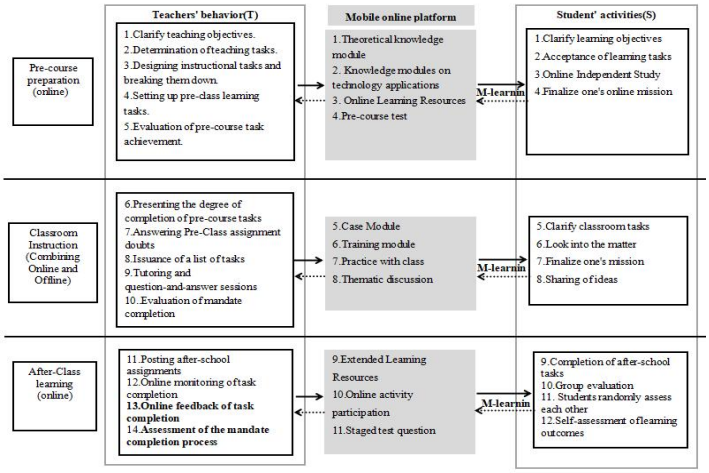

Figure 2. The Task-Driven-based Mobile Learning Module

4. Summary

The task-driven mobile learning module uses mobile web-based technology to deliver learning, and the task-driven m-learning module provides teachers with task-based instruction scheduling and content guidance. Secondly, the module is used to guide students through all tasks using m-learning. Third, the m-learning platform provides learning opportunities and other interactions. The design and development of the TDML module in this study considered three phases: before, during, and after class, while taking into account the three-dimensional dimensions of the teacher, the mobile online platform, and the students, and giving due consideration to guidance, technology, and evaluation. In the next research, the task-driven mobile learning module can be further validated by teaching experiments.

References

[1] Wang Yu Gang, Gao Qi, Wu Yong Guo. Teaching research under the hybrid model of mobile learning and task-driven. Journal of Liaoning University of Technology (Social Science Edition), 2022, 24(1): 2-4.

[2] Paré G T, Marie-Claude Jaana, Mirou Spyros K. Synthesizing information systems knowledge: A typology of literature reviews. Information & Management, 2015, 52(2): 183–199.

[3] King William R, He Jun. Understanding the role and methods of Meta-Analysis in IS research. Communications of the Association for Information Systems, 2005, 16(10): 665–686.

[4] Lu J, Meng S, Tam V. Learning Chinese characters through mobile technology in primary school classroom. International Educational Media, 2014, 51(3): 166–184.

[5] Lin Su, Ren Ze Ping. The Fuzzy Delphi method application. China Science and Technology Forum, 2009, 5(5): 12–42.

[6] Baumfield V M, Conroy J C, Davis R A, et al. The Delphi method: Gathering expert opinion in religious education. British Journal of Religious Education, 2012, 34(1): 5-19.

[7] Buckley C C. Delphi technique supplies the classic result. The Australian Library Journal, 1994, 43(3): 158-164.

[8] Damigos D, Anyfantis F. The value of view through the eyes of real estate experts: A Fuzzy Delphi approach. Landscape and Urban Planning, 2011, 101(2): 171-178.

[9] Kuo Ying Feng, Chen Pang Cheng. Constructing performance appraisal indicators for mobility of the service industries using Fuzzy Delphi method. Expert Systems with Applications, 2007, 35(4): 1930-1939.

[10] Liu Wei Tao, Gu Hong, Li Chun Hong. Expert Evaluation method based on Delphi method. Computer Engineering, 2011, 37(2): 8-11.

[11] Lei Jie, Huang Wan Yi. Practical professionalism: The definition of “professional competence” and its logic for social workers at the Guangzhou Integrated Family Service Centre. Society, 2017, 37(01): 211-241.