



## A Management Model for Elderly Learning Center Administration in Wuxi, China

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### Abstract

**Background and Aims:** The purposes of this study were: 1) to investigate and explore the current situation, desired situation, and priority needs in management of Wuxi ELC; 2) to design the management model using PDCA to enhance Wuxi elderly students' satisfaction; 3) to try out the management model; and 4) to validate the management model.

**Materials and Methods:** The target group was five managers, ten teachers, and twenty elderly students in WXIT ELC. The twenty students were in the spring semester of the academic year 2024. They were selected by purposive sampling. The study was a pre-experimental design using a one-shot case study. The research instruments were: two PDCA cycles, each cycle consisting of the four stages: plan, do, check, and act. Each cycle lasted one month, for a total of two months. Mean score, standard deviation percentage were used for the data analysis.

**Results:** The results of this study were as follows: 1. Management for Wuxi ELC administration consists of Finance, Personnel, Environment, Rules and Regulations, Teaching activity, Curriculum, Technology application, Networking activity, etc. There were six problems in management for Wuxi ELC administration to enhance elderly students' satisfaction: ignoring training teachers; ignoring students' interest and motivation in learning; ignoring curriculum evaluation; ignoring network technologies for the elderly; ignoring media devices operation management during teaching; ignoring job responsibilities and reasonable work structure of staff. 2. The management model consisted of four stages as Plan, Do, Check, and Act, and six components: Personnel, Environment, Teaching activity, Curriculum, Technology application, and Networking activity. In addition, the feasibility of this management model was at a high level. The mean score was 4.525. 3. After completing the first PDCA cycle process, the mean scores of the manager, teacher, and student interview forms were 4.78, 4.73, and 4.72; the interpretations were all "The highest level". After the check and act stage of the first PDCA cycle process, teaching activity, curriculum, technology application, and networking activity management were revised. After completing the second PDCA cycle process, the mean scores of the manager, teacher, and student interview forms were 4.90, 4.79, and 4.74; the interpretations were all "The highest level". 4. The overall satisfaction of elderly students with the management model was at the highest level. The mean score was 4.78. The overall appropriateness of the management model was at the highest level. The mean score was 4.529.

**Conclusion:** The study identified key components of Wuxi ELC's management, including finance, personnel, environment, and curriculum. Six major problems were found, such as a lack of teacher training and neglect of students' interests, curriculum evaluation, and technology use. A management model using the PDCA cycle and six core components was developed. The model's feasibility was rated at a high level, indicating its potential effectiveness in improving elderly students' satisfaction.

**Keywords:** A Management Model; Elderly Learning Center; Administration in Wuxi, China

### Introduction

In 2022, the Chinese population entered a period of negative growth. At the same time, the Chinese population entered a period of rapid growth of the elderly (National Bureau of Statistics of China, 2022). According to data released by the National Bureau of Statistics, from 1962 to 1975, the number of Chinese newborns was 367 million, and all of these people will come to their old age in the next ten years from now.

Lu Na's (2024) research shows that older adults who regularly participate in educational activities tend to have good life plans, as well as a positive sense of self and broader community connections. Xiong Dahong (2024) describes these qualities are conducive to successfully facing the aging phase. Many people say that education for the elderly is the key to spiritual prosperity and the door to a new world for the elderly.





From a marketing perspective, there is a broad market demand for elderly education. Liu Yinan (2024) describes that the development of mobile Internet, such as WeChat, has penetrated among middle-aged and elderly people. The emerging elderly education industry is booming. Alibaba, a world-class enterprise, has also targeted the elderly education market and launched Alipay Elderly University. Throughout the Chinese elderly economy, such as health and wellness occupy a dominant position, followed by entertainment. Elderly education ranks low, with market supply smaller than demand and few mature elderly education institutions.

In October 2016, the Chinese government issued the "Development Plan for Elderly Education" to encourage social forces to participate in elderly education, stimulate social vitality, promote the diversification of elderly education, and organize financial channels to deal with elderly education. Liu Huan (2023) describes how these elderly learning centers actively provide educational services for the elderly.

China is promoting the establishment of a national university research institute on the elderly, and localities are strengthening the construction of professional research institutions for elderly education based on actual conditions. Li Zhengang. (2018). Anhui Province established the Anhui Provincial Institute of Elderly Education based on Anhui Open University, and Shanghai established the Elderly Education Curriculum Research and Evaluation Guidance Center.

Wuxi Municipal Bureau of Statistics (2021) describes Wuxi as the most aging area in China, with a permanent population of 7 million and an elderly population of 1.5 million. In response to the above problems and challenges, there is an urgent need for elderly learning institutions to provide high-quality elderly education services.

Since prior knowledge is provided, the PDCA theory helps managers become more knowledgeable about managing organizations. Meanwhile, managers should focus on enhancing ELC students' satisfaction because Satisfaction can improve total quality management. The researcher is the person in charge of Wuxi Institute of Technology's Elderly Learning Center (WXIT ELC), who has good access to study the management of the ELC. Due to the statements of the above problems, this study made use of a management model using PDCA theory to enhance Wuxi ELC students' satisfaction.

## Research Objective(s)

The main Research objectives of this study were as follows:

1. To investigate and explore the current situation, desired situation, and priority needs in the management of Wuxi ELC, with three sub-objectives as follows:
  - 1.1 To analyze the literature and contents.
  - 1.2 To investigate concepts of ELC management by managers, teachers, and students.
  - 1.3. To study the current situation, desired situation, and priority needs in the management of Wuxi ELC.
2. To design the management model using PDCA to enhance Wuxi elderly students' satisfaction, with two sub-objectives as follows:
  - 2.1 To design the draft of the management model using PDCA to enhance Wuxi elderly students' satisfaction
  - 2.2 To revise the management model using PDCA to enhance Wuxi elderly students' satisfaction
3. To try out the management model using PDCA to enhance Wuxi elderly students' satisfaction, with two sub-objectives as follows:
  - 3.1 To try out the management model using PDCA to enhance Wuxi elderly students' satisfaction.
  - 3.2 To revise the management model using PDCA to enhance Wuxi elderly students' satisfaction.
4. To validate the management model using PDCA to enhance Wuxi elderly students' satisfaction, with two sub-objectives as follows:
  - 4.1 To survey the elderly students' satisfaction with the management model using PDCA to enhance Wuxi elderly students' satisfaction





4.2 To validate the management model using PDCA to enhance Wuxi elderly students' satisfaction

### **Research Methodology**

This study management model using PDCA by Deming, W.E. (2018) to enhance elderly students' satisfaction was conducted through four phases as follows:

#### **Phase 1: Investigate and explore the current situation, desired situation, and priority needs in the management of Wuxi ELC.**

In phase 1, the researcher investigated and explored the current situation, desired situation, and priority needs in the management of Wuxi ELC. Five managers, ten teachers, and twenty students who were previously studied at WXIT ELC, selected by purposive sampling. The researcher collected the data from manager, teacher, and student interviews on the current situation in the management of Wuxi ELC. Interviewees answered questions about Finance, Personnel, Environment, Rules and Regulations, Teaching activity, Curriculum, Technology application, Networking activity, etc. The data from the documents, manager interviews, teacher interviews, and student interviews were analyzed to have the fundamental information needed to draft the management model for the next phase.

#### **Phase 2: Draft the management Model Using PDCA to enhance Wuxi elderly students' satisfaction**

In phase 2, the researcher drafted the management Model Using PDCA to enhance Wuxi elderly students' satisfaction based on the current situation, desired situation, and priority needs studied from phase 1. Studied and synthesized the principles of PDCA into the PDCA cycle steps of the management model. The researcher submitted the draft of the management model using PDCA to enhance Wuxi ELC elderly students' satisfaction to the five experts to verify the feasibility. After that, the researcher analyzed the data collected from the verification to examine the feasibility of the management model.

#### **Phase 3: Try out the management model using PDCA to enhance Wuxi elderly students' satisfaction.**

In phase 3, the researcher used the PDCA cycle developed by Deming, W.E. (2018) to try out the management model using two cycles, each cycle consisting of the four stages: plan, do, check, and act. Each cycle lasted one month, for a total of two months. In the planning stage of the plan, the researcher established objectives and processes by the management model using PDCA, required to deliver the desired results. In the stage of do, the researcher clarified to managers and teachers to understand the management model using PDCA, and carry out the objectives from the previous step. In the stage of check, the researcher gathered the managers, teachers, and students' interview data after the do phase to evaluate. Data is compared to the expected outcomes to see any similarities and differences. The testing process is also evaluated to see if there were any changes from the original test created during the planning phase. If the data is placed in a chart it can make it easier to see any trends if the plan–do–check–act cycle is conducted multiple times. This helps to see what changes work better than others and if said changes can be improved as well. In the stage of the act, the researcher modified the issues found at the do and check phase; the process has better instructions, standards, or goals. Planning for the next cycle can proceed with a better baseline. Work in the next phase should not create a recurrence of the identified issues; if it does, then the action was not effective.

#### **Phase 4: Validate the management model using PDCA to enhance Wuxi elderly students' satisfaction**

In phase 4, the researcher analyzed the data collected from the students to examine their satisfaction with the management model. Additionally, the researcher submitted the management model using PDCA to enhance Wuxi elderly students' satisfaction to the five experts to validate the appropriateness of the management model. The researcher analyzed the data collected from the validation to examine the appropriateness of the management model and what aspects should be improved.

The purpose of this phase was to evaluate and revise the management model using PDCA to enhance Wuxi elderly students' satisfaction.





## 1. Target group

The target groups were 1) five managers at least ten years of experience of elderly educational administration, 2) ten teachers with senior professional level teachers with a master's degree or higher and/or at least ten years of experience teaching elderly, and 3) twenty elderly students that were developed in the tryouts of the management model using PDCA to enhance Wuxi elderly students' satisfaction, and the five experts who were leaders in educational institution and at least twenty years of experience including two experts in elderly education, two experts in educational administration, and one expert in organization management, selected by the purposive sampling.

## 2. Research instruments

2.1 Satisfaction questionnaire, which was developed through the following steps:

2.1.1 Studied the principles related to the satisfaction questionnaire.

2.1.2 Specified the items to be stated in the satisfaction questionnaire.

2.1.3 Drafted the satisfaction questionnaire.

2.1.4 Submitted the draft of the satisfaction questionnaire to the thesis advisor and co-advisor for reviewing and refining.

2.1.5 Submitted the refined draft of the satisfaction questionnaire to the five experts who were leaders in educational institutions and had at least twenty years of experience, including two experts in elderly education, two experts in educational administration, and one expert in organization management, to examine the content validity, applying the criteria of Rovinelli & Hambleton (1977):

After that, the scores were collected from the five experts and analyzed for the Index of Item Objective Congruence (IOC), which was 1.00 for every item.

2.1.6 Revised the satisfaction questionnaire according to the recommendations of five experts and submitted it to the thesis advisor and co-advisor for checking again.

2.2 Appropriateness assessment form, which was developed through the following steps:

2.2.1 Studied the principles related to the appropriateness assessment form of the management model.

2.2.2 Specified the items to be asked in the appropriateness assessment form of the management model.

2.2.3 Drafted the appropriateness assessment form of the management model.

2.2.4 Submitted the draft of the appropriateness assessment form for the management model to the thesis advisor and co-advisor for reviewing and refining

2.2.5 Submitted the refined draft of the appropriateness assessment form of the management model to the five experts who were leaders in educational institutions and had at least twenty years of experience, including two experts in elderly education, two experts in educational administration, and one expert in organization management, to examine the content validity, applying the criteria of Rovinelli & Hambleton (1977):

After that, the scores were collected from the five experts and analyzed for the Index of Item Objective Congruence (IOC), which is a measure of the appropriateness of every item used in the appropriateness assessment form of the management model, and the result was 1.00

2.2.6 Revised the appropriateness assessment form of the management model according to the recommendations of five experts and approached it to the thesis advisor and co-advisor for checking again. The steps of constructing the appropriateness assessment form of the management model were illustrated in Figure 15.

## 3. Data collection

The researcher analyzed the data collected from the five experts to examine the appropriateness of the management model using PDCA to enhance Wuxi elderly students' satisfaction, and what aspects should be improved, applying the criteria of Srisa-ard (2011).

## 4. Data analysis

## 5. Statistics



5.1 The statistic used to analyze the quality of the instruments was the Index of Item Objective Congruence (IOC).

5.2 The statistics used to analyze the data were the mean score and standard deviation.

Consequently, the process of validating and revising the instructional mode using PDCA to enhance Wuxi ELC elderly students.

## Research Scope

The scopes of the study were as follows:

### 1. Target group

The target group was five managers, ten teachers, and twenty elderly students in WXIT ELC; the twenty students were in the spring semester of academic year 2024. They were selected by purposive sampling.

### 2. Variables

The variables of the study were as follows:

2.1 The independent variable was the management model using PDCA to enhance Wuxi elderly students' satisfaction.

2.2 The dependent variable was the satisfaction of elderly students with the management model.

### 3. Contents

Phase 1: Investigate and explore the current situation, desired situation, and priority needs in the management of Wuxi ELC.

3.1.1 Analyze literature and contents.

3.1.2 Investigate concepts of ELC management by managers, teachers, and students.

3.1.3 Study the current situation, desired situation, and priority needs in the management of Wuxi

ELC.

Phase 2: Draft the management model using PDCA to enhance Wuxi elderly students' satisfaction.

3.2.1 Design the management model using PDCA to enhance Wuxi elderly students' satisfaction.

3.2.2 Revise the management model using PDCA to enhance Wuxi elderly students' satisfaction.

Phase 3: Try out the management model using PDCA to enhance Wuxi elderly students' satisfaction

3.3.1 Use the PDCA cycle to try out the management model first cycle.

3.3.2 Revise the management model using PDCA to enhance Wuxi elderly students' satisfaction

3.3.3 Use the PDCA cycle to try out the management model second cycle.

Phase 4: Validate the management model using PDCA to enhance Wuxi elderly students' satisfaction

3.4.1 Questionnaire survey on elderly students after trying out the management model

3.4.2 Validate the management model using PDCA to enhance Wuxi elderly students' satisfaction

### 4. Duration

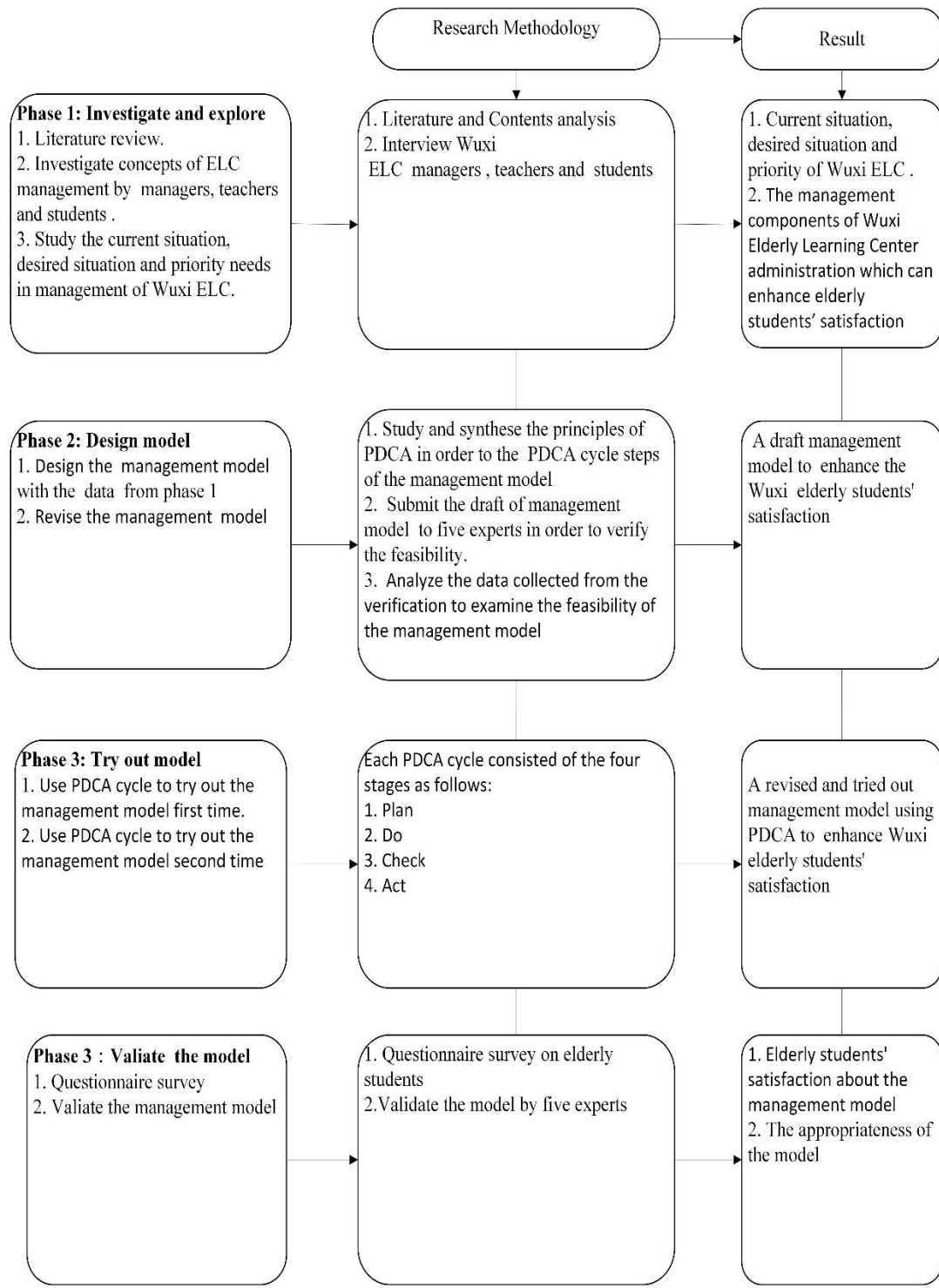
The study was conducted from January 2024 to July 2024.





## Research Framework





**Figure 1** Research Scope

## Result

Research results should be presented according to the specified objectives.



1. To investigate and explore the current situation, desired situation, and priority needs in the management of Wuxi ELC, with three sub-objectives as follows:
  - 1.1 To analyze the literature and contents.
  - 1.2 To investigate concepts of ELC management by managers, teachers, and students.
  - 1.3. To study the current situation, desired situation, and priority needs in the management of Wuxi ELC.
2. To design the management model using PDCA to enhance Wuxi elderly students' satisfaction, with two sub-objectives as follows:
  - 2.1 To design the draft of the management model using PDCA to enhance Wuxi elderly students' satisfaction
  - 2.2 To revise the management model using PDCA to enhance Wuxi elderly students' satisfaction
3. To try out the management model using PDCA to enhance Wuxi elderly students' satisfaction, with two sub-objectives as follows:
  - 3.1 To try out the management model using PDCA to enhance Wuxi elderly students' satisfaction.
  - 3.2 To revise the management model using PDCA to enhance Wuxi elderly students' satisfaction.
4. To validate the management model using PDCA to enhance Wuxi elderly students' satisfaction, with two sub-objectives as follows:
  - 4.1 To survey the elderly students' satisfaction with the management model using PDCA to enhance Wuxi elderly students' satisfaction
  - 4.2 To validate the management model using PDCA to enhance Wuxi elderly students' satisfaction

## Discussion

The main research questions of this study were as follows:

The results of this study were discussed as follows:

1. The Results of investigating and exploring the current situation, desired situation, and priority needs in the management of Wuxi ELC.

The researcher used CNKI and Springer Link as literature retrieval platforms and searched for themes such as "management model", "satisfaction", and "PDCA cycle". The collected literature was sorted, analyzed, and summarized to form a review to lay the foundation for the subsequent research. At the same time, five managers with at least ten years of experience in elderly educational administration, ten senior professional-level teachers with a master's degree or higher and/or at least ten years of experience teaching the elderly, and twenty elderly students who were previously studied at WXIT ELC, were selected by purposive sampling. After that, the researcher collected data from managers, teachers, and students through interview forms. Li Danni (2023) searched for relevant materials, wrote a revised interview outline, and then interviewed school teaching managers and conducted semi-structured interviews with online teaching teachers and students according to the interview outline prepared in advance, focusing on core issues and deeply exploring the actual situation and practical difficulties in the online teaching quality management of F Primary School.

Mo Caixia (2021) and ZHONG Fang (2022) also believe that it is necessary to strengthen the training of new teachers in elderly education. Sun Jianxin (2017) believed that ELC should consider teachers in the overall development strategy, explore people-oriented and meticulous management, and make the teacher management model forward-looking and scientific.

In a nutshell, by the current situation, desired situation, and priority needs in management of Wuxi ELC, the management components of Wuxi ELC administration that can enhance elderly students' satisfaction are Finance, Personnel, Environment, Rules and Regulations, Teaching activity, Curriculum, Technology application, and Networking activity. There were six problems in management for Wuxi ELC administration to enhance elderly students' satisfaction: ignoring training teachers; ignoring students' interest and motivation in learning; ignoring curriculum evaluation; ignoring network technologies for the elderly; ignoring media devices operation management during teaching; ignoring job responsibilities and reasonable work structure of staff.





2. The results of drafting the management model using PDCA to enhance Wuxi elderly students' satisfaction

The discussion of the Draft Management Model Using PDCA to Enhance elderly students' Satisfaction is as follows:

The management model using PDCA to enhance Wuxi elderly students' satisfaction was constructed methodically. Resultantly, this management model consisted of four stages as Plan, Do, Check, and Act, and six components: Personnel, Environment, Teaching activity, Curriculum, Technology application, and Networking activity. In addition, the feasibility of this management model was at a high level. The mean score was 4.525. This might be a result of the systematic review and synthesis of the essential components that should be included in this management model. Respectively, the researcher started reviewing the literature and documents about the management model, PDCA theory, and student satisfaction. Afterward, the researcher synthesized the fundamental principles underlying PDCA theory and elderly satisfaction into the model. Li Xiaona (2021) concluded that the PDCA cycle management model of smart classroom teaching can help higher vocational colleges to build smart classroom teaching standards, teaching models, and teaching environment in an all-around way. By checking and improving smart classroom teaching plans and programs, it can effectively improve the teaching management level, classroom teaching effect, and talent training quality.

3. The Results of Trying Out the management model using PDCA to enhance Wuxi elderly students' satisfaction.

As the PDCA cycle was used to try out the management model using PDCA to enhance Wuxi elderly students' satisfaction with two cycles, including four steps: plan, do, check, and act. Thereby, the discussion of the results was divided into two sections: the discussion of results after completing the first PDCA cycle, and the discussion of results after completing the second PDCA cycle.

### 3.1 The discussion of results after completing the first PDCA cycle.

At the end of the first cycle, the mean score of the manager interview form was 4.78, the mean score of the teacher interview form was 4.73, mean score of the student interview form was 4.72. The PDCA cycle approach proposed by the researchers in the personnel section is: through problem sorting, build a ladder-like structured teaching staff. Give full play to the role of the link between students and schools. Meet the needs of elderly education, formulate teaching plans, and design teaching content. Improve teachers' project development capabilities, teaching implementation capabilities, language application capabilities, ideological guidance capabilities, and on-site practical capabilities. Establish a part-time teacher resource library and a system of division of labor and cooperation between full-time and part-time teachers, give full play to the role of full-time teachers, and build a team of teacher talent training. Organize a series of teaching and research activities such as lesson preparation, seminars, training, and reflection. Establish a class committee team. The class committee team mainly includes class monitors, deputy class monitors, and group leaders. Take the lead, check benchmarks, launch typical classes and demonstration classes, and continue to carry out professional sharing and exchanges among teachers. The inspection results are linked to performance appraisals, and the inspection records are backed up and archived. Check the class committee team and their division of labor and cooperation. Encourage excellent teachers to lead new teachers and make progress together. Provide guidance and help for problems encountered by teachers to lay the foundation for a new round of cycle management. Summarize whether the student management meets the requirements. After the first cycle, managers, teachers, and students scored 4.40, 4.60, and 4.70, respectively, in terms of "Teachers have professional knowledge of teaching content, ability to design learning activities, and ability to implement different types of learning activities". Managers, teachers, and students agree with this approach. It is worth noting that students scored the highest. Yang Shuo. (2020) Also built a professional team of elderly education teachers with high moral character, excellent quality, reasonable structure, and sufficient number from the four aspects of "employment, management, training, and evaluation", which effectively promoted the improvement of the quality of elderly education.

After the first cycle, the scores of managers, teachers, and students in "Provide computer rooms and computer equipment, convenient mobile terminal equipment, online learning platforms, and personalized learning resources" were 4.6, 4.7, and 4.65, respectively. Managers, teachers, and students agree with this





approach. Liu Shuxi. (2012) Also found that school logistics management should use funds reasonably, manage school property well, strengthen health and safety awareness, grasp time well, and select talents scientifically.

The researchers' approach in the networking activity part is: analyze the various factors affecting the quality of online education and formulate strategic development goals for online education. Formulate personalized online and offline teaching plans, provide personalized learning resources, and provide personalized learning places. Improve the level of teachers' online teaching. Emphasize the subject status of students, emphasize the initiative of students in learning and their development, and guide students to use the Internet for independent learning. Provide personalized learning resources, support learners to carry out real-time or non-real-time online communication activities, and support learners to find their learning partners and establish connections. Provide all-around online teaching training for teachers, and invite professional technical guidance to guide teachers to learn online education technology for the elderly. Evaluate the effect of teaching implementation and compare it with the expected effect of teaching implementation in the planning stage to check whether the implementation of the plan has achieved the expected effect. Check whether it supports learners to find the required resources conveniently and supports learners to learn everywhere and by everyone. Promote the successful experience gained in teachers' teaching practice and guide the teaching practice of all teachers. Summarize the content and process of technical support to see whether it can improve teaching effect and lay the foundation for a new round of cycle management. After the first cycle, managers, teachers, and students scored 4.80, 4.70, and 4.70, respectively, in "Support learners to conduct real-time or non-real-time online communication activities". Managers, teachers, and students agree with this approach.

The approach of the researcher in the Curriculum section is to build courses that students are satisfied with. Build a batch of systematic elderly education course resources. Adhere to the evaluation concept of promoting learners' reflection and learning improvement, encourage the combination of teacher evaluation and peer evaluation, and establish a course evaluation system. Update course resources around professional categories such as intelligent technology, health care, laws and regulations, literature and history, intergenerational education, painting and calligraphy, vocal music and dance, elderly literacy, life and leisure, and skill learning. Collect feedback on the course evaluation. Check whether the updated course has gained the support of elderly learners. Extract effective information to serve the next technical update. Summarize the evaluation content and process to see if it can improve teaching effectiveness. After the first cycle, managers, teachers, and students scored 5.0, 5.0, and 4.90, respectively, in "Treat learners with respect, inclusion and care". Managers, teachers, and students agree with this approach. It is worth noting that teachers and managers scored full marks.

The researchers' approach in the Technology application section is: recommend differentiated learning resources for elderly students. Recommend learning partners for elderly students. Integrate technologies such as big data, the Internet, and smart wearable devices into classroom teaching. Recommend differentiated learning resources to elderly students based on the relevance, breadth, depth, and learning style of their learning content. Recommend learning partners to elderly students based on the degree of interaction between them and the similarity of resource use. Build smart classrooms or classrooms and integrate technologies such as big data, the Internet, and smart wearable devices into classroom teaching. Check whether educational technology respects, tolerates, and cares for learners. Check whether educational technology is closely integrated with learning goals and learning activities, and check the participation of students in learning activities. Summarize and extract effective information to serve the next course update. Summarize the course evaluation content to see if it can improve student satisfaction. After the first cycle, managers, teachers, and students scored 5.00, 4.90, and 4.90, respectively, on "Provide necessary instructions for using your computer or mobile terminal device". Managers, teachers, and students agree with this approach.

### 3.2 The discussion of results after completing the second PDCA cycle.

In the check stage of the PDCA of the first cycle, the researcher found some problems. In do stage of PDCA of the first cycle, the researcher revise the model as follows: "Organize teaching and research activities", "invite active students in the class to join and make suggestions in Teaching activity", "Add live streaming function to online courses in Networking activity", "Synchronize online and offline teaching resources according





to teaching progress in Technology application”, “Unify computer and mobile terminal programs in Technology application”, “Adaptive webpage text size in Networking activity”, “Organize reading clubs for teachers and elderly students to enhance communication and understanding between teachers and students in Personnel”, “Unify computer and mobile terminal programs in Technology application”. At the end of the second cycle, the mean score of the manager interview form was 4.90, higher than the first cycle, 4.78; the mean score of the teacher interview form was 4.79, higher than the first cycle, 4.73; the mean score of the student interview form was 4.74, higher than the first cycle, 4.72.

4. The Results of Validating the management model using PDCA to enhance Wuxi elderly students’ satisfaction

According to the elderly students’ satisfaction questionnaire results of management model using PDCA to enhance Wuxi ELC elderly students’ satisfaction, the highest score items were “Able to use diversified methods to evaluate group cooperation performance” and “Organize various offline learning activities, such as work exhibitions and centralized reports”, which were all scored 4.9, and each standard deviation was 0.3 and 0.44. The mean score was 4.78, and the interpretation was “The highest level”; it indicated that satisfaction with the management model using PDCA to enhance Wuxi elderly students’ satisfaction was a high level in the elderly students’ opinion. Sanders & Stodt (1987) believed that students’ satisfaction with their college experience and their satisfaction with the institution have a positive impact on both university education and student retention rates. The overall appropriateness of the management model using PDCA to enhance Wuxi elderly students’ satisfaction was at a high level, with a mean score of 4.529, and the standard deviations were 0 and 0.49. The results stated above insisted that the management model was the most appropriate to implement for enhancing Wuxi elderly students’ satisfaction.

## Recommendations

### 1. Theoretical Recommendation

From the study, satisfaction with the management model using PDCA to enhance Wuxi elderly students’ satisfaction was at a high level according to the elderly students’ opinions. Therefore, the following recommendations were put forward:

1.1 The research results can be used to expand the results in planning a comprehensive management model for learning centers for the elderly in various provinces in China. This is because China has a large population. Management of learning for the elderly in China is very important. In the future, China’s population will enter a society of many elderly people.

1.2 Can be used to create educational network technology. The combination of network technology and teaching activities for the elderly provides efficiency in the management of learning centers for the elderly in China.

1.3 Can be used to create a strategic plan for developing the establishment of learning for the elderly in China, with a model that can be used for management with good results.

### 2. Policy Recommendations

2.1 Research results can be used as guidelines for formulating policies for planning the development of welfare in various areas for the elderly in China, in terms of assisting in caring for the elderly in the government sector.

2.2 Can be used to plan and determine government policy in setting up a service center for the elderly (Service Center Elderly) in China.

### 3. Practical Recommendations

3.1 Use it to create a SMART HAPPY HOME to provide health services. Modern living promotes learning activities for the elderly in China to create a happy society for the elderly in China.

3.2 Use it to create a model for organizing social activities. Caring for the elderly in China: Providing welfare in various areas such as medicine, nursing, education, housing, the elderly, and



recreation. Establishing a fund for caring for the elderly and organizing learning activities in various forms for the elderly in China.

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