

# Applying the Product Design of Learning and Management for Innovation Development

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## Abstract

**Purpose** – This paper's goal is to assess and promote several good teaching product designs and several learning environments. The paper discusses research product design learning and management.

**Research design, data, and methodology** – As part of information science and technology, a school uses several teaching networks for auxiliary teaching, taking several designs as the teaching foundation, and creating multimedia curricula.

**Results** – The results indicate that in the best learning designs and environments, the learner can maintain a high interest, which not only attracts all levels in the schools, but also has a pivotal influence on teaching around the world. The research study answers the question, was the atmosphere already luxurious?

**Conclusions** – This study introduces several methodologies that are widely used for experimental processes. Using multi-criterion decision-making technology in studies of language product evaluation systems, the language teaching quality and space design is developed, and the language classroom learning system, the machine operation, the classroom environment design method, etc., conform to specifics of the study, the best choices, the most effective utilization, and are the most efficient.

**Keywords:** Language Classroom, Traditional Classroom, Network Study, Hardware Engineering, Software Management, Innovative Design.

**JEL Classifications:** F31, F47, L83, L88.

## 1. Introduction

In the past, traditional study way faced with the reforming question, uses several multimedia, the network, the resources and so on for product educational development's tendency, will

enable the learner to have the biggest benefit, at present each school can have been through repeatedly the different period the development localization, will want to devote in promotes several design studies, and the multimedia teaching material development, hoped will accumulate the rich resources because of the traditional education tenderer, will carry on several value added by the core design technique, will establish the knowledge to exchange the platform, will develop core values and so on several design studies.

Did the research the literature in finally, how achieve the learner logarithm position design product emphatically in the past, optimization of goal the degree of satisfaction, for example, In order to build an effective discriminant function, two issues should be considered. First, the relationships among attributes and classes may be linear or non-linear. Second, the irrelevant attributes should be removed in order to increase the accuracy of the classification model. Genetic programming is employed to automatically and heuristically determine the adequate discriminant functions and the valid attributes simultaneously (Chong et al., 2005). But this article studies the application standard appraisal criterion, from the material mining material collection and the research, uses the multi criterion decision system optimization deduction process, the creation product innovation design, establishes the user logarithm position design study demand, grasps the product innovation opportunity, stimulates several design product design ability.

In order to help to and to solve the problem before, very little studied studies several product design evaluation criterion project, in the learning environment, had demonstration and the complete back coupling design the student voluntarily study, and contained the teacher teaching design and the management function, might provide the teacher to design the personalized study content, taught students in accordance with their aptitude the suitable study, the design standardization's teaching commented the quantity environment, and studied several design cycles, if application language aspect, then contained the teacher to trace the student, the study progress and the study achievement, inducted the computer auxiliary learning system, might assist schoolmate when the self-further education, achieved the correct study the effect, and might assist the teacher to implement, more effective teaching method experiment, discovers by several study interaction study, not only promotes of academic

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motivation and the interest the student, promotes the study ability.

The research accelerate day by day in globalized and the internationalization footsteps, the product several designs are taken especially, the creation product value added that provides the student digitizing high quality, and the rich multi-dimensional study's environment, and causes the student to obtain the study actually the interest, conforms to the learner time, the interest, the demand, the study progress and so on. From the before-hand literature, discovery to establish the consummation several designs, provides the study communication weight achievements, from performance on this task with and without a conversational task provides a metric of the impact of conversation on the spatial extent of attention or the functional field of view. It is our hypothesis that performing a conversational task will result in a decrease in the functional field of view (Paul and Jeff, 2004), therefore, this article key in understood the learner needs to study the reason, realized the learner likes the study the way, carries on the system to sojourn again the system curriculum, caters to the learner demand, by the product several design study appraisal criterion, the promotion teaching quality, the study result, promotes projects and so on specialized technical ability.

Previous researchers have developed various approaches to address this problem, this paper is organized as follows: Research product engineering and management technique is discussed in section 2. Development of research methodology 3. Case studies in section 4. A discussion of implementation is presented in section 5, and conclusions are in the last section 6.

## 2. Research product design in engineering and management technique

### 2.1. Product design in engineering technique

Research nowadays's innovation product several designs, what facing is the globalized subject, the creation product and the customer value, links the key method which the enterprise grows. If the enterprise toward the internationalization development product, the creation value is the successful essential condition, legacy product's design many take the technology as a starting point, solves the customer demand is the starting point, the creation product and the customer value, contains four steps: excavates customer demand, development solution, creation and competitor difference, pursues the customer biggest benefit, lets the product which and the service the company provides can solve the customer problem, and has the distinctive quality, pursues an unevenness growth, found the product creation value the turning point.

Research excavate the customer demand the method to carry on construct several design products, just started to be in the Fuzzy stage, causes the new product business planning with to schedule the product specification, by the customer demand, has the system conversion product characteristic first, then has

the system to launch, to each organization, the components, as well as the plan manufacture flow, grasps various stages the management key, therefore, establishment of because of the several design product, designs conforms to the customer demand product, and promotes the optimization several designs. Product several design methods, because should improve the traditional classroom to set up in the past, now by several design product's method, has been able to provide the student the omni-directional several learning process. Studies several design product study, has the reasonable plan and the layout and so on item, its method is:

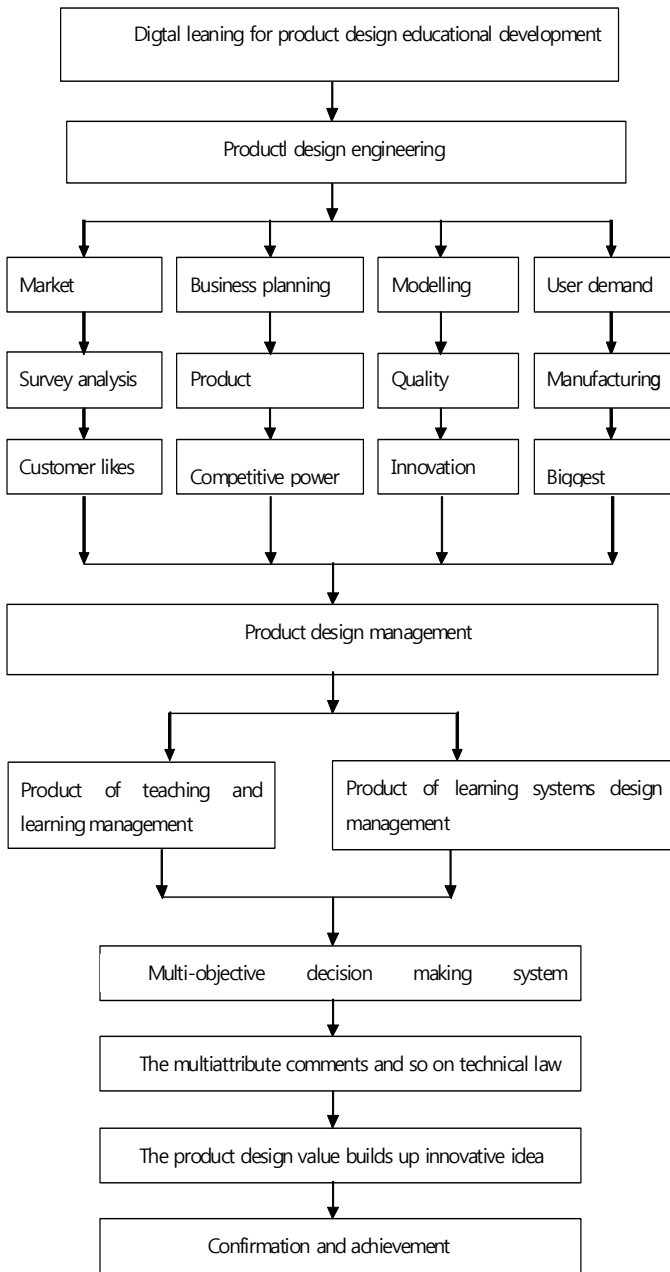
1. Analyzes several design products correctly the quality, enables to meet the curriculum demand fast.
2. Acts according to several design products, because establishes take the business planning quality and the human as the project objective.
3. Will design the conception, transmits truly to the manufacture unit, reduces several product designs the quality question.
4. The comparative analysis competitive product, reduces the engineering design change number of times, reduces the product development time.
5. Penetrates several product designs the operation pattern, establishes the complete system, the prevention defeat with reduces the cost.
6. Guarantied that several product designs, can meet the customer demand, enhances the customer degree of satisfaction.

Although uncertainty and vagueness usually exist in the real world problems, the degree of uncertainty can be reduced when we have some useful information. This information can be obtained from expert's common ground and used for knowledge discovery. The conventional individual difference scaling is extended to describe the situation of human subjects or uncertainty using the interval valued data (Jih et al., 2005). Multidimensional scaling is a statistical tool for constructing a low-dimension configuration to represent to configuration to represent the relationships among objects. In order to extend the conventional multidimensional scaling analysis to consider the situation of uncertainty under group decision making (Jih et al., 2005).

### 2.2. Product design in management technique

Studies several products management technique, like the type, the function, the outlook, the user, the market area separate and the price not same level community opinion method, will occur has the multi-objective questions, because in each question, will be having many uncertainty, the complexity, the risk conflictingly, and so on, in addition the changeable variable, will let the entire decision-making process, will be very difficult, will use several design product development flow, will provide the elastic appraisal research technique, the improvement product design structurization question, will deduce and the system technology using logic, will solve the user to face the question,

and under the limited resources, will make the best resources utilization, its research development flow, as shown in Figure 1:



<Figure 1> A innovation learning engineering management for product design educational development]

### 3. Development of research methodology

#### 3.1. Product design engineering

The questionnaire survey, according to the product character-

istic plan, analyzes from projects and so on customer demand, product characteristic, product specification, product block diagram, customer demand and product characteristic correlation matrix. Does the experimental design, how achieve the feature fun, causes the student learner eye vision, can choose the different interesting contact surface and the background, using the disc video and music quality, all has the good sound effect, with the vivid animation game, by the television form broadcast, the examination stimulates student's interest.

##### 3.1.1. Market tendency and business planning

The market dynamic fast vicissitude, the product life cycle reduces gradually, to the new product design development, from grasps customer's demand start, establishes the kinesiology and the multi-objective programming pattern, the design product best manufacture procedure. How to strengthen the product business planning specialized design, the product innovation and the internationalization, by the high quality and the creativity energy, leads the enterprise integral development.

##### 3.1.2. Modelling and user demand

Inspected that several product modelling, whether to conform to the user to request the condition, the performance, the specification table, the material examination design bad style analysis and so on, question of spot the possible bitter experience, to carry on the analysis and the countermeasure appraisal, according to the user confirmed that product official modelling and style, carries on the product construction model. Widely collects the user demand, classification of the screening of demand item, the demand item and so on, by the technological innovation and the creation strategical competitive advantage, the success creation product design value, urges the whole staff to see clearly the customer demand, proposes the solution, and using the variance analysis, creates the benefit and the value for the customer and the organization, lets the design the value display, creates the biggest benefit.

#### 3.2. Product design management

##### 3.2.1. Product of teaching and learning management

Product design management, implementation tests 30 attending class students, after spss the statistical computation, teacher traces student's study situation and the result, by fast and accurate discovery student, these places need to strengthen the study, the result report are one extremely good appraisal ways. Simultaneously teacher joins the computer auxiliary language study the ranks, unifies in the teachers office the science and technology, and establishes individual information bank from the laboratory procedure.

For example, first in the language experimental design, broadcasts the multimedia disc animations and the movie, by interactive and the irritant practice, observes student's sound wave graph analysis sound production, the practical training student's spoken language pronunciation, the power of expression, as well

as the writing technique and so on, and records the analysis, is the adaptation teaching way.

The first unit Digital designer of product teaching course			
<ol style="list-style-type: none"> <li>1. Teaching curriculum content design rich</li> <li>2. The curriculum teaching time carries on is suitable</li> <li>3. Teacher solves</li> <li>4. Teaching with the student interaction and the question with the classroom to be mad sincerely the share</li> <li>5. Teaching material selects the difficulty moderately</li> <li>6. Using the teaching way stimulation academic motivation with the interest</li> <li>7. Curriculum teaching recuperation with easy to understand clearly</li> <li>8. Course content grasps the appropriate</li> <li>9. Teaching progress to comment the quantity way to be just</li> <li>10. Teaching result with the teaching goal consistent</li> </ol>			
The second unit Teaching synthesis appraisal			
<ol style="list-style-type: none"> <li>1. The teaching material is rich and the teaching earnest</li> <li>2. Studies this curriculum subject warm degree</li> <li>3. Student to ask a question the question and the patience replied that</li> <li>4. Curriculum teaching material and in the work life applies</li> <li>5. Curriculum teaching component to be suitable</li> <li>6. Teaching pronunciation not correctly</li> <li>7. To teach the content dry tasteless</li> </ol>			
The third unit The student of comments the quantity			
<ol style="list-style-type: none"> <li>1. The understanding curriculum program of instruction</li> <li>2. Attends this curriculum situation number of times</li> <li>3. Attends this curriculum to study the earnest manner</li> <li>4. After this curriculum studies, income degree</li> </ol>			

The fourth unit	Quantification mean value		
	Language classroom	Traditional classroom	Network study
Mean value	A	B	C
Standard deviation	X	Y	Z

3.2.2. Product of learning systems design management

These two parts can be divided into the foundation data of school on-line learning condition and the effect of learning assistants as well. The contents will be as follows:

1. The importance of technical ability

Technical ability important things in on-line learning ability, how to use teaching software and hardware equipment; how teachers and learners interacts with each; ways to communicating with one another; operating techniques; and professional

knowledge and information.

2. The importance of course idea

Courseide as of on-line learning courses lie in the establishment of various curriculums on inter-net, which forms the most valid learning assistant system, and which, combining the traditional way of teaching and learning, optimizes the effect of on-line education.

3. The importance of management model

Provide students with useful information, schools ought to be aware of how to properly run an educational web-site, and need mass media to help advertise the system and give rewards to learners getting high grades.

4. The importance of learning environment

It is the key succeed in network education that schools provide students with high gravitation learning environment, which may increase the effect of learning and thus achieves the goal of it.

5. Data collecting and ststtical analyze

After retrieve the survey, organized the survey to become valid data files, and use SAS package software of the socity science computer statistic as data analyze tool, and carry out stastistic analysis

3.3. Multi-objective decision making system management

The social stratum analysis decision method, reported according to the user that inspected the student individual study condition, under the similar condition, with other student's performance, will have any difference; The grouping reported that easy to see the student to meet the bottleneck, also around may study the student the performance which does to do the comparison, revises the plan of instruction; The report of proceedings, helps to inspect that homemade practice, for example the student according to the condition grouping, chooses the student to study the preferred plan, groups the report, the user to report that appraisal criterion ways and so on report of proceedings, make the important degree order of rank.

3.4. Product multiattribute comments and technical law

The multiattribute comments and so on technical law, applies using the quantitative method in the product design development, takes the question which, the design preferred plan, the creation and competitor's product differences the customer demand, the solution product occurs, pursue the user biggest product benefit and so on, overcomes in the use the question, the creation product innovation value, and relieves the stagnant difficult position, impels strategy which the new enterprise develops, by wisdom managing finances, the guest makes the management, the innovative design and so on, becomes the product core value.

### 3.5. Product design value builds up innovative idea

The product design value builds up the innovative idea, causes the product or the service value maximization, lets the product innovation the method from the user demand, solve ideological modes and so on question, difference, benefit to know, stressed only has understands clearly the user or consumer's demand, only then possibly proposed that the correct solution, creates provides the biggest service to the user.

The simulation test goal, lies in the examination product interaction the usability, reduces the appraisal system's failure rate, and carries on the revision according to the test result, patching simulates the test on the spot, encounters each question. Will seek the manufacturer coordination actually to the development system, carries on the actual operation, besides carries on the system to operate on the spot tracing, and confirms its usability and the serviceability.

Imagine the great advances the field of human factors could make if there were a perfect computer simulation of all human behavior. With this extraordinary tool, industrial engineers could design a multitude of efficient and comfortable work spaces. Recent research on the learning of perceptual-motor skills has brought out a number of new ideas, three of which strike us as especially important for emerging models and their applications. One is that during the learning of perceptual-motor tasks, performers become highly reliant on the feedback they receive, provided the feedback is reliable (Steven et al., 2003).

### 3.6. Product confirmation and achievement

Product in the competition, the utilization Greytheory and the multi-objective decision making theory, the creation product, the service, transport business and so on, with competitor's difference value, applies in individual, innovative designs and so on organization, management, establishes the user to use the tendency, to see clearly the user demand, grasps the product innovation opportunity, stimulation innovation product design ability, finally, achieves the user to goal of the product degree of satisfaction.

## 4. Case studies: A innovation learning classroom engineering and management



<Figure 2> A innovation language classroom in learning engineering

### 4.1. Problems descriptions

Due to the shortage of domestic digital learning material content, the insufficient in mutual interaction, learner was not able to get the feeling of arriving at the classroom of the traditional course, meantime because of lacking in the support by high level authority, enterprise has no complete set of digital learning guide of strategy, moreover, common people too do not have the habit of using digital learning method, for this reason, the digital learning of our nation lacks sufficient internal requirement, the cost that plunge in was not easy to retrieve, difficult to form the progress.

Digital learning industry is not only the problem of the industry; it is even more about whether our nation under the economic knowledge, possess the key of competitive advantage, If our country is not able to develop in this a wave of digital learning that follow the foot steps of advance country, the competitiveness of our nation will slowly dissipate, then lose the existing market of sale.

Thus, establishes several design product appraisal criterion and applies in the language classroom study, take the language classroom as the example, carries on 30 attending class students to test.

### 4.2. Product design engineering



<Figure 3> Product engineering - language classroom, traditional classroom, network study etc.

#### 1. Engineering plan design

Take several design product's language classroom appraisal criterion as the example, the use appraisal standard and the union standard state, divides into producer projects and so on standard marketing, production, product, technology, condition, purchase, use, period, each project selects most suits the ownership, from 1,2,3,4,5 numbers, each gap is two point disparity, evaluation system several language classroom product.

#### 2. Engineering system design

The ownership total score scope, from 90 points to one percentage is the normal state, may regard as by the customer is accepted. The experiment appraisal condition, the accumulation counts each score, the experiment calculates studies several languages, the total score is 92 points, conforms with the normal state.

The value studies achievement of the several design product, is an unusual practice guidance duty, at present, various uni-

versities, colleges and institutes, expand each kind of several study teaching environment positively, for example, in the coordinate impetus language classroom teaching's study, makes the school to carry on the foreign language knowledge transmission, to store up with the transmission technology, the immediate share gives the learner, promotes in the speech education, accelerates to impel the study achievements, simultaneously trains studies talented person of the several language teaching demand,

3. Engineering multi-objective decision making system

According to school teaching statistics, 100 number of students position learning language result performance, as Table 3, student each kind of learning language way percentage:

- X0: The number of students position learning language result displays.
- X1: Traditional language classroom curriculum.
- X2: Traditional language classroom curriculum primarily, matching network studies several language curricula is auxiliary.
- X3: Network study on-line language class.

<Table 1> Student each study way percentage

Human's activity	Actual value	Ideal value
Language hearing learning environment	90	70
The mental ability maintains a clarity	40	50
Generally sleep condition	50	30

Using Grey theory, get:

Step 1 Starting

With 78 dividing X0 , After the sequence results in the starting value X0

$$X0 = (1, 1.08, 1.13, 1.15)$$

With 92 dividing X1, After the sequence results in the starting value X1

$$X1 = (1, 0.96, 0.93, 0.91)$$

With 6.8 dividing X2, After the sequence results in the starting value X2

$$X2 = (1, 0.97, 1.04, 1.03)$$

With 13.5 dividing X3 , After the sequence results in the starting value X3

$$X3 = (1, 1.01, 0.81, 0.69)$$

Step 2 Asks the in order sequence  $\Delta_i \mu(K)$

$$\Delta_1(K) = |X0(K) - X1(K)|$$

$$\Delta_2(K) = |X0(K) - X2(K)|$$

$$\Delta_3(K) = |X0(K) - X3(K)|$$

$$\Delta_1 = (\Delta_1(1), \Delta_1(2), \Delta_1(3), \Delta_1(4)) = (0, 0.12, 0.20, 0.24)$$

$$\Delta_2 = (\Delta_2(1), \Delta_2(2), \Delta_2(3), \Delta_2(4)) = (0, 0.11, 0.09, 0.12)$$

$$\Delta_3 = (\Delta_3(1), \Delta_3(2), \Delta_3(3), \Delta_3(4)) = (0, 0.07, 0.32, 0.46)$$

Step 3 Asks  $\max |X0(K) - Xi(K)$

$$I \in I \quad K$$

$\Delta_1$  The biggest element is 0.24

k

$$\max |X0(K) - X1(K)| = 0.24$$

$\Delta_2$  The biggest element is 0.12

k

$$\max |X0(K) - X2(K)| = 0.12$$

$\Delta_3$  The biggest element is 0.46

k

$$\max |X0(K) - X3(K)| = 0.46$$

In three element is biggest value 0.46 , Minimum value 0

Step 4 Asks  $\xi_i(K)$

$$\xi_i(K) = \frac{\min_{i \in I} \min_K |X0(K) - Xi(K)| + \max_{i \in I} \max_K |X0(K) - Xi(K)|}{|X0(K) - Xi(K)| + \xi_{\max} \max_{i \in I} \max_K |X0(K) - Xi(K)|}$$

If  $\xi=0.5$ , get

$$\xi_i(K) = \frac{0.5 \times 0.46}{|X0(K) - Xi(K)| + 0.5 \times 0.46} = \frac{0.23}{\Delta_i + 0.23}$$

Will possess  $\Delta_i(k)$ , the substitution above equation to be possible to result

$$\xi_1 = 1 \quad \xi_i(K) = 0.66 \quad \xi_j(K) = 0.53 \quad \xi_k(K) = 0.49$$

$$\xi_2 = 1 \quad \xi_i(K) = 0.68 \quad \xi_j(K) = 0.72 \quad \xi_k(K) = 0.66$$

$$\xi_3 = 1 \quad \xi_i(K) = 0.77 \quad \xi_j(K) = 0.42 \quad \xi_k(K) = 0.33$$

If did not consider  $\xi_j = 1$ , get

$$X1 = (0.66 + 0.53 + 0.49) / 3 = 0.56$$

$$X2 = (0.68 + 0.72 + 0.66) / 3 = 0.69$$

$$X3 = (0.77 + 0.42 + 0.33) / 3 = 0.51$$

So,  $0.69 \succ 0.56 \succ 0.51$

Thus,  $X2 \succ X1 \succ X3$

This demonstrates

X1: Traditional language classroom curriculum, again next.

X2: Traditional language classroom curriculum primarily, matches the network to study several language curricula again for auxiliary and so on influences to be biggest.

X3: Network study on-line language curriculum.

4. Language classroom engineering builds up innovative idea

The system revision goal, lies in establishes one product design, the manufacture optimization value, in the product design process, may use the customer demand and the product design incident cross-correlation matrix, after coordinating the customer demand the comparison and sorting, selects suits the moldtrain module, carries on the disposition to form may the selection scheme. During coordinates the customer demand, in the selection scheme to obtain the preferred plan.

5. Confirmation and achievement

In the product design, pursues the customer biggest benefit, from has the new thought that the promotion work efficiency, increases internal communicates with the exterior cooperation, and the application information design enhances the achievements, is

designs the innovation the strategy, the affiliation conformity product and the science and technology, defines clearly the multi-objective criteria and the attribute, the stimulation innovation energy, the pursue product best quality level, the biggest customer degree of satisfaction and so on, finally, achieves product crucial goal.

### 4.3. Product design management

#### 4.3.1. Product of teaching and learning management

The first unit: digital designer of product teaching course

1. Penetrates the learning language creativity content: The choice phantom corresponds the creativity writing and the speech content sound.

2. Strengthens the language practice to express immediately: Completes the work to respond that in speaks and the conformity sound technology, in the pronunciation, the connection phantom use sentence, studies the choice to be correct immediately automatically, completes the practice.

3. Makes good use of the reasonable language teaching: The learning process, according to the study interest strength, makes good use of the character, the sentence discretely continually, and the complex grammar, causes the learning language to grow gradually.

4. Choice image intuition esthetics: Raises the permanent memory and translator ability. The second unit.

The second unit: teaching synthesis appraisal

Pursue studies several language biggest benefits lets product which and service provides, can solve in the learning language problem, and has distinct and the spheroidized time, pursue unevenness growth, found the creation value the turning point, the experiment language anticipated benefit is:

1. Promotes several design language product design quality.
2. Highlights several design language product core value.
3. Unifies several design language teaching resources energy.

The third unit: student of comments the quantity

Language experiment anticipated achievement appraisal language studies the successful skill, establishes the high quality specialized classroom learning environment, provides the teachers and students the comfortable broad teaching and the study space, promotes the study result, the promotion teaching quality, its language experiment anticipated achievement, as Table 1.

<Table 2> Student each study way percentage

	Student of studies grouping			
	1	2	3	4
X0	78	84	88	90
X1	92	88	86	84
X2	6.8	6.6	7.1	7
X3	13.5	13.6	11	9.3

The fourth unit: quantification mean value

Language classroom > Traditional classroom > Network study

<Table 3> Student test of result minutes

Item	Student test of result minute				
	50 under	60~70	70~80	80~90	90~100
Language learning	0	2	4	14	30
Tradition learning	6	8	10	16	10
Network study on-line	12	17	10	7	4

#### 4.3.2. Product design of learning systems management

1. Sample recovers condition

Because the college on-line learning systems has just begun, researchers have totally 48 questionnaires distributed to colleges, totally 34 of them retrieved, and 30 out of the 34 effective. The valid rate comes up to 62.5%, and the coefficient of reliability 0.9 upward, which suggests high consistency.

2. Investigated percentage of results

Course idea (73.2%) > Technical ability (71%) > Learning environment (62.9%) > Management model (52.7%).

<Table 4> Investigated percentage of results

The degree of importance	Investigated percentage
Technical ability	71%
Course idea	73.2%
Management model	52.7%
Learning environment	62.9%

3. Analyses of the construction of questionnaires

According to factors of all aspect in the questionnaires, arrange the degree of importance: very unimportant 1 point, unimportant 2 points, common 3 points, important 4 points, and very important gets 5 points.

This paragraph chiefly describes the contents of questionnaires, which include the effect of technical ability, course idea, management model, learning environment all ordered by the sequence of the degree of importance.

These parts can be divided into the foundation data of school on-line learning condition and the effect of learning assistants as well. The contents will be as follows:

4. Analyses of the construction of results

Learning environment (4.13) > Course idea (4.07) > Technical ability (3.94) > Management model ( 3.74).

&lt;Table 5&gt; Analyses of the construction of results

The degree of importance	Average	Sigma
Technical ability	3.94	0.97
Course idea	4.07	1.1
Management model	3.74	0.85
Learning environment	4.13	1.08

### 5. One-way ANOVA

According to statistical of SAS software, used to one-way ANOVA, research workers are aware of the results that  $F=28.27$ ,  $P=0.129$  ( $P < 0.05$ ). Generally, they are considered to be almost same both in e-learning affairs of every aspect and in its effect, which suggests that more and more people attend on-line education, and schools therefore put more and more emphasis on technical ability, course idea, management model, learning environment and so on.

### 4.4. A Innovation learning engineering and management for product design educational development

A Innovation learning engineering and management of decision making system, by angle in every way pondered that the explanation product question, deduces satisfies consumer's good plan, belongs to the long time interval, the gradation, and under the uncertainty high working conditions, applies the decision making method, satisfies grade of fit in each criterion, may evaluate the best technical program, provides the policy maker the best pattern.

Thus, in product design educational development, allow learner to receive the learning effect efficiently under new learning model, therefore the planning content is focus on:

1. Digitalized learning for everyone.
2. Reduce digital differences.
3. Active learning record and assistant that has multifunction electrical schoolbag.
4. Digital learning network scientific area.
5. Visionary digital learn technology research.
6. Digital learn of learn and knowledge foundation research.

According to digital learning nation pattern scientific plan, in product design educational development on digital learning is to apply on creating a beneficial organizing environment, organize the up middle down etc research resources, let government, industries, and academic can work closely together, finally realize the social, industry and research aspects, including high quality digital society computer country, into become to research develop science technology of lead country.

## 5. Discussion

As discussed, in fact, in the learning environment, the improvement tradition study way, and strengthens the study sit-

uation regarding the language, policy of by the teaching computerization, lets severalth the studies between school teachers and students, the interactive cooperation be closer, deals with the rapid vicissitude the environment.

In Figure 1, studies of evaluation system several language product, achieves the learning language teaching goal activity design, could be helpful in raises the efficiency and the rapidity, this is the language teaching work category, if is in for a long time does not suit in the language learning environment, easiest to cause the victim to have the study manner effect not good, deficient visual and the sense of hearing transmission news, the teachers and students attends class the interactive difference and so on, suffers the schoolwork redundant pressure, the learning language difficulty, or the unnatural movement posture influence and so on, but causes the damage.

In Table 3, therefore when appraisal plan should make satisfactory the design, because can avoid studying designs improper creates backwardness, simultaneously when design, considers of speech training use its design, the application method is correct, is also creates the good study achievements the primary cause, but is helpful the learning language promotion of the quality efficiency.

The results of Table 4 and 5, analyses of the construction of results, the objectives of new knowledge effects obtain from on-line program, which helps to break through the bottleneck of individual's job. Subsequently, the enterprise can evaluate the whole effects.

According to questionnaire table of research content, it may concludes the learner result as following.

1. Learning environment: able to work with traditional teaching, besides, provide high quality of learning environment and courses, let teacher and students have a good E-learning environment and method, and enhance learner effect.
2. Course idea: abundant learning more diversify in learner courses content, providing it has valued the computer information, increase online interaction between teacher and students, that can raised the learn interesting.
3. Technical ability: establish learning attending cooperate of professional technology in leading position, continued investigates learning of teaching platform and producer kind power material, with improve school education.
4. Management model: establish online managing model, provide information that are low costs with useful business information, respond to be demand quickly, and satisfied learner online learning.

## 6. Conclusion

Using the multi-criterion decision-making technology, in studies of evaluation system several language product, develops in the language teaching quality and the space design, and by in the language classroom learning system, the machine operation, the classroom environment of design method and so on, conforms to ability of the study, and the best choice, makes the most ef-



fective utilization, displays the efficiency fully.

Will study several design products is future designs the subject, will advance to the information, the automated state to increase day after day gradually, the present student in the language classroom teaching will only attend class, will make several design product evaluation system, and will conform to the kinesiology structure to design, will affect the study quality and the student studies the interest and so on, this to study several language designers to take the topic.

When the enterprise carries on the multi-criterion decision-making principle, mainly by product various several designs and the study achievements primarily, causes the new product business planning with to schedule the product specification, has system's transformation product characteristic according to the customer demand, as well as the plan study flow, grasps various flows the product several designs key, then establishment of because of the pattern, approaches facing the globalized product competition time, only then the unceasing product innovation, can promote the enterprise value, designs conforms to the customer demand product, with promotion product innovation design, also brings the best study efficiency for the learner, is current studies several design products the important topic.

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