

# Chapter 83

## Research on Network Learning Process from Perspective of Communication

Yuehui Zhou

**Abstract** Network learning has already become the main way of learners' learning. This new approach to learning bring in learning convenient but also to bring some new problems: One of the most important is that network learning process often appears network trek phenomenon. In order to overcome this shortcoming, this research in the perspective of transmission, on network learning of the whole process is studied, in order to spread factors as the basic starting point, taking the typical network communication model as the research frame of network learning, is the study of a new train of thought. Through the analysis, introduce model of communication analysis problems, put forward countermeasures to solve the problem of information trek, to improve learners' learning quality, promote the network education rapid and sustainable development, and have realistic significance.

**Keywords** Communication · Network learning · Information communication · Element analysis · Effectiveness analysis

### 83.1 Introduction

Online learning is the modern information technology in the education use of the inevitable trend, is one of the main way to learn in the information age, is the collective and individual communication, and acquiring knowledge of important

---

Y. Zhou (✉)

Branch of the Media Arts, Jilin Business and Technology College,

Changchun 130062, China

e-mail: zhoyuehui@jlbtc.edu.cn

ways. The current network has been very generally deep in people's life, entertainment, and learning process. As a result cyber source has optional sex, flexibility, sharing, accord with people's learning characteristics and needs, natural network learning is introduced into the learning process, so there are a variety of network learning model, including organized network learning and independent learning mode, the information transfer also has considerable complexity. Communication studies is the study of the dissemination of information process and the laws of science, as an interdisciplinary subject, its general theory relates to information theory, semiotics theory, the theory of communication effect, feedback theory, model theory, and is about the general propagation rule summary. Communication research of human communication behavior, pays attention to all sorts of information on human impact and influence, pays attention to the information issued and receiving mechanism, which makes the dissemination and education relations become inevitable [1].

## **83.2 Basic Theoretical Foundation**

### ***83.2.1 The Concept of Network Learning***

The so-called network learning, refers to platform for a learning activity through the computer or other media of a network , and the learning activities mainly uses the cooperative learning and autonomous learning ways. Compared with the traditional significance in the learning process, network learning process mainly has the following characteristics in three aspects: one is to break the traditional learning limitation of time and space. The second is the learner's collaboration between learning and learning individual autonomous learning as the main form of learning; the third is the study of vast content, learning resource sharing, and interactive learning network [2].

Network learning itself is spreading behavior, belonging to the spread of education, the purpose is to promote and help people in need of learning, expand their knowledge, has extensive, sharing, not subject to time, place influence characteristic.

### ***83.2.2 The Perspective of Communication Science***

Communication is the study of humans on how to use symbols and media information communication course, the scope of the study to the mass, and also on how to accept news and intelligence, according to how educated is a person. Communication is research of all human communication processes and communication

behavior the occurrence, development of the scientific. Study on the rule and in the process of communication between people, knowledge between man and society , is the social information system and its operation rules of Science [3].

### 83.3 The View of Communication Network Learning Elements Analysis

#### 83.3.1 Network Learning Information Process Analysis

Educational communication has many very famous communication modes, and especially on Shannon-Weaver model with the social mainstream network learning process is closest. This model is the Shannon-Weaver on the telegraph communication issues and it is the use of telephone communication, we are now using network learning as the transmission equipment propagation learning content. Shannon-Weaver model structure as shown in Fig. 83.1.

This model divides the communication process into seven components provided with a feedback of two-way communication model. Network learning process and the model of the dissemination process have great similarities. Shannon-Weaver model and the network learning process have very similar place, at the same time, the model is also very important in the communication mode of the education spread model. This model is established on the basis of the new network learning model that can better play the advantages of network learning.

#### 83.3.2 The Communication Concept Guidance Network Learning

Dissemination of knowledge is very wide, many subjects can use its theory, and there is no transmission at every moment and hour of human life . Communication is the use of the optimal means to obtain the best effect . Communication content is

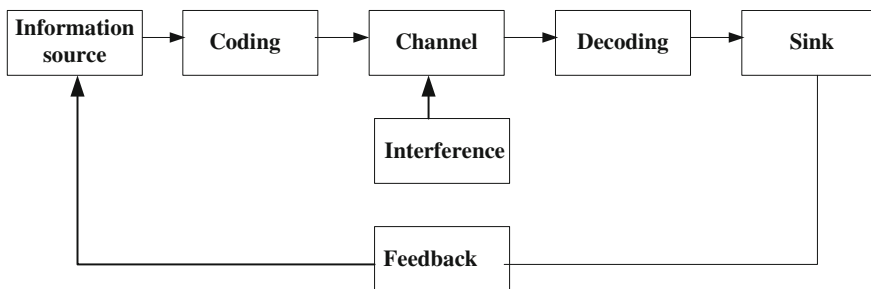


Fig. 83.1 Shannon and weaver model structure

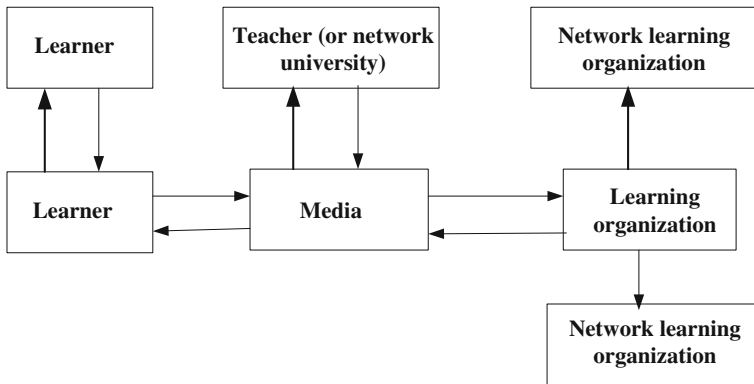


Fig. 83.2 Network learning process structure

not fixed, it can be arbitrary, and recipients can also be arbitrary. It shows that in the network study any individual or group can evolve into a biography or recipients where teachers transfer students, and students after digestion and absorption can also transfer to other people. In the second propagation process, students will become the communicators (equivalent to the teachers), who can achieve “one biography ten, ten pass 100” effect [4]. The use of these concepts, network learning is a loop learning process, knowledge in the network communication is faster and more can improve learning efficiency. As shown in Fig. 83.2.

### 83.4 Factor Analysis of Network Learning

#### 83.4.1 Information Teaching of Network Learning

In the spread of education, teacher the central task is information collection, Process and the transfer is also the basic communication behavior. For teachers, collecting and processing information is mainly to transfer to the students effectively. The network study has had less significant level of communication, namely the teachers through the Internet and other means of teaching, eliminate doubt and confusion and the tasks were transferred to the students. In the learning demand for power network autonomous learning process, teachers will no longer have to spend a lot of time to organize the teaching plan and teaching as the main task, and to provide students with a variety of learning resources, concentrate students to collect resource query and do assistant work, reduces the student to collect resource to the desired time, simplify the operation steps, improve learning efficiency.

### ***83.4.2 Recipient in Network Learning***

From the learner's psychological analysis, obviously, the network learner and traditional learners have different psychological feeling and psychological changes. From the perspective of communication science, analysis of network learning psychology, learning performance in four aspects: the need of study, learning motivation and psychological tendency, psychological effect [5].

#### 1. The network learners learning motivation

Learning motivation mainly for the intrinsic and extrinsic motivation, for autonomous learning should emphasize the learning motivation, is the internal excitation or self excitation [6].

#### 2. The network learners self-efficacy

Self-efficacy refers to learners in network learning activity that can lead to a particular outcome expectancy. Experiments show that [6]. High self-efficacy learners in network learning activities, will be able to use more species and more learning strategies, shows strong self-confidence, to network system more exploration; these researches will have more access to information, so as to make the learners get high orientation.

### ***83.4.3 Network Learning Communication Content-Network Information***

The traditional learning information is the main source of teachers and teaching materials, while the network learning information mainly comes from the network media. Network information resources the dissemination of the content is the network learning system entity, mainly to the knowledge, the control signal, news, games, problem, and other forms of existence. Network information resources in the separation between teachers and students under the condition of learners are learning essential component. Information resources here mainly include the following categories: learning process information, learning content information, and auxiliary resources. Learning content information mainly refers to the provisions of the course content, the forms of media including text, video, such as small class teaching; The learning process information mainly refers to the information transmission control information and the receiver (learners) feedback information, under the environment of network the form of question, learning, online discussion, question answering; learning auxiliary resources is based on various cyber source to help learners learning support service and course information, including the teaching outline, teaching arrangement, practice exercises, and so on.

### 83.5 Network Learning Effectiveness Analysis from Perspective of Communication

#### 83.5.1 Network Learning Student Participation Degree Analysis

This research is mainly done by education technology research methods course, the application of the virtual learning community as an example. In the process of the course, with traditional teaching as the foundation, 33 students of this class were divided into five groups, each group has the focused responsible for a project. Each group is responsible for the project by collecting material, literature form the case, then demonstrates and explain the problem of existence discussing in class and after class using virtual learning community. Students in the interaction process leads related problems, a new wave of search and integration, this process is primarily in the online community. As shown in Fig. 83.3.

#### 83.5.2 The Network Learning Effectiveness Analysis

This study selected the school’s students as research subjects, randomly selected subjects investigated for university students’ network autonomous learning situation survey. This research adopts the investigation method of the questionnaire as a qualitative study, with greater subjectivity. Research achievements and learning about the scale and a questionnaire. At the same time, through the open questionnaire survey method, and then on contemporary college students’ autonomous learning network is indicators collection. By writing “the university students’

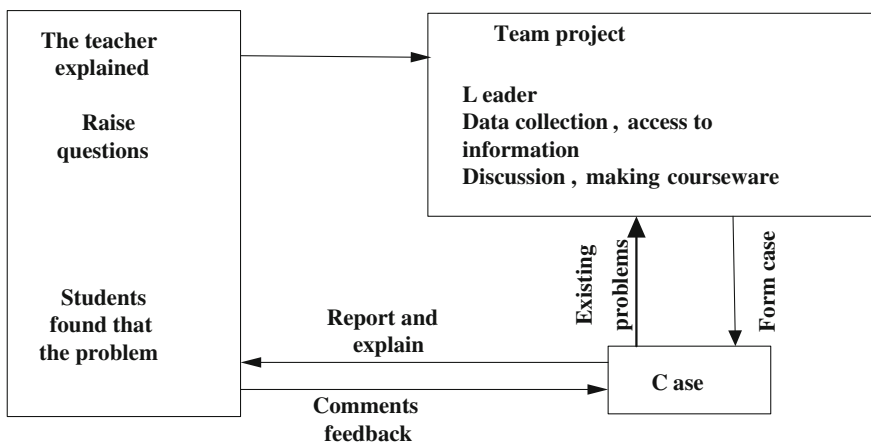


Fig. 83.3 Network learning community function

network autonomous learning questionnaire” to measure of college students’ network autonomous learning (issuing questionnaires 123, recycling of 123, the boy 86, the girls 37, all effective),. Influence of network autonomous learning internal factors mainly include the students learning motivation, learning objectives, on autonomous learning, economic status, or physical quality; The external factors mainly include the school ethos or established by the professional, network curriculum design, around teachers and students the attitude of learning, online learning resources and network environment, and so on.

## 83.6 Conclusion

Network dissemination is present as the most advanced communication in human communication. The spread and popularity, information extensiveness, and information reproduction is simple, fast and lively communication, etc., in many communication tools should come first on the list. Using the network to learn has become an important way of learning in the world today. The network learning can effectively improve the learning quality is determined by the learning system of multiple elements, combined with network learning process and communication, with the perspective of transmission analysis of network learning.

## References

1. Hong P (2006) In the view of communication primary and middle school brand, vol 13(8). Sichuan University, College of literature and news, pp 181–188
2. Shao P (2000) Communication, vol 15(11). Higher education press, Beijing, pp 207–217 (in 2005 13th printing)
3. Liu L, Hu P (2009) On open and distance personalized network learning. J Xiamen radio Television Univ 6(21):36–38
4. Jin ZK (2003) From the view of communication distance see teaching process—open and distance education propagation mode. J Distance Educ 2(31):19–20
5. Sun D (2007) Network learning adaptability investigation. Chin Audio-Vis Educ 7(14):75–77
6. Wang L, Feng H (2009) The remote teaching/learning system affect learning quality five factors. Audio-Visual Educ Res 16(7):78–81