

# Research on the Development of Teaching Material Resources in the Times of Media

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**Keywords:** The Times of Media, New Form of Teaching Materials, Textbook Resources

**Abstract:** With the development of computer network technology and communication technology and the popularization of intelligent devices, the application of IT technology and Internet and Internet of things technology has brought profound changes in the field of education. Students are no longer satisfied with the learning in the classroom. The rich way of learning broadens the access to knowledge. The combination of online learning and fragmented learning and other learning methods at anytime and anywhere has become the main way to acquire knowledge. People's reading environment and reading habits have been hitherto unknown changes, only a short while ago, teaching resources also appeared to undergo some column transformation, presenting a new form of traditional textbooks and digital publishing: the integration of development, integration and development of printing paper with rich media resources, integration and development of paper materials and digital resources.

## 1. The Three Stages of the Development Form of Teaching Material Resources

### 1.1 The first generation of material resources with the characteristics of media

Textbooks usually mean what we call textbooks or textbooks, that is, the traditional paper media. The earliest textbook resources construction also includes auxiliary materials, such as synchronous manuals, classroom exercises, experimental guidance materials, exercises and other paper materials. The way of teaching material resources is usually arranged in a simple linear way according to knowledge points [1]. The advantage is to pay attention to the presentation of learning contents, which is more suitable for learners to learn mechanically from easy to difficult.

With the advent of computer, projector and other equipment, network open course program (OCW) to carry out teaching resources from the print form gradually to digital media form, compared with the print media, teaching resources has become an auxiliary material, combined with classroom teaching, knowledge in form than before has changed. Therefore, the value of teaching material resources of digital media is basically attached to the teaching material itself, centered on the content of the textbook itself, and the organization form of teaching material resources is not organized according to learners' learning angle, ignoring the needs of learners [2]. The content of this kind of teaching material is relatively simple, only the one-way communication between teachers, teachers and students can not communicate and communicate in time after class, which is closed.

### 1.2 The second generation of teaching resources in network media features

The emergence of Internet technology has caused great changes in the field of education, with the OCW movement in depth, especially the construction of the national excellent course starting in 2003, the media materials in the internet. The development of technology promotes the transformation of teaching material resources. A video based open education resource is deeply loved by learners. Its manifestations are diverse and content aggregation is good. This kind of textbook resource has realized primary sharing and can be spread on the network platform. Network teaching resources is the teaching mode of type + resource website, still unable to get rid of the shackles of the classroom teaching, learning and teaching resources to obtain synchronization, and teaching content can not be updated in a timely manner, to achieve large-scale resource sharing is

not [3]. The teaching resources are still centered on knowledge, lack of effective interaction, and can not really promote the cultivation of learner autonomy.

### **1.3 The third generation of textbook resources with the characteristics of the new form**

The popularity of intelligent terminals has emerged as a cross media media resource characterized by sharing, quality, interconnection and cross border. The teaching material is fully integrated with network media. Teaching material resources can be intersecting and integrating among different media. A new form of teaching resources has the following advantages: 1) access to resources is convenient, the learners use mobile devices can whenever and wherever possible access to learning resources; 2) resource sharing through symbiosis, online school, China mo-net, good university online Mu class alliance establishing high-quality curriculum resources sharing platform; 3) multi linkage first, the joint consultation, professional teachers, well-known enterprises, the Department of education and publishing institutions, reconstruction of teaching resources, enhance the pertinence and effectiveness of resources, to meet the different needs of online learning.

This cross media teaching material has changed the traditional teaching mode. Teaching is no longer confined to classroom teaching and learning. It facilitates the self-learning, guidance in class, knowledge expansion after class, and online and offline learning mode. Compared with past resource construction, the new form textbook resources take into account the upgrading of resources in the later stage, and take learners' development as the starting point in the whole educational resources construction concept and value orientation. In the process of the development of teaching materials in the structure change of traditional teaching materials and teachers, teachers are not only the main textbook users or developers, to promote the education reform of the teaching methods through the construction of teaching resources, so as to reconstruct the relationship between textbooks and teachers, learners [4-5]. From the book to the network media network, to learn from the course of networking networking, this is one of the "Internet plus" in-depth understanding and innovation results, is the sublimation of understanding. Obviously, this teaching material resource construction integrated into the new educational reform elements, cleared up the concept of the most instrumental and technological supremacy, and promoted human development and growth as an opportunity to meet the needs of current learners.

## **2. Construction of New Form of Teaching Material Resources**

### **2.1 Pay attention to the writing of the paper part of the textbook**

A new form of teaching material is the full integration of e-Textbook and Internet plus the e-Textbook is mainly used for the basic theory, basic knowledge and basic rules of elaboration, is basic framework of new forms of teaching materials. Therefore, the writing of paper materials should be made as follows: 1) to ensure that the focus and main line are clear, the content is refined, the resources are saved and the cost of printing is reduced. 2) Identify the types and contents of digital resources with clear and clear icons in the corresponding digital contents of paper teaching materials, so that learners can quickly browse to online resources in the form of two-dimensional code. 3) Complete system, meticulous teaching design, meticulous, fragmented knowledge points, in order to adapt to the current needs of learning anytime and anywhere [6].

### **2.2 Pay attention to the integration of online and offline resources**

Since October 2011, the Ministry of education has officially launched the construction of excellent courses. Up to now, there are thousands of high quality resources sharing courses on the major platforms. These state-level top-quality courses are carefully designed and produced, checked out by layers of checks. We can make full use of these existing high-quality resources to learn online and offline [7]. The construction of new teaching materials is not to simply stack and distribute these high-quality resources, or to move the simple carriers of paper teaching materials, but to break the old mindset and reconstruct the resources according to the new needs in order to adapt to the current online and offline combination of various teaching modes.

In the process of the construction of digital resources, form focus on the content of the resource, select the appropriate media, knowledge exploration, teaching content to dynamic, visual way to help learners to multi-level and multi angle, so as to reduce the difficulty of learning and enthusiasm for learning.

### **2.3 Attach importance to the feedback of the learners to the teaching resources**

The ultimate goal of the development of new form teaching material resources is to promote the growth and development of learners. As a user's first line teachers and learners, reviews of learning resources are the most authoritative. The new form of the development of teaching material, we should pay attention to the experience of teaching design must be refined based on extensive research on reflection, which can not deviate from the following themes: what kind of situation can make students better grasp of knowledge, enhance the ability for teachers with enthusiasm? What form to mobilize students [8-9]? How to construct the learning content to improve students' learning efficiency? How to objectively evaluate students? Only true users have the most right to speak.

### **2.4 Pay attention to the user experience of digital resources at different terminals**

A good new form of teaching material resources is not only manifested in the quality of teaching material resources, but also has good user experience, that is, when different intelligent terminals are running, they must have good performance and compatibility. Before developing, we first need to select the operation platform of network resources, then consider the implementation of technology and support the development of APP supporting multiple intelligent terminals. In the whole development process, we should pay special attention to customer experience, and continuously optimize and upgrade performance at later stage [10]. The interaction of the whole system should be considered and the immediacy of the problem test feedback should be considered.

## **3. Application Principles of New Forms of Textbook Resources**

### **3.1 Optimal application mode**

1) In the early use of new forms of teaching materials, we should pay more attention to the optimization of digital resources and improve their usability.

2) Later is mainly concerned about learners' evaluation, exploring a set of simple and effective evaluation models, giving objective and accurate evaluation of learners' learning effectiveness from all dimensions.

3) Using simple and easy icons to simplify the learning process, so as to better guide teachers to use resources, students to acquire resources and use resources, and improve the utilization of digital resources.

4) Textbook resources design is trapezoid, difficult to divide, and different tasks are designed at different levels, so as to give full play to students' subjective initiative, mobilize the enthusiasm of students, enhance students' autonomous learning and give full play to the true value of new forms of teaching materials [11].

### **3.2 Synchronous construction of resources**

Paper textbooks and digital resources are complementary to each other, must implement the integration construction, ensure continuous updating, that focus on the digital resource library according to the changes of the times, learning needs, continuously updated do its video and audio, animation, text, pictures and other resources, to carry out more effective way with teaching content [12]. The synchronous construction of resources should ensure the smooth access between the paper materials and the digital resources, so as to achieve the online and offline resources association. Therefore, the construction of new forms of material resources needs a team to participate in the whole, multi - linkage. In the process of resource construction, the more expensive or the more advanced technology, the better teaching. We should pay attention to choosing suitable types from the perspective of teaching applicability, so as to avoid unnecessary waste.

#### 4. Conclusions

In the Internet + era, from book networking to learning networking, from syndication to integration, from reuse to generation, from process to result. With the progress of science and technology and the development of technology, the teaching material resources are constantly changing and upgrading in order to serve the learners better.

#### Acknowledgements

The authors would like to thank the project: Ningbo College of Vocational Technology Teaching and Research Project in 2017: "Research on the Construction of New Textbook Resources in the Age of Book Networking" and the fund project: National Education Information Technology Education Research (Project Number:176140059)

#### References

- [1] Fujimura Y. Integrative Development of Teaching Materials on a Web and a Paper Media to Support Information Morals Instruction Corresponding to the New National Curriculum[J]. Research Report of the Japanese Institute of Educational Industry, 2012:31-38.
- [2] Hodgkinson Williams C, Paskevicius M. "It's Not Their Job to Share Content": A Case Study of the Role of Senior Students in Adapting Teaching Materials as Open Educational Resources at the University of Cape Town. [J]. E-Learning and Digital Media, 2013, 10(2):135.
- [3] Jiang L, Yi M. Development of electronic teaching material of modern P.E. educational technology upon problem-based learning[C]// International Conference on E-Education, Entertainment and E-Management. IEEE, 2012:367-370.
- [4] Tsutsumi R. A Study on the Effectiveness of Visual Literacy for Visual Media Teaching Materials in English Education[J]. Mejiro Journal of Humanities, 2014, 10:265-277.
- [5] Ardan A S. The Development of Biology Teaching Material Based on the Local Wisdom of Timorese to Improve Students Knowledge and Attitude of Environment in Caring the Preservation of Environment. [J]. International Journal of Higher Education, 2016, 5(3).
- [6] Li Z, Yu X. Developing English Teaching Materials Using Media to Prompt Creativity: Focusing on the High School Curriculum[J]. 2013:477-498.
- [7] Al-Maktari O A M, Jamaludin R, Mnaath S H, et al. Boost Enhancing Electronic Teaching Material (ETM) of Modern Physical Education Practice (PEP) pedagogical Technology Over Problem- Based Learning[J]. Classroom Environment, 2014:79.
- [8] Sato K, Koyama E, Nagashima M, et al. Application of media teaching materials "e-learning for Anatomy" to measures against national examination for nurses in third year students of Undergraduate Nursing course of Tsukuba International University during spring vacation[J]. 2012:87-93.
- [9] Li Z. Teaching Reform Study on International Media Talents Training in Universities——Teaching Material Analysis and Teaching Optimization of "British and American Newspaper Selected Readings"[J]. Education Teaching Forum, 2017.
- [10] Enakrire R T, Onyanania G O. Training of teacher-librarians in multi-media methods and materials production in Delta state, Nigeria[J]. 2012(2):19-29.
- [11] Raman, Arumugam. Perception of The Mathematics Teachers Towards the Usage of Ict in Teaching Mathematics[J]. An International Journal of Education & Humanities, 2012, 9.
- [12] Tomlinson B. Materials development for language learning and teaching[J]. Language Teaching, 2012, 45(2):143-179.