

Study on the Information Literacy of University Teachers in the New Media Age

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Abstract—New media have exerted tremendous impact on people's way of getting, processing and using information, people's information literacy bears certain characteristics of the age accordingly. The process of informatization in education makes it necessary to improve the information literacy of university teachers. The cultivation of their information literacy is beneficial to their personal improvement, students' development and discipline construction. The dynamic connotation of information literacy and its daily application call for more practice and active cooperation between universities and teachers.

Keywords—new media; information literacy; features; cultivation

I. INTRODUCTION

With the development of internet and mobile information technology, the informatization is advancing, and the world is gradually entering the new media age characterized by mobile terminals. The integration of new media and intelligent technology has brought unprecedented informatization changes to education. Colleges and universities are the forefront of citizen's quality education and information literacy education. As the implementer of education informatization and lifelong learner in the information age, university teachers, due to their particular profession, should have higher information literacy. In the new media age, the information literacy requirements of university teachers have distinct characteristics of the times, and its promotion has become an urgent problem to be faced and solved in the process of education informatization.

II. NEW MEDIA AND EDUCATION REFORM

"New media" is a historical, relative and dynamic concept, which has different connotation in different historical and cultural background. At present, the "new media age" that is discussed refers to the historical period since the birth of digital information technologies, such as computer technology, Internet technology, mobile terminal technology. "New Media" mainly refers to such media forms as computers, mobile phones, mobile devices and digital TV, which provide information services to users through internet,

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wireless device and satellite, as opposed to traditional media such as newspapers, radios and televisions in the past. [1]

With the development of mobile terminals and new media, education has broken the limitation of time and space. The powerful interactive function, individuality and convenience of new media are changing the traditional classroom mode and influencing people's learning concept. As far as online education is concerned, China's online education industry achieved great financial success in 2017 with "lives broadcasting", getting a market share of 25.176 billion yuan in 2018. [2] The development of new media technology has brought convenience to teachers and students and greatly improved efficiency. However, in face of vast internet information, teachers' competence of cognition and implementation are quite different. Their ability of information selection and identification needs to be improved. The application of new media technology to education is also unsatisfactory. Therefore, it is of practical significance to cultivate teachers' information literacy, so as to improve education informatization in the new media era.

III. THE NECESSITY OF CULTIVATING COLLEGE TEACHERS' NEW MEDIA INFORMATION LITERACY

As the carriers of intelligence education and information literacy education, university teachers, with proper information literacy, directly affects the quality and effects of new media information dissemination, and further affects the construction and scientific development of intelligence education.

A. It Is Favorable for the Scientific Development of Wisdom Education

With the development of human wisdom as its core, wisdom education aims at cultivating innovative talents with good value orientation and all-round development. As the most active element in the ecological system of wisdom education, teachers are one of the foundations to achieving the goal of wisdom education. Firstly, university teachers with good information literacy can use new media resources to effectively acquire, analyze and evaluate information, ensuring the quality of information at the same time. In the process of teaching, they can scientifically employ information and actively exert wisdom guidance to help students form correct view of the world and of media.

Secondly, with good information literacy, university teachers can continuously elevate education with new media technology, thereafter, coordinating human, machine and environment. [3] It is helpful for teachers to form a community with students sharing social and cultural knowledge as well as real experiences, so as to offer students personalized way of learning, cultivate their communicative skills, and promote their overall development. Finally, university teachers with good information literacy can access to and select information resources in various ways, timely expose to new information, broaden academic horizons, create an independent and relaxed academic atmosphere, and promote the cultivation of innovative talents.

B. It Is Favorable for the Construction of Harmonious Campus Information Ecology

"In ecology, the information ecosystem is a multi-dimension integration of three basic ecological elements: human, information and information environment. [4] In the system, man is subject, information is object, and information environment is the collection of all external factors that are interrelated with information. Ecological information dissemination is a balanced and harmonious relationship among the three elements in the system. The orderly organization of educational and teaching activities and information exchange needs not only the guidance of advanced information culture, but also the guarantee of good information environment, and the support of harmonious teacher-student relationship. Teachers, as one of the main contributors of the educational ecosystem, are the most important organizers, disseminators and creators of educational information resources, as well as the builders, promoters and leaders of campus advanced information culture. In order to achieve the favorable circulation of campus civilization and ecological information environment as well as the harmonious development of teacher-student relationship, it's necessary for teachers to have good information literacy.

C. It Is Favorable for the Development of Teachers and Students

Teachers' good information literacy is an important factor to promote their own development and students' healthy growth. By making full use of new media technology and equipped with advanced concepts, teachers are capable to carry out teaching innovation and discipline research. Teaching is a process of continuous research, practice and reflection. When teachers transfer information literacy into conscious action, they can integrate new technology into curriculum teaching, innovating new teaching mode, acquire learning resources via network platform, share and co-construct high-quality resources, get students' learning data by data analysis technology, promote scientific decision-making and intervene precisely to facilitate students' learning via new media. Secondly, they can construct virtual teaching and research group, learning group and work group on cyberspace to help information exchange and collaborative innovation between teachers, students and peers.

IV. THE CHARACTERISTICS OF INFORMATION LITERACY OF COLLEGE TEACHERS IN NEW MEDIA AGE

In the information age, the sensitivity to information, as well as the ability to identify, examine, plan, collect, evaluate, manage and distribute information, will become a basic skill that people must master. [5] Due to the impact of the new media on education, the information literacy of university teachers is bound to bear the requirements and characteristics of the times.

A. Dynamics of Information Literacy

The connotation and denotation of information literacy are constantly enriched and broadened with the development of information technology, information forms and information culture and their influence on social progress, which shows dynamic characteristics. In the era of new media, university teachers should be able to adapt to the reforms of education technology. In addition to basic information literacy such as information awareness, information knowledge, information ability and information morality, teachers are required to use and expose to new media rationally and rightly in the information-based education environment, so as to have benign interaction and effective interaction with the media. Teachers in colleges and universities should also have high information literacy of new media, such as media teaching, media guidance, and media design and media research. They should also be skilled in using diverse new media technologies, tools and means to carry out instruction and teaching. They are to effectively participate in and promote information literacy education of new media in schools, helping students improve information literacy of new media. They should be capable to understand, evaluate and reflect intelligently, in order to creatively integrate, design and develop new forms of curriculum resources. They are to make full use of new media to facilitate individual and professional development. [6] Understanding its dynamics will help teachers to improve their knowledge of information literacy and information technology skills, and better adapt to the current education situation and promote the transformation of educational mode.

B. Life-based Information Literacy

In the new media era, with the popularity of the Internet and smart phones, the information literacy of university teachers has much more impact on their lives, learning and work. In our daily life, various software and via smart phone can be downloaded, installed and used. It's useful to collect record and post information at any time by using its photography, camera, recording and notes. Communication, based on mobile terminals, can facilitate the exchange of information between teachers and students. Teachers can download files through smart phones, carry out mobile teaching and learning, and conduct office work and scientific research. Obviously, this kind of information literacy has become a life-based skill.

C. *Practice-based Information Literacy*

The process of cultivating, improving and evaluating information literacy and its ultimate manifestation lie in people's application and employment of information technology. Therefore, information literacy is practice-based. [7] Via new media, teachers can receive and exchange various information has spread through mobile phones, networks, access and use massive resources such as network databases, digital libraries, etc. With mobile phones, teachers can recognize and process text on paper documents, and carry out blended teaching. These new skills need to be applied, consolidated and perfected by continuous practice; hence the cultivation of information literacy requires more and frequent practice.

V. WAYS TO IMPROVE TEACHERS' INFORMATION LITERACY IN THE NEW MEDIA AGE

A. *Exploring Life-based Information Literacy Promotion Possibilities*

With the fast development of wireless communication technology, informationalized environment is ubiquitous and penetrate into our life, study and work. The improvement of information literacy needs to be integrated with education, teaching, scientific research and daily life. Firstly, it is advisable to optimize and improve the wireless network coverage on campus to facilitate teaching, to set up mobile platform of school website and library, to establish OA office system of school, and to purchase e-book reader. Therefore, teachers can obtain the latest resources of library and personal library information by mobile phone, search and download electronic documents. Secondly, it's helpful to stimulate teachers' enthusiasm for "Internet +". Through various channels such as Wechat and QQ, teachers are encouraged to participate in network life, communicating, sharing, posting and exchanging information. In the process of communication and participation, they may improve information literacy unconsciously, acquire various life experiences of new media, and transfer these experiences into teaching and scientific research. With diverse functions, new media has been used in many aspects of life, accordingly, information knowledge, ability and morality will also be transferred with it.

B. *Constructing Differentiated Information Literacy Training System*

Rich in connotation, information literacy changes with the times in its denotation. Teachers in different positions call for different information literacy, so it's necessary to build a differentiated and updated training system. The core idea of the new media age is decentralization, and way of learning is not limited to the traditional mode. To meet the needs of personalized training and seek ways that teachers are willing to accept, some new media platforms, devices and apps are recommended. With the advantages of convenience, instantaneity and interaction, new media can offer diversified and popularized training to arouse teachers' enthusiasm for learning in form of text, pictures, voice and video. It's advisable for universities to cultivate some

backbone teachers and teams who are competent in information technology and its application. Teachers in the teams are responsible to provide timely and up-to-date information-based teaching technology training, to establish "information clubs" similar to the curriculum team, in which teachers can exchange regularly on a specific topic. They are suggested to offer some short term training, which is targeted and interactive to solve a specific problem of teachers.

C. *Offering Diversified Practice for Information Literacy Cultivation*

Only by training can't cultivate teachers' information literacy. It is sensible to adopt incentive mechanism to encourage teachers to practice, so as to strengthen the training effect, and promote the active transfer of training knowledge. The scientific research department of university should encourage its faculty and staff to study the latest information technology and its application to solve some practical problems in teaching. The education administration department of university should encourage teachers to apply information technology to the classroom teaching reform. Various activities could be organized regularly, such as classroom teaching skills competition based on new media, curriculum resources construction, teachers' cyberspace design contest, papers on information technology and so on. These activities are helpful to develop the basic skills and qualities of teachers to apply new technology and obtain new information, which is favorable for education informatization. Every fundamental and serving department of university should provide better conditions for its faculty and staff to improve their information literacy, such as enhancing the exploration, purchase and application of information software for teaching, increasing the input of hardware to facilitate informationalized teaching and fostering an information technology team to ensure the practice.

VI. CONCLUSION

The openness, instantaneity and interaction of new media make it easier for people to access, utilize and post various information resources in their work, study and life. In the field of education, teaching reform in Internet+ environment is closely related to new media. Teacher' information literacy shows new characteristics, and the relationship between information technology, teaching and scientific research is correlated. Teachers' information literacy plays an important role in the development of teachers and students, campus information ecology and discipline construction. Only when schools and individuals work together to recognize the importance and requirements of information literacy, can educators with qualified information literacy be provided for education informatization under reasonable cultivation, guidance and practice.

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