

A Preliminary Study on the Construction of “Cloud Internship” Mode for Professional Degree Graduates during Public Emergencies--Take the Covid-19 Epidemic

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ABSTRACT. *Focusing on the current situation of frequent disasters and economic recession in the world, taking the most typical COVID-19 epidemic as an example, this paper integrates and draws lessons from such advantages as “cloud diplomacy”, “cloud manufacturing”, “cloud shopping” and so on, thus creating the concept of “home office + home class = home internship”, namely “cloud internship”. The concept structure, framework construction, incentive mechanism and quality control of “cloud internship” are comprehensively analyzed, and the deficiencies are also clarified. Finally, the background and practical significance of “cloud internship” are expounded.*

KEYWORDS: *Professional degree, Cloud practice, Covid-19*

1. Introduction

Since the COVID-19 epidemic cases outbreak in Wuhan in January 2020 , in order to avoid “human-to-human transmission chain of infection,” the People's Republic of China Ministry of Education issued a “response to the Ministry of Education will be coronavirus pneumonia outbreak work leading group office of common colleges and universities during the epidemic prevention and control of online teaching organization and management guidance” hall [2020] no. 2 (superior), all kinds of schools at all levels in response to public health event level I, under the condition of using the MOOC lesson for SPOC, wisdom, exclusive online course system, network teaching space tools such as extensive network curriculum teaching. However, as an important part of higher education, practical teaching for graduate students of professional degrees (including master's and doctor's level) is at a standstill, professional internship and social practice activities for graduate students are forced to be delayed, and corresponding credits are also delayed or reduced. The pneumonia epidemic has a great impact on graduate education, especially on professional master's degree education. Novel Coronavirus proposed by WHO may

coexist with mankind for a long time. Therefore, it can be seen that the practice education of graduate students needs to develop a regular and effective long-term mechanism. "A stone from another mountain can attack jade." Inspired by the implementation of "cloud diplomacy" by General Secretary Xi Jinping, as well as previous online courses, online office and "cloud manufacturing", the concept of "cloud internship" was proposed.

Internship "cloud", just as its name implies refers to all kinds of platform via the Internet (including virtual simulation experiment and digital software, network virtual space, etc.) to realize the business exchanges and docking, is adapt to today's digital, information-based and big data era under the background of network teaching and the combination of network office, is also fit into the national postgraduate education conference spirit, adhere to the "four" policy, deepen the graduate students of combining education with productive labor of the righteous. Professional degree graduate students take "post system" and "project system" to complete the work tasks of the internship unit as the extension of online teaching. "Cloud internship" effectively avoids the contact of personnel gathering, ensures the physical health of the staff of graduate students and internship units, and adopts flexible practice in time, making professional practice more flexible. Practical teaching for graduate students with professional degrees often involves the movement of people across regions. For this reason, "cloud internship" breaks through the limitations of time and space, and is more applicable in the worst-hit areas at home and abroad, with its unique practical and historical significance.

Professional degree, also known as vocational degree, is a kind of degree type set up in China according to the actual national conditions and in accordance with the needs of the society in specific vocational fields, to cultivate high-level application-oriented professionals with strong professional ability and professional accomplishment, who can creatively engage in practical work. A professional degree is at the same level as the corresponding academic degree. China's professional degree education started in the early 1990s and has established a professional degree postgraduate education system with Chinese characteristics. At present, there are more than 500 training units with the right to grant professional degrees, nearly 3,000 master's degree programs, and nearly 100 doctor's degree programs. More than 1 million professional degree students have been enrolled. It has 40 kinds of master's degree and 6 kinds of doctor's degree, which basically cover the backbone fields of national economy and social development. Among the 46 professional degrees, the number of practical teaching projects in each discipline field is estimated to be nearly 300, thus it can be seen that "cloud internship" has to face a large number of objects, complex structure and arduous tasks.

In various fields of social production, "cloud internship" mode can be widely involved in different degrees, mainly applicable to full-time doctoral students of professional degrees and full-time master's students of professional degrees. Of course, it also has certain reference significance for students at all levels of other kinds. According to the professional attributes of graduate students and the completion time of practical work, "cloud internship" mode for graduate students of various professional degrees can be divided into short-term task type (1-3 months),

medium-term project type (4-12 months), and long-term contract type (over 12 months). Through virtual simulation platform, the “cloud internship” mode maximizes the reproduction of real work situations, is oriented to research and solve practical problems, integrates and recombines existing online work modes, and completes business docking. “Cloud internship” consists of four parts: non-material production (cultural transmission), material production, online trade (including finance) and experience consumption.

The field of non-material production (cultural communication), as its name implies, refers to the invention, production, processing and inheritance of spiritual (cultural) production. Specifically, it covers curriculum teaching, art design, translation (including foreign language translation and interpretation), law, accounting, auditing, applied psychology, finance, trade, business administration and online virtual product production practice. Worked as an intern in “cloud” mode, the behavior of non-material production (culture) mainly covers education PhD (Ed. D.), master of education (Ed M), master of arts (MFA), master of journalism and communication (MJC), master of police (MP), master of cultural relics and museums (MCHM), master of social work (MSW), master of book intelligence (MLIS), master of business administration (DBA or DPS), master of law (JM), master of accounting (MPAcc), master of audit (MAud), master of public administration (MPA), and other specialized degree graduate student groups. From the perspective of communication, its advantages are reflected in the seamless connection between information transmission and online business through the process of information encoding, conduction and decoding in a mimicry environment, which saves the cost of site, transportation, equipment and tools and materials to a certain extent. However, its deficiency lies in the fact that there is no unified software with complete functions, professional integrity, simple and easy to operate, and its technology research and development, professional matching, cost and price, category compatibility and market recognition need a long development process.

The field of material production, understandably, refers to the field of physical production, processing, transportation, trading, application, etc., whose scope covers all aspects of social production and life, with diverse types and complex quantities, mainly concentrated in the field of primary industry (agriculture) and secondary industry (industry). The most obvious feature in the field of material production is that it takes the market demand as the guide, takes the objective object as the carrier or object, produces economic benefits and social benefits around the object, and realizes the social value of the object. The internship subjects in the field of material production focus on doctor of Engineering (D.ENG or Eng.D), Master of Engineering (ME), Master of Public Health (MPH), Master of Agriculture (MAE), Master of Forestry (MF), Master of Architecture (MA), Master of Landscape Architecture (MLA), etc. In the professional degree, the most professional practice object is the objective physical objects or people, dependence on objective object or person is bigger, difficult to achieve in the short term for material product research and development, production, sales, use the whole life cycle of the related resources integration, to provide a standard, specification, shareable manufacturing service

model and the subsequent extension services, these largely limits the practice “cloud” work. At present, “cloud practice” is limited to the preliminary design, teaching and program practice in this field, and the realization of cross-regional remote farming, greening, bridge building, road building and building construction is still to be advanced in today's scientific and technological development.

Online trading (financial) is under the background of the modern commodity economy, for the purpose of profit, to the enterprises and institutions legal person (organization), the natural human participation main body, is engaged in the trading of goods or services of social areas, mainly concentrated in the tertiary industry and the subsequent extension part of the primary industry, secondary industry, its object is a commodity, currency and general services. The internship subjects in the field of online trade (finance) include MASTER of Finance (MF), Master of Publishing (MP), Master of Translation (MTI), Master of International Business (MIB), Master of Insurance (MI), Master of Asset Evaluation (MV), etc. Of course, the above representative professional degrees overlap with the non-material production (cultural communication) field in terms of internship mode, professional attributes and work representation to a certain extent. For example, master of Law and Master of Audit, in general, due to the gradual refinement of social division of labor, legal and audit services usually exist in the form of third-party enterprise legal persons, and for the purpose of making profits. Therefore, the two can be summed up in the category of online trade (finance) to some extent.

The field of experience consumption tends to be consistent with the practical object of material production, which is generally an objective object or service with its essential characteristics. For the service group, there is a great dependence on objective objects and services, requiring immersive experience, hands-on experience and field participation. Typical representatives are clinical medicine doctor (M.D.) and clinical medicine master (M.M.), Doctor of Stomatology (S.M.D), Master of Stomatology (S.M.M), Master of Nursing (MNS), Doctor of Veterinary Medicine (D.V.M), Master of Tourism (MTA), etc. The practice of the professional degree object someone (patients), animals and natural landscape, transportation and travel services, similar to the field of material production, object need to act directly on the practice, and practice “cloud” is very difficult to break through the space under the existing conditions, geographical and physical restrictions, stop in the prophase planning, simulation teaching, guidance and application demonstration, the real alternative for virtual object, its practice is affected by a certain effect. It is true that in the current COVID - 19 epidemic situation, “cloud diplomacy”, “cloud shopping” and other new things to the state and social development play a huge role in promoting, but operation “cloud”, “cloud tourism” in object space and geographical distance from the practice, effect, function and scope is limited to a larger, needs further development and exploration.

The operation of “cloud internship” is mainly based on the Internet, mobile terminal equipment and RFID, which is the comprehensive integration of big data cloud computing, Internet of Things, semantic Web, high performance computing, embedded system and other technologies. It can build a network interaction community between relevant training institutions and practice units to form a

“bridge” for the integration of production, study and research. In other words, establish the online virtual (digital) practice base. However, due to the previous online teaching was mostly carried out by temporary communication tools such as various live streaming platforms, university moocs, Tencent conferences, ZOOM, learning pass, WeChat, QQ, etc., it has far from formed a systematic, intensive, professional and mature and complete online work system. In today's environment of rapid technological changes and looming “cloud manufacturing” model, the birth of “cloud internship” professional operating platform is just around the corner. Therefore, for now, it is a beneficial attempt to use existing communication tools, manufacturing platforms (such as Kaos COSMO, Digital Cloud, Yunjian, D2IQ, etc.), exhibition platforms (now fish vision), and tourism platforms (such as moray eel cloud).

Professional degree graduate students in the teachers personal guidance or mentor group under the guidance of the collective, according to the properties and characteristics of professional, through practice and business unit docking, with short-term project tasks, medium-term and long-term contract to determine the internship task division of labor, a graduate student in the premise of ensuring health and safety, flexible with the method of online communication, offline communication, and practice mentors, colleagues and students work closely and cooperate with each other, widely to collective division of labor, group discussion, group (or individual a variety of forms such as single complete, high quality, high efficiency to complete the internship, So as to achieve the “cloud internship” goal and original intention. “Cloud internship” should adhere to the principle of “taking measures according to local conditions, varying from person to person, changing from time to time and taking measures according to different schools”, especially for domestic worst-hit areas and foreign regions, involving cross-regional and even cross-border internship, and avoiding personnel movement and contact. In this case, “cloud internship” plays an increasingly prominent role. In areas where the epidemic has been effectively controlled, “cloud internships” are also advocated to ensure the safety of personnel to the greatest extent, or graduate practice is carried out safely and efficiently in accordance with relevant regulations of local governments and graduate schools.

“Cloud internship” is a key link for professional degree graduates to shape their professional quality and career background, so it is imperative to establish a corresponding quantitative system of class hours, credits and assessment standards. The setting of the above elements should adhere to the principles of science, rationality, flexibility and humanization, and the cultivation objectives and assessment standards of flexibility can be implemented. Thus, professional degree graduate training scheme in the practice sector should be in the national Ministry of Education, under the leadership of the professional degree education steering committee, fully mix school practice, the specialized degree graduate student internship to make proper arrangements and flexible adjustment, do not stick to the specific form, to practice objectives, results, and quality as a starting point and the foothold of professional training. Under normal circumstances, the total credits of professional degree graduate students are between 32 and 60 credits, and the credits

of practice section are generally between 4 and 8 credits, and the proportion of practice is about 10%-20%. The total number of class hours is difficult to make accurate statistics due to the large difference in the number of courses, matching caliber and the standard of class hours ratio among schools. Among them, the number of practice hours generally varies from 72 to 144, and the span is relatively large. Therefore, according to their own standard of class hour ratio (1:16 or 1:18), each school can grant full or differential credits to graduate students of professional degree for their actual work of "cloud internship". The differential credits can be supplemented by other forms of homework.

The work efficiency and quality evaluation of "cloud internship" should be carried out in accordance with the requirements of "objectivity, fairness, fairness and science". Bad tide incentive and elimination mechanism, with the development of social production and the national "zero distance", truly outstanding national culture has a high level, high level and professional background of specialized talents training objective, theory and practice in order to prevent the derailment, breaking the "heavy theory, light practice" inherent barrier of thinking, in layman's terms, which aims to develop a solid practical experience of high-end professional "a hand". In order to achieve this goal, it is urgent to set up relevant triage system to prevent "imposers", highlight excellent ones, and form a hierarchical and clear gradient pattern. Each relevant institutions through internship "cloud" competition, various scholarships and honorary title, research projects, employment recommendation or recommend to the national outstanding internship graduate student, outstanding dissertation, or into the thesis proposal, mid-term examination on the relevant link, defense, in the atmosphere, in the system of incentive graduate students were the first to fight for their best. At the same time, to the unqualified to give the academic early warning, the serious person gives the elimination processing. This is not only the greatest responsibility for graduate students, but also the implementation of the national spirit of graduate education should be in the meaning. "You have to be hard to make iron." Professional degree graduate student Only by mastering the real knowledge and skills in practice, professional degree graduates can be invincible in their future career, get the "voice" in the workplace, and find their own value, rather than becoming a "one hundred and one" who is not only lost in books but also good at word games and theoretical speculations.

For training the practical skills of professional degree graduates, the burden is mainly on the shoulders of practice tutors, who are generally Middle-level or above leaders in government, enterprises or institutions, with senior experience in the industry, with deputy senior professional and technical positions (or equivalent titles). Before the outbreak of the epidemic, a small number of practice instructors, due to their work and other factors, neglected to guide and supervise graduate students with professional degrees, and the relevant supervision system and strength of the university were weak, leading to the low quality of graduate students' practice. Under the current epidemic situation, the process monitoring of "cloud internship" has become more difficult to manage. It is well known that the internship to complete the high quality, high efficiency, especially the internship "cloud", not only need to establish and improve related supporting system, need more practice strictly

perform their duties, involved with practical guidance, or high standard strict with practical results, avoid artificial factors interference, to cultivate outstanding high-level personnel, for the state and society to produce high quality “product”. On the “cloud internship” platform, relevant quantity and quality identification parameters can be considered to complete the preliminary “screening” of practical business results, which can then be passed by the practice unit blind review. Meanwhile, the intangible “baton” and “touchstone” of the market can also make an objective and fair evaluation of the results. In this way, only by standing repeated tests and passing layers of examination can the practical results be recognized by the society, so as to realize the self-value and social value of professional degree postgraduates, realize the purpose of professional degree setting, and breed high-level, high-level and compound application-oriented talents.

The concept of “cloud internship” is inspired by such concepts as “cloud diplomacy”, “cloud manufacturing”, “cloud shopping” and “online teaching”. Combined with the practical teaching practice of current professional graduate students, the concept of “cloud internship” is explored and thought deeply. Today, the coVID-19 epidemic is raging around the world, with nearly 35 million cumulative confirmed cases worldwide and over 7.8 million existing cases. The number of new confirmed cases is rising by more than 300,000 every day. Nearly 100,000 cases have been confirmed in China (including Hong Kong, Macao and Taiwan), with nearly 400 cases still confirmed, and nearly 20 new cases a day. The situation is still grim, both worldwide and at home. But, is not the only public emergencies COVID - 19 outbreak, also include other major events: Australian bushfires, locust plague in East Africa, the Philippines volcanic eruptions, Antarctic temperature, plague in Africa, Nigeria, the influenza virus and the flood, typhoon, earthquake, tsunami, make 2020 branded the marks of grief, destined to become an extraordinary year, affects the hearts of mankind. These public emergencies is bound to affect people's normal production and living, especially relating to the outdoor work, will be most people trapped in the home or elsewhere, cut off their interpersonal in different degrees, work, study, and heavily damaged in all walks of life, human basic life safeguard severely affected, cause people to the last was forced to “home office”, “class” at home. In view of this, under the inspiration of “cloud diplomacy”, “cloud manufacturing” and “cloud shopping”, the concept of “home office + home class = home internship”, namely “cloud internship” was created.

The mode of “cloud internship” is an educational management model that conforms to the development of science and technology. It is also a practical measure to implement the major strategic layout of national graduate education, aiming at cultivating innovative talents, improving innovative ability and serving the economic and social development. Of course, “cloud internship” is still in the “embryonic” stage today, and its operating platform, operating mechanism, reform effect, operability and social recognition still need the test of time, and there will be controversies and even critical voices. All in all, hope to put forward the pattern of practice “cloud” can have the effect of “introduction”, that can attract experts and colleagues in the field of postgraduate education, as well as other related workers in science and technology, a specialized degree graduate student practice work to a

higher level, to implement the party central committee and the State Council the ardent hope of postgraduate education, for the country, the society continuously conveying high-level, innovative professional talents.

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