Executive Ability of Online Learning of Educational Masters: Findings from 249 Postgraduates in Northeast China

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1. Theoretical Framework

Online learning executive ability is a kind of learner's action ability based on online teaching and learning process. Among them, the executive ability of individual learners refers to their action ability to obtain learning results and the ability of individual learners to turn teachers' ideas into actions, actions into results and complete tasks on time, which makes the connection between theory and practice closer. Most of the literature on execution methods tends to focus on the results of execution, and the research field is dominated in the field of management. Some scholars have organically combined management and education to explore the results of learning execution; that is, by measuring the changes in students' attitudes, social skills, academic performance and other indicators after a period of study. However, no matter in the field of management or education, there are few researches that give an in-depth explanation of how students manage learning objectives, manage learning time, manage learning communication, deal with problems and build knowledge in the learning process, as the knowledge building mechanism that plays a role in the implementation of learning activities and tasks. What we are trying to analyze is how to cultivate the learning execution ability and apply it to study properly, while prioritizing the understanding of individual behavior and knowledge construction.

Execution was put forward by Americans Paul Thomas and David Byrne in 2003 and was first applied in the field of management (Thomas & Byrne, 2003). In the field of management, "execute" has two main functions: to do something that has been carefully planned (using knowledge as distinguished from merely possessing it); to complete a difficult action or movement, especially one requiring skills.

Generally, in Management, there exists diverse kinds of enterprise executive power definition, the representative, mentioned by American scholar Larry Bossidy and Ram Charan, in Exectuion, as the Bible of such field, appears that the execution is learning to complete the task, including the discussion, question, persistent promotion of the method and the target, and the concrete implementation of the responsibility. Paul Thomas and David Byrne (2003) believe that executive power is a set of behavioral and technical systems that can enable a company to form its own unique competitive advantage, namely, the competitiveness of an enterprise.
Besides, the enterprise overall execution management need both external thrust, including rules and regulations, rewards and punishments measures, including establishing corporate vision culture as pulling force, thus in the push-pull model realizes the enterprise executive force into full play, in degrees, organization construction, business processes, we have achieved the goal, personnel arrangement, responsibility mechanism, to fully mix have execution culture, realize the enterprise overall execution management optimization. Among them, personnel factor is a more complex part, mainly because individual differences cannot be integrated as a machine or a fixed organizational model. Therefore, it is difficult to use the same model to define the internal mechanism of action between people and organizations. In reality, Nalebuff and Stiglitz, Green and Stoky investigated the possible consequences of incentives that combine efficiency evaluation results with rewards. And the model proposed by Holmstrom is based on the observation of performance level. For example, Wilson, Ross et al. studied the reward structure under different performance conditions and realized that the reward structure would be different in the design of incentive mechanism due to the different nature of information provided by evaluation results. Principals and agents should be sensitive to unresolved uncertainties and the extent to which risks are avoided.

Based on the push-pull model of enterprise overall executive force management, we found that during the learning process of Ed.M, the external push-pull force is related to individuals, schools families and other circumstances. Without doubt, execution is divided into individual executive power, team executive power and active executive power. In this survey, the learning executive ability is mainly aimed at the individual executive ability of the Ed.M students, referring to the ability of each individual to turn teacher's orders and ideas into actions, actions into results, and complete tasks on time. In other words, personal executive ability refers to a person's ability to take action to obtain results.

Execution is a variable, and different performers will get different results for the same thing. Executive function varies from person to person and from time to time. If we want to solve a number of problems in execution, we must first analyze the root causes affecting execution, and then find the way, so that the solution to the problem will naturally become clearer and easier. In the online teaching process, the individual's learning executive ability depends on whether he has a good learning style and habit, whether he is proficient in relevant learning tools, whether he has the right learning ideas and methods, and whether he has the personality traits of executive ability.

Education Master and Master of Education are two different kinds of degrees. The former is professional degree, which is called professional degree in China, and the latter is academic degree. First of all, it is conducive to promote the process of China's basic education reform. Ed.M in China aims to cultivate educational management cadres and backbone teachers with modern educational concepts, high theoretical literacy and practical ability, and to expand cooperation in educational modernization and globalization. Secondly, to help in-service teachers systematically learn new knowledge and master the forefront of the subject. Finally, fresh students can study for a master's degree in education, which is more conducive to find a teaching job in the corresponding discipline.

2. Methodology

The self-compiled students' learning execution ability questionnaire consists of 40 items with good reliability and validity. In the specific implementation process, based on the management levels of organizational behavior, and questionnaire analysis from individual management by objectives and performance, time management and implementation, communication, management and implementation, processing conditions and constructing knowledge, to explore individual learning executive ability of Ed.M in the process of online learning enforcement, tries to analyze how the priority understanding knowledge building to improve execution at the same time, with the mission to achieve individual to achieve the goals of curriculum, and cultivate autonomous learning ability. This is the uniqueness and significance of our study.

We analyzed the differences of each dimension factor in gender, family residence, parents'
educational background, parents' occupation and other factors, and compared the similarities and differences of online learning executive ability, learning subjectivity and learning executive ability. Correlation analysis and regression analysis were conducted between learning executive ability and individual and family factors. At the same time, SPSS26 is mainly used to analyze the autonomy and execution results of knowledge learning in the online learning process of master of Education from five aspects, namely learning goal management, learning time management, learning communication management, problem solving and knowledge construction, so as to further explain the basic requirements and essential conditions for good learning execution construction.

Family and individual factors. Based on the dimension factor in gender, family residence, parents' educational background, parents' occupation, study background, reasons for to choose Ed.M, and future job inclination as the following Table 1 and Figure 1, it is easy to find the factors of Med students’ clear aim of becoming a elementary or primary or middle or secondary teachers.

Table. 1 Correlations among Gender, Fresh graduate, Job Experience, Normal Major and Trans-disciplinary

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Fresh graduate</th>
<th></th>
<th>Job Experience</th>
<th>Normal Major</th>
<th>Trans-disciplinary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Pearson Correlation</td>
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<td>-0.39</td>
<td>-0.76</td>
<td>0.98</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>.042</td>
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<td>.122</td>
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<td>249</td>
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</tr>
<tr>
<td>Fresh graduate</td>
<td>Pearson Correlation</td>
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<td>1</td>
<td>-0.259</td>
<td>0.204**</td>
<td>-0.71</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
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<td>.001</td>
<td>261</td>
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<td>249</td>
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</tr>
<tr>
<td>Job Experience</td>
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<td>-0.259**</td>
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<td>-0.09</td>
<td>0.03</td>
</tr>
<tr>
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<tr>
<td>Normal Major</td>
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<td>-0.09</td>
<td>1</td>
<td>-0.840**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
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<td>.233</td>
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<tr>
<td>Trans-disciplinary</td>
<td>Pearson Correlation</td>
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<td>0.093</td>
<td>0.640**</td>
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<td>Sig. (2-tailed)</td>
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<td>.325</td>
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** Correlation is significant at the 0.01 level (2-tailed).

Figure. 1 Correlations among Main reason for this major, Future job expectation, Family Location, Father’s Educational Level, Mother’s Educational Level, Father’s Job and Mother’s Job.

Executive factors. Based on the questionnaire of Questions No.19 to 40 (totally 22 questions, including one descriptive question about the advice of helping Ed.M students improve learning executive ability by online classes), we can fully compare their online learning executive ability, learning subjectivity and learning executive ability, so as to improve online Ed.M classes and cultivate the skillful teachers, with sound knowledge and modern technology. Other 21 questions involves three aspects: individual students’ skill ( making a specific learning plan, searching related resources and solving problems in different ways); teachers’ teaching situation(tasks assigned, communication and interaction between teachers and students); Management functions (online platform, school management and teacher management) as Figure 2.
3. Data sources

A structured questionnaire survey was conducted on the first-year postgraduate students of Normal University majoring in education who participated in online teaching through the channel of teachers' courses. We sent out 250 questionnaires. A total of 249 valid samples (male 21, female 228) were collected. Under the condition that the students have relatively comprehensive feelings about the comprehensive online teaching, this survey is carried out. The survey period was from June 15 to 18, 2020.

The students all study online at home, and the location reflects the students' source status. The students in this survey come from 11 provinces, autonomous regions and municipalities directly under the Central Government in China. 77.2% of the students come from Northeast China, which mainly reflects the cognition and feelings of Normal University students from different backgrounds on online teaching.

The detailed field includes Education management, the modern education technology, primary school education, mental health education, modern technology education, pre-school education, subject teaching (Chinese), subjects (mathematics), subject teaching (chemical) (physical), subject teaching, discipline teaching (biological), subject teaching (English), subject teaching, education, discipline teaching (history), subject teaching (geography), subject teaching (music). It is to train educational management cadres and backbone teachers with modern educational concepts, high theoretical literacy and practical ability.

4. Results

The results of the behavior analysis showed that more than half of all Ed.M students online learning demonstrated similar initial level of knowledge background, graduating from Normal universities before entering Ed.M. The student percentage of higher educational construction level increased along with the online teaching-learning process, especially followed with such work experience before.

The students, according to the gender, family residence, parents' educational background, parents' occupation and other factors, have not been much influenced on their learning executive ability.

The students, by objectives and performance, developed their clear concept construction of
online learning and easier accepted such mode, although some of them have never been taught by this way. By time management and implementation, as Ed.M students, they can be adept at constructing time plan for the study and task, but it is still difficult for them to implement the plan as designed.

By communication, this part leads to the deep reflection, including to the students themselves, teachers and school arrangement, such as few individual communication with families (as we have mentioned before, they all stay at home to study the courses online), with team members, with teachers, forming misunderstanding of the task, even correcting the content later.

Another finding is that students complain about the less communication among teachers who undertake the courses during the same term, for they may leave the related or similar or even the same assignment, and some of them advocate it is better for teachers to negotiate the deadline time for the assignment, for it has been a burden, especially in one week when all leave the task.

The fluctuated change paths might be related to student motivation and the duration of the online learning program. In fact, it is not relaxing for Ed.M students to study online at home, for they find they need to do all assignment after class, while before, some tasks can talk with others in class. Fortunately, they can complete the task, because of their study experience, work experience and literature and data collecting ability, so that it is possible for them to finish the task as teachers request. However, concept relation construction required not only understanding the concepts actually but also the inherent connection among the concepts or theories, serving the training of the future excellent primary and secondary school teachers.

5. Scholarly significance of the study or work

The student percentage of highly recognized online teaching increased along with the learning process, indicating that online-teaching is beneficial to students’ learning execution ability, especially to the knowledge construction up to a certain degree, different from situations that they would not be exposed to in traditional classrooms.

However, it should be noted that the learning execution ability for students was mainly fluctuated, rather than gradually increased as we expected. This fluctuated change paths lent support for the prior findings which indicated that students need even more time to construct it than before as in class.

Our findings provide instructional implications. To Ed.M students, online teaching-learning process played different roles in their learning execution. Teachers should pay attention to different tasks chosen for them in a proper duration, based on more staff communication. We suggest that students should be instructed to communicate immediately with family members, course teachers, tutors, officers when they find the same task, hard time, different activities, or uncertain task request, in order to ensure higher level of objectives and performance, time management and implementation, communication, management and implementation, avoiding less meaningful handling with the assignment, so as to provide suggestions for the design of future training programs for excellent teachers in primary and secondary schools.
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