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Research on the Types of Middle School Principal's Reports Liked by Chinese Mathematics Education Masters

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Abstract

Since the establishment of the Chinese Mathematics Education Master's degree, it has provided many excellent teacher resources for basic education, which has attracted widespread attention from society. How to improve the quality of the Master of Mathematics Education has gradually become an important topic. At this stage, although there are many studies in this area, most of them are about the analysis of the current situation and the corresponding measures based on the theory. There is no analysis of the needs of the Master of Mathematics Education. Therefore, this study selects 15 Masters of Mathematics Education from Shandong Normal University as the interview subjects and uses interview methods to study their favorite types of middle school principal's reports. The following conclusions are drawn: (1) Most students like humorous reports. (2) Most students like to listen to the knowledge of mathematics teaching, employment guidance, teacher development, teacher treatment, teaching management, and they think that reports that are in line with the current employment situation, specific to their own reality, and about the upcoming internships that help them the most. (3) Most students like to listen to the report in the evening, can receive one to one and a half hours of the report, and think that listening to the report once a week or two weeks is the most rewarding. (4) Some students also proposed that the principal can understand the needs of students, inform the content in advance, control off-site noise, timely interaction, and appropriate breaks.

Keywords

Master of Mathematics Education, Principal of Middle School, Report, Interview Method

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1. Introduction

Since the Ministry of Education of the People's Republic of China issued the "The Report on Setting up and Piloting A Master's Degree in Education", the Master of Education professional degree has been implemented for more than ten years. It has provided a large number of teachers with both ability and political integrity for basic education in China, and is promoting new Curriculum reform has played an important role [1, 2]. With the development of the times and the influence of the professionalization trend of the teaching profession, the demand for the Master of Mathematics Education is increasing because they are practical talents who can not only engage in the theoretical research of mathematics teaching in primary and middle schools but also apply theories to solve practical problems [3, 4]. In order to better adapt to the urgent need for high-level applied talents in China's economic construction and social development, the Ministry of Education has made a decision to expand the scope of full-time professional master's degrees, mainly fresh undergraduate graduates [5]. However, because the existing Chinese Mathematics Education Master's training program mainly draws on the training goals of the Academic Master of Mathematics Education, it deviates from the target

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positioning of the professional degree [6], ignoring the characteristics of the master of education and the needs of primary and secondary school teaching, plus the lack of tutors and choices unreasonable and other problems, the satisfaction of the master of mathematics education with the tutor is generally low, so it is urgent to improve the training objectives, models, content and methods [7, 8]. In addition, in the source of full-time Masters of Mathematics Education, not all undergraduate majors are teachers. For such non-teacher graduates, they have not experienced education practice, nor have systematic teacher professional knowledge [9]. Therefore, how to make the Chinese Masters of Mathematics Education have better professionalism and stronger application ability after just two years of postgraduate education has become an important topic [10]. Major colleges and universities actively take measures such as educational practice and middle school principals to report to the Master of Mathematics Education, aiming to help the Master of Mathematics Education accumulate practical experience, but they are all based on the analysis of external conditions, which lack pertinence and effectiveness to a certain extent, ignoring the confusion and needs of the Master of Mathematics Education [11]. Therefore, the author conducted an interview on the type of report of the principal of the middle school that the Chinese Master of Mathematics Education likes.

The research question of this article is: What kind of reports does the Chinese Master of Mathematics Education like to hear from the principals of middle schools? Specifically: What style of the report does the Chinese Master of Mathematics Education like? What reports content do they like to hear? How to set the report time to be liked by them?

2. Theoretical Basis

2.1. The Understanding of the Learning Outcomes of the Master of Mathematics Education

The Master of Mathematics Education: Refers to specialized graduate students with a professional background in mathematics teachers. This major mainly cultivates high-level applied talents for basic mathematics education, teaching, and management. The degree holder should have good professional ethics, not only master the solid basic theory and systematic professional knowledge of mathematics but also understand modern basic theories of education, methods of mathematics teaching or education management, have the ability to use the theories and methods learned to solve practical problems in the practice of mathematics teaching or education management [12].

Learning outcomes are developed from educational goals and are important indicators to measure the size of learning benefits and the level of educational output [13]. Long believes that "learning outcomes" is a multidimensional and complex concept, which can refer to both the "hard" gains of knowledge and things that can be done, as well as the "soft" gains of knowledge and actions in interpersonal, civic, social and cross-cultural aspects. It also includes the ability to recognize, understand, and think rationally in a certain subject field [14]. The learning outcomes at the traditional student development level refer to the improvement of students' overall quality and comprehensive ability, which generally include dimensions such as knowledge, ability, attitude, and self-concept development [15-17].

Combining the characteristics of the Master of Mathematics Education in China, this study defines the learning outcomes of the Master of Mathematics Education as the enrichment and improvement of both mathematical subject knowledge and teaching practice knowledge.

2.2. The Author's Understanding of the Investigation

The author believes that the first prerequisite for the Chinese Master of Mathematics Education to learn from the report made by the middle school principal is to like the report. The report that the Chinese Master of Mathematics Education likes has three characteristics: the report style is liked by most students, the content is what the students of the Master of Mathematics Education need, and the time setting can be accepted and recognized. Therefore, the interview outline includes the following questions: (1) What style of the reports do you like for the principal of the middle school? (2) What reports content do you like to hear? (3) What kind of report do you think helps you the most? (4) How long is the report acceptable to you? (5) How often do you think you will gain the most from listening to the report? (6) When do you like to listen to the report? (7) Do you have any other ideas and suggestions for the principal to give us a report? Please explain in more detail.

3. Method

3.1. Sample

This study selected 15 Masters of Mathematics Education from the School of Mathematics and Statistics of Shandong Normal University as interview subjects.

3.2. Instrument

This interview used face-to-face interviews to interview 15 Masters of Mathematics Education. In the process of the interview, the interviewees are encouraged to fully express

their ideas, and then the interview contents are recorded in paper form for subsequent sorting and analysis. In addition, after obtaining the consent of the interviewees, the interview process was recorded by mobile phone, so as to supplement the information that was not recorded in time.

3.3. Data Processing

First, the actual answers of the 15 interviewees were preliminarily coded; then the segments with similar meanings were summarized, further summarized, and classified in more refined language, and second-level coding was performed. Count the number of people mentioned in various responses, and find the percentage of people mentioned in various responses to the total number of people.

4. Results

4.1. Report Style

Regarding the style of the report, most of the Chinese Masters in Mathematics Education expressed their hope that the report made by the principal of the middle school should be humorous, and only a small number of students said they liked the formal report. The details are shown in Table 1.

Table 1. Report Style.

Style	Humorous	Formal
Percentage (%)	86.67	13.33

4.2. Report Content

4.2.1. Report Content Liked to Hear

Regarding the content of the report that the Chinese Master of Mathematics Education likes to listen to, their answers mainly involve six aspects: mathematics teaching, employment guidance, teacher development, teacher treatment, teaching management, and teaching research. The content mention rate of mathematics teaching is the highest, reaching 100%. This shows that the Chinese Master of Mathematics Education generally has a certain degree of confusion about mathematics teaching and is eager for guidance. In addition, most of the students of the Master of Mathematics Education also said that they like to listen to the content on employment guidance, teacher treatment, teaching management; some students of the Master of Mathematics Education like to hear the content on teacher development; a small number of the students of the Master of Mathematics Education like to hear about the teaching research, which is the least mentioned. The details are shown in Table 2.

Table 2. Report Content Liked to Hear.

Content	Mathematics Teaching	Employment Guidance	Teacher Development	Teacher Treatment	Teaching Management	Teaching Research
Percentage (%)	100	73.33	53.33	66.67	80.00	20.00

4.2.2. The Most Helpful Report

On the issue of what kind of report is most helpful to them, most of the Master of Mathematics Education in China think that the report based on their actual situation is the most helpful to them. About half of the students mentioned that the report which is in line with the current employment form or about the upcoming internships will help them the most. In addition, there are a small number of students who feel that the report should be more detailed, and the report with specific problem-solving steps is the most helpful to them. The details are shown in Table 3.

Table 3. The Most Helpful Report.

	Based on Their Actual Situation	In-Line With The Current Employment Form	About the Upcoming Internships	With Specific Problem-solving Steps
Percentage (%)	73.33	60.00	53.33	33.33

4.3. Report Time Setting

4.3.1. Length of Reporting Time

Regarding how long the report can be accepted, most of the Master of Mathematics Education can accept the report for one to one and a half hours; about half of the students accept the report for half an hour to one hour or one and a half to two hours; a few students think it is less than half an hour Or a report longer than two hours is acceptable. The details are shown in Table 4.

Table 4. Length of Reporting Time.

Time (h)	$T < 0.5h$	$0.5h \leq T < 1h$	$1h \leq T < 1.5h$	$1.5h \leq T < 2h$	$2h \leq T$
Percentage (%)	6.67	40.00	86.67	60.00	6.67

4.3.2. Report Frequency

Regarding the question of how often listening to the report can help them get the most, most Chinese Masters of Mathematics Education believe that listening to the report once a week or two weeks can make them the most

rewarding. A small number of students think that listening to the report once a month can make them the most rewarding. Individual students said that the more reports that the principal of the middle school gives, the better. The details are shown in Table 5.

Table 5. Report Frequency.

Frequency	The More The Better	Once A Week	Once Two Week	Once A Month
Percentage (%)	6.67	53.33	66.67	26.67

4.3.3. Time Period of the Report

Regarding the time period when they like to listen to the report, most of the Chinese Masters of Mathematics Education said they like to listen to the report in the evening. A small number of students like to listen to the report in the afternoon. Individual students said that they like to listen to the report in the morning. The details are shown in Table 6.

Table 6. Time Period of the Report.

Time Period	In the Morning	In the Afternoon	At Night
Percentage (%)	13.33	33.33	73.33

4.4. Other Suggestions

Regarding the report of the principal of the middle school, some Chinese Masters of Mathematics Education suggested: "There should be less noise on-site, and there should not be many off-site factors that affect the listening experience". "You can tell us the content of the report in advance so that we can make some preparations, and we will understand better when listening to the report". "You can ask in advance which reports we want to hear so that it will be more targeted". "We can try to interact on-site after every aspect of the content is over and ask questions on the spot if we have any questions so that we won't forget the previous questions". "We can take an appropriate break".

5. Discussion

5.1. Report Style

Regarding the report style, from the above statistics, it can be seen that most of the Chinese Master of Education students like to listen to the humorous reports made by the principal of the middle school, and a small number of students like the formal ones.

5.2. Report Content

Regarding the content of the report, it can be seen from the above statistics that the content that the Chinese Masters of Mathematics Education generally like to hear is about mathematics teaching. Among the 15 students interviewed, the mentioned rate is as high as 100%; In addition, most students like to hear about employment guidance, teacher development, teacher treatment, and teaching management; a small number of students like to hear about teaching research. Therefore, the principals of middle schools can appropriately increase the proportion of knowledge in mathematics teaching, employment guidance, teacher development, teacher treatment, and teaching management in future reports, so as to meet the needs of the master of mathematics education and achieve better report results. On the other hand, most of the students think that reports that are in line with the current employment situation, specific to their own reality, and about the upcoming internships that help them the most; Some students put forward a detailed report to maximize their gains, which can play a certain role in suggesting the content of the report when the middle school principal makes a report in the future.

5.3. Report Time Setting

Regarding the time setting of the report, it can be seen from the above statistics that most Chinese Masters of Mathematics Education can accept reports of one to one and a half hours, and very few students think that reports of less than half an hour or more than two hours are acceptable. On the question of how often to listen to the report, most students agree that once a week or once every two weeks can make them the most rewarding. It can be seen from this that it is better not to be too concentrated on the report of the principal of the middle school. It will be better to be stable once a week or once every two weeks. Finally, the vast majority of students said that they like to listen to the report in the evening, followed by the afternoon, and the least are students who like to listen to the report in the morning.

5.4. Other Suggestions

For middle school principals to make reports, the Chinese masters of education also put forward suggestions that middle school principals can know the needs of students in advance, inform the contents in advance, control the noise outside the field in the reporting process, timely interaction, and appropriate midway break. These suggestions can help improve the effectiveness of the report to a certain extent.

5.5. Current Main Points

Li (2012) believes that when arranging teachers for the master of education, experts from universities and front-line teachers from middle schools can form a teaching team to teach the full-time master of education, so as to keep abreast of the problems faced by the master of education, and continuously improve the quality of training for the master of education [18]. Chen believes that the Master of Mathematics Education

should pay attention to reflection, discover problems in time, and communicate with instructors [19]. In his research, Guo pointed out: The content and timing of the training for the Master of Mathematics Education have different levels of problems. The needs of the Master of Mathematics Education are not considered, and the students feel that the harvest is not good. He believes that the needs of the Master of Mathematics Education should be fully understood. And we should strengthen the control of training content and time to make training more targeted and accurate [20]. Li (2012) proposed: According to the needs and interests of the master of mathematics education, a learning community or a study research group can be formed to discuss the problems of middle school mathematics education [21]. The above-mentioned researchers all put forward the importance of understanding the demand for a master's degree in mathematics education in their research and proposed countermeasures, which are consistent with the research ideas of this article.

6. Conclusion

Through the data analysis of the interview results, the following conclusions can be drawn:

Regarding the reporting style, most Chinese Masters of Mathematics Education like humorous reports. In terms of the content of the report, Chinese Masters of Mathematics Education is generally interested in the knowledge of mathematics teaching, and most students also like to listen to the knowledge about employment guidance, teacher development, teacher treatment, and teaching management. On the other hand, most of the students think that reports that are in line with the current employment situation, specific to their own reality, and about the upcoming internships that help them the most. Regarding the time setting of the report, most Chinese Masters of Mathematics Education like to listen to the report in the evening, most students can receive one to one and a half hours of the report, and most students think that listening to the report once a week or two weeks is the most rewarding.

In addition, for the report of the principal of the middle school, the Chinese Master of Mathematics Education also proposed that the principal of the middle school can understand the needs of the students in advance, inform the content in advance, control off-site noise during the reporting process, timely interaction, and appropriate midway breaks.

Therefore, the principal of the middle school can be inspired by this article when he reports to the Chinese Master of Mathematics Education. The report style should be as humorous as possible. The content of the report should involve more knowledge in mathematics teaching, employment guidance, teacher development, teacher treatment, and teaching management. It should conform to the current employment form, be specific to the master of mathematics education, provide guidance for the upcoming internship and entry life, and meet the needs of students. The report time should be one to one and a half hours as far as possible. It should not be too long or too short. The frequency should be stable once a week or once every two weeks. The report should be arranged in the evening as far as possible. Therefore, it caters to the preferences of most Chinese Masters in Mathematics Education, with a view to better reporting results and making them more rewarding.

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