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TEACHERS' PERSPECTIVE ON THE MACAO EDUCATION REFORM POLICY

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Abstract

The paper presents an overview to understand the perceptions, reflections, opinions and perspectives of pre-service and in-service teachers in Macao local schools in respect to policies and plans introduced by the Macao government department, the Education and Youth Affairs Bureau (DSEJ). The DSEJ had been working on the Macao Education Reform since 2011, and the Ten Year Plan for the Development of Non-Tertiary Education was in progress accordingly. Various policies and actions continued to proceed in accordance with the Macao Education Reform. The paper examines the situation through the lenses of teachers' perceptions regarding the success and effectiveness of these policies introduced by the government department in Macao. The study followed a mixed methods approach, utilizing detailed information from interviews with pre-service and in-service teachers followed by a survey. The initial phase of the study aimed to identify the range of different beliefs and attitudes towards the plans and policies introduced by the government department in Macao. The results from this initial phase were then used to develop a survey which was administered to a larger sample of pre-service and in-service school teachers from various types of school. The data were used to quantify the extent to which different beliefs and attitudes towards the various plans and policies introduced by DSEJ were endorsed by teachers in Macao. The results of the study provide valuable information on

the extent to which Macao teachers agree on the new policies introduced by DSEJ; whether there is any difference in respect of pre-service and in-service teachers; what teachers' perceptions are of the positives and negatives of the policies; and how effective the policies introduced by the government department in Macao are.

Keywords

Teacher's Perspectives, Education Reform, Policy, Macao Education

1. Introduction

Macao is the Asian Monte Carlo, the Las Vegas of the Far East, famous for its tourism in World Heritage. Since the return of Macao to China in 1999, Macao has been a Special Administrative Region of China for over 15 years, and big construction and modernization have been ongoing for years. Aside from the above mentioned facts, in respect of the economic changes happening in Macao and the determinants of Macao government policy aiming to improve education in Macao, Macao is now undergoing education reform to pursue a quality improvement of Macao education. A Ten Year Plan for the Development of Non-Tertiary Education 2011–2020 is ongoing. The reform policies are tend to bring about the following improvements (DSEJ, 2017a):

- Improving teachers' working environment and professionalism.
- Improving students' comprehensive needs and health.

Although the government department is trying to improve the quality of education, the extent to which the teachers agree with these policies is very important to the reform, as this will indicate the success of the reform and whether or not the primary objectives are being recognized. The reform is now mid-way in its journey, so it is worth looking at the present issued policies and investigating their accomplishment to date.

1.1 Literature Review

1.1.1 Ten Year Plan for the Development of Non-Tertiary Education (2011–2020)

Following the establishment of the Macao SAR government in 1999, it has focused heavily on the development of education. The government has efficiently increased investment

in non-tertiary education and successfully implemented the plan for 15 years of free education. In order to further enhance and advance quality education, the government department, the Education and Youth Affairs Bureau (DSEJ), has issued plans for the long-term development of education in Macao. The development forms part of the Ten Year Plan reform, specifically the Ten Year Plan for the Development of Non-Tertiary Education (DSEJ, 2017a).

The policies' aim to give priority to the development of education by improving the quality, realizing the coordinated development of the various levels and types of education in terms of system and investment, and developing a diverse school system. These development objectives tend to concentrate on the individual student's development in terms of language proficiency, physical and mental qualities, moral and civic formation, innovative thinking, international perspective and artistic accomplishment.

In respect of the objective of educational reform, strengthening the teaching team, improving the school system and assuring the education quality are essential for students' development. New policies like the System Framework for Private School Teaching Staff of Non-Tertiary Education are actively implemented—and, in particular, the rank and promotion system, granting of professional development subsidies, reduction of teachers' weekly teaching hours—to effectively enhance occupational security and promote professional development, allowing the teaching team to be strengthened. In addition, the Curriculum Framework for Formal Education of Local Education System and the Requirements of Basic Academic Attainments of Local Education System have allowed schools to reform their curricula comprehensively based on this policy, in conjunction with their characteristics and education philosophy, providing concrete directions for teachers to follow in the sense of what to teach, how to teach and how to assess (DSEJ, 2017b).

1.2 Objectives of the Study

Asia's extraordinary economic growth is undebatable, and the growing international attention is encouraging the Asian regions in their educational trajectory (Jensen, 2012). Countries and cities in Asia like Shanghai-China, Singapore, Hong Kong-China, Chinese Taipei, Japan and Korea are all doing well in the international assessment programme, the OECD's Program for International Student Assessment (PISA) (OECD, 2014). Macao-China, though a relatively small city in Southeast Asia, is being recognized with its fast economic growth in the gaming industry. By looking at success in other Asian cities and countries, the Macao

government is using the revenue it gains from the gaming industry to invest heavily in the education system and hoping to enhance quality education. Cities and countries around the world have been increasingly focused on improving the whole system and therefore acquiring better education outcomes for all young students (Harris, Jones, Adams, Perera, & Sharma, 2014).

The DSEJ introduced the Ten Year Plan for the Development of Non-Tertiary Education (DSEJ, 2017a) for the development of both students and teachers. When there is reform taking place, teachers have to undergo change, and it is not easy to influence the intentions and actions of teachers in terms of their commitment to a particular way of teaching (Riley & Solic, 2017). In order to strengthen the teaching team, the DSEJ began reform in correlation with the development of teachers' benefits. This has been expected to attract the best and brightest and those with the biggest hearts into the profession that educates all others, showing the graduates that there is something to look forward to if they become teachers (Hoffman, 2016). The competition in teachers' professionalism begins with the DSEJ primarily giving a professional qualification to Bachelor's graduates who are taking a first degree other than education when taking the Post Graduate Diploma in Education.

In order to implement the policies of the reform successfully, the DSEJ uses 'hard' and 'soft' policies in this education reform. Hard and soft policies are now commonly used to consider multi-level systems of governance (Chan, 2012). The hard policy refers to the use of legal structures to enforce compliance and is based mainly upon directives and regulations. The DSEJ uses the different frameworks as regulations to impose its objectives in the current education reform. Meanwhile, the soft policy refers to non-binding instruments such as guidelines to convey government messages (Torenvlied & Akkerman, 2004). The DSEJ calls meetings with principals and sets up workshops with teachers to explain the different policies and allow the exchange of ideas on the above mentioned occasions.

Teachers are key to education reform (Woodrow & Caruana 2017), and in order to develop teachers as the change agents, pre-service teachers and in-service teachers need to be aware of oppressive conditions and inequalities based on structural categories of difference and cultivate their ability to critique systems of power that discharge the rights of individuals and communities (Ladson-Billings, 1998; Shor, 1992). The Ten Year Plan presented by the DSEJ covers a whole set of policies that involve schools, teachers, students and parents, and it is very

important to ascertain to what extent the teachers agree with the new policies as this will reflect the success of the education reform.

2. Research Design and Methodology

The research used a mixed methods research methodology to provide more comprehensive evidence to answer the research questions. The mixed methods approach combined qualitative and quantitative methods to enhance the research data analysis. The qualitative part comprised pilot interviews with both pre-service and in-service teachers, respective comments from them; the quantitative part was a survey questionnaire completed by 100 teachers (76 pre-service teachers and 24 in-service teachers).

The results of the study will provide valuable information in the following areas.

1. To what extent do Macao teachers agree with the new policies introduced by the DSEJ?
Is there any difference in respect of pre-service to in-service teachers?
2. Under the Ten Year Plan, which of the policies are most accepted and understood by all teachers?
3. How effective are the policies introduced by the DSEJ?

Convenience sampling was used for the pilot interviews with the pre-service and in-service teachers. Interview questions were asked to ascertain how much they knew about the Ten Year Plan:

1. How much do you know about the Macao education system?
2. Do you know anything about the Ten Year Plan for the Development of Non-Tertiary Education?
3. Do you think it is the right time to impose the Macao education reform? Why?
4. What are your perspectives on Macao students? Do you believe the education reform will help in the development of Macao students?
5. Do you believe the education reform will help in the development of Macao teachers?

From the above interviews, a questionnaire was generated to be completed by a total of 100 students, 76 of them pre-service teachers and 24 in-service teachers from the 2016/2017 Post Graduate Diploma in Education Programme of the University of Saint Joseph at Macao and as

the source for the data collection. The questionnaire was divided into three parts: participant demographics, perspectives on the Macao education system and the views of Macao students.

The questionnaire used a four-point Likert scale recommended by Cohen (2005) (1 = strongly disagree, 2 = disagree, 3 = agree and 4 = strongly agree) in regard to teachers' agreement with statements on the Macao education system and Macao students. The questions are listed below.

Demographic of participants

- Gender
- Age group
- Teaching experience
- Teaching speciality
- Number of years teaching of in-service teachers

Perspective on Macao education system

1. I thoroughly understand the Ten Year Plan for the Development of Non-Tertiary Education introduced by the DSEJ.
2. I believe that the curriculum framework is well suited to Macao schooling.
3. I believe that the system framework has benefited Macao teachers.
4. I believe that the requirements of basic academic attainments are essential to Macao education.
5. I agree that it is worth more to be a teacher nowadays than in the past.

View of Macao students

1. I believe that students nowadays are not as intelligent as before.
2. I believe that students nowadays are less motivated.
3. I believe that students nowadays are very materialistic.
4. I believe that students nowadays have low EQ.
5. I believe that students nowadays are able to express themselves during class.
6. I agree that special needs students should be put into regular classrooms.

7. I agree that it is essential to have good communication with students' parents.

Mean tests and frequency tests are used for the survey analysis and to reflect the degree of agreement in general from all teachers and in specific areas, as well as comparing the pre-service and in-service teachers in terms of attitudes towards different aspects of the Macao education system in relation to the reforms and also agreement with policies. In addition, the views of the teachers in respect of the Macao students are analysed in terms of their personal characteristics, attitudes towards learning and classroom management.

3. Data Analysis and Findings

3.1 Descriptive Information of the Participants

Table 1 shows the number of participants according to gender, section, age category, teaching experience and teaching speciality. The majority of participants are female, and most were between below 25 or above 35 years of age. In terms of teaching experience, 76 per cent were pre-service teachers, while only 24 per cent were in-service teachers. In terms of teaching speciality, roughly the same number of participants had taught in primary (40%) and kindergarten education (37%), but only around 22 per cent of participants were teaching in secondary education.

Table 1: *Number (and percentage) of survey participants with respect to gender, section, age category, teaching experience and teaching speciality (N=100)*

		N	%
Total		100	100
Gender	Male	17	17
	Female	75	75
	Missing	8	8
Section	Chinese	61	61
	English	39	39
Age	Below 25	34	34
	25–35	37	37

	Above 35	25	25
	Missing	4	4
Teaching experience	Pre-service	76	76
	In-service	24	24
Teaching speciality	Kindergarten	37	37
	Primary	40	40
	Secondary	22	22
	Missing	1	1

3.2 Perspectives on the Macao Education System

3.2.1 General perspectives from all teachers

The survey included five statements related to teachers' perspective on Macao education reform policy and participants indicated the extent to which they agreed with these statements. Mean responses are shown in Table 2. Mean scores show that teachers have a relatively positive perspective on aspects of the Macao education system, as the mean score is 2.57 in general.

Among the statements, teachers agree most on "I agree that is worth being a teacher nowadays rather than in the past," suggesting that they are happy to be teachers. They have least agreement on the statement "I believe that the curriculum framework is well suited to Macau schooling", showing that they are hesitant about this policy.

In summary, it is good that teachers are giving positive feedback on the different policies in relation to the Macao education reform and that the soft and hard policies are working well, as shown in the analysis.

Table 2: Agreement on the different aspects of the Macau education system

	N	Mean	SD
Agreement with aspects of Macau education system (Cronbach alpha = 0.78)	98	2.57	.54

1. I agree that it is worth to be a teacher nowadays rather than in the past.	96	2.85	.86
2. I believe that the System Framework has benefited Macau teachers.	97	2.66	.69
3. I believe that the requirements of Basic Academic Attainments are essential to Macau education	97	2.53	.84
4. I understand thoroughly about the Ten Year plan introduced by DSEJ	98	2.44	.68
5. I believe that the Curriculum Framework framework is well suited to Macau schooling.	98	2.38	.71

1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree

3.2.2. The different perspectives of pre-service and in-service teachers

The survey included five statements related to the teachers' perspective on the Macao education reform policy and participants indicated the extent to which they agreed with these statements. Mean responses are shown in Table 3. Mean scores for items 1, 2, 4 and 5 in Table 3 indicate that the result is non-significant, whereas item 3 is of significance because the p value is smaller than 0.05. This shows that item 3 ("I believe that the system framework has benefited Macau teachers") is viewed significantly differently by pre-service and in-service teachers.

Generally, in-service teachers respond more positively than the pre-service teachers, as the mean values of each of the statements are much higher for the in-service teacher. This score analysis illustrates that in-service teachers are more accepting and understanding of the Ten Year Plan proposed by the DSEJ.

Table 3: Mean (M) and standard deviation (SD) of responses to each of the five questionnaire items related to teachers' perspective on Macao education reform policy

	Pre-service (N=76)		In-service (N=24)		t
	M	SD	M	SD	
1. I thoroughly understand the Ten	2.43	0.70	2.48	0.59	-0.319 ^{ns}

Year plan introduced by the DSEJ.						
2. I believe that the curriculum framework is well suited to Macau schooling.	2.35	0.72	2.48	0.67	-0.775 ^{ns}	
3. I believe that the system framework has benefited Macau teachers.	2.59	0.68	2.91	0.68	-1.954*	
4. I believe that the requirements of basic academic attainments are essential to Macau education.	2.44	0.84	2.82	0.79	-1.875 ^{ns}	
5. I agree that it is worth being a teacher nowadays rather than in the past.	2.83	0.86	2.95	0.86	-0.591 ^{ns}	

ns = non-significant; * $p < 0.05$; ** $p < 0.01$

3.2.3. Views on Macao students

The survey included seven statements related to the teachers' views on Macao students and participants indicated the extent to which they agreed with these statements. Mean responses are shown in Table 4. Mean scores for all items except item 3 in Table 4 indicate that the result is non-significant as the p value is smaller than 0.05. This shows that item 3 ("I believe students nowadays have lower EQ") is viewed significantly differently by the pre-service and in-service teachers.

Mostly, the in-service teachers respond more negatively than the pre-service teachers, as the mean values of five out of seven statements are much higher for the in-service teacher. This score analysis illustrates that in-service teachers are not very happy with the Macao students, as they agree that Macao students are becoming less motivated and more materialistic and have low EQ. Furthermore, in-service teachers believe strongly that special needs students should be put into the regular classroom and that good communication with students' parents is essential for Macao schooling.

Table 4: Mean (M) and standard deviation (SD) of responses to each of the 12 questionnaire items related to teachers' perspective on Macao education reform policy

	Pre-service (N=75)		In-service (N=23)		t
	M	SD	M	SD	
1. I believe that students nowadays are not as intelligent as before.	2.27	0.90	2.18	0.95	0.381 ^{ns}
2. I believe that students nowadays are less motivated.	2.69	0.69	2.87	0.86	-0.999 ^{ns}
3. I believe that students nowadays are very materialistic.	2.91	0.64	3.22	0.73	-1.960*
4. I believe that students nowadays have low EQ	2.76	0.76	2.77	1.02	-0.063 ^{ns}
5. I believe that students nowadays are able to express themselves during class.	2.92	0.63	2.78	0.73	0.877 ^{ns}
6. I agree that special needs students should be put into regular classrooms.	3.01	0.70	3.04	0.56	-0.187 ^{ns}
7. I agree that it is essential to have good communication with students' parents.	3.71	0.48	3.83	0.38	-1.075 ^{ns}

ns = non-significant; * p<0.05; ** p<0.01

4. Conclusion

The research agreed that the success of the Macao education reform was ongoing. Data in this current study indicated that the different policies implemented by the DSEJ were practicable

and in general accepted by most teachers. More specifically, the in-service teachers had higher acceptance of the policies and agreed more on the different aspects associated with the Macao education system and on the education reform currently running. In-service teachers had positive perspectives on policies like the System Framework for Private School Teaching Staff of Non-Tertiary Education, Curriculum Frameworks for Formal Education of Local Education System and the Requirements of Basic Academic Attainments of Local Education System.

The System Framework for Private School Teaching Staff of Non-Tertiary Education policy was able positively to impact teachers' professionalism and ideally was able to strengthen the teaching team in the Macao education system. Both pre-service and in-service teachers had positive expectations in response to the survey statement "I agree that it is worth being a teacher nowadays rather than in the past". This indicated the effectiveness of reform policies introduced by the DSEJ.

Education reform in Macao is ongoing, and the DSEJ has to attempt to enhance Macao's education system by working closely with the schools, teachers and students. It is pleasing that the study shows teachers' positive attitudes towards the new DSEJ policies, and that in-service teachers show a high degree of acceptance. This implies that the Macao government's investment in the development of this education reform is well spent.

4.1 Scope of Future Research

Despite the success revealed, more policies will emerge to support the Macao government's objective of enhancing the quality of Macao education, and this will benefit the new generation of Macao people, helping the cities to become more internationalized and young graduates to become more competitive.

Forthcoming studies should focus on the results of the policies, aside from how much do teachers agree on them, more specifically, how the different levels of teachers adapt into the new implementation of the policies, from infant education, primary education to secondary education, what are the difficulties they encountered in respect to their levels, how do the students from different levels reacted, do the difficulties involved with the respected students and parents, and in what ways do schools are working for the government to make the 10 years Macao education reform promising.

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