



Teaching Styles Pattern: A Survey of Mathematics Teacher's Preferences in Primary School

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Abstract

In the current wave of educational reforms, understanding teaching styles of mathematics can help modify strategies for effective teaching. This survey research which using quantitative approach was aimed to identify teaching styles pattern by primary school mathematics Year 5 teachers. The research population consists of 506 Year 5 mathematics teachers from Malacca primary school. A total of 217 mathematics teachers were randomly selected as respondents. Data were collected through a translated version of Grasha Teaching Style Inventory. Descriptive statistics were analyzing the finding. Statistical inference is used to analyze the difference in teaching style based on the teachers' background, which is gender and teaching experience. In direction of the data with means, frequencies, t-test and one way ANOVA; the formal authority is the dominant, which is for male year 5 mathematics teachers, while female mathematics teachers prefer to personal model teaching style. Meanwhile, formal authority was the highest means for teaching experience over 21 years. There was a statistically significant difference between the male and female teacher in delegator style. Likewise, there was a significant difference in teachers teaching style based on teaching experience in expert style and formal authority style. Teachers need to diversify teaching styles in teaching.

Keywords: Grasha teaching style; primary school; mathematics; gender; teaching experience.

1 Introduction

The task of a teacher can be likened to an 'artist' who conveys knowledge because the task of teaching cannot depend on lectures alone but requires 'art' to make an impact on students. In fact, when the teacher successfully achieves the teaching objectives, then the effectiveness of teaching and learning (TL) can help students learn what is being taught. Therefore, teachers should use all available skills to attract students to learn. Change in teaching style can improve the quality of education. Considering variance of teaching style styles of primary mathematics teachers is very important. Teachers need to control the choice of teaching style [57]. Therefore, the teaching style will be a guide to the teaching process that will affect the students' learning strategies. Teaching styles can be varied based on curriculum factors, teaching aids, teaching context and student learning trends [18].

Teaching style means the principles of teaching methods, appropriate behavior and strategies used by teachers to enable students to learn [14]. Likewise, to help learners maximize their potential for learning, teaching style is the core to each educator's teaching. Through different perspectives, teaching styles act as how educators present themselves to students, manage learning tasks, transfer learning material, engage students in their courses, interact with students and guide work in process [23]. Understanding about curriculum, professional knowledge, students' learning styles and academic performance was included in the teaching style ([23], [21]). Furthermore, positive learning occurs because of harmony between teachers and students, the teacher's dominant teaching style parallel to the complete TL process [17].

The systematic sense of style is what a teacher does or does not do [22]. Therefore, we can express that the teacher is in the form of behaviours that are consistent with the interactions in the teaching process. In teaching, each teacher needs to use a different teaching style according to their situation. Therefore, a teacher may not have only one teaching style. According to Grasha, teaching style models are as follows:

- Expert: Maintain status as an expert among learners by presenting detailed knowledge.
- Formal Authority: Supervise students critically and focus on lesson content. This teaching style does not emphasize affective factors, needs and student's participation.
- Personal Model: Expect students to follow his attitude and approach as the main model in the class.
- Facilitator: Focus on self-learning and self-discovery of students in the classroom. Students are also independent and responsible in teaching this teaching style.
- Delegator style: enhances confidence, autonomy in the learners and emphasizes groups.

Teaching styles are the approaches that teachers put into practice to carry out teaching and learning activities. Teacher's awareness of the nature and style of teaching they are interested in will benefit their profession. Nawawi *et al.* [46] stated that teaching style is an element that ensures a sense of learning among students and establishes close interpersonal relationships. Motivation and teacher's role is contributed to the student's achievement in mathematics [45]. This indicates that the teacher's role in delivering TL has some influence on outcomes and students' interest in mathematics. However, the literature found a lack of research on the patterns of Grasha-Riechmann Teaching Styles among mathematics teachers at the primary school level [55]. A good teaching style pattern among mathematics teachers in primary schools is important to produce

positively perceive and influence students' in mathematics [55]. Meanwhile, teaching strategies for senior teachers are more traditional ([47], [26]) and teacher-centered teaching is still practiced in the classroom ([40], [58] and [30]). Teacher-centered teaching styles such as lecture methods limit student engagement to communicate and will close opportunities to develop other mathematical skills [4].

According to research, student assessment is usually based on the teacher's gender [2]. Likewise, contemporary research provides new evidence for gender bias in teaching assessment ([27], [44]). In a recent study dealing with the effects of teachers' gender, teaching experience and brain dominance on their teaching style in the English as a foreign language (EFL) context of Iran, [32] found gender differences in terms of formality as a teaching style and they concluded, gender is a factor that has an important effect on the teacher's teaching style. Moreover, male and female Iranian EFL teachers showed significant differences in their teaching styles [3]. Other than, in the Malaysian educational context, there is a lack of empirical evidence on the link between teaching experience and the Grasha-Riechmann Teaching Styles among primary school mathematics teachers which has not been extensively tested [55]. Lack of information will affect efforts to match the quality of teachers' teaching with teaching style. In addition teaching experience factors especially in the development of effective teaching by the interaction of the teachers' work environment promises maturity and expertise [47]. The results of previous studies by [15] showed that teaching experience has a significant influence on teachers' pedagogical skills, creativity and classroom management. The main factor that shapes the TL process and the most important part of achieving student success is the teaching style [5]. The purpose of this study is to investigate the pattern and difference in teachers teaching style based on gender and teaching experience.

Hence, the objectives of this study are to identify:

1. Grasha's teaching style pattern among mathematics teachers based on their demographic factors.
2. The difference in teachers teaching style based on gender.
3. The difference in teachers teaching style based on teaching experience.

2 Methodology

2.1 Design

This was a descriptive study employing a self-administered questionnaire survey. The population of this study consists of 506 primary school mathematics Year 5 teachers in Malacca. To determine the sample size, the [38] table was used and as a result the appropriate sample size for this study is 217. The sample is selected at simple random so that everyone in the population can be selected as a respondent to represent the population [11].

The following is an analysis and commentary on the background of the respondents in terms of gender and teaching experience. Table 1 shows the frequency and percentage by gender and teaching experience. Table 2 shows that the respondents of this study consisted of 48 (45.16%) male teachers and 119 (54.84%) female teachers. Meanwhile, for teaching experience, the study respondents consisted of 17 teachers (7.83%) 1-5 years, 41 teachers (18.89%) 6-10 years, 46 teachers (21.20%) 11-15 years, 44 teachers (20.28%) 16-20 years and 69 teachers (31.80%) 21 years or more.

Table 1: Demographic properties of the participating teachers.

Demographic		<i>n</i>	%
Gender	Male	98	45.16
	Female	119	54.84
	Total	217	100
Teaching Experience	1-5 years	17	7.83
	6-10 years	41	18.89
	11-15 years	46	21.20
	16-20 years	44	20.28
	21 years or more	69	31.80
	Total	217	100

2.2 Data collection and analysis

A survey was conducted as two parts of Part A and Part B. Part A contains items such as gender and teaching experience. Part B contains 40 items translated and modified based on [21] teaching style inventory. This study uses Grasha’s teaching style because the validity of Grasha’s typology of teaching styles has been supported in many studies [28]. For example a study by [55] to identifying the teaching style patterns of Mathematics teachers at the primary school National-Type Chinese Primary Schools or Sekolah Jenis Kebangsaan Cina (SJKC). The patterns showed that the personal model teaching style is the most dominant, and the facilitator teaching as the least dominant style.

In another study dealing with student motivation ([43],[50]), student academic achievements ([35],[42]), teacher self-efficacy [8], creativity and burnout [19]. For Expert style (8 items), formal authority (8 items), personal model style (8 items), facilitator style (8 items) and delegator style (8 items). This questionnaire uses a five-point Likert scale starting with 1 = strongly disagree, to 5 = strongly agree The Grasha and Reichmann Teaching Style Scale (GRTSS-1994) was used to determine teaching styles of mathematics teacher. Grasha and Reichmann have listed in three levels as "low", "moderate" and "high". The degrees of teaching styles with their minimum and maximum ranges are shown in Table 2.

Table 2: Ranges of teaching styles in (GRTSS-1994).

Teaching Styles	Degree of Teaching Styles		
	Low	Moderate	High
Expert	(1.0-2.8)	(2.9-3.8)	(3.9-5.0)
Formal authority	(1.0-1.8)	(1.9-3.0)	(3.1-5.0)
Personal model	(1.0-2.8)	(2.9-3.4)	(3.5-5.0)
Facilitator	(1.0-2.9)	(3.0-4.0)	(4.1-5.0)
Delegator	(1.0-1.8)	(1.9-2.8)	(2.9-5.0)

(Source: Grasha-Reichmann Teaching Style Inventory, GRTSS-1994)

Before the actual study was conducted, the validity and reliability of the questionnaire was conducted on 30 primary school mathematics Year 5 teachers. All sets of research instruments were validated by experts in mathematics, teaching style and pedagogy. The reliability value for the Grasha teaching style inventory using an alpha test involving 30 primary school mathematics teachers was 91 on all items. So, this inventory is suitable and reliable to obtain a stable score. According to [36], a good instrument and applicable are instruments whose reliability exceeds 0.60.

Survey results were analyzed using the SPSS, version 25.0. Descriptive statistics were applied to analyze the finding. Study findings for demographic factors were analyzed using frequency, percentage and mean. To obtain the most dominant teaching style of year 5 mathematics teachers, the mean value was used as a measure. The mean score values for the five styles in the Grasha Model (1996) will be compared. The highest mean score value will indicate the most dominant teaching style. The mean score values obtained for each type of teaching style will be categorized into three levels, namely low, moderate, and high by using the Grasha-Riechman range calculation are shown in Table 2. Statistical inference is used to analyze differences in teaching styles based on gender and teaching experience.

3 Results and Discussion

As for the results of this study as follows:

3.1 Grasha's teaching style pattern among mathematics teachers based on their demographic factors

The first research question is to identify Grasha's teaching style pattern among mathematics teachers based on their demographic factors. To find the Grasha's teaching style pattern among mathematics teachers based on gender and teaching experience, the descriptive data regarding the distribution of the five teaching styles are presented in Table 3. Based on the analysis of this study, we have selected the largest number of teachers who have a high level of teaching style. Therefore, the mean value is not used as a standard.

As presented in Table 3, the mean score of formal authority style is the dominant which is for male mathematics teachers (4.18, 41.84%) have high level. On the other hand, 21 participants representing (4.30, 21.43%) of personal model style have high level teaching style. 2 and 1 participants (4.20, 3.06%) have facilitator style with high and moderate level teaching style. Likewise, 9 participants representing (4.05, 9.18%) of delegator style have high level. Expert (4.04, 24.49%) had the lowest mean with 21 and 3 participants have high and moderate level teaching style. According to these findings, it is revealed that most of the female teachers have personal model style with 41 participants (4.29, 34.45%) at high level teaching style. Formal authority style (4.38, 27.73%) 33 of participants have high level teaching style, delegator style (4.20, 10.92%) 13 of participants have high level teaching style, expert (4.18, 23.53%) 27 and 1 of participants have high and moderate level teaching style. The least preferred teaching style is facilitator style with (4.03, 3.36) 1 and 3 of participants have high and moderate level teaching style.

Next, the mean score (4.34) of formal authority style is the highest for teaching experience over 21 years at a high level. Personal model style was found to have a high mean value of 4.31 for 16-20 years of teaching experience at a high level. Next for teaching experience 11-15 years the highest

mean 4.24 for personal model style at a high level. For teaching experience of 6-10 years mean (4.21) and 1-5 years mean (4.27), the mean score of formal authority style is the highest also at the high level.

Table 3: Teaching style pattern according to the gender and teaching experience.

Demographic		Expert	Formal Authority	Personal Model	Facilitator	Delegator	
Gender	Male	<i>f</i>	24	41	21	3	9
		%	24.49	41.84	21.43	3.06	9.18
		Mean	4.04	4.18	4.30	4.20	4.05
	Female	Degree	High = 21 Moderate = 3	High	High	High = 2 Moderate = 1	High
		<i>f</i>	28	33	41	4	13
		%	23.53	27.73	34.45	3.36	10.92
Teaching experience	1-5 years	Mean	4.18	4.38	4.29	4.03	4.20
		Degree	High = 27 Moderate = 1	High	High	High = 1 Moderate = 3	High
		<i>f</i>	4	6	4	0	2
	6-10 years	%	25	37.5	25	0	12.5
		Mean	3.88	4.27	4	0	4.28
		Degree	High = 3 Moderate = 1	High	High	-	High
11-15 years	<i>f</i>	9	15	13	1	2	
	%	22.5	37.5	32.5	2.5	5	
	Mean	4.08	4.21	4.12	4	4	
16-20 years	Degree	High = 8 Moderate = 1	High	High	Moderate	High	
	<i>f</i>	12	14	15	1	5	
	%	25.53	29.79	31.91	2.13	10.64	
21 years more	Mean	4.08	4.2	4.24	4.47	4.09	
	Degree	High = 10 Moderate = 2	High	High	High	High	
	<i>f</i>	10	13	15	1	5	
Total	%	22.73	29.55	34.09	2.27	11.36	
	Mean	4.24	4.3	4.31	4	4.09	
	Degree	High	High	High	Moderate	High	
Total	<i>f</i>	17	26	15	4	8	
	%	24.29	37.14	21.43	5.71	11.43	
	Mean	4.2	4.34	4.52	4.04	4.28	
Total	Degree	High	High	High	High=1 Moderate = 3	High	
	<i>f</i>	52	74	62	7	22	
	%						

Based on the findings, it was concluded that formal authority teaching styles is the dominant for male mathematics Year 5 teachers. Formal authority is a teacher centered style of teaching. In the classroom, the teacher is the authority when this approach occurs in teaching. The teacher's role in the formal authority style is to control the learning process by providing course objectives, feedback, expectations, and rules of conduct. The effect of using this extreme teaching style can lead to a rigid learning environment. Standard learning developed by teachers will limit the learning process of students ([21], [22]).

Teacher-centered teaching approach will cause students to be passive without control over learning because they only receive the knowledge and wisdom from the teacher [1]. So, teachers act to make all decisions related to the curriculum and like faculty members. They also emphasize acceptable standards, establish learning goals, provide positive and negative feedback and critically monitor students' standard practices and procedures.

Finding from this study showed that female mathematics Year 5 teachers prefer to personal model teaching style. Through the personal model, the teacher is depicted as a prototype. Therefore, the behavior and hands-on approach by teachers in TL serve as an example for students to think and behave. Students feel inadequate, stressed and unable to achieve the teacher's expectations or standards as an effect of the extreme use of this teaching style [21].

Salleh *et al.* [53] stated teachers also portray themselves as good examples by being role models to the students. Teachers encourage students to emulate their role and teaching as a teacher as well as supporting student learning [37]. Likewise, personal model style approach is through personal example and stimulating the way of thinking and the way of behaving. In addition, students are encouraged to observe and emulate the teacher's approach. They will also direct, supervise and guide by showing how to do things in teaching. Obviously, the personal model teaching style is teacher-centered, and the teacher has full authority in the classroom.

The teaching style of the personal model serves as a model to the students. In fact, teachers give examples from their lives while teaching. For example, of what students need to know, how to think and act in life. Therefore, the teacher's role in this teaching style is as a leader, supervisor, guide and acknowledges that teaching is a personal act [41]. While previous studies such as Maden [41] stated that the personal model teaching style means of the female teachers was significantly higher than that of males. In a study by [51], prospective female teachers stated that women may prefer the personal model teaching style because it suits their feminine character compared to male.

Based on the findings of this study, mathematics teachers with more than 21 years of teaching experience prefer to use a formal authority style in teaching by setting learning goals, rules, giving positive and negative feedback for students. Formal authority is teacher-centered teaching. Most experienced teachers are inclined and more comfortable using conventional methods in teaching. They also care about the 'correct, accepted and standard' way of doing things. Most experienced teachers tend to stick to their conventional teaching methods [31]. Their teaching experience over the years has influenced the perception of their own knowledge and skills [56].

However, in this style the teacher is a very strict individual and this causes students to be uninterested. This style emphasizes only the rules and formal learning activities that take place in the classroom. This refers to the teacher entering the classroom and teaching as usual without paying attention to the other atmosphere that occurs during learning. Teachers also only care about the formality of teaching and pay less attention to students' emotions, which can result in students dropping out of learning.

The findings of this study are in line with [61] and [29], revealing that teachers with 16-20 years of teaching experience have a significant difference and the highest mean compared to teachers with 6-10 years of teaching experience. In addition, the research findings of [48] found that mathematics teachers with 1-5 and 6-10 years of experience, GPs with formal authority were dominant at a high level. Whereas 11-15 and 16-20 years of experience prefer personal model style.

3.2 The difference in teachers teaching style based on gender

The second research question addressed "Is there a significant difference in teachers teaching style based on gender?". In this context, the difference between the two variables was tested using t-test, and the findings of the test are summarized in Table 4.

Table 4: T-Test results of difference in teachers teaching style based on gender.

Teaching Styles	Gender	N	X	SD	t	p
Expert	Male	24	4.04	0.25	-	0.474
	Female	28	4.18	0.24	1.940	
Formal Authority	Male	41	4.18	0.28	-	0.106
	Female	33	4.38	0.33	2.877	
Personal Model	Male	21	4.30	0.35	0.046	0.321
	Female	41	4.29	0.37	-	
Facilitator	Male	3	4.20	4.20	1.358	0.055
	Female	4	4.03	0.06	-	
Delegator	Male	9	4.05	0.12	-	*0.022
	Female	13	4.20	0.28	1.487	
Total	Male	98	20.77	1.24		
	Female	119	21.08	1.28		

* = $p < .05$

According to the results of difference in teachers teaching style based on gender, there was a significant difference between the male and female teacher in delegator style ($t = -1.487; p < .05$). The mean score of females ($X=4.20$) was significantly higher than the mean score of males ($X=4.05$). Although there was no significant difference in the other teaching style, while the means scores of the male teacher were higher in formal authority style ($t = -2.877; p > .05$), the mean scores of the female teacher were higher in personal model style ($t = 0.046; p > .05$), expert style ($t = -1.940; p > .05$) and facilitator ($t = 1.358; p > .05$). These results may be interpreted as that the male teachers were more prefer in formal authority, while female teachers were more prefer in personal model.

The findings of the previous study for gender showed that expert style is the highest means which is for male and female mathematics teachers [52]. A recent study dealt with the effects of teachers' gender on their teaching style in the EFL context of Iran, Even the previous studies, reveals a effects of teachers' gender on their teaching style in the EFL context of Iran, there is a difference in the formality of the teaching style based on gender [32]. According to [33], for example, the most dominant influence on the teacher's teaching style is male. Otherwise, based on the type of teaching style achieved, it was found that the gender factors had no effect ([5], [10]). The findings agreed with a previous study [25], there was no significant difference based on gender in 21st century technological skills in education environments.

The study conducted by [12], stated teaching style that female teachers or prospective teachers prefer is the student-centered approach, while the lecture or technology-oriented style is preferred by male teachers. According to [14], students are given more autonomy by reducing direct supervision and setting themselves of doing coursework, compared to female teachers who will ask about the content and teaching process to student. In addition, male teachers give freedom, prefer non-verbal communication, and encourage teamwork [20]; whereas female teachers prefer to be verbal communication, interpersonal and apply pedagogical dialogue in achieving educational goals ([9], [59]). Comparison to the findings of [14] that younger male teachers are concerned with the achievement of teaching objectives and goals. Furthermore, the personal characteris-

tics and quality of the teacher choosing the teaching method is a condition for applying it in the teaching process [34].

3.3 The difference in teachers teaching style based on teaching experience

For the third research question, one-way ANOVA is analyzed. The results findings are summarized in Table 5.

Table 5: ANOVA results of difference in teachers teaching style according to teaching experience.

Teaching Style	Teaching Experience	N	X	Source of Variance	Sum of Squares	SD	Mean of Squares	F	p
Expert	1-5 years	4	3.90	Between Groups	1.197	4	0.299	2.949	*0.021
	6-10 years	9	3.96						
	11-15 years	12	3.98	Within Groups	21.517	212	0.101		
	16-20 years	10	4.04						
	21 years or more	17	4.12						
Total		52	4.00		22.714	216			
Formal Authority	1-5 years	6	3.94	Between Groups	1.138	4	0.284	2.535	*0.041
	6-10 years	15	4.02						
	11-15 years	14	4.04	Within Groups	23.780	212	0.112		
	16-20 years	13	4.07						
	21 years or more	26	4.17						
Total		74	4.05		24.917	216			
Personal Model	1-5 years	4	3.96	Between Groups	0.692	4	0.173	1.415	0.230
	6-10 years	13	3.99						
	11-15 years	15	4.06	Within Groups	25.908	212	0.122		
	16-20 years	15	4.09						
	21 years or more	15	4.13						
Total		62	4.05		26.599	216			
Facilitator	1-5 years	0	3.79	Between Groups	0.287	4	0.072	0.508	0.730
	6-10 years	1	3.68						
	11-15 years	1	3.72	Within Groups	29.919	212	0.141		
	16-20 years	1	3.72						
	21 years or more	4	3.77						
Total		7	3.74		30.205	216			
Delegator	1-5 years	2	3.92	Between Groups	0.760	4	0.190	1.683	0.155
	6-10 years	2	3.80						
	11-15 years	5	3.90	Within Groups	23.931	212	0.113		
	16-20 years	5	3.90						
	21 years or more	8	3.97						
Total		22	3.90		24.691	216			
Total		217							

According to the results, there was a significant difference in teachers teaching style based on teaching experience in expert style and formal authority style. The F values found for the expert teaching style (F=2.949, p<.05), formal authority (F=2.535, p<.05), Moreover, most of the mathematics teachers prefer formal authority teaching style as 21 years or more (X=4.17).

The previous studies by [61] show that the teachers who worked 16-20 years had significantly higher means than those with 6-10 year working experience. According to [29] there was a significant difference between experience and less-experience teachers' teaching style while [48] found

that experience had a negative relationship with certain styles of teaching. In the study by [61], there was no significant difference was found in the scores of the scale the researchers used based on the variable of years of service.

Other than that, among the mathematics teachers with 1-5 and 6-10 years of experience, our computed results showed that the formal authority teaching style was the dominant to a high degree. While 11-15 and 16-20 years of experience prefer to personal model teaching style. Other than that, regarding teaching style, [16] found that teaching experience did not yield a significant result in their study on teaching style of post graduate educators in South Africa. As stated by [39] and [54], there is no difference in the teaching style of teachers according to the length of service.

Wood [60] concluded that there is no significant difference between male and female teachers in many areas for 220 primary school teachers; however, qualitative differences exist in relation to the effective nurturing of students, male teachers receive more negative comments than female teachers. In another study, [7] in his study to predict the teaching style of ESP (English for Specific Purposes) instructors in Iran based on the factors of teaching experience and gender. They found that teaching experience and gender were not significant predictors of teaching style.

The conclusion is that mathematics primary teachers prefer to use all teaching style. Teachers will adapt a teaching style most appropriate according to their teaching area. The summary found that mathematics primary teacher can be able to present various teaching styles creatively. This finding agreed with a previous study, ([13], [24]) who discussed the importance of teaching style elements among teachers and students. On another note, Students will be keen to fully pay attention on the TL process through various teaching styles such as expert, formal authority, personal model, facilitator and delegator [49].

4 Conclusion and Recommendation

Based on the results reported and the discussion conducted in the previous sections, it can be concluded that the formal authority was the most frequently occurring teaching styles among male primary school mathematics Year 5 teachers. Otherwise, personal model was the dominant teaching style for female teachers. Teachers need to use a teacher-centered teaching style to develop awareness of the teaching style towards students. Therefore, the formal authority style generally focuses on content and supervises students critically. While the personal model style expects students to imitate his approach and attitude as the main model in the class. According to [21], each teacher has his own purpose and essence that will help increase the attention and focus style of teaching with varying degrees of ability.

In addition, mathematics teachers also constantly share knowledge and skills with students. It can be concluded that almost all teachers' teaching styles are at a high level. However, facilitator teaching styles which were at the least from other teaching style. This facilitator teaching style is not popular because this teaching style takes a long time when faced with a large capacity of students in a learning session. Therefore, teachers are recommended to diversify teaching styles and assess according to student needs.

It was concluded that mathematics teachers reflected delegator teaching style on their teaching based on their gender. Therefore, in order to minimize the student's supervision of the tasks given and not depending on the teacher, the use of delegator teaching style is more effective. In addition, teachers need to give students the opportunity to act on their decisions for more flexible learning.

The teacher is also used as a reference when needed. Significant differences were found in teaching style according to teaching experience.

In the 21st century, it is important that teaching style focusing on students is applied by the teachers. The learning environment of the 21st century requires teachers to use an approach that provides more opportunities for students to utilize the advancement in information and technology. Therefore, the combination of multi-teaching styles is most appropriate to be practiced in the digital era. Furthermore, it is vital to examine the integration of different teaching styles. For example, the combination of facilitator and delegator teaching style is most suitable in practice in the digital era [53].

Diversity among students according to the priority of learning time and commitment can be developed through a flexible teaching style [6]. Thinking skills in students can be nurtured and their professional lives are more guaranteed if teachers are aware of the importance of teaching style. To develop awareness in the context of learning and teaching style, each teacher needs to do a reflective study according to their own teaching style. Moreover, education will develop the student's learning style and shape the teacher's teaching style according to the student.

The findings of the present study have led to several recommendations that may be helpful for future studies. For the future, the researcher suggests the following:

- Primary school mathematics teachers must raise awareness of their teaching style. Therefore, teachers are advised to always evaluate their own teaching style. For example, by giving related courses on this subject.
- Meanwhile, similar research can be done on different samples. As a suggestion for further research, studies related to teaching style could be expanded by looking at teachers' options, secondary school, and urban and rural schools.
- The effect of mathematics teachers' teaching styles on the success of the students in mathematics can be studied.

The diversity of teaching styles can affect student psychology and students' academic learning performance [49]. The teaching style is a significant concern that every teacher should consider. In-depth knowledge and skills in various aspects are required for every teacher so that appropriate teaching can be carried out according to the students' abilities. Therefore, the teaching style needs to be absorbed in every lesson. The teaching style factor, teaching pattern or teacher behaviors during teaching sessions are necessary elements in the development of professionalism [49].

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