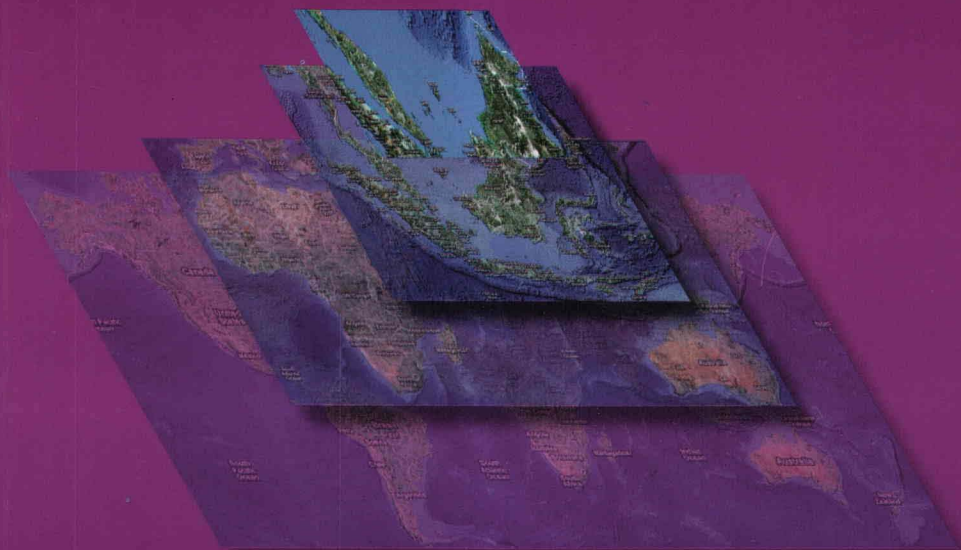


EXAMINING CONTEMPORARY MALAYSIA: Critical Knowledge From Research



Volume 2 Jilid 2

**RESEARCH KNOWLEDGE & INTELLECT APPLICATION SERIES
SIRI ILMU PENYELIDIKAN & APLIKASI INTELEK**

UfoRIA



UiTM

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2009

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**RESEARCH KNOWLEDGE & INTELLECT APPLICATION SERIES
VOLUME 2**

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ISBN: 978-983-2721-03-1



Production:
DESKTOP SYSTEMS
183 Persiaran Klebang,
Kawasan Perusahaan IGB,
Off Jalan Kuala Kangsar,
31200 Ipoh, Perak, Malaysia.

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Foreword

This UfoRIA Research Knowledge and Intellect Application series has been evaluated and edited by a panel of expert and professional reviewers from within and outside the UiTM system. Most of the articles/papers in this special series has been presented at the 'Kontemporari' seminar series both at the state and national levels. A few articles/papers have even been presented and shared at regional and international seminar and conferences.

The articles/papers selected for this second volume discusses contemporary and also critical issues that need to be carefully examined and further researched by the academic community in Malaysia. This cycle of research effort and knowledge dissemination is a never-ending journey as we strive to make knowledge and learning more that just academic culture.

It is hoped that this Research Knowledge and Intellect Application series would continue the knowledge acculturation initiative that was started in 2002 when UfoRIA was born. This is the second out of two books, one in Malay and this particular volume in English, edited and published by the Unit for Research and Intellect Application (UfoRIA) with the support of the Campus Director of UiTM Seri Iskandar, Perak, Malaysia.

To reference this volume

To refer to any articles or papers in this particular volume, please use the format below:

Author name (2009) Full title of article or paper. In UfoRIA UiTM (Ed.) (2009) *Examining contemporary Malaysia: Critical knowledge from research* (vol. 2). Seri Iskandar, MY: UfoRIA Universiti Teknologi MARA, pp. xx-yy.

Evaluating KBSM forms four and five sports science in secondary schools in Malaysia

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ABSTRACT

This study was designed to evaluate the implementation of the Form 4 and 5 Sports Science Curriculum in the Malaysian schools. A questionnaire which was formulated by the researchers was administered to 94 Sports Science teachers in Malaysia. Majority of the Sports Science teachers were males and were below 40 years of age. Majority were trained in Sports Science and Physical Education. About half of the teachers were teaching between 5-14 years and majority taught 4-8 periods of Sport Science per week. Majority of the teachers have attended Sports Science related courses, Physical Education related courses and sports related courses. However only about 70% of the Sports Science teachers had attended Sports Science Orientation Course. Inadequate facilities is considered to be a very serious problem. Sports Science teachers felt that financial allocation is inadequate, teaching aids are scarce, reference books are inadequate and emphasized that they need a Sports Science text book and teachers' guide book. In term of teaching, male teachers and teachers with 3 years Sports Science experience are more capable in managing students and in conducting activities/experiments. However, they agreed that administrators consulted them before assigning them to teach but they failed to discuss factors affecting the teaching and learning of Sports Science. For further research, it is recommended that perceptions of students on Sports Science subject and its implementation should be undertaken.

INTRODUCTION

The importance of the evaluation of curriculum implementation could not be denied because of various reasons as mentioned by Charlesworth (1975) and Ariathan (1988). Charlesworth (1975) stated that in the seventies the implementation of curriculum in Malaysian secondary schools faced many barriers. He identified those barriers that were related to teachers as lack of experience, lack of skills and knowledge, lack of materials, equipment and resources and lack of motivation.

Similarly, Ariathan (1988) found in his study of teachers' perceptions of 'Alam dan Manusia' (Environment and Man) that a substantial number of teachers lacked several materials and facilities while some others found them inadequate or inaccessible to them and the text books were useful but needed further improvement.

In the context of curriculum implementation, the level of curriculum implementation is critical because the implementation depend on teachers themselves. In fact, in a study of curriculum implementation, Amin (1990) found that teachers faced numerous difficulties and challenges in the implementation of curriculum because they have to face changing situations in schools. He stressed that teachers were a key to successful implementation of school subjects and concurred with Kerr (1972) that curriculum could not be fully and effectively implemented if teachers were not ready and did not have the ability to successfully implement it. As such, evaluation of new curriculum such as KBSM Sports Science could provide vital information in upgrading the teaching and learning of the subject in Malaysian secondary schools.

STATEMENT OF THE PROBLEM

This study is concerned with the evaluation of the implementation of the Form 4 & 5 Sports Science Curriculum in the Malaysian secondary schools. This study attempts to investigate the status of certain aspects of the curriculum in its initial years of implementation.

In school, Sports Science subject has been included in the Malaysian education curriculum since 1998 with the inception of the subject in two sports schools, that is Sekolah Sukan, Bukit Jalil, Kuala Lumpur and Sekolah Sukan Bandar Penawar, Johor. In 2002 a total of 32 normal secondary schools offered Sports Science subjects to their Form 4 students. In 2003 another 97 schools offered the same subject making it a total of 129 schools in 14 states in Malaysia offering the subject (CDC, 2003). With the new interest on sport such as Sports Science, it is agreed that Sports Science has an important role in the development of 'sport for all' and 'elite sport' (Langkawi National Sports Convention, 1996). As a result, the human resource development has becoming more important than ever. The question of training the right people and giving the right inputs should be addressed with great interest. Any empirical study on issues related to Sports Science thus become important.

Wee (2001) in the study of implementation of Physical Education (PE) in 290 schools in Peninsula Malaysia found that 83.3 percent of administrators did not (never, rarely, occasionally) discuss with teachers on factors affecting the teaching and learning of PE. 91.9 percent of administrators 'never', 'rarely' and 'occasionally' organize staff development programmes. Wee (2001) also found that 30 percent of PE teachers admitted that they do not have knowledge to teach and their major problem is 'unable to control class'. Further 41 percent of the teachers agreed that equipment for PE class is inadequate. Juliana (1993) in a study of implementation of KBSM Form One Science subject found that 45.3 percent of science teachers were negative toward teaching of science. 81.2 percent of teachers experienced difficulty in planning teaching method and 68 percent faced problem in preparing tests and examinations questions. In another study. Hamidah (1995) found that 44 percent of Bahasa Malaysia teachers were not confident in teaching. Similarly, Ahmad Talib (1994) reported that KBSM history teachers were less confident in handling the teaching and learning of the subject.

With the above-mentioned problems encountered in the implementation of KBSM school subjects, this study plans to evaluate the implementation of Sports Science subject in secondary schools.

RESEARCH OBJECTIVE

The objective of this study is to evaluate the implementation of the Sports Science curriculum in secondary schools. It focuses on the view of teachers teaching Sports Science in terms of their perceptions of their preparedness to teach Sports Science, time allocation, and perception on the implementation of Sports Science programme.

METHOD

Participants

A total of 135 schools were selected based on the list provided by Ministry of Education. The 135 schools which constituted the sample were the schools that offer Sports Science as a subject. Questionnaires were administered to the teachers teaching Sports Science in all the secondary schools. The questionnaires were posted with stamped self-addressed envelopes to the schools after getting the approval from the State Education Department. The response rate was 69.6%.

Instrumentation

A special questionnaire was prepared for teachers teaching Sports Science by the researchers. It is divided into three sections. Section A consisted of 15 items that were related to age of respondent, sex, marital status, race, academic qualification, professional qualification, field of specialization and working experience and teaching work load. Section B solicited teaching and school related information. This section contains 23 items related to teaching and school. The items focus on the number of Sports Science classes, perception on the adequacy of period allocated, perception on the ability to teach Sports Science, perception on various aspects of KBSM Sports Science, the awareness and understanding of KBSM Sports Science, problem faced when teaching Sports Science, orientation course and perception on orientation course, perception on the preparedness to teach, sources of information, Sports Science committee, in-house courses, courses attended by teachers, perception on Sports Science syllabus, syllabus specification, reference materials, teaching of values in Sports Science and evaluation techniques used. The third section focused on the information on implementation of Sports Science programme.

This section consisted of 18 items; 6 items related to the non-human factor of Sports Science programme implementation, 5 items focused on the distribution of Sports Science classes and 7 items were related to the administration of Sports Science in schools.

Data collection and Analysis

The collection of data was through mailing of questionnaires to the listed Malaysian secondary schools that offer Sports Science as a subject. The raw scores from the above-mentioned questionnaires were used for analysis. Items on teaching ability, view on various aspects of KBSM Sports Science, perception on Sports Science Orientation course, opinion on Sports Science syllabus and non-human factors in sports science programme were weighed on a priori weight method from Strongly Agree (5) to Strongly Disagree (1). The Likert Scales used were Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1). The scores given are for positive statements and the reverse is true for the negative statements.

Items for sources of information on KBSM sports science, allocation of sports science classes and administration of sports science programme were weighed on a priori weight method from Almost Always (5) to Almost Never (1). The Likert Scales used were Almost Always (5), Frequently (4), Occasionally (3), Rarely (2) and Almost Never (1). The scores given were for positive statements and the reverse is true for the negative statements.

Two types of statistical techniques were used to analyse the data, namely, descriptive and inferential statistics. Descriptive statistics such as means, standard deviations, minimum and maximum were used to report the data from the questionnaire. They were used for the analysis of data concerning demographic variables, school-related variables, allocation of Sports Science classes, administration of Sports Science programme, frequency of in-house training, courses attended from Non- government organization and agencies under the Ministry of Education. Inferential statistics such as t-test, and analysis of variance (ANOVA) were used. T-tests were computed to determine whether differences existed in the perception mean scores for each sub-category or item. Several one-way ANOVA were computed to determine the differences between the perceptions mean scores for the independent factors of gender, age, race, field of specialisation, working experience, and school background.

When variance analysis indicated significant differences among groups, Tukey HSD tests were applied to find out where the difference occurred. An alpha level of 0.05 was used for all statistical tests.

RESULTS AND DISCUSSIONS

A total of 94 respondents constituted the sample. These respondents were Sport Science teachers from 94 secondary schools in Peninsular Malaysia, Sabah and Sarawak.

Demographic data shows that there were more male (80.9%) than female (19.1%) respondents. This does not reflect the general notion that female teachers dominated teaching profession. By age, the majority of respondents (56.4%) were 30 - 39 years in age. About 85.1% of the Sport Science teachers were below 40 years old which reflects that the Sport Science teachers are young. In terms of ethnic group, the sample consisted of a majority of Malay teachers (73.4%), followed by Chinese (6.4%), Indian (4.3%) and Others (16.0%).

In terms of academic qualification, the sample is made-up of 86.2% of graduates in Sport Science, Physical and Health Education, and Education. With regard to professional qualification, more than half of the respondents (56.4%) had undergone degree in education programme while 13.8% had Diploma in Education. About 30% (27.7%) were former teachers who furthered their studies in the relevant bachelor programmes in the universities. A large number of teachers (54.3%) were trained in Sports Science and 36.2 per cent were trained in Physical and Health Education. This indicates that there is no shortage of Sports Science teachers because the Physical and Health Education teachers are capable of teaching Sports Science subject.

The analysis of data on teaching experience shows that approximately a third of the total number of Sport Science teachers have less than 5 years teaching experience, thus showing that they are new teachers. On the contrary only 10.6 percent of the respondents have 20 or more years of experience. As far as experience in teaching Sports Science is concerned, approximately a third of the total number of Sports Science teachers have less than one year teaching

experience as Sports Science teachers, majority (57.4%) have 1- 2 years teaching experience in teaching Sports Science subject, thus showing that they are new Sport Science teachers. On the contrary only 12.8 percent of the respondents have 3 - 4 years experience in teaching Sports Science. However the data also reveals that the Sport Science teachers are experienced Physical Education teachers; 59.5 percent have had more than five years experience as Physical Education teachers. 31.9 percent have more than 10 years teaching experience in Physical Education with 6.4 percent having more than 20 years experience in teaching Physical Education. Experience is important because skills acquired by teachers such as managing and administering classes, ability in using curriculum resources, ability to plan teaching and ability to make and use teaching aids contributed to better attitude towards subjects taught (Noraini & Rahimah, 1984). Manross and Templeton (1997) agreed that expert teachers are not born but made and stressed that expertise is developed through experience, practice and knowledge. Classroom experience where teachers have the opportunity to practise different teaching methods and to acquire knowledge necessary to achieve good teaching.

Teaching Responsibilities

With regard to teaching responsibility, about 80 percent of Sports Science teachers teach 4 - 8 periods of Sports Science per week and about 12 percent teach more than 9 periods per week. These details indicate that Sports Science is considered a specialist subject. It is given only to those who are qualified to teach the subject. Result also shows that Sports Science teachers are Physical Education teachers too (92.6%). The results showed that school principles understand that proper staffing of teachers to teach sports science is a crucial leadership task. However that may be due to Malaysian Ministry of Education policy that teachers teaching sports science must be qualified in either sports science or physical education. The implementation of sports science programme depends greatly on the staffing of the teachers as Wainwright (1993) substantiated that if people are not managed efficiently and effectively, the cost would be considerable. This is supported by McLaughlin et al. (1986 cited in Harris, 1992) that administrative decisions to assign teachers outside their fields can actually contribute to incompetence.

Courses and in-house training programme attended by Sports Science teachers

Data analysis shows that all the Sports Science teachers (94 teachers) has attended some form of courses. About 80 percent has attended Physical Education related courses but only about 30 percent has attended Sports Science related courses.

The courses attended by Sports Science teachers were organised by Curriculum Development Centre and State Education Department. About 50 percent of the Sports Science teachers have attended at least one course conducted by Curriculum Development centre and about 20 percent of the teachers have attended a course organised by State Education department. The data also shows that State Education Department has played a major role in organising the most courses for the teachers.

On the average, 75 percent of teachers had never attended any Physical Education courses since becoming a qualified teacher. About 42 percent of the teachers had attended a course each conducted by State Education Department. And 17 percent has attended a course each by Curriculum Development Centre. Again, the data indicate that State Education Department and Curriculum Development Centre play major roles in organising such courses for Sports Science teachers.

However, data analysis showed that Sports Science teachers were deprived of sport related courses too. On the average about 80 percent of the teachers have never attended a sport related course. The details show that the State Education Department and District Education Office play a major role in organising courses. Other agencies such as the National Sports Council and individual sports associations such as the Malaysian Amateur Athletics Union also play their role in providing training to teachers. This is unwarranted because according to Eldar (1994) to be an expert, a teacher combines superior teaching skills with an extensive understanding of the subject matter.

As for Sports Science Orientation Course, only 69 percent of the Sports Science teachers (65 teachers) have attended the course. 31 percent of the teachers have been teaching Sports Science subject without orientation to Sports Science. This does not augur well as Sports Science is a new subject introduced to

school.

Research data indicates that 52% of the Sports Science teachers have attended Staff Training programme since becoming a teacher while 48% have not. Half have attended training between 1 to 3 times and only 1 percent attended 4-6 times. This finding reveals that despite having a new subject in schools, schools fail to understand the need for staff development in this area.

Teaching preparedness of Sports Science teachers: Perception of Sports Science teachers on their preparedness to teach

In term of teaching preparedness, Table 1 shows that only 18% of Sports Science teachers are very well prepared, 46.8% are prepared. On the contrary, it reveals that only 6.4 are poorly prepared and not prepared. This indicate that majority of the Sports Science teachers are well trained in their field. However 6.7% of sports science teachers were poorly and not prepared for teaching of sports science. This need to be addressed because in studying physical education teachers in schools in Perak, the Federal Inspectorate of Schools (1993) reported that inadequately prepared teachers rely on personal knowledge and experience, and thus lack confidence to teach effectively even though they try their best. The same report revealed that teachers who attended courses were more prepared and were able to use various techniques to teach their students.

Table 1: Teaching preparedness of Sports Science teachers: Perception of Sports Science teachers on their preparedness to teach

Perception on the preparedness to teach	Percentage
Very well prepared	18.1
Prepared	46.8
Averagely prepared	28.7
Poorly prepared	1.1
Not prepared	5.3
Total	100.0

Sports Science teachers' perceptions of the implementation of Sports Science programme in school

The results in Table 2 reveals teachers' perceptions on the implementation of Sports Science programme in school. It was found that only 59.3 percent of the administrators '*frequently*' and '*always*' assumed that Sports Science is important. This is supported by the fact that only 65.7 percent of the administrators '*frequently*' and '*always*' had discussions with teachers before assigning them to teach Sports Science. Similarly, it was noted that 79.4 percent of administrators '*never*', '*rarely*' and '*occasionally*' discuss with teachers on factors affecting the teaching and learning of Sports Science. The analysis also shows that low status was accorded to Sports Science by the administrators as it revealed that 93.4 percent of administrators '*never*', '*rarely*' and '*occasionally*' organise staff development programmes. Similar results were found by the Inspectorate of Schools (1988, 1993) that many schools did not hold any in-house courses.

On facilities for Sports Science, data analysis shows that 18.7 percent of administrators '*frequently*' and '*always*' provide adequate facilities for the teaching of Sports Science. This results is consistent with Wee's (2001) finding that facilities in the implementation of physical education programme were inadequate.

Data analysis also shows that 71.4 percent of the administrators '*never*', '*rarely*' and '*occasionally*' observe teaching of Sports Science. However, it is heartening to note that 97.8 percent of administrators '*never*', '*rarely*' and '*occasionally*' allow Sports Science class to be used for the teaching of other academic subjects. Similar results were obtained by Wee (2001) in a study of the implementation of physical education programme in Malaysian secondary schools. Wee found that the frequency of observation of teaching by the administrators was relatively low. Administrators failed in their duties to observe and guide teachers. Federal Inspectorate of Schools in their 1994/1995 report revealed that school heads considered observations unimportant. In fact in 1988 Federal Inspectorate of School in their nation wide study of 120 secondary schools found that 10% of the principals carried out supervision and were graded as good supervisors.

Table 2: Extent of occurrence in the administration of Sports Science programme as perceived by teachers

Statement	Extent of Occurrence in Percentage				
	N	RLY	OLY	FLY	AL
Administrators have discussion before assigning Sports Science teachers	9.9	8.8	15.4	35.2	30.7
Administrators assume that Sports Science is important	6.6	7.7	26.4	32.9	26.4
Administrators allow Sports Science class to be used for other subjects	82.3	12.2	3.3	2.2	0.0
Administrators observe teaching	9.9	12.1	49.4	23.1	5.5
Administrators provide adequate facilities for Sports Science	14.3	30.7	36.3	16.5	2.2
Administrators organise Staff Development Training Course for Sports Science	49.4	29.7	14.3	5.5	1.1
Administrators discuss with teachers concerning factors affecting the teaching and learning of Sports Science	26.1	20.7	32.6	16.3	4.3

Notes : N = Never; RLY = Rarely; OLY = Occasionally; FLY = Frequently; AL = Always

Gender and Perception on Orientation Course

As shown in Table 3, the analyses of t-tests yielded results which were statistically significance in two aspects of ‘the course help to clarify and familiarize teachers with the new syllabus and teaching strategies’ and ‘The course was able to show different ways of integrating contents, skills and values’ in the teaching of KBSM Sports Science. Group statistics also showed that the mean scores for male (3.10) was higher than that of female (1.83) in the aspect of the course help to clarify and familiarize teachers with the new syllabus and teaching strategies. On the contrary female teachers had higher mean score (3.14) as compared to male counterparts (2.74) in the aspect of the course was able to show different ways of integrating contents, skills and values.

Table 3: Results Obtained for Gender of Teachers and Their Perception of the KBSM Sports Science Orientation Course using t-test for independent samples

Statement	Sex of Teachers				t- value	P
	Male (n=76)		Female (n=18)			
	Mean	SD	Mean	SD		
The Key Personnel/Officers fully understand the various aspects of the new curriculum	2.91	1.86	1.94	2.07	1.94	0.05
The course help to clarify and familiarize teachers with the new syllabus and teaching strategies	3.01	1.94	1.83	1.92	2.45	0.01*
New methods of teaching were explained and demonstrated	2.49	1.71	1.61	1.75	1.95	0.05
The course was able to show different ways of integrating contents, skills and values	2.74	1.79	3.14	1.96	2.02	0.04*
On the whole, the course was beneficial	3.14	1.96	1.78	1.89	2.68	0.00*

Professional Qualification and Majors on Class Distribution

The analyses of variance on perception on the class distribution on Sports Science KBSM yielded results which were statistically not significant ($F(3,87)=0.409$; $p=0.747$). There were no significant differences between the perceptions of teachers with different professional qualifications.

The analyses of variance on perception on Sports Science Class Distribution yielded results which were statistically not significant ($F(5,85) = 1.802$; $p=0.121$). There were no significant differences between the perceptions of teachers with different majors on class distribution.

Professional Qualification and Majors on Programme Administration

The analyses of variance on perception on Sports Science Programme Administration yielded results which were statistically not significant

($F(3,86)=1.325$; $p=0.272$). There were no significant differences between the perceptions of teachers with different professional qualifications on programme administration.

Similarly, the results of the analyses of variance on perception on Sports Science Programme Administration by majors yielded results which were statistically not significant ($F(5,84)=1.160$; $p=0.336$). There were no significant differences between the perceptions of teachers with different majors on the programme administration.

CONCLUSION

Majority (85.1%) of the Sports Science teachers were young, below 40 years of age. 70% of them were fresh graduates while 30% were former teachers who furthered their studies in the public universities. About 54% were trained in Sports Science and 36.2% were trained in Physical Education. However about 10% were non-Sports Science and non- Physical Education majors.

In terms of working experience, about half of the teachers were teaching between 5-14 years. About 30% taught for less than 5 years. While only 10% had teaching experience of 20 years and above. The majority (57.4%) of them had 1-2 years experience in teaching Sports Science subject. And about 90% of the Sports Science teachers had at least 5 years experience in teaching Physical Education.

With regard to teaching responsibility, about 80% of Sports Science teachers taught 4-8 periods of Sport Science per week while 12% taught more than 9 periods per week.

In terms of training, about 70% of the teachers have attended Sports Science related courses, about 78% have attended Physical Education related courses and 94% have attended sport related courses. However only about 70% of the Sports Science teachers have attended Sports Science Orientation Course.

In terms of administration of the Sports Science programme, Sports Science teachers agreed that administrators consulted them before assigning them to

teach. However, the majority agreed that administrators failed to discuss factors affecting the teaching and learning of Sports Science and did not organize staff development programme. Fortunately, teachers agreed that administrators did not allow Sports Science class to be used for other subjects.

RECOMMENDATION FOR FUTURE RESEARCH

For further research, it is recommended that perceptions of students on Sports Science subject and its implementation of should be undertaken.

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