ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

The Development of a Physical Activities Program to Enhance Health-related physical fitness & fundamental Movement Skills for Grade 1-3 Students at the Displaced Learning Center at Tak Province

Somkiat Phichitbanphot*

Pufa Savagpun*

Taweesak Sawangmek*

Wasana Kuna-apisit**

Received : October 2, 2023

Revised : January 19, 2024

Accepted : March 19, 2024

ABSTRACT

This research was conducted using a quasi-experimental research method. The objectives of this research were 1) to study the state and problem of the physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center, and 2) to develop and assess a physical activities program. The sample group was 30 students in grades 1-3, 7-9 years old who attended Thoo Mweh Khee Displaced Learning Center, in the educational year 2022 selected by purposive random sampling. The research instrument was a physical activity program. The data was analyzed by frequency distribution, percentage, mean, standard deviation, and ANOVA. The findings indicated that 1) Both boys and girls mean scores for each health-related physical fitness test were lower than the cut-off number of the score's health-related physical fitness test following PE department, Sport & Tourism Ministry. 2) The eight - week program components includes; program vision, program objectives, and program structure. 3) The comparing the double difference of static balance, running, jump, side gallop, hop, leaping, catch, kick, overarm throw, and all fundamental movement skills found that the scores between the pre-test at a low level and mid-test at a good level were different at .05 level of significance., and the score between pre-test at low level and post-test at excellence level were difference at .05 level of significance. 4) The boys' and girl's health

*Lecturer in Department of Physical Education and Exercise Science Faculty of Education, Naresuan University(Corresponding Author) e-mail: somkiatp@nu.ac.th

**Lecturer in Faculty of Education, Srinakharinwirot University

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

related physical, fitness levels in cardiovascular endurance, muscular endurance, muscular strength, flexibility, and body composition found that post tests were better than week 8 and week 1.

Keywords : Physical Activities Program / Grade 1-3 Students / Displaced Learning Center / Health-related Physical Fitness / Fundamental Movement Skills

Statement of the Problem

The number of refugees in the world has been growing quickly over the last few years. According to UNHCR data (Callcott, Hammond & Hill, 2015) has shown that more than 66 million people fled from their homeland (23 million are refugees and 43 million as internally displaced people). In particular, there is a flood of refugees leaving the Syrian and Kurdish areas of the Middle East and threatening to overwhelm the capacity of some European states to accommodate them. At the same time, in Southeast Asia, the Rohingya have been displaced in large numbers from their homeland in Western Myanmar, mainly across the border to Bangladesh and there is a strong flow of refugees from Central America to the southern USA (Hadder-Algra, 2000). The future for refugee and displaced people situations is also not expected to be good with the likelihood that climate change will make agriculture impossible in some areas that are currently producing crops. The fact is that food production will stop and the population will be displaced. The main idea is that if displaced people continue as refugees for the long term, the number of refugees in the world is cumulative and goes up and up. If, on the other hand, we can develop a life cycle for displaced learning centers where they move progressively from the initial displacement to one of the long-term solutions by teaching early childhood children through FMS (Fundamental Movement Skills).

Teaching Physical Education for in Primary Schools, UNESCO designed a national strategy for quality physical education which has five pillars (Savagpun, 2020). This particular research focused on the first four pillars: (1) Teacher education, supply, and development. Global research QPE has found that in primary schools Physical Education is taught by inadequately trained teachers (Goodway, Ozmun & Gallahue, 2013). Insufficient curriculum perceived inferior subject status, inadequately trained teachers (particularly in primary schools), inadequate provision of facilities and equipment and teaching materials frequently associated with under-funding, large class sizes and funding cuts, and in some countries, inadequate provision or awareness of pathway links to wider community programs and facilities outside of schools. (Chen, et al., 2018)

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

Students grades 1-3 at Thoo Mweh Khee Learning Center lack the opportunity to participate in basic movement and physical education activities correctly, causing problems and obstacles in the development of movement from games that lead to sports, and it also affecting their physical growth.

So, what is the best result with the best decision? What process should you use to reach the intended – a coherent, progressive education for grade 1 to grade 3 programs in Thoo Mweh Khee Learning Center? The development program of FMS should seek the best option based on the available time, knowledge, ability, creative analysis, self-independence, and critical thinking. Fundamental movement skills will expand their vision, and critical thinking skills as a process of learning, practicing, and applying it to their daily life. The development program of FMS is going to create awareness of the social environment, healthy mentality, and physical creativity. This FMS program in Thoo Mweh Khee Learning Center will help the community to attain health, and physical fitness so that children can help and use this skill for themselves and in their future lives. In academic areas, the activities and movement skills will assist children to learn and develop their physical, mental, and spiritual maturity. The course is extremely practical for early childhood to assist the advantage of gaining knowledge and skills that they can apply to their daily life.

Objectives

1. To study the states and problem of the physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center.

2. To develop and assess boys and girls in a physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center.

Methodology

The development of a physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center is research and development research included 3 phases.

Phase 1: To investigate needs assessment in the context of states and problems of physical activities program for grade 1-3 students in the displaced learning center.

1.1 Population and Samples

The population was stakeholders; the director, teachers, students, and community represented in Tak 7 learning center including 30 persons.

The samples were 10 stakeholders including the director, teachers, students, and representatives from Thoo Mweh Khee Displaced Learning Center.

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

1. 2 Research Instrument

The Interview on problems of physical activities for grade 1-3 students in Thoo Mweh Khee displaced learning center

1.3 Data Collection

The researcher gives interview with teacher, guardian and student in problems of physical activities for grade 1-3 students in Thoo Mweh Khee displaced learning center

1.4 Data Analysis

Content analysis

Phase 2: To develop a physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center including 2 parts as follows;

2.1 Population and Samples

The population was 15 experts in constructing physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center.

The samples were 5 experts in constructing physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center.

2.2 Research Instrument

Accuracy standard test for physical activities program for grade 1-3 students in Thoo Mweh Khee displaced learning center

2.3 Data Collection

Physical activities program for grade 1-3 students in TMKDLC from the opinion of 5 experts in accuracy

2.4 Data Analysis

Criteria for interpreting opinion of 5 experts are as follows;

4.51-5.00 physical activities program for grade 1-3 students in TMKDLC has highest accuracy standard

3.51-4.50 physical activities program for grade 1-3 students in TMKDLC has high accuracy standard

2.51-3.50 physical activities program for grade 1-3 students in TMKDLC has moderate accuracy standard

1.51-2.50 physical activities program for grade 1-3 students in TMKDLC has low accuracy standard

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

1.00-1.50 physical activities program for grade 1-3 students in TMKDLC has lowest accuracy standard

Then to try out the physical activities program for grade 1-3 students in TMKDLC

2.5 Population and Samples try out 20 student to join physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center by on-line pre experimental program in case of covid-19 pandemic.

2.6 Research Instrument : accuracy standard physical activities program for grade 1-3 students in TMKDLC using 1) Wasana's Assessment Form for Fundamental Skills of Students (Kunna-Apisit, 2017) and 2) Test and Criterion of health related physical fitness of (Department of Physical Education, Ministry of Tourism and Sports, Thailand, 2019)

2.7 Data Collection: fundamental movement skills and health-related physical fitness for grade 1-3 students in TMKDLC.

2.8 Data Analysis: By the average and standard deviation comparing between pre-test mid-test and post-test

Phase 3: to assess the physical activities program for grade 1-3 students in Thoo Mweh Khee displaced learning as follows;

3.1 Population and Samples

The population was 2,300 students from Thoo Mweh Khee Displaced Learning Center.

The samples were 30 grade 1-3 students from Thoo Mweh Khee Displaced Learning Center.

3.2 Research Instrument

-The research instrument was a physical activities program to enhance Health-related physical fitness & Fundamental Movement Skills.

- Wasana's Assessment Form for Fundamental Skills of Students (Kunna-Apisit, 2017) and Test and Criterion of Health-related Physical Fitness (Department of Physical Education, 2019).

3.3 Data Collection

Research design: to compare learning achievement in fundamental movement skills and health-related physical fitness for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center use 30 sample groups in One Group Pretest-Posttest Design

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

G_r	O_1	T	O_2	T	O_3

G_r Sample Group

$O_{1.}$ Pretest before using the physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center in health-related physical fitness & fundamental movement skills (week 1)

T physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center

O_2 Midtest before using physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center in health-related physical fitness & fundamental movement skills (week 4)

O_3 Posttest before using physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center in health-related physical fitness & fundamental movement skills (week 8)

3.4 Data Analysis

One-way ANOVA with repeated measure

Research Framework

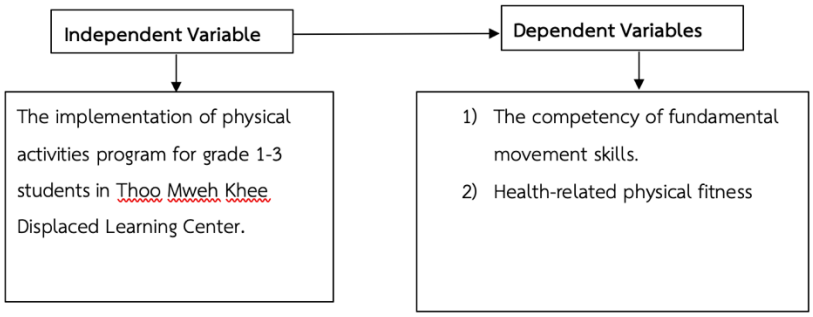


Figure 1 Research Framework

Conclusion

1. Problems and need assessment of physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center. The research finds that there is a critical point of education in migrant communities, the majority of migrant children likely to be out of school. With big purpose in research based, PE's program can help learner to cope with their obstacles through strengthening the physical fitness and mentality healthiest. By the way, the researcher was conducted the state of problem about primary school student health-related physical fitness in cardiovascular endurance, muscular endurance, muscular strength, flexibility

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

and body composition and competency of fundamental movement skill in statistic balance, running, vertical jump, side gallop, hop, skip, leaping, catch, kick and overarm throw.

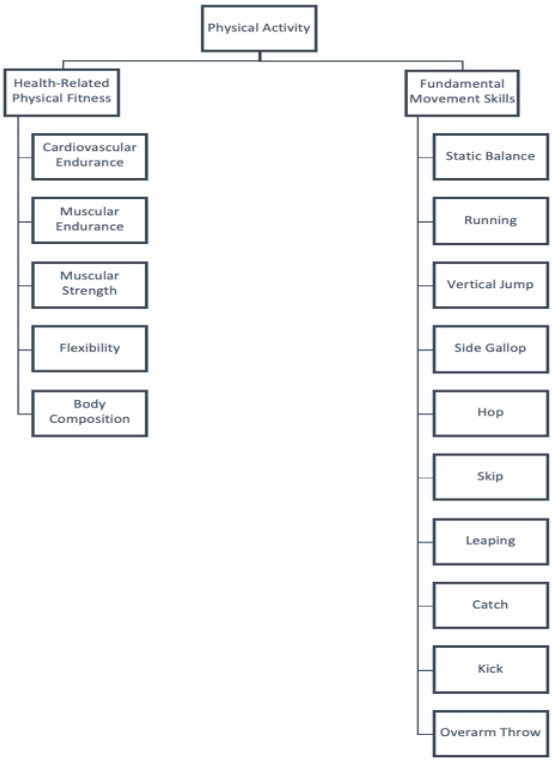


Figure 2 Physical Activity at Thoo Mweh Khee Displaced Learning Center

2. The researcher was design program for grade 1-3 students in Thoo Mweh Khee displaced learning center which including; Program Principle, Program Vision, Program Objectives and Program Structure in 8 weeks;

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

Table 1 Daily Plan for teaching PA in each day per week for 8 weeks (40 plans). There are 5 elements in each plan.

Week	Frequency	Time	W/C	FMS Non-Locomotor, Manipulative, Adaptive	Health-related Fitness	Physical fitness
1	3D/W	40Ms	Non-Locomotor	Static Balance	Body Composition	Speed
				Sprint Run	Muscle Strength	Balance
				NL	Muscle Endurance	
					Flexibility	
2	3D/W	40Ms		Catch	Body Composition	Muscle Power
				Side Gallop	Cardiovascular Endurance	Agility
				Vertical Jump	Muscle Endurance	
				NL		
3	3D/W	40Ms		Catch	Body Composition	Muscle Power
				Kick	Flexibility	Reaction Time
				Vertical Jump	Cardiovascular Endurance	Coordination
				Roll		
				NL+M		

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

Table 1 (continue)

Week	Frequency	Time	W/C	FMS Non-Locomotor, Manipulative, Adaptive	Health-related Fitness	Physical fitness
4	4D/W	50Ms	Non-Locomotor	Skip	Body Composition	Agility
				Hop		Balance
				Vertical Jump		Reaction Time
				NL+M		Coordination
5	4D/W	50Ms		Leap	Muscle Strength	Speed
				Over Arm Throw	Muscle Endurance	Muscle Power
				Vertical Jump	Flexibility	Agility
				NL+M	Cardiovascular Endurance	Balance
					Body Composition	Reaction Time
						Coordination
6	5D/W	60Ms	Non-Locomotor	Over Arm Throw	Muscle Strength	Speed
				Catch	Muscle Endurance	Muscle Power
				Side Gallop	Flexibility	Agility
				Hop	Cardiovascular Endurance	Balance

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

Table 1 (continue)

Week	Frequency	Time	W/C	FMS Non-Locomotor, Manipulative, Adaptive	Health-related Fitness	Physical fitness
				Vertical Jump	Body Composition	Reaction Time
				NL+M+A		Coordination
7	5D/W	60Ms		Over Arm Throw	Muscle Strength	Speed
				Leap	Muscle Endurance	Muscle Power
				Side Gallop	Flexibility	Agility
				Skip	Cardiovascular Endurance	Balance
				Vertical Jump	Body Composition	Reaction Time
				NL+M+A		Coordination
8	5D/W	60Ms		Skip	Muscle Strength	Speed
				Kick	Muscle Endurance	Muscle Power
				Sprint Run	Flexibility	Agility
				Catch	Cardiovascular Endurance	Balance
				Hop	Body Composition	Reaction Time
				Vertical Jump		Coordination
				NL+M+A		

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

3. To assess boys and girls physical activities program for grade 1-3 students in Thoo Mweh Khee displaced learning center 2 parts by follows;

Table 2 The result of variance analysis for comparing difference between pre-test mid-test and post-test of fundamental movement skills

Variance	df	SS	MS	F	Sig.
Between Group	2	19.32	9.66	51.17	.00*
Within Group	27	5.09	0.18		
Total	29	24.42			

* $p \leq .05$

From table 1 the result of variance analysis for comparing difference between pre-test mid-test and post-test of fundamental movement skills found that the score between pre-test mid-test and post-test were difference by significantly at .05 level

And analyze double difference by Post HOC Bonferroni correction as follow table

Table 3 The comparing double difference of fundamental movement skills (n=30)

Fundamental movement skills	$\bar{X}$	Level	S.D.	Pre-test	Mid-test	Post-test
				1.78	3.02	3.73
Pre-test	1.78	Low	0.39		.00*	.00*
Mid-test	3.02	Good	0.43			.00*
Post-test	3.73	Good	0.46			

* $p \leq .05$

From table 2 the comparing double difference of fundamental movement skills found that the score between pre-test at low level ($\bar{X}$ = 1.78, S.D. = 0.39) and mid-test at good level ($\bar{X}$ = 3.02, S.D. = 0.43) were difference by significantly at .05 level. The score between mid-test at good level ($\bar{X}$ = 3.02, S.D. = 0.43) and post-test at good level ($\bar{X}$= 3.73, S.D. = 0.46) were difference by significantly at .05 level and the score between pre-test at low level ($\bar{X}$= 1.78, S.D. = 0.39) and post-test at good level ($\bar{X}$= 3.73, S.D. = 0.46) were difference by significantly at .05 level.

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

Table 4 The boy's health-related physical fitness in cardiovascular endurance between pre-test, mid-test and post-test. (n=16)

Cardiovascular Endurance	$\bar{x} \pm S.D.$	Level
Pre-test	81.6 ± 14.93	Very Low
Mid-test	100.2 ± 15.04	Low
Post-test	157.5 ± 13.25	Excellence

From table 3 the boy's health-related physical fitness in cardiovascular endurance found that pre-test at very low level ($\bar{X}$= 81.68, S.D. = 14.93), mid-test at low level ($\bar{X}$= 100.25, S.D. = 15.04), and post-test at excellence level ($\bar{X}$= 157.56, S.D. = 13.25).

Table 5 The boy's health-related physical fitness in muscular endurance between pre-test, mid-test and post-test. (n=16)

Muscular Endurance	$\bar{x} \pm S.D.$	Level
Pre-test	14.31 ± 3.62	Low
Mid-test	26.62 ± 1.45	Moderate
Post-test	35.87 ± 2.24	Excellence

From table 4 the boy's health-related physical fitness in muscular endurance found that pre-test at very low level ($\bar{X}$= 14.31, S.D. = 3.62), mid-test at moderate level ($\bar{X}$= 26.62, S.D. = 1.45), and post-test at excellence level ($\bar{X}$= 35.87, S.D. = 2.24).

Table 6 The boy's health-related physical fitness in muscular strength between pre-test, mid-test and post-test. (n=16)

Muscular Strength	$\bar{x} \pm S.D.$	Level
Pre-test	13.12 ± 1.74	Low
Mid-test	22.18 ± 1.75	Moderate
Post-test	31.00 ± 0.96	Excellence

From table 5 the boy's health-related physical fitness in muscular strength found that pre-test at low level ($\bar{X}$= 13.12, S.D. = 1.74), mid-test at moderate level ($\bar{X}$= 22.18, S.D. = 1.75), and post-test at excellence level ($\bar{X}$= 31.00, S.D. = 0.96).

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

Table 7 The boy's health-related physical fitness in flexibility between pre-test, mid-test and post-test. (n=16)

Flexibility	$\bar{x} \pm S.D.$	Level
Pre-test	8.12 ± 0.61	Moderate
Mid-test	9.56 ± 0.62	Good
Post-test	13.18 ± 0.98	Excellence

From table 6 the boy's health-related physical fitness in flexibility found that pre-test at moderate level ($\bar{X}$= 8.12, S.D. = 0.61), mid-test at a good level ($\bar{X}$= 9.56, S.D. = 0.62), and post-test at excellence level ($\bar{X}$= 13.18, S.D. = 0.98).

Table 8 The boy's health-related physical fitness in body composition between pre-test, mid-test and post-test. (n=16)

Body Composition	$\bar{x} \pm S.D.$	Level
Pre-test	18.25 ± 1.60	Excellence
Mid-test	17.97 ± 1.44	Excellence
Post-test	17.47 ± 1.11	Excellence

From table 7 the boy's health-related physical fitness in body composition found that pre-test at excellence level ($\bar{X}$= 18.25, S.D. = 1.60), mid-test at excellence level ($\bar{X}$= 17.97, S.D. = 1.44), and post-test at excellence level ($\bar{X}$= 17.47, S.D. = 1.11)

Table 9 The girl's health-related physical fitness in cardiovascular endurance between pre-test, mid-test and post-test. (n=14)

Cardiovascular endurance	$\bar{x} \pm S.D.$	Level
Pre-test	76.35 ± 7.37	Very Low
Mid-test	91.07 ± 6.46	Low
Post-test	140.78 ± 8.86	Good

From table 8 the girl's health-related physical fitness in cardiovascular endurance found that pre-test at very low level ($\bar{X}$= 76.35, S.D. = 7.37), mid-test at low level ($\bar{X}$= 91.07, S.D. = 6.46), and post-test at good level ($\bar{X}$= 140.78, S.D. = 8.86).

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

Table 10 The girl's health-related physical fitness in muscular endurance between pre-test, mid-test and post-test. (n=14)

Muscular endurance	$\bar{x} \pm S.D.$	Level
Pre-test	13.07 ± 1.81	Low
Mid-test	20.92 ± 2.92	Moderate
Post-test	33.50 ± 1.28	Good

From table 9 the girl's health-related physical fitness in muscular endurance found that pre-test at very low level ($\bar{X}$= 13.07, S.D. = 1.81), mid-test at moderate level ($\bar{X}$= 20.92, S.D. = 2.92), and post-test at good level ($\bar{X}$= 33.50, S.D. = 1.28).

Table 11 The girl's health-related physical fitness in muscular strength between pre-test, mid-test and post-test. (n=14)

Muscular strength	$\bar{x} \pm S.D.$	Level
Pre-test	10.07 ± 1.89	Low
Mid-test	20.57 ± 4.18	Good
Post-test	30.00 ± 3.76	Excellence

From table 10 the girl's health-related physical fitness in muscular strength found that pre-test at low level ($\bar{X}$= 10.07, S.D. = 1.89), mid-test at good level ($\bar{X}$= 20.57, S.D. = 4.18), and post-test at excellence level ($\bar{X}$= 30.00, S.D. = 3.76).

Table 12 The girl's health-related physical fitness in flexibility between pre-test, mid-test and post-test. (n=14)

Flexibility	$\bar{x} \pm S.D.$	Level
Pre-test	7.14 ± 1.16	Moderate
Mid-test	11.71 ± 1.38	Good
Post-test	17.50 ± 1.22	Excellence

From table 11 the girl's health-related physical fitness in flexibility found that pre-test at moderate level ($\bar{X}$= 7.14, S.D. = 1.16), mid-test at good level ($\bar{X}$= 11.71, S.D. = 1.38), and post-test at excellence level ($\bar{X}$= 17.50, S.D. = 1.22).

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

Table 13 The girl's health-related physical fitness in body composition between pre-test, mid-test and post-test. (n=14)

Body composition	$\bar{x} \pm S.D.$	Level
Pre-test	17.39 ± 1.82	Excellence
Mid-test	16.87 ± 1.69	Excellence
Post-test	17.06 ± 1.14	Excellence

From table 12 the girl's health-related physical fitness in body composition found that pre-test at excellence level ($\overline{X}$= 17.39, S.D. = 1.82) mid-test at excellence level ($\overline{X}$= 16.87, S.D. = 1.69) and post-test at excellence level ($\overline{X}$= 17.06, S.D. = 1.14).

Discussions

1. State and problem of physical activities program for grade 1-3 students at Thoo Mweh Khee Displaced Learning Center. The research found that, there was a critical point of education in migrant communities, most migrant children are likely to be out of school. With a purpose in research, the PE program could help the learner to cope with their obstacles by strengthening their physical fitness and mentality. The researcher conducted the state of problem about primary school student health-related physical fitness in cardiovascular endurance, muscular endurance, muscular strength, flexibility, and body composition, and competency of fundamental movement skills in Static balance, running, vertical jump, side gallop, hop, skip, leaping, catch, kick and overarm throw lower than criteria of PE department, Sport & Tourism Ministry. Thoo Mweh Khee (TMK) is now a long way from a school providing Karen social and culturally based teaching to the local Karen population in the Phop Phra area. Ironically, it has become a "pull factor" attracting an increased number of migrants to the Phop Phra area from Myanmar. Humans must learn to resist oppression and not become its victims or oppress others. To do so requires dialog and critical consciousness, and the development of FMS's program to design for awareness to overcome domination and oppression. Different displaced learning centers focus on different education curricula. Some of the elementary emphasize games and challenging activities, others focus on developmental movement, and some use programs like traditional individual and team activity programs, some sports such as cycling, inline skating, rock climbing, and outdoor pursuits. Some try to focus on personal fitness which affects the development and growth of the body. Early childhood FMS program mixes several competing curriculum models.

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

The absence of physical education teachers is throughout many parts of the problem and situation, where primary school generalist classroom teachers are most often responsible for teaching physical education. Evidence points to concerns about the quality of physical education programs, teacher training, teaching, and teaching resources, inadequate supervision of practice, lack of professionalism and appropriate ethics, and impacts on the quality of school pupil experience are also globally evident. (Gallahue, Ozmun & Goodway, 2012). Moreover, physical education is aimed at developing a range of students' physical competencies, enabling them to perform and enjoy various physical activities with confidence. In addition to developing students' motor skills, Physical Education comes with a range of benefits, including mental, social, emotional, and cognitive development. (Luban, et al., 2010). This research finding about the state of fundamental movement skills and health-related physical fitness problems were relevant to (Miller, Haynes & Pennington, 2000). "A partnership aimed at improving health and physical education at a rural school: Impact on pupils, university students, teachers, and academics found that in the Australia tribe, the children who didn't learn about PE program face the problem about FMS.

2. to develop and assess a physical activities program for grade 1-3 students at Thoo Mweh Khee displaced learning center. Then, the researcher designed a program for grade 1-3 students at Thoo Mweh Khee Displaced Learning Center which included Program Principles, Program Vision, Program Objectives, and Program Structure. As follows the process of program development (Kirchner and Fishburne, 1998) the program development step was a four-tiered process based on the physical activity model and a performance indexing measurement system of (Goodway, Ozmun & Gallahue, 2013). For participation in the physical activity program, it took a total of 8 weeks, each week spent a total of 3 days, 40 minutes per day. In week 1, the researcher emphasized physical activity non-locomotor for development of body composition, muscle strength, muscle endurance and flexibility. In week 2, the researcher emphasized physical activity non-locomotor for development of body composition, cardiovascular endurance and muscle endurance. In week 3, the researcher emphasized physical activity non-locomotor for development of body composition, cardiovascular endurance and flexibility. In week 4, the researcher emphasized physical activity non-locomotor for development of body composition. In week 5, the researcher emphasized physical activity non-locomotor for development of muscle strength, cardiovascular endurance, muscle endurance, body composition and flexibility. In week 6-8, the researcher

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

emphasized physical activity non-locomotor for development of muscle strength, cardiovascular endurance, muscle endurance, body composition and flexibility.

Hypothesis 1. After The implementation of the physical activities program for grade 1-3 students at Thoo Mweh Khee Displaced Learning Center, boys and girls will have better competency of fundamental movement skills level at significant difference at .05 level by ANOVA single factor and analyze double difference by Post HOC Bonferroni correction (Independent t-test). So, after using the program for grade 1-3 students at Thoo Mweh Khee Displaced Learning Center. Hypothesis 1 was accepted because the program was developed by a quality research process which the researcher will discuss as follows.

Comparing the double difference (Paring) of Static balance, running, jump, side gallop, hop, leaping, catch, kick, overarm throw and all fundamental movement skills found that the score between the pre-test at low level and mid-test at the good level were different by significantly at .05 level. The scores between the mid-test at the good level and post-test at the excellence level were different by significantly at the .05 level and the scores between the pre-test at the low level and post-test at the excellence level were different by significantly at the .05 level. Because physical activities program for grade 1-3 students in Thoo Mweh Khee Displaced Learning Center was developed by research procedure and expertise evaluated. Moreover, the researcher creates programs to increase physical activity can include programs to enhance fundamental movement skills and health-related physical fitness, provide daily recess, incorporate physical activity into regular classroom lessons, and offer before and after school programs. This program may be expanded by increasing the length of PE classes and increasing the number and types of fitness activities during PE classes. Recess can help students get more fundamental movement skills and health-related physical fitness to help them achieve the recommended 60 minutes of activity every day. Physical activity also may be incorporated into classrooms through physically active academic lessons or activity breaks. The researcher's coordination between school day and before/after school program staff and administrators can help provide students with consistent messaging and opportunities related to physical activity while they are on school grounds. Which according to research (Callcott, Hammond & Hill, 2015) programs may be combined with other school- and community-based interventions such as health education about physical activity, activities that foster family involvement, and community partnerships to increase opportunities for physical activity. For the program designing, the researcher was study followed (Gabbard, 2012)

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

changes to the school day to increase opportunities for physical activity can be adopted and implemented at the state level or at the local school district level. An example of a state moving towards this goal is Thoo Mweh Khee Change Health for Childhood, where staff and administrators made improvements to school health environments across the state, including adding walking trails to school campuses, integrating five-minute movement breaks into the classroom, implementing fitness assessments, and adding an additional 15 minutes of physical activity at the beginning of each school day. The purpose of these school-based programs is to increase students' physical activity levels, and thereby help improve their fitness levels, help them maintain a healthy weight, and potentially improve their health outcomes over time. The above reason made the hypothesis correct. (Savagpun, 2020)

The comparison of the double difference of skip found that the score between the pre-test at a moderate level and the mid-test at a good level were different by significantly at a .05 level. However, the scores between the mid-test at a good level and the post-test at a good level were not different significantly at a .05 level and the scores between the pre-test at a moderate level and the post-test at a good level were different by significantly at a .05 level. Might physical activities program for grade 1-3 students at Thoo Mweh Khee Displaced Learning Center was selected sampling random and effect the competency of sampling. When the researcher was studying student lifestyles on playing, found that almost of fundamental movement skills were skipped. Then they have this basic movement, so the program can improve them but not significantly.

Hypothesis 2. After the implementation of the physical activities program for grade 1-3 students at Thoo Mweh Khee Displaced Learning Center, students boys and girls will have better health-related physical fitness than before the implementation.

The boy's and girl's health-related physical fitness levels in cardiovascular endurance, muscular endurance, muscular strength, flexibility, and body composition were found to be post-test better than mid-test and pre-test. The physical activities program for grade 1-3 students at Thoo Mweh Khee displaced learning center aimed to develop health-related physical fitness following the theory (Kirchner & Fishburne, 1998; Kunna-Apisit, 2017) found that an 8-week program improves health-related physical fitness which powerful indicator of health among childhood (Belka, 2004). In children and adolescents, higher fitness levels are associated with positive outcomes for bone health, mental health, obesity, and cardiovascular disease. It is important to note, however, that physical fitness is a hypothetical

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

construct. In the past, the researcher studies assessing health-related physical fitness have included a range of variables, cardiorespiratory endurance (CRE), strength, coordination, and flexibility. Accordance with the definition of health-related fitness (HRF) was proposed by (Callcott, Hammond & Hill, 2015) The synergistic effect of teaching a combined explicit movement and phonological awareness program to preschool-aged students who suggested that HRF is a multidimensional construct comprising five components. Specifically, these five components are CRE, muscular strength (MS), muscular endurance (ME), flexibility, and body composition. CRE refers to the capacity of the respiratory and cardiovascular systems to carry out continuous strenuous exercise. MS is the ability of the muscular system to produce force against resistance in one maximal effort (Gabbard, 2012). Many researchers in the health field choose tests of explosive strength (e.g. horizontal and vertical jumps), or power, to represent MS as a component of fitness. ME is the ability of the muscular system to produce force over a prolonged period. ME and MS together contribute to muscular fitness (MF), a term that refers to the ability to do work against a resistance either maximally, explosively, or repeatedly. Flexibility is the range of motion at a joint. Body composition is the physical make-up of the body, often described as the percentage of muscle, fat, bone, and water within the body. This definition of HRF, as a multidimensional construct consisting of five components, is predominantly accepted and utilized within health promotion. According to hypothesis 2, these five components were improved in the program construct because they are affected by physical training and are associated with important health outcomes.

Suggestions

Recommendations for the Application of Research Findings

1. The displaced learning center administrator should recognize primary school students' fundamental movement skills by improving the physical education program every semester for students' basic health in real life.

2. The displaced learning center staff should recognize primary school students' health-related physical fitness by improving health programs for students every semester for students' basic health in real-life.

Recommendations for Future Research

1. Should study of physical activities program for students in secondary level displaced learning center

Vol.31 No.2 April-June 2025 ISSN 2985-2196 (Online)

2. Should study other program factors on student health-related and student mental health in displaced learning center

References

Belka, D. (2004, May). Substituting skill learning for traditional games in early childhood. **Teaching Elementary Physical Education, 15**(3), 25-27.

Callcott, D., Hammond, L. S., & Hill, S. (2015, May). The synergistic effect of teaching a combined explicit movement and phonological awareness program to preschool aged students. **Early childhood Education Journal, 43**(4), 201-11.

Chen, W., et al. (2018, January). Health-related physical fitness and physical activity in elementary school students. **BMC Public Health, 18**(1), 195.

Department of Physical Education. (2019). **Test and Criterion of Health-related Physical Fitness (TC-HRPF) of health-related physical fitness**. Bangkok: Ministry of Tourism and Sports, Thailand. [In Thai]

Gabbard, C. (2012). **Lifelong Motor Development**. (5 th ed.). San Francisco, CA: Pearson Benjamin Cummings.

Gallahue, D. L., Ozmun, J. C., & Goodway, J. (2012). **Understanding Motor Development**. (6 th ed.). New York: McGraw-Hill.

Goodway, J. D., Ozmun, J., & Gallahue, D. (2013). Motor development in young children. In O.N. Saracho and B. Spodek (eds.). **Handbook of Research on the Education of Young Children**. (pp.89-101). New York: Routledge.

Hadder-Algra, M. (2000, November). The neuronal group selection theory: Promising principles for understanding and treating developmental motor disorders. **Developmental Medicine and Child Neurology, 42**(10), 707-15.

Kirchner, G., & Fishburne, J. (1998). **Physical Education for Elementary School Children: With Lesson Plan**. United States of America, USA.: McGraw-Hill Higher Education.

Kunna-apisit, W. (2017). **Wasana's Assessment Form for Fundamental Skills of Students**. Bangkok: Thai Health Promotion Foundation. [In Thai]

Luban, D.R., et al. (2010, December). Fundamental Movement Skills in Children and Adolescents. **Sport Medicine, 40**(12), 1019-35.

ปีที่ 31 ฉบับที่ 2 เมษายน-มิถุนายน 2568 ISSN 2985-2196 (Online)

Miller, J., Haynes, J., & Pennington, J. (2000, August). A partnership aimed at improving health and physical education at a rural school: Impact on pupils, university students, teachers and academics. **Australian and International Journal of Rural Education, 25**(2), 56-72.

Savagpun, P. (2020, July-September). The New Normal of a Physical Education Classroom Model with The Covid-19 Revolution. **Journal of Education Naresuan University, 22**(3), 351-357. [In Thai]