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Construction of A Comprehensive Golf Training Program for Novice Golf Students in Junior High Schools

Zhang Qingxin[1], Nopporn Tasnaina[2], Weerapong Bangthamai[3]
Faculty of Sports Science and Technology, Bangkokthonburi University, Thailand
[1]E-mail: 379783942@qq.com, ORCID ID: https://orcid.org/0009-0008-0011-600X
2E-mail: nop5503@hotmail.com, ORCID ID: https://orcid.org/0009-0001-6086-0657
[3]E-mail: aipia2489@gmail.com, ORCID ID: https://orcid.org/0009-0005-1630-1697

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Abstract

Background and Aim: Golf gradually attracted the attention of commercial groups, sports organizations, and people and youth. In China golf was considered to be prohibitively expensive. This research aimed to construct a training program by applying various teaching techniques such as target goal setting, imagery, flipped classroom, game, parents' engagement, and assignment to enhance the basic golf skills of novice golf students.

Materials and Methods: This research was a quasi-experiment research. The subjects were 20 students in grade 7th of junior high schools, they were volunteers and accepted the options requirement of, paying fees, and parents' cooperation, and the subject had a full-time time to participate in 8 8-week program. The comprehensive golf program was constructed and then validated by 3 experts. The IOC was at 0.97 (0.66-1.00) and the efficiency by trying out with 30 students was E1/E2 = 74.20/77.35. The training program duration was 8 weeks, 2 sessions a week and 1.30 hours a session. The experiment was a one-group pretest, mid-test, and post-test design. The researcher monitored goal-setting achievement during the experimental operation. The basic golf skills test consisted of a chip test, an approach test, and a tee-off test. The data was analyzed with repeated measure ANOVA and post hoc analysis with LSD.

Result: (1) Constructed comprehensive training program met validated criteria on IOC=0.097(0.66-1.00), and efficiency (E1/E2) = 74.20/77.35. (2) The progression of golf skills in chipping between the pre-test and mid-rest was not significantly different at 0.05 but at the post-test was significantly different at .05. The skills on approaching and tee-off had better progression from pre-test through mid-test and post-test at significant differences at .05.

Conclusion: The constructed comprehensive training program for novice golf students had efficiency and effectiveness.

Keywords: Comprehensive Teaching Program; Novice Golf Students; Golf Teaching Program; Junior High School Students

Introduction

Reviewing the development course of modern Chinese sports, we can find that "the establishment of Zhongshan Hot Spring Golf Club in Guangdong province in 1984 officially opened the historical prelude of the development of Golf in China (Huang, 2021). So far, golf has gone through 38 years of development in China. For a long time, the development of golf in China has been more as a diplomatic way and means presented in front of people's eyes. At the same time, this sport is also defined as a "noble sport" with only a few people participating because of the high venue requirements, complicated technical system, and expensive consumption. in 2016, Golf was one of the sports in the Olympic Games in Rio de Janeiro. This motivated all golf lovers to participate in this sport, especially young people. The construction of golf training, competition system, and the training of golf, social sports clubs have become expanded in China. China was projected to be an area of growth for golf due to its massive population and growing interest in the game (GMA 2018), The Research valued the golf industry in 2018 to be worth 6.2 billion yuan up 10 percent from last year. Nearly 1.1 million Chinese citizens were estimated to play the game and numerous courses had been built within the decade.

Golf gradually attracted the attention of commercial groups, sports organizations, and people and youth. In China golf was considered to be prohibitively expensive. However, it is seen as the top recreational sport for businesspeople and officials (Wikipedia.org, 2023), this sport attracted both foreign investment and overseas golfers, who come from such countries as South Korea, Australia, and Japan for the relatively inexpensive fees. At present, there are currently about 500 golf courses in the country, the first of which was constructed in 1984. Mission Hills is one of the leading firms, owning courses around the country. Its Mission Hills Golf Club near Shenzhen has 12 courses, making it the world's largest golfing complex (Wikipedia.org, 2023). Numerous world-class players have emerged from China, including Liang Wen Chong was one of the top Chinese golfers and the first to win a top pro event. In 2010, he won the Chengdu Open, Shanshan Feng became the first Chinese

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golfer to win the 2012 LPGA Championship, Wu Ashun has won three times on the European Tour and represented China at the 2016 Olympic Games, Christopher Tsui qualified for the Canadian Tour in 2009, Zhang Lian Wei won 5 Asian Tour events, Guan Tian Lang won the 2012 Asia-Pacific Amateur Championship at age 14. These Chinese golfers were the idols of kids and young people to trained in golf and watched golf competitions. These drove the golf industries to be big businesses in China, which linked to investments in golf facilities and golf course constructions, golf facility management teams, golf facility maintenance, golf events organizations, golf professionals/players and junior players, and golf course employees (Forward golf.com, 2023).

China Golf Association Youth Work Five-Year Development Plan (2018-2022) points out: "We should take the construction of the three systems of foundation, popularization, and improvement as the leading, and form a new pattern of youth golf development with a more solid development foundation, significantly improved popularity, all-round improvement of competitive level, more scientific development mode and more perfect industrial system within five years."(China Golf Association (2018-2022) [EB/OL]. [2018-06-04]).

With the favorable policy and the return of golf interesting among kids, youths, and people, the teaching ability of golf also faces new challenges., There were many golf training clubs, more teenage golfers increased year by year. Golf is currently one of the fastest-growing industries in China. There were more than 400 golf courses in China and about 100 are under construction. The majority of golf courses are concentrated in the wealthy or temperate eastern and southern provinces, such as Guangdong, Hainan, and Yunnan. Big cities like Beijing, Shanghai, Guangzhou, and Shenzhen also boast many courses. (Ruru, Zhou, 2021).

Golf Training was exposed to problems such as a shortage of professional golf educators and teaching materials, high tuition which provides a high threshold to learners, and lacking education concepts. (Shao et al, 2011). Wei LingLing said that "Nanjing youth golf training industry lacks unified teaching standards and teaching systems, and the teaching level is uneven; Lack of professional teaching material support and theoretical guidance; There is no unified supervision of teaching quality, and the teaching effect cannot be guaranteed" (Wei, L., 2021). Uneven teaching ability will directly affect the loyalty of beginners to golf and the level of sports. So, it is particularly important to construct a set of training programs suitable for children and junior golf beginners which can not only improve the whole golf teaching system but also effectively improve the movement of beginners.

The Comprehensive Performance Evaluation (CPE) was the most objective, just, and reasonable overall evaluation in the sports field, however, very few researches relevant to this type of study. (Wang, 2019), Wang did the comprehensive training program by starting with a comprehensive test of the high jump, then he created the program with types and proportions of training including physical training (30%), technical training (30%), and cross-bar training (40%). The content of the training was different between the traditional program (control group) and the CPE program (Experimental group), the traditional program was designed according to the normal teaching and training procedure, and the CPE mainly depended on the weights from EFA. For the physical training part, the CPE program stressed developing explosive power with the center of gravity controlling and body coordination. As for the technique and crossbar, CPE focused on improving the preparation of take-off, coordination of pedaling-swing, and CG controlling technique in the flight phase. All training break-time was full recovery and more details of program designing were conducted in the discussion. Wang found that the performance of the CPE group was better than the traditional group (increased performance CPE=14cm ± 6.4, Traditional group=8cm ± 4.1). Both the two groups increased their performance at a very significant level ($p<.01$). But the independent sample t-test showed the mean of posttest performance between the two groups had a significant difference ($p<.05$), while the pretest performance did not. This value demonstrated the CPE training program was better than the traditional program.

Also, Huang et al (2023) researched "comprehensive evaluation of man's football performance in college" and found that their research confirmed the evaluation of football player performance needs to be conducted systematically, and comprehensively. The factors concerned the football player's performance were (1) technical, physical fitness, anthropometric, and psychological. (2) There were 4 technical factors significantly correlated with FPP ($P<0.01$), and long pass and fast dribble shot passed regression equation. (3) There were 5 indicators significantly correlated with FPP, 10-meter-run speed, and the vertical jump included in a regression prediction Equation. (4) The psychological measurement consisted of competitive motivation, mood state, and self-confidence are highly significantly correlated with, but only competitive motivation could enter the prediction model. (5) The anthropometric measurement was not related to FPP, all of the anthropometric indicators did not enter in the final regression prediction equation. (6) The regression equations, raw score criteria, and percentage score criteria are developed, and they are accepted with high satisfaction,

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appropriateness, practicality, and scientific systematic by the stakeholders. This could conclude that enhanced sports skills could not be trained in just only single method or one aspect, because in the game, the players had to perform many types of movements, and each movement used different muscles and moods. So, the training for sports needs comprehensive training aspects to enhance the player's performance.

It provides a relatively effective and scientific comprehensive training program for junior young golf beginners. So, the researcher proposed to research "Comprehensive Golf Training Program for the Novice Junior High Schools Students". This research will be a fundamental creation of effective golf teaching for beginners or training to improve the level of golf education for teenagers which could lead to improving the traditional golf teaching model, strengthen the training of youth players, and enhance the overall level of golf in China in the future.

Objectives

1. To construct a comprehensive training program for junior novice golf students.
2. To select the appropriate training methods for junior novice golf students.
3. To validate the constructed comprehensive training program according to the test construction procedure and criteria.
4. To set the experiment and compare the results of constructed comprehensive teaching and learning programs.

Literature Review

1. Golf knowledge and practice

The origin of golf has long been debated. Some historians trace the sport back to the Roman game of Paganica, which involved using a bent stick to hit a wool- or feather-stuffed leather ball. Others cite Chuiwan (ch'i-wan) as the progenitor, a game played in China during the Ming dynasty (1368–1644) and earlier described as "a game in which you hit a ball with a stick while walking." The earliest known scenes depicting golf in Scotland are found in 1680 (or 1720) and 1746–47 paintings. A continental origin of golf is also suggested by a linguistic analysis of golfing terms and a recently discovered Dutch description of golf from the first half of the 16th century. Despite the likelihood of a continental origin of golf, King James IV, who had prohibited the hockey-like game of golf earlier (in 1491), nevertheless became the first authenticated player of "real" golf. With the birth of the Royal North Devon Golf Club in 1864, golf took a firm foothold in England. The first Scotland-England amateur match was organized in 1902, and it was at Hoylake in 1921 that an unofficial contest between British and U.S. players, a curtain-raiser to the Amateur Championship, was played and served as the genesis of the Walker Cup series. However, golf as an organized game in the United States is usually dated from the founding of the St. Andrew's Golf Club at Yonkers, New York, in 1888. The Newport club staged an invitational tournament for amateurs in September 1894, and in October the St. Andrew's club promoted a similar competition. These were announced as championships, but that was questioned because the events were each promoted by a single club and on an invitational basis. From the controversy roused by these promotions, the United States Golf Association (USGA) was instituted in 1894.

In Asian countries, India has the oldest club outside Great Britain; the Royal Calcutta Golf Club was founded in 1829, and The Tokyo Golf Club was founded in 1914. The first club in Australia, the Royal Adelaide Golf Club, was formed in 1870, and it is believed that the game was played in Melbourne in 1847, The Royal Bangkok Golf Club (1890) was first housed in an ancient temple. Golf came to China when the Shanghai Golf Club was formed in 1896.

2. Golf in China

China was projected to be an area of growth for golf due to its massive population and growing interest in the game. the golf industry in 2018 to be worth 6.2 billion yuan up 10 percent from last year. Nearly 1.1 million Chinese citizens were estimated to play the game and numerous courses had been built within the decade. With the government pushing against the sport, Golf is especially seen as a game for the rich and disconnected in China. Creating golf heroes brings part of that acceleration to the country. Since the first new golf course was built in China in 1984, the number, which is hard to pin down because of China's laws against golf, has grown to anywhere from 600 to 1,000 in 2015. The PGA even started a developmental tour in the country last year and bright homegrown stars like Guan

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Tian lang, who cut the 2013 Masters at just 14 years old, have begun to emerge. Yet despite the boom in popularity, golf's relationship with Chinese authorities was still tenuous at best. The Chinese government's attempt to categorize and produce a list of approved golf clubs is a step in the right direction in terms of quantifying the supply of golf in the country and the NGF's official count, China is home to 383 golf facilities and 565 courses that are believed to be open and operating. While golf remains a politically sensitive issue in China, industry insiders remain bullish on its long-term success. The consensus for the short term, however, is slow and steady growth. (National Golf Foundation, 2017)

The premier championships

The most prestigious tournaments for nonprofessionals are the British Amateur Championship and the United States Amateur Championship. For professionals, the coveted Grand Slam tournaments are the Masters, the U.S. Open, the Open Championship (British Open), and the Professional Golfers' Association (PGA) Championship. The Player's Championship has also steadily gained in popularity and prestige, to the extent that it has earned the unofficial designation of a "fifth major." The Walker Cup for amateurs and the Ryder Cup for professionals are important team golfing tournaments that have pitted American golfers against those of Europe.

Golf in the Olympic Games

Golf was included in the program of the Paris 1900 Olympic Games, that competition consisted of a 36-hole stroke-play event for men and a 9-hole event for women. A men's team event replaced the women's competition for the 1904 St. Louis Games, but afterward, golf was discontinued as an Olympic sport for over a century. In 2016 golf returned to the Olympics as a 72-hole stroke-play event for men and women.

Golf Training in China

Fyla Golf lessons are conducted by internationally certified PGA professionals for juniors and adults. We coach beginners, tournament-playing junior golfers, adult golf teams, touring professional players, and everyone in between., also Golf educational seminars have certified over 400 coaches and players across China. Seminars are organized in tier 1 cities such as Beijing, Shanghai, Shenzhen, Guangzhou, Chongqing, etc. with a wide reach built over the years. Organized International golf camps, and produced instructional videos filmed and published across major digital platforms in China and on local television networks. (Fyla Golf, 2023)

Golf in schools in China, since 2015, For 400 students in Shanghai, afternoon sport means taking to the golf course and the school must run a compulsory golf course, which has to be taken by all of its first and second-grade students, twice a week on Mondays and Thursdays –without exception. The principal of international schools stated "Playing golf won't just improve students' athleticism. It will also train them in international etiquette and improve their character," (Xia, 2023)

Golf is a sport that requires skill, practice, and dedication. It's also a game that can be enjoyed by players of all levels, A handicap is one way to measure a golfer's skill level and track their progress over time. "A USGA golf handicap is an index used to measure the playing ability of a golfer. It's calculated using scores from multiple rounds of golf and is expressed as a number between 0 and 36. The lower the number, the better the golfer's handicap. A golfer with a handicap of 0 or lower is considered to be an expert player, while someone with a handicap of 36 or higher is considered to be an amateur player", "Golf handicap can be beneficial for both experienced and novice players alike. For experienced players, it can help them track their progress over time and identify areas where they need to improve their game. For novice players, it can provide them with an objective measure of their playing ability so they can set realistic goals for themselves as they continue to learn and improve their skills". (Staff Writer, 2023)

How to Calculate Your Handicap Differential: "Once you have gathered all of your scores, the next step is to calculate your Handicap Differential for each round. To do this, subtract the Course Rating from your score and then multiply that number by 113, divided by the Slope Rating for that course. Once you have calculated the Handicap Differential for each round, take the lowest 10 differentials and average them together to get your Handicap Index" (Staff Writer 2023)

3. Basic skills in golf

Golf had been considered a sport in which the technical, tactical, and technological aspects of the game have been of primary concern. It is widely accepted that a key aim of using a driver, wood,

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or long iron is the maximal displacement of the ball, whereas maintaining the accuracy of the shot with Maximal clubhead linear velocity at impact is a key determinant of ball displacement (Hume, et al, 2005).

The Essential Skills of Golf. (billbreen.com, 2015 online retrieved on 11 January 2024))

1. Pre-Swing Fundamentals, Grip, Aim, and Set-Up.
2. Clubface Controlling.
3. Striking
4. Swinging Plane.
5. Pivoting
6. Effortless Power. But not Powerless Effort
7. Width in your Golf Swing

The golf Striking skills

Ten basic skills you must have to be a complete golfer from tee to green (He C.B., 2020)

1. Tee shot: A straight and long-distance stroke at the first hit to play each hole.

2. Fairway wood: An extra distance to the green. The golfer may use wood to hit the golf ball to a green.

3. Solid iron: Hitting an iron with your approach into the green, so these clubs will determine the length of your first putt.

4. Basic chip: A chip is a short-distance hitting, this shorter stroke should hit the ground so that the ball gets up into the air and then rolls on the green, the percentage of time in the air versus roll and total distance will be determined by club selection.

5. Basic pitch: In a pitch shot, a ball will carry more than it rolls. This shot will be used to bounce the ball up to pass over the obstacles and stop it suddenly when falling.

6. Greenside bunker shot: A greenside bunker is usually low level to the green surface and usually be a sand bunker, the golfer has to hit the ball out of the sand pitch up to the green.

7. Fairway bunker shot: In the bunker on fairways, it usually be sand pitch. you have to hit the ball up the sand and fly for a distance to the green.

8. Bad lie strategy: In the ball sitting down in long grass, on pine straw, or in a divot hole, you need to solve this by a selected strategy to get back into play.

9. Lag putt: A long-distance putting just wants to drive the ball close to the hole. A lag putt is a defensive golf shot that players employ when there is a limited chance of making it. This puts the ball in a prime position to drain the second putt

10. Short putt: The final shot that gets the ball in the hole. This putting drives the ball rolling down the line on a green to the hole.

4. Physical Fitness Training for Golf

Physical preparation in golf is well-recognized as an essential component of high-level performance. Physical preparation programs are an integral part of athlete development in a wide variety of sports. Golfers have been slow to recognize the importance of strength and conditioning due to myths suggesting strength training will have negative effects on the golf swing. This trend is changing, especially at the elite level, with both professionals and elite amateur golfers utilizing physical preparation programs, including resistance training, as part of their training and practice schedules. In addition, recent research has provided support for the importance of physical development in improving the golf swing and on-course performance (Hellstrom, 2009) Golf requires precise execution of powerful coordinated movements to produce a mechanically effective swing, which must be repeated 40–50 times during a single round of golf. It is then reproduced over extended periods depending on the length of a tournament, two to four rounds of 18 holes. Furthermore, golfers must have sufficient strength and stability together with the flexibility to achieve the desired ranges of motion and allow the golfer to withstand and absorb the forces produced during the golf swing to avoid musculoskeletal injuries. Golf has been considered a sport in which the technical, tactical, and technological aspects of the game have been of primary concern. It is widely accepted that a key aim of using a driver, wood, or long iron is the maximal displacement of the ball while maintaining the accuracy of the shot (11). Maximal clubhead linear velocity at impact is a key determinant of ball displacement (11). Therefore, club head speed (CHS) is a common metric associated with increased shot distance and is often used within related research (4,6,14,16,20,21). Furthermore, it has a

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demonstrable link with a golfer's score (7,23). To further establish the importance of physical preparation in the game of golf and inform training interventions and talent identification, it is essential to identify key characteristics associated with increased CHS and maximal ball displacement. Several studies have investigated these relationships, in adult golfers, with a range of approaches. Research has explored the effects of anthropometry, flexibility, balance, cardiorespiratory fitness, strength, and power on golf performance (2,8–10,14,16,17,21,23,27), with investigations taking place using both field-based and laboratory-based measures. However, to the authors' knowledge, there is no research investigating the relationships between key physical characteristics and golf performance in youth golfers. Mixed results have been reported about the relationships between flexibility, balance, cardiorespiratory fitness, and golf performance in adults. A study conducted by Keogh et al. (2014) reported no significant differences in flexibility between low and high-handicap golfers, about CHS. They also reported low handicap golfers as having a trend for reduced hip internal rotation when compared against the high handicap golfers.

Golf Performance is evaluating the golfer on three major aspects of their game. Golf fitness is the physical ability of the golfer to get into and maintain the proper positions in the golf swing. Fitness Components for the golfer, the high level of skill required to play golf were Body Size and Composition, Muscle Strength, Muscular Endurance, Power, Speed / Quickness, Agility, Flexibility, Balance and Coordination, and Cardiovascular Endurance, the factors which are considered most important by the readers of this site are balance and coordination, flexibility and muscle strength and power. coordination, flexibility, and power. (Topendsports.com, 2023)

Muhamad et al (2022) found that physical fitness indicators among elite golfers were differences found in the outcomes between male and female golfers. Thus, male and female golfers may respond differently to training, the study also found significant correlations between physical fitness and golf performance, there are significant correlations were found between height, arm length, leg length, and predicted Vo2max with the golf measures. significant correlations between muscle power and arm strength.

5. Training Principles Application to Sport

There were seven principles of exercise: individuality, specificity, progression, overload, adaptation, recovery, and reversibility. We could apply the components of training for golf as follows (Empoweruptp.com, 2021)

1. Specificity: Fitness and performance improvement through movement patterns and intensities of a specific task and fitness components. Training should be directed at improving the fitness or performance of a sport's distinct key components, for a golfer, this means focusing on improving necessary mobility and stability areas as required for the golf swing. Work on golf-specific movements with and without the golf club in hand to improve your nervous system's motor control of your golf swing.

2. Overload: The exposure of tissues to greater than accustomed-to-training stress. Challenge the body with the right amount of load to see change. The amount of weight or volume is not only for a strong foundation but for movement and others. These may include typical lifts like deadlifts, squats, bench presses, or any other power lift.

3 Progression. The gradual increases in training stress maintain tissue overload and provoke continued training adaptation. Adding intensity, frequency, or volume could increase muscle size and adaptation. The coach could add more weight, different movements, harder exercises, more repetition, speed, and power training but must be aware of injuries.

4 Individualization. To consider the ability, experience, and limitations of each athlete, a coach should modify the training to meet the individualization by considering the age, current fitness level, training history, effort, nutrition, and genetic factors.

5. Periodization: Dividing the training program into phases. The constant cycling of training variables (activity, rest, frequency, intensity, duration) within a training program aims to maintain optimal training stimulus, address changing goals and individual variability, and avoid overtraining, injury, and burnout. A Program must have varying loads and periods of de-training and allow athletes to have physiological and psychological recovery.

6. Reversibility: The loss of beneficial fitness and performance adaptations after training or competition. To reduce this effect the athletes should continue to exercise year-round - during the golf

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season and off-season. After competition athletes may focus on their body, but once the season returns, they only focus on the swing. We must focus on the elements of golf performance year-round, with periodization taken into consideration.

6. Golf Training Aids

There are many training aids for golf in the market, Coaches should consider their strengths and weaknesses, and select the aids for training, here are some of them (David, 2023)

1. Combo Golf Swing Trainers: The golf club designed for practicing each stroke, such as 7 irons' weighted clubhead, Lag Shot Driver, Lag Shot Wedge, Lag Shot Triple Threat

2. Ladies Golf Swing Trainers: The golf club for ladies to practice, the golf club is designed for ladies, such as Lady 7-Iron, Lady Driver, Lady Wedge, Lady Triple Threat

3. XL Men's Golf Swing Trainers: The golf club for men to practice. The golf clubs are designed for large-body men such as Lag Shot XL, XL Driver, XL Wedge, and XL Triple Threat.

4. Junior Golf Swing Trainers: The golf club for juniors to practice. The golf clubs are designed for young men such as Junior (6-8), Junior (9-11), Junior (11-14), and Junior 3-Pack

5. Swing Speed Training System: Swing Speed Training System in Golf – It's Time to Start Hitting Longer Drives.

7. The importance of goal setting

1. Goals provide focus

Without a goal, it's easy to get distracted and lose focus. Goal setting is important to give you daily focus and motivation. When you're not focused, you can spend your time being busy but not productive. Goal setting ensures you simplify your to-do list to only the activities that will help you achieve your goals. Having goals aligns your focus to the small number of activities that matter most. When you set a goal, you direct your attention and focus to the steps and actions that will ensure you reach your goals. Setting goals ensures you are laser-focused on the tasks and projects that are the most impactful and essential. If you want to get focused, read my guide on how to improve focus.

2. Goals provide direction

Goal setting is important if you want greater direction and focus. If you want to grow personally and professionally, it's important to set goals you want to achieve. Goal setting can transform feelings of uncertainty into certainty by providing direction and a clear track to follow. Setting goals helps you create a long-term vision and set short-term measurable goals that provide monthly, weekly, and daily direction. When you have a clear direction to follow, you feel clear, more capable, and confident. Goals help you prioritize your most important activities, helping you be more productive and effective with your time. Read my guide on the importance of goals for weekly planning.

3. Goals clarify your future

Goal setting is important if you want to clarify your future. Goals narrow your vision and help you clarify who you want to be in the future. Having goals helps define your purpose in business and life and gives you a measurable plan and path to create your ideal future. Goals help you set bigger aspirations to achieve things that are important to you. With goals, you are clear on what's most important to you in your life and what's not. Without goals, it's easy to drift from one year without a clear purpose and direction. Writing down your goals makes them feel real. Read my step-by-step guide to writing down your goals.

4. Goals prioritize your time

Goal setting is important to help you manage your time effectively. It's easy to be busy but not productive. Goal setting is important if you want to prioritize your time to be more focused and effective. Goals ensure that you align your priorities with your long-term goals. Setting goals gives you a specific, measurable destination to work towards, which ensures you prioritize your tasks and your time each day. Having goals ensures the only activities on your daily schedule are the ones that move you closer to your goals. Goals help reduce stress, and overwhelm and give you more time back to create bigger and better results. If you want more time back, get my 8 essential time management tips.

5. Goals increase your confidence

Goal setting is important to build confidence and self-esteem. Goal setting is the most effective way of building your self-confidence and self-esteem. Setting specific, measurable goals, and working towards achieving them boosts your feelings of self-worth and increases your confidence.

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Goals give you a specific plan and path to follow each day. Making progress on your goals makes you feel confident and boosts your motivation towards achieving your goals. hen you have enough confidence, you will always take action on your goals and overcome the obstacles that stand in the way of goal achievement. If you want to build your self-confidence, get my guide to building self-confidence.

6. Goals provide motivation

Goal setting is important if you want to feel more motivated. Having exciting, energizing goals provides daily motivation to reach your goals. Without an exciting destination to reach, it's easy to stop working towards a goal when the going gets tough. Motivation is what drives you toward achieving your goal and what keeps you going. Goals give you a clear picture of how your life will improve when you reach your goal. Having this clarity gives you a direction to focus on and ensures you stay motivated. It's essential to choose aspirational, measurable goals that ensure you stay motivated to achieve them each day. If you want to increase your motivation, read my guide on how to stay motivated.

7. Goals help you measure progress

Goal setting provides the framework to measure your progress personally and professionally. Goals give you a measurable destination to reach, which builds motivation and confidence. When setting a goal, it's important to set measurable goals rather than wishing to achieve something in the future. With measurable goals, you can track your performance and see how much progress you're making toward goal achievement. Without a measurement to track your goal, it's tough to see tangible improvements. Measurable goals mean you see and feel the difference achieving the goal will make in your life. It also allows you to break your goal down into measurable elements so you can track progress. Get my step-by-step guide to setting measurable goals.

8. Goals increase productivity

Goal setting is important if you want to be more productive. Goal setting improves productivity as you focus more on high-value activities that help you reach your goals. Increased productivity narrows your focus to the activities that will move you closer to achieving your goals and eliminates everything else. This narrow focus on your goals helps you manage your time better, eliminates distractions, and ensures you prioritize effectively. Read my guide on how to be more productive.

9. Goals build capabilities

Goal setting improves your capabilities and performance. Setting goals helps you focus more time on the activities you love to do and are best at. Focusing more time on your biggest strengths helps you achieve your goals quickly. Setting goals forces you to identify your biggest capabilities, ensuring you maximize those strengths to achieve your goals faster and easier. Maximizing your capabilities improves performance, increases productivity, and boosts self-confidence. Setting goals provides a proven framework for creating your ideal future. It focuses your attention and energy and helps you organize your time and capabilities to achieve your goals faster and easier.

Key principles for goal achievement: Locke and Latham suggested five key principles for successful goal achievement (Locke & Latham, 1990).

Conceptual Framework

The research title "Construction of A Comprehensive Golf Training Program for Novice Golf Students in Junior High" was designed as follows

Citation
Zhang, Q., Tasnaina, N., & Bangthamai, W. (2024). Construction of A Comprehensive Golf Training Program for Novice Golf Students in Junior High Schools. International Journal of Sociologies and Anthropologies Science Reviews, 4 (4), 113-132; DOI: https://doi.org/10.60027/ijsasr.2024.4360

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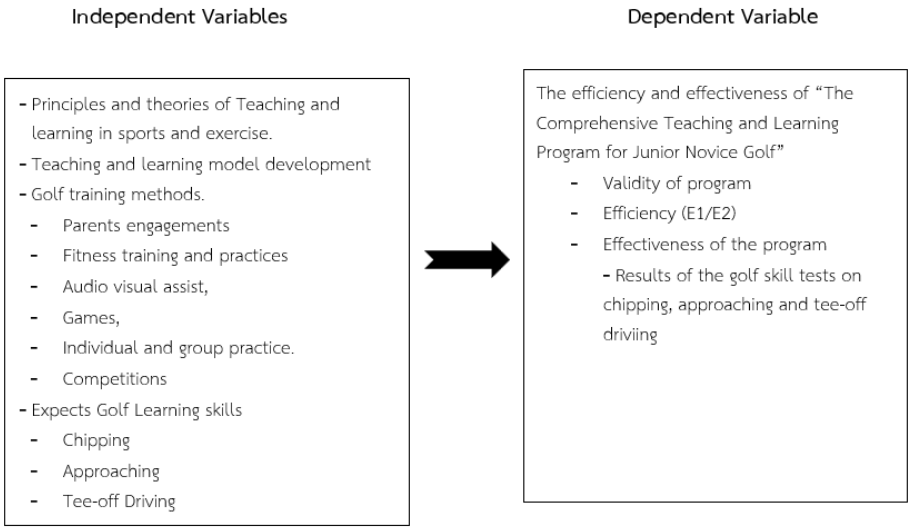

Figure 1 Conceptual Framework

Methodology

This research is a research and development that used both survey technique and experimental technique as a process of research.

1. Populations and Samples

The population is primary school students in China which scope on grade 6th (because the students in this class were mature enough to learn sports)

- Subjects for a tryout of the program were students in grade 6th of primary school by small group tryout with 1 student and 9 students and 30 students for large group tries to find out the program efficiency (E1/E2> 70/70)

The sample for the experiment was 20 students, grade ^{7th} in secondary school who were accepted the option of parents' engagement, paid for tuition fees, and ready to participate in the program for 8 weeks.

- Inclusion of samples

The samples that participated in this experiment must accept to pay the course fee, parents accept the collocative options, and the samples preferred
to participate in 16 sessions of training through 8 weeks.

- Exclusion of samples

The sample was notified to leave the research participation or be absent for more than 2 sessions.

2. Research instrument

- Interviewing form
- Comprehensive golf training program to enhance basic golf skills in young novice golf students. The Program validated with IOC by 3 experts was 0.97 (.66-1.00) and efficiency by tryout with a large group of subjects was 74.20/77.35
- Golf skills tests consisted of Chipping, Approaching and Tess-off driving. (r=0.69-0.93)

The research method is outlined as follows: This research was divided into 7 Steps as follows:

Step 1 Review literature and research

1. Review literature and research related to topics by searching online resources, journals, and e-books concerned with golf training in young beginner students
2. Consult the advisor and experts the form a conceptual framework
3. Conclusion of the research framework, contents, and practice of the training program in golf training for young novice golf student

Step 2 Draft the conceptual frameworks

Draft a concept and create an interviewing form to interview experts about content and method of training to improve the conceptual framework of golf training in young beginner students

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Step 3 Create a golf training program to cultivate golf skills for young beginner students

Summarize ideas from experts to draft the golf training to cultivate golf skills program with comprehensive training methods concise of parents' engagement, motor movements, physical fitness, and psychological skill training. The program will be verified by IOC, tried out to find program efficiency and reliability, and then set experiment for 1 group pre-test post-test design. For 16 weeks, 3 sessions a week with 1.30 hrs a week.

Step 4 Validating the program

The program comprises 16 weeks divided into 3 phases. 1) Phase I was the preparation phase for introduction and understanding the goal setting and imagery training for 2 weeks. 2) Phase II was the experimental phase; the subject was taught basic golf with the program for 8 weeks. 3) Phase III was the application phase; the subjects applied the knowledge and practice to participate in the game for 3 weeks and posttest 1 week. The program was developed and validated as follows:

1. Find out the validity of the teaching program, tests, and teaching manual by IOC procedure, and get IOC= 0.97 (0.66-1.00)
2. Submit research with ethical permission.
3. Try out the program with 1 student to adjust their understanding and communication
4. Try out the program with 9 students to observe the operation and primary results of the program,
5. Try out with 30 students to find the efficiency of the program (E1/E2) = 74.20/77.35
6. Adjust the program for some issues that were below the criteria.

Step 5 Operate the experiments with one group experiment design.

1. Experimental group, 20 subjects trained with the comprehensive training program to cultivate golf skills in junior novice golf.
2. Collected data on pretest, after week 6 (mid-test), and posttest.

Step 6 Analysis of experiment result with repeated measure ANOVA

Step 7 Conclusion and writing a research report.

Results

This research was quasi-experiment research operated with mixed methods by qualitative and quantitative techniques

The experts' interviewing results

Researchers interviewed 9 experts who were 5 teachers 2 coaches and 2 university instructors who had experience in golf for at least 5 years and more to collect the contents and practice, teaching process, and techniques for novice golf in primary school students. The results were as follows:

Expert 2: "The fundamentals of golf skills for students were body alignments, stance, and movement pattern. So, in the first stage of teaching, we had to focus on this importance.

Expert 1: "The target goal setting is the milestone of the training in each level. It was very good to take goal setting to motivate the students to try their best to achieve." "the target goal was serving the differentiation of student ability. We had to teach them to analyze his ability to meet the target and understand the benefits of it. The main point was to compete with himself not compete with his classmates"

Expert 3: "The target goal served the deference of students; it was the intimate goal of teaching but we had to care about the principle of teaching evaluation. Because of this idea of teaching, the weak student might get high grades in the course which might cause conflict among students". "The teaching in class should use multi balls to feed to students to practice. And may use feeding machine for this.

Expert 2: "The target goal setting was useful to motivate students to try more to meet the goal, but not for evaluate the learning output, because some students may tricky to set a low score for a target goal to get a high grade".

Expert 6: "The imagery was very useful for stationary sport or closed skills; we have to train the students to apply this. The imagery was worldwide use in golf, snooker, event in badminton, and tennis while they performed servicing"

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Expert 3: "The researcher should use modern teaching technology to gain more understanding such as clips, and videos in golf, presented on YouTube and TikTok. Or the teacher can do his own and share with the students.

Experts5: "The idea of the researcher to put the parents' engagement into teaching was a very good idea, the parents could monitor, motivate, and instruct their children to participate in practice. We recognized that students had time off school than in school, so they can cooperate to learn more than the teacher taught."

Expert 9: "Golf was difficult to achieve. It must take time to progress it. The students might be bored the learning, so the teacher must create games and competition situations for them.

Expert 3: "To practice at home, we could advise the parents to construct a box to practice hitting golf by the use of a fishing net to break golf balls."

Expert 6: "Just 16 sessions of 1.30 hours was not enough to make the students learn golf"

The researcher took the data summary from reviewed literature and experts' suggestions to form a draft of the teaching program for novice golf in secondary school students by applying goal setting, imagery, and game teaching methods to motivate the students to learn golf. The program was as follows: Program of Comprehensive Lesson Plan for Junior Novice Golf Students.

Keys Concepts

1. This lesson plan consisted of 7 teaching methods.

1.1 Parents' engagement: This was the collaborative teaching technique by cooperation among teacher, parents, and students to advise, monitor, motivate, and help the student achieve the goals of learning

1.2 Goal setting: This was a sport psychological technique to achieve the goal by evaluating his ability, time to practice, and technique of practice then considering how best he could do to achieve the goal.

1.3 Imagery training: This was a sport psychological technique that helped the students learn by imagining and perceiving the movement pattern, perceiving the quality of movement with their sensory

1.4 Gamification: The technique of teaching and learning with the entertainment of "Play and Learn" The students would enjoy learning by designing content in the game, they would learn the movements, contents, and processes according to the situation in the game designed.

1.5 Explain, demonstrate, and practice: this was usually used in physical education teaching. The teacher explained the movement pattern, showed the movement, and then let the students practice under observation and guidance by the teacher, and finally let them practice on their own or with classmates.

1.6 Flipped classroom: Assign some searching and reading before class and take them to support the learning in class.

1.7 Assignment on self-practice; this technique was an additional job or homework for students to practice or do after class or at home.

2. The lesson was 8 weeks, 2 sessions a week and 1.30 hours and divided into 3 phases

2.1 Phase I: Preparation session: 3 sessions: (1) The students will test golf skills for pretest data. (2) The students will be taught the knowledge and practice of goal setting by an expert. And (3) The student will be taught imagery by an expert

2.2 Phase II: Learning and Practicing Golf: The student will learn the contents and skills in golf for 10 sessions, 1.30 per session, they learn to understand the game of golf, some regulations and rules, and stroke production. The student will learn in class with teachers, in class with his buddy, and at home with himself and some cooperate with his parents, the teacher asks parents who is convenient to come to a meeting to talk about the process of parents 'engagement, the others who were not convenient, the researcher will talk to them by phone.

2.3 Phase III: Learn through applying: The students will apply the knowledge and practice to play golf by participating in games, and competitions among the students or target goals.

3. **The Program Learning Outcome.**

3.1Students understand the background and techniques of the game of golf.

3.2 Students could perform good basic skills in golf which could lead to training at a higher level.

3.3 Students had a good attitude toward golf and exercise.

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3.4 Students had good physical fitness and mental fitness.

Phase I: Preparation Session Plan 3 sessions, 1.30 hours a session

Table 1 The preparation lesson before commencing the experiment.

Session	Topic	Objectives	Activity	Evaluation
1	Introduction of research	- To understand the research process -Collect golf skills test for pretest data.	-To tell the students about the research process -Ask them to sign research ethics consent - Explain and demonstrate testing of golf skills -Assignments	-Question and answer -Test results check
2	Goal setting -contents -practice	-To understand the goal setting -To practice the goal setting -To stimulate the students to accept, and use in learning	- Explain the research process and the cooperative actions among students, parents, and teacher - Explain the benefit of goal setting, method of goal setting -Practice goal setting -Assignments	-Question and answer -Check the result in the setting practice lesson
3	Imagery -Content -Practice	To understand the imagery To practice the imagery To stimulate the students to accept, and use in the learning process.	- Explain the benefit of imagery, - Watching video - Practice imagery -Assignments	- Question and answer - Practice and check the results.

Phase II: Learning and Practicing Golf Plan for 8 sessions, 1.30 hours a session

Table 2 The program for learning and practicing

Session	Topic	Objectives	Activity	Evaluation
4	Introduction to golf and club use. -Background of golf -Usefulness -Facility and equipment -Clubs and utilize	- To know and understand golf game -To motivate the student to participate in golf -To understand the clubs and utilities of them	-Warm-ups -Watching video - Explain and demonstrate testing of golf skills, clubs use - Explain, demonstrate, and	-Question and answer -Observe the practice and results

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Session	Topic	Objectives	Activity	Evaluation
	-Basic skills and practice -Grips -Stance	-To understand the grips -To understand the stance	practice griping and stance - Set a target goal for tests - Assign to practice, grips, stance, and swing swinging at home -Assign to watch a clip on phone	
5	Stance, posture, address, and swing	-To understand the stance, posture, address, and swing -To understand the movement of stroke production in golf -To understand the usefulness of stimulating stance posture, address, and swing on performance in golf	-Explain the benefit of stance posture, address, and swing -Practice stance, posture, address, and swing -Test understanding of golf game and stance. -Assignments	-Question and answer -Check the result of the demonstration of students -Checklist
6	-BAll position and alignment -Mechanism for power and balance -Grip and chip	-To understand the ball position and alignment -To understand the mechanism of power and balance - To understand and perform grip and chip	- Explain the benefit of imagery, - Watching video - Practice imagery - practice gripping and chipping Assignments	- Question and answer - practice and check the results.
7.	Short-distance target (Chipping)	-To improve physical fitness -To understand and perform the stroke to drive to ball to a short-distance target	-Physical fitness training -Explain and demonstrate on green stroke -Practice and correction -Game -Test to check target goal achievement -Assignments	-Observe -Check the result of the performance
8	Driving the long distance target (tee-off)	-To understand the movement of the off-stroke -To practice and achieve the distance of stroke	-Warm-up -Explain and demonstrate -Practice -Game -Test to check the target goal achievement -Assignments	- Observe - Check the result of the performance

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Session	Topic	Objectives	Activity	Evaluation
9	Approaching	-To understand and practice approaching	-Warm-up - Explain and demonstrate -Practice -Game - Assignments	- Observe - Check the result of the performance
10	Putting	-To understand and practice the putting to hole	-warm-up - Explain and demonstrate -Practice -Game	Observe - Check the result of the performance
11	Practice	To review and practice golf skill	-warm-up - Explain and watch the video of the golf game	Question and answer - Observe and advise
12	Mid test	-To test the skills to be a posttest.	-Warm-up - Explain the test process -Test and record results on chipping approaching and tee-off	-Test skills test. - Compare results

Phase III: Applying, for 4 sessions, 1.30 hours a session

Table 3 The program for applying golf basic skills

Session	Topic	Objectives	Activity	Evaluation
13	Gameplay	-To understand the game - To apply the skill to the game - to understand the score record, golf etiquette	-Explain -Divide students into groups of 4 Practice gameplay.	-Observe -Question and answer -Consider score
14	Competition Gameplay	-To understand the game - To apply the skill to the game - to understand the score record, golf etiquette	-Explain -Divide students into groups of 4 Practice gameplay.	-Observe -Question and answer -Consider the score
15	Practice	-To review the skills practice -To prepare for the test next week	-Divided students in group -Practice chipping, approaching and tee-off	
16	Posttest	-To evaluate the learning output	-Pre-pair test process Test and record	Compare test results

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The result of the Experiment

Researchers operated one group of experimental research, the subjects for the experiment were 20 students, grade 6th in primary school who accepted the option of parents' engagement, paying for tuition fees, and prefer to participate in the program for 16 weeks. The program was divided into three phases, 1) Preparation session: 3 sessions, 2) Phase III: Learning and Practice Golf Plan 8 sessions, 3) Phase III: Applying 4 four sessions (see Table 1)

Table 5 The descriptive statistics of tests on chipping, approaching, and driving at the pretest, mid-test, and posttest.

Descriptive Statistics					
Tests*	**N**	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Pre- Chip	20	8.00	14.00	11.00	2.00
Mid - Chip	20	8.00	16.00	11.75	2.05
Post -Chip	20	14.00	26.00	19.55	3.73
Pre - Approach	20	10.00	20.00	14.70	2.92
Mid - Approach	20	14.00	24.00	19.10	3.11
Post - Approach	20	18.00	25.00	22.30	1.84
Pre - Tee-off	20	11.00	26.00	16.95	4.19
Mid - Tee-off	20	22.00	35.00	27.65	4.28
Post- Tee-off	20	34.00	44.00	37.95	2.58

Table 5. The subjects were 20 the pretest on, 1) chipping was (average/ standard deviation) at 11.00+/- 2.00, at mid-test 11.75+/-2.05 and posttest was 19.55+/-3.73, 2) Approaching at pretest was at 14.70+/- 2.92, at mid-test 19.10+/-3.11 and posttest was 22.30 +/- 1.84, 3) Tee-off tests at pretest was at 16.95+/- 4.19, at mid-test 27.65+/-4.28 and posttest was 44.30 +/- 2.58

Table 6 The Comparison of the basic golf skills on the chipping test among the pretest, mid-test after 8 sessions in week 6th, and post-test at the end of 8th. by repeated measure one-way ANOVA

Multivariate Tests						
	Effect	**Value**	**F**	**Hypothesis df.**	**Error df.**	**Sig.**
Chipping	Pillai's Trace	.80	36.57	2.00	18.00	.001*
	Wilks' Lambda	.19	36.57	2.00	18.00	.001*
	Hotelling's Trace	4.06	36.57	2.00	18.00	.001*
	Roy's Largest Root	4.06	36.57	2.00	18.00	.001*

*P < .05

Table 6 The comparison of chipping tests among the Pretest, Mid-test, and Posttest by repeated measure one-way ANOVA, showed that there was a significant difference at .05.

Table 7 The post hoc analysis of chipping tests among Pretest, Mid-test, and Posttest by LSD

Tests time	**Pair of tests**	**Mean Difference**	**Std. Error**	**Sig.**
Pretest	2 Mid-tests	-.75	.39	.074
	3 Posttest	-8.55	.97	.000*
Mid-test	1 Pretest	.750	.39	.074
	3 Posttest	-7.80	.94	.000*
Posttest	1 Pretest	8.55	.97	.000*
	2 Mid-tests	7.80	.94	.000*

*P < .05

Table 7 The result of post hoc analysis on the chipping test showed that at the level of .05 level of significance, There were no differences between the pretest and mid-test, but the pretest and posttest, and mid-test and post were different at .05 level of significance.

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Table 8 The comparison of approaching tests among Pretest, Mid-test, and post-test by repeated measure ANOVA.

Tests of Within-Subjects Contrasts						
Source	APP	Type III Sum of Squares	df	Mean Square	F	Sig.
Approaching test	Linear	577.60	1	577.60	117.49	.001*
	Quadratic	4.80	1	4.80	.70	.412
	Linear	93.40	19	4.91		
	Quadratic	129.53	19	6.82		

*P < .05

Table 8 The comparison of approaching tests among the Pretest, Mid-test, and Posttest by repeated measure ANOVA, showed that there was a significant difference at .05.

Table 9 The post hoc analysis of approaching tests among Pretest, Mid-test, and post-test by LSD

Tests Time	Pair of tests	Mean Difference (I-J)	Std. Error	Sig.
Pretest	2 Mid-tests	-4.40*	.79	.001*
	3 Posttest	-7.60*	.70	.001*
Mid-test	1 Pretest	4.40*	.79	.001*
	3 Posttest	-3.20*	.79	.001*
Posttest	1 Pretest	7.60*	.70	.001*
	2 Mid-tests	3.20*	.79	.001*

*P < .05

Table 9 The result of post hoc analysis by LSD on approaching test showed that at.05 level of significance. There were differences between the pretest and mid-test, pretest and posttest, and mid-test and posttest at a .05 level of significance.

Table 10 The comparison of tee-off tests among Pretest, Mid-test, and Posttest by repeated measure ANOVA

Tests of Within-Subjects Effects						
Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Tee-off test	Sphericity Assumed	4410.53	2	2205.26	182.38	.001*
	Greenhouse-Geisser	4410.53	1.71	2571.73	182.38	.001*
	Huynh-Feldt	4410.53	1.86	2360.24	182.38	.001*
	Lower-bound	4410.53	1.00	4410.53	182.38	.001*
Error Tee-off	Sphericity Assumed	459.46	38	12.09		
	Greenhouse-Geisser	459.46	32.58	14.10		
	Huynh-Feldt	459.46	35.50	12.94		
	Lower-bound	459.46	19.00	24.18		

Table 10 The comparison of driving tests among the Pretest, Mid-test, and Posttest by repeated measure ANOVA, showed that there were significant differences at .05.

Table 11 The post hoc analysis of Tee-off tests among Pretest, Mid-test, and Posttest by LSD

Test times	Pair of tests	Mean Difference (I-J)	Std. Error	Sig.
1 Pretest	2 Mid-tests	-10.70	.84	.001*
	3 Posttest	-21.00	1.20	.001*
2 Mid-test	1 Pretest	10.70	.84	.001*
	3 Posttest	-10.300	1.21	.001*

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Test times	Pair of tests	Mean Difference (I-J)	Std. Error	Sig.
3 Posttest	1 Pretest	21.00	1.20	.001*
	2 Mid-tests	10.30	1.21	.001*

*P<.05

Table 11 The result of post hoc analysis by LSD on Tee-off tests showed that there were differences between pretest and mid-test, pretest and posttest, and mid-test and posttest at a .05 level of significance.

Summary of research results

1. The validity of the program and efficiency have met the criteria as: IOC = 0.97 (.66-1.00), and E1/E2 = 74.20/77.35

2. The result of the experiment showed that only the chipping test at the pretest and mid-test was not significantly different at .05. But all tests on chipping, approaching, and driving between the pretest and mid-test, pretest and posttest and mid-test and posttest were different at .05 level of significance

3. These could conclude that the comprehensive training program for novice golf students in primary school student was efficient and effective.

Discussion

Golf sport is a complicated sport that needs accuracy of motor movement, specific patterns of movement, and psychological control. Speariett & Armstrong (2019) stated that "Golf requires effective movement patterns to produce an effective swing and performance", "The most common swing faults identified included loss of posture, slide, chicken winging, and early hip extension. Conclusions: The GSFMS may be used to identify movement limitations that relate to golfing performance. The golf swing was a complex, dynamic, asymmetrical whole-body movement that required a coordinated sequence of muscle activation to produce and efficiently transfer high amounts of explosive power with clubhead speeds often exceeding 160 km/hr. Muscular strength, mobility, coordination, flexibility, and stability are required for efficient performance and to minimize injury risk. These findings may potentially allow intervention to correct movement patterns and potentially improve golf performance". The result of learning and practicing on this research was too short to enhance the perfect skills of golf so, at the end of 6 weeks of participation, the students could not improve more better skill in chipping than the pretest but the other skills were better.

Complex training (CT), sometimes referred to as Contrast Training is a training method that combines a high-load strength exercise, and a lower-load velocity or power-based exercise, of similar movement patterns into an "exercise pairing". "High load" is relative to the individual strength level, but usually refers to something greater than 85% of the 1 repetition maximum (1RM) in that exercise (1RM = while maintaining proper technical execution of the lift). This means you would be using a resistance that you can only lift for 1-5 repetitions before failure. (Michael Carrol 2019)

Golf, a global sport enjoyed by people of all ages and abilities, involves relatively long periods of low-intensity exercise interspersed with short bursts of high-intensity activity. To meet the physical demands of full-swing shots and the mental and physical demands of putting and walking the course, it is frequently recommended that golfers undertake golf-specific exercise programs. Biomechanics, motor learning, and motor control research have increased the understanding of the physical requirements of the game, and using this knowledge, exercise programs aimed at improving golf performance have been developed. However, while it is generally accepted that an exercise program can improve a golfer's physical measurements and some golf performance variables, translating the findings from research into clinical practice to optimize an individual golfer's performance remains challenging (Kerrie and Neil, 2015)

The LTAD approach focuses on having kids perform age-appropriate skill acquisition drills to maximize their athletic potential. It progressively gets more complicated and more specialized as the athlete develops and reaches the next level of development, (Istvan Balyi, 2013). The key factors influencing long-term player development were: (Amazon.com, 2022)

Physical literacy: basic physical literacy aids in the learning, accomplishment, and longevity of the specific actions required by the game of golf. Physical literacy is key to both the enjoyment of participating in sports and serves as a requisite as we develop participants through the various stages

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of development. The development of physical literacy (much like establishing a base level of reading, writing, and arithmetic in school) should be a major focus before the adolescent growth spurt. The process of becoming physically literate is influenced by an individual's age, maturation, and capacity. Specialization: Sports are often categorized as either early or late specialization activities. Typically, early specialization sports include artistic and acrobatic sports such as gymnastics, diving, and figure skating, particularly for female participants. A possible rationale is that these activities involve very complex skills learned at a young age due to a much greater difficulty in mastering those skills if taught after a significant level of maturation. Negative aspects of early specialization include one-sided sport-specific preparation; a lack of fundamental movement and sports skills; a high incidence of overuse injuries; and an early retirement from training and competition

Development Age: Children of the same chronological age can differ by several years in his/her level of biological maturation. Growth, development, and rate of maturation result from a complex interaction of genes, hormones, nutrients, and the environment in which an individual lives. These interactions are particularly evident over the first two decades of life as an infant evolves into a young adult.

Sensitivity Periods: A sensitive period is a broad time frame or window when the learning of a specific skill, or the development of a specific physical/cognitive capacity is particularly effective. The entire period of childhood can be viewed as a sensitive period for mastering fundamental movement skills. Trainability during the sensitive periods of accelerated adaptation to training refers to the body's responsiveness to training stimuli at different stages of growth and maturation. Although the physiological systems of the athlete can be trained at any age, there are sensitive periods when individuals are especially responsive to specific types of training. The concept of trainability has caused considerable discussion within sports and academic communities. Trainability is well documented in coaching and research literature and provides reasonable evidence of periods of sensitivity for accelerated adaptation to training and/or exposure to various stimuli.

Training and Performance: the need to train on Endurance, Strength, Speed, Skill, Flexibility, Structure, Schooling, Sport psychology, Sustenance, and Socio-Cultural. All of these physical fitness, mental fitness, skills, and socio-cultural adjustments must be trained for golf players.

Mental, cognitive, and emotional: factors are essential to each player's development. Not only is holistic development—which encompasses all of these factors in addition to physical development—beneficial to the individual, but all of these skill sets are interlinked. Just as physical and technical skills require long-term and sequential development, so too do the psychological aspects of athlete development. This includes a range of knowledge sets such as the underpinnings of fair play and ethical sport; mental skills for performance; emotional regulation; sequencing; and decision-making. A major objective of LTPD is a holistic approach to player development which includes emphasis on ethics, fair play, and character building throughout the various stages. Programming should be designed with consideration for the player's cognitive ability to address these concepts.

Periodization: the sequences of the training components into weeks, days, and sessions. Periodization is situation-specific, depending on priorities and the time available to bring about the required training and competition improvement. In the context of LTPD, periodization connects the stage a player is into the requirements of that stage.

Competition Program: Competition calendar planning at all stages of LTPD is critical to athlete development. At certain stages, developing physical capacities takes precedence over competition. At later stages, the ability to compete well becomes the focus. It should be noted that optimal sport-specific competition ratios are required for all stages of LTPD. The level and length of the competition season should be aligned with the changing needs of the developmental player progressing through the stages.

Time of Training for Excellence: It has been suggested a minimum of 10 years of practice (sometimes stated as 10,000 hours) is needed for expert performers in any field to reach the elite level. Other evidence indicates elite players require at least 11–13 years of practice to reach levels of excellence. The essential lesson is the same—there are no shortcuts to achieving excellence. Player development is a long-term process and elite players will require approximately a decade or more of practice to achieve international standing. As part of this process, short-term performance goals must never be allowed to undermine long-term player development.

System Alignment and Integration: The goals of the Sport for Life movement specifically for each sport the alignment of all stakeholders and partners under a common overarching objective with a clear understanding of the roles and responsibilities of all concerned movements and specifically for each sport is the alignment of all stakeholders and partners under a common overarching objective with a clear understanding of the roles and responsibilities of all concerned.

The gradual improvement: The LTPD framework is based on the principle of continuous improvement, both in its dynamic evolution and in its application

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There are seven stages within the basic LTAD model:

Stage 1: Active Start (0-6 years)
Stage 2: Fundamental (girls 6-8, boys 6-9)
Stage 3: Learn to Train (girls 8-11, boys 9-12)
Stage 4: Train to Train (girls 11-15, boys 12-16)
Stage 5: Train to Compete (girls 15-21, boys 16-23)
Stage 6: Train to Win (girls 18+, boys 19+)
Stage 7: Active for Life (any age participant)

According to the LTAD principles, it seemed the age to start learning golf in this research was in stage 3 (learn to train girls 8-11. Boys 9-12) it was appropriate to provide golf lessons for them. The program should adjust more on fundamental training on physical fitness, especially on 1) Locomotive Skills (running, Jumping, Dodging, Skipping, Hopping, Sprinting, Stability Skills, Agility, Balance, Coordination, Speed, Change of Direction, Disassociation. 2) Object Control Skills (Throw, Kick, Strike, Catch, Dribble, Dodge) 3) Awareness (Spatial Awareness, Kinesthetic Awareness, Body Awareness, Rules), 4) Fundamental Sports Skills (Grip, Stance, Ball Position, Alignment, Finish Position, Green Reading, Speed Control, Structure & Routine, Putting, Chipping, Pitching, Wedges, Full Swing Irons and Woods. (https://www.krisbrowngolf.com/junior-development /long-term-athletic-development-ltad/ retrieved on 2 January 2024).

Learning and practicing with comprehensive teaching methods could improve chipping skills, approach skills, and tee-off skills might be the effects of various teaching methods that could gain more motivation to participate in learning and practicing, especially the off-class at home. But it would be better if we applied LTAD in golf, and put more concentration on motor learning and physical fitness in the program.

Recommendation

1. Policy recommendations

Teachers and coaches should apply a comprehensive training program in golf to improve students' golf skills and apply ideas to other sports training programs

2. Recommendations for Further Research

2.1 Added more concentration on fundamental movement, physical fitness sport psychology, and socio-cultural into the program

2.2. Provide a long-term program of teaching and learning to gain more quality of performance.

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