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Chapter I Introduction

This chapter serves to introduce the background to the “Macao Special Education Curriculum Design Project”, illustrating new trends and concepts in special education, and explaining the positioning and usage of the “Supplementary Curriculum Guide (Special Education)” (hereafter referred to as “Supplementary Guide”).

The “Supplementary Guide”, a core document to the “Macao Special Education Curriculum Design Project”, aims to inform schools and teachers of the philosophy, positioning, and implementation mode of the plan as they carry out Macao’s special education curriculum in practice.

A. Origin and rationale for the Supplementary Guide

1. The latest trend in special education

Over the past three decades, the international community has witnessed transformative changes in the concepts and practice in special education. Since the publication of the Salamanca Statement by UNESCO in 1994, inclusive education (or integrated education) has become the dominant educational model for students with disabilities around the world. The Salamanca Statement emphasizes the concept of Education for ALL and holds that students with disabilities should have access to equal educational opportunities as ordinary students. This concept is applied to the domain of curriculum design and leads to the inclusive curriculum model (One Curriculum for All).

2. The growing trend in the promotion of inclusive curriculum

The fundamental ethos of inclusive education is that all students should have equal rights to education, and one exemplification of which is to the right to study according to the same curriculum. Therefore, special education curriculum must be guided by the principle of “inclusion”---the curriculum is considered “One Curriculum for All” only when it caters to students of different abilities (including students with serious or severe intellectual disabilities).

The General Assembly of the United Nations passed the Convention on the Rights of Persons with Disabilities (CRPD) (hereafter referred to as the Convention) in 2006 to promote and protect the rights of all persons with disabilities. The Convention states that necessary adjustments should be made under certain circumstances to ensure that persons with disabilities have equal access to their rights and the exercise thereof. The People’s Republic of China signed the Convention in 2007 which was later passed and approved by the Standing Committee of the National People’s Congress in 2008. This means that China has the obligation to implement the Convention and must take appropriate measures to this end.

The curriculum policies adopted by countries around the world in the practice of inclusive education share the common feature of establishing standards or goals that cover the capabilities of all students. It is important that these standard areas are all derived from the central curriculum of formal education and that they can also include the abilities of all students, including those with serious to severe intellectual disabilities.

3. Development and current situation of special school curriculum in Macao

For years the development of special education curriculum in Macao has been reliant upon the research and initiatives of individual schools themselves. Although there have been exchanges and mutual consultations among the schools in this process, there is still the lack of a unified curriculum structure, module contents, and assessment criteria. Also, the curriculum leans heavily towards catering to the needs arising from the weaker capabilities of students. The reference to the formal education curriculum in special education curriculum is limited to selecting contents from textbooks used in formal education and revising them to form the main body of the special education curriculum.

The Macao SAR government began to legalize the formal education curriculum in 2014, and has successively promulgated the Administrative Regulation No. 15/2014, “Curriculum Framework for Formal Education of Local Education System” (hereafter referred to as “Curriculum Framework”) and Administrative Regulation No. 10/2015, the “Basic Academic Attainment Requirement of Local Education System” (hereafter referred to as “The Requirements of Basic Academic Attainments”). “The Requirements of Basic Academic Attainments” for Early Childhood Education, Primary Education, Junior Secondary School Education and Senior Secondary School Education have also been implemented year by year since the academic year 2015/2016. This means that the formal education curriculum in Macao is proceeding to standardization and unification in a programmatic fashion. The legislation of formal education curriculum in the territory can be regarded as the most appropriate time for Macao to design its special education curriculum, because the purposes, subject structure, and learning units of the formal education curriculum under the principle of equal educational opportunities should be applicable to students with special educational needs. The key is that teachers need to have a set of guidelines to supplement or adapt the formal education curriculum according to the learning abilities and learning modes of students with special educational needs. Therefore, the Macao Education and Youth Affairs Bureau (hereafter referred to as the DSEJ) invited the Centre for Advancement in Inclusive and Special Education (CAISE) of The University of Hong Kong, together with special education teachers from nine public and private schools in Macao, to initiate a three-year plan, namely, the Macao Special Education Curriculum Design Project. The core tasks of the plan include:

- 1) Developing and drafting the Learning Ability Progress Level (hereafter referred to as the Level) for six subjects (Chinese, Mathematics, General Studies, Science and Humanities, Arts, and Information Technology, Sports, and Health);

2) Compiling the “Supplementary Curriculum Guide (Special Education)”.

The emphasis of the plan is that the compilation of the special education curriculum should be based on the formal education curriculum, which is the future direction for special education development in Macao and also the purpose of this plan. This direction not only guarantees students the right to study according to the same curriculum, but also ensures that the educational elements of the curriculum will not be compromised due to excessive emphasis on skill training. In addition, teachers can build a community with affiliated schools and reach consensus on the assessment criteria when formulating the same curriculum structure. The plan also emphasizes that the Level and the Supplementary Guide should be compiled with special education teachers in Macao as the main contributors. The process of writing the Level and the “Supplementary Guide” involved gathering the fruits of specialist teachers’ professional knowledge and years of accumulated teaching experience in each subject, which enabled the final writing to possess unique Macao characteristics.

B. Objectives of the Supplementary Guide

The purpose of the “Supplementary Guide” is to provide support for teachers in planning, developing and formulating curriculum for students with special educational needs. Teachers can make references to and combine the use of the guideline from the formal education curriculum, the “Curriculum Framework” and “The Requirements of Basic Academic Attainments”. In general, the “Supplementary Guide” can help schools to develop an inclusive education system (Special education curriculum system) from the following aspects:

- Review and revise the present directions in special education and lay the foundation for developing a new special education system;
- Link up with Macao’s formal education curriculum and identify priorities appropriate for the special education curriculum;
- Respond to students’ diverse learning needs;
- Overcome barriers to teaching and assessment for full inclusion of all students.

C. Functions of the Supplementary Guide

The functions of the Supplementary Guide are provided in the following aspects:

- Provide information to help teachers plan, prepare, develop and design courses catered to students with different learning needs according to the characteristics of each subject; illustrate how to adjust the course contents so that all students can have the opportunity to study formal education courses according to their own abilities;
- Provide a spectrum of learning ability descriptors to demonstrate the levels of learning ability and learning outcomes;
- Establish the relationship between “The Requirements of Basic Academic Attainments” and the special education curriculum;
- Provide a coordination mechanism of learning assessment, with the emphasis on the principle of comprehensive judgment;

- Provide sample classroom activities, stimulate students' curiosity, teach students in accordance with their aptitude, and practice the important educational principle of teaching tailored to the individual students' abilities.

D. Characteristics of the Supplementary Guide

1. Designing inspiring learning activities

Chapter III of the Supplementary Guide shows relevant learning areas of various subjects and their importance to students with special educational needs. Teachers may have the impression that some of the complicated and abstract topics in certain subjects are beyond the understanding of students with special educational needs; some examples of teaching activities are demonstrated in Chapter V of the Supplementary Guide for teachers to adjust the teaching scenarios and goals. This ensures that even students with lower ability levels can study the contents of related subjects.

2. Adaptable to different learning needs with the formal education curriculum as its basis

Chapter IV of the Supplementary Guide, in conjunction with the “Curriculum Framework” and “The Requirements of Basic Academic Attainments”, retains as many relevant contents within the learning area of each subject as possible. The curriculum objectives and learning outcomes are based on the formal education curriculum and can be adjusted according to the differences in learning.

3. Easy to identify students' abilities with the continuous description of various levels of learning abilities in the learning areas of each subject

To enable every student with special educational needs to find their entry point in each learning area of various subjects, the spectrum of learning ability level descriptors for each subject is provided in Chapter VII of the Supplementary Guide, covering learning abilities from the lowest level (or those appearing the earliest) to the highest level (or those compatible to be admitted to ordinary schools), for teachers to clearly identify the levels of students' learning ability in each learning area, which is the core element of the Learning Ability Progress Level.

4. Easy to know the progress of the teaching priorities in major education stages

In order to show clearly the levels of learning ability of students with special educational needs at different age groups, the Learning Ability Progress Level is divided into four phases according to the age of students. In these four phases, students are expected to make progress not only in learning experience in line with their age and social development, but also in subject knowledge so that they can accumulate knowledge and experience in the learning process. Teachers can also avoid unnecessary repetition to improve educational efficacy.

5. Uniform terms to describe different groups of students

We use “students with special educational needs” to replace terms which have been used to describe different groups of students, such as the hearing impaired students, visually impaired students, physically impaired students, slow learners, or students with mild, moderate, or severe intellectual disabilities. We believe that each student is on the same route of learning progress, with different needs in education. We do not explicitly classify students in the

psychological and medical systems, because we design students' learning objectives mainly based on their ability levels in different subject areas. For example, a student who is classified as suffering from "cerebral palsy" in the psychological and medical system may have an average level of intelligence even if he or she cannot speak or can only sit in a wheelchair, or with relatively weak motor sensory ability. Based on the concept proposed in the Learning Ability Progress Level, a student's learning ability in Physical Education may be only at level L3, while his or her learning ability in Chinese "listening" may have reached level L10.

This method of describing the levels of students' learning ability can change the perception of students' learning potential among teachers or other stakeholders. At the same time, teachers can refer to different ability levels to set more suitable learning goals for students so as to raise their expectations of the students' learning ability.

E. How to Interpret the Supplementary Guide

The Supplementary Guide is designed to cover students with special educational needs aged between 3 to 21, including students in special education classes and in special education small classes, as well as inclusive students in regular classes. Students enrolled in various special education classes are the focus of the Supplementary Guide, since most of the students in the above mentioned classes are at notably different levels of learning ability in different subjects. Nevertheless, teachers who teach students of different gender and ethnic, cultural, religious, and family backgrounds can all use the Supplementary Guide as a teaching reference.

In the Supplementary Guide, the term "teacher" may include homeroom teacher, teachers of various subjects, subject directors, teaching assistants, parents, therapists, counselors, social workers, psychologists, principals and all others who take care of students with special educational needs. When using the Supplementary Guide, teachers should refer to the curriculum guides of the DSEJ and school-based curriculum materials, for planning and compiling the teaching contents, according to different levels of education, as well as the learning ability level of students with special educational needs. The Learning Ability Progress Level also provides an accurate description of students' learning performance and ability.

2

Chapter 2

Objectives, Curriculum Framework and Teaching Principles of Physical Education and Health Curriculum

This chapter is compiled with reference to the “The Requirements of Basic Academic Attainments” of the formal education guideline for Physical Education and Health Curriculum. The objective is to state that under the principle of the same curriculum framework, the Physical Education and Health curriculum for students with special educational needs originates from the formal education curriculum, giving them equal learning opportunities.

(1) Objectives of Physical Education and Health Curriculum

The objectives of Physical Education and Health Curriculum are to cultivate students in the following aspects:

- To learn sports skills, to maintain relevant knowledge in physical education, sports and health, as well as to cultivate positive sports values and attitudes, so as to lead active and healthy lifestyles;
- To cultivate a lifestyle which involves active participation in sports, to develop sound minds and healthy bodies, for the improvement of physical fitness and physical coordination abilities;
- To participate in various sports activities, to improve judgment on sports activities and to enhance abilities in the appreciation of aesthetic motions, to learn how to cooperate with others in collective living.

(2) Adjustment of the Physical Education and Health Curriculum Framework

According to “The Requirements of Basic Academic Attainments”, learning areas of the Physical Education and Health curriculum at early childhood education level include four domains: “1. Knowing the Body”, “2. Self-Protection”, “3. Mental Health” and “4. Physical Training and Sports”; learning areas of Physical Education and Health at primary education level include six domains: “A. Sports Knowledge”, “B. Sports Skills”, “C. Sports and Physical and Mental Health”, “D. Sports and Physical Fitness”, “E. Sports Participation” and “F. Sports and Social Adaptation”; learning areas of Physical Education and Health at junior secondary education level include six domains: “A. Knowledge of Sports and Health”, “B. Sports Participation”, “C. Sports Skills”, “D. Sports and Physical Fitness”, “E. Sports and Physical and Mental Health” and “F. Sports and Social Adaptation”.

To ensure students with special educational needs can be provided with appropriate education, share the same learning contents with ordinary students under the same curriculum framework in various learning areas of Physical Education and Health and can be provided with wide and balanced learning experiences, the curriculum is adjusted according to the learning areas of Physical Education and Health at Macao’s early childhood, primary and junior secondary education levels under the “The Requirements of Basic Academic Attainments”. Therefore, the “1. Knowing the

Body” domain at early childhood education level is deleted since the relevant contents of the domain are included in General Studies, Humanities and Science education. In addition, to ensure the coherency of curriculum structure, to avoid the incoherency of learning contents, and in consideration of the learning progress of students with special educational needs, the integration and adjustment of the frameworks of the Physical Education and Health curriculum in different education levels are as follows:

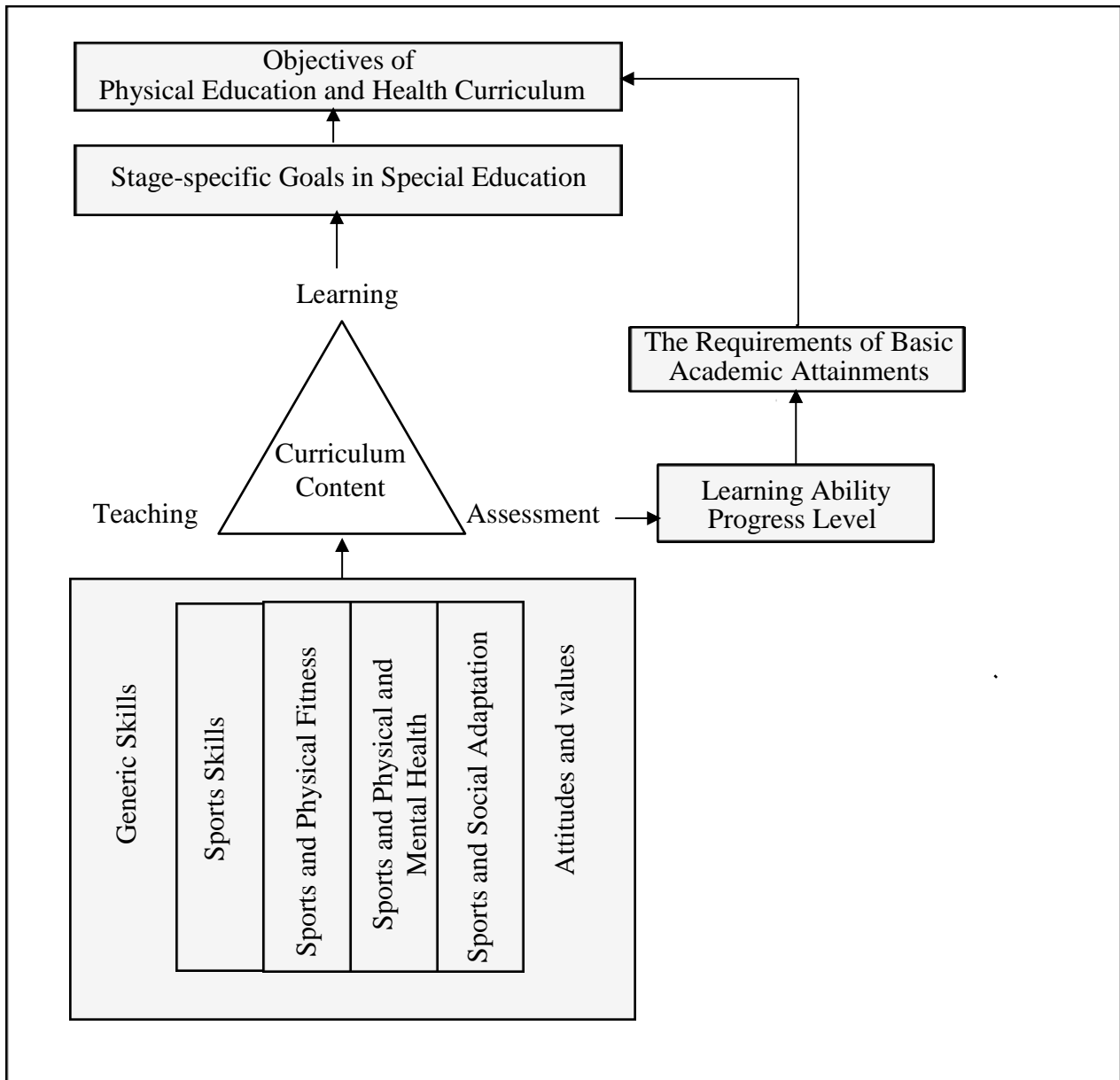
- For learning areas of Physical Education and Health, domain “4. Physical Training and Sports” contents related to sports areas at early childhood education level, domain “B. Sports Skills” at primary education level, and domain “C. Sports Skills” at junior secondary education level are merged as the “Sports Skills” domain;
- For learning areas of Physical Education and Health, domain “4. Physical Training and Sports” contents related to physical training at early childhood education level, domain “D. Sports and Physical Fitness” at primary education level, and domain “D. Sports and Physical Fitness” at junior secondary education level are merged as the “Sports and Physical Fitness” domain;
- For learning areas of Physical Education and Health, domains “2. Self-Protection” and “3. Mental Health” at early childhood education level, domains “A. Sports Knowledge” and “C. Sports and Physical and Mental Health” at primary education level, domains “A. Knowledge of Sports and Health”, “B. Sports Participation” and “E. Sports and Physical and Mental Health” at junior secondary education level are merged as the “Sports and Physical and Mental Health” domain;
- For learning areas of Physical Education and Health, domains “E. Sports Participation” and “F. Sports and Social Adaptation” at primary education level, domain “F. Sports and Social Adaptation” at junior secondary education level are merged as the “Sports and Social Adaptation” domain.

To perfect the Physical Education and Health curriculum for students with special educational needs, and taking Hong Kong’s *Supplement to the Curriculum Guide* of the *SAME* project as reference, “Knowledge and Practice on Safety” is merged into the “Sports and Physical and Mental Health” domain; in addition, “Sports-related Aesthetic Values and Attitudes” and “Aesthetic Sensitivity” are merged into the “Sports and Social Adaptation” domain as learning contents.

The learning domains applicable to students with special educational needs in the Physical Education and Health Curriculum are integrated into four domains as follows:

- Sports Skills
- Sports and Physical Fitness
- Sports and Physical and Mental Health
- Sports and Social Adaptation

Curriculum Framework of Physical Education and Health (Special Education):



(3) Course Positioning of Physical Education and Health Curriculum

The Physical Education and Health Curriculum is one of the major areas in school learning, and mainly aims “to educate through physical activities, so as to build sound minds and healthy bodies”. Through the contents, strategies and methods used in physical education, along with the various learning domains including Sports Skills, Sports and Physical Fitness, and Sports and Physical and Mental Health, the curriculum aims to promote the development of students’ sound minds and healthy bodies. According to the above-mentioned learning areas, the Physical Education and Health Curriculum directs students to experience learning, helps students develop good psychological qualities, improve students’ physical fitness, and thus develop their positive attitudes and healthy lifestyles.

(4) Teaching Principles of Physical Education and Health Curriculum

The Physical Education and Health Curriculum aims to educate students through physical activities, letting students build sound minds and healthy bodies through a series of safe, effective, diversified and fun teaching activities. Apart from fundamental skills and knowledge, students’ aesthetic sensitivities of sports activities can be cultivated, and positives values and attitudes of sports activities can be established so that students’ healthy development can be facilitated, and students’ healthy attitudes towards life can be established. Teaching principles of the Physical Education and Health Curriculum are as follows:

1. Health is prioritised: Physical Education should be students-oriented. According to the concept of Health Education, high awareness of students’ physical and mental health development is required. At the same time, Physical Education and Sports Skills Training enable students’ all-round enhancement in aspects of physical, psychological and social adaptation skills , etc.
2. To teach students in accordance with their aptitude: set teaching goals, select and implement appropriate teaching contents and methods through a general estimation of various elements, such as students’ health condition, foundation knowledge of physical education, interests and favorite sports activities, and the availability of the sports facilities in school, etc.
3. Physical and mental development: assist students in building complete, healthy values and good social adaptation; enhance students’ physique and sports skills development; as well as nurturing student’s mental wellbeing.
4. Equal emphasis on skills and knowledge: unify skills cultivation and knowledge transmission. The comprehension of fundamental knowledge, transmission and mastery should not be ignored. The fundamental knowledge should be internalised as good skills for physical training.
5. Lifelong sports activities: during the teaching process of Physical Education at school, effective teaching contents, strategies and methods should be applied to promote students’ lifetime exercise awareness and abilities, and as a consequence to cultivate their lifelong sports habits.

Teachers play important roles in activities planning, arrangement and implementation. For the purpose of achieving effective teaching and learning,

teachers should ensure that the activities are safe, effective, diverse and interesting, and organise them with the following objectives:

- Provide balanced courses, let students be exposed to different kinds of sports activities;
- Set clear goals for each activity, let students learn in an effective and feasible way;
- Provide practical activity contents and different learning experience, let students practice what they learn from Physical Education or from other areas;
- Provide diversified sports activities, enhance students' motivation to learn, enable potential students with opportunities to practice in various activities;
- Arrange joint classes and activities, make good use of venues and facilities inside and outside school, let students reach all-round development goals;
- Let students practice as much as possible, avoid long and complex explanations;
- Teach sports knowledge in flexible ways during classes;
- Provide students enough time for doing warm ups and organizing the exercises;
- Provide concrete, clear teaching guidelines and main points, try to give demonstrations as much as possible;
- Provide frequent and immediate feedback to students' about their performance in order for them to learn and make improvements;
- Raise inspiring questions frequently, stimulate students' thinking, improve students' communication skills, critical thinking skills, creativity and generic skills, etc. Teachers must serve as role models to students by showing their enthusiasm and devotion to sports;
- Encourage students to read more information and articles from newspapers and magazines, let students accumulate knowledge of sports, increase students' interest in sports and safety awareness of sports participation;
- When organising sports activities, teachers should pay attention to venue safety such as the use of space, the arrangement of equipment, protective measures, students' abilities, activities load and teaching progress to prevent accidents;
- Provide activities to enhance students' interaction, let students build up cooperation and team spirits;
- Let students understand the relationship between sports and health, cultivate students' exercise habits;
- Let students enjoy the fun of sports activities;
- Let students learn and appreciate the aesthetics of sports, appreciate various motions in aesthetics of sports, appreciate self-performance and others' performance through sports activities;
- Provide students with opportunities to take part in competitions, raise students' competitive awareness and cultivate students' sports spirits.

3

Chapter 3

Responding to Students' Learning Needs in Physical Education and Health Curriculum

This chapter discusses the basic characteristics of Physical Education and Health Curriculum and its importance to students with special educational needs and suggests learning content and curriculum implementation adjustments for ensuring that all students have the opportunity to learn in all fields.

(1) Importance of Physical Education and Health Curriculum to Students with Special Educational Needs

The Physical Education and Health Curriculum is one of the major areas in school learning, and it mainly aims “to educate through physical activities, so as to build sound minds and healthy bodies”. The curriculum directs students to comprehend relevant knowledge in Physical Education, sports and health, let students realise the importance of sports and health, cultivate their interest in participating sports activities, and cultivate students' habits in practicing lifelong sports through students' learning of sports skills. Furthermore, the curriculum helps students develop good psychological qualities, increase their physical fitness and physical coordination, as well as their abilities in the judgement of sports activities and abilities in the appreciation of aesthetic motions, and let students establish positive values and healthy lifestyles. The Physical Education and Health Curriculum is especially important for students with special educational needs, which include letting students:

- Understand body functions, improve health standards;
- Participate in sports activities, cultivate attitudes towards healthy lifestyles and good behaviors;
- Cultivate interests in practicing sports and enrich leisure activities;
- Establish group living activities, develop sound minds and healthy bodies;
- Cultivate good psychological qualities, teamwork spirits and social adaption.

(2) Learning Content of the Physical Education and Health Curriculum

The Physical Education and Health Curriculum covers the four domains of Sports Skills, Sports and Physical Fitness, Sports and Physical and Mental Health, Sports and Social Adaptation, and the learning contents of the respective domains are as follows:

- Sports Skills: let students acquire the skills that are required in various sports activities such as coordination of body movement, locomotion and operating tools, for the improvement of students' sports performances, and to enhance students' sports knowledge through these skills.
- Sports and Physical Fitness: let students understand the theory of “adequate amount of exercise brings benefits to health”, guide students to design, practice and estimate their personal training plans according to their own physical conditions and sports knowledge; actively improve students' physical fitness and health standards.

- Sports and Physical and Mental Health: let students learn sports and mental health knowledge, sports and safety and self-protection, cultivate good and regular exercise habits, increase participation in sports, establish healthy lifestyles, cultivate habits in practicing lifelong sports.
- Sports and Social Adaptation: help students establish good psychological qualities, aesthetic values, personal values, sportsmanship; cultivate students' interest in participating in team sports and the spirit of fair play.

(3) Adjustment of Physical Education and Health Curriculum

Teachers should take the condition of students with special educational needs into full consideration. The adjustment of curriculum contents allows students to learn appropriately. Teachers may use different kinds of teaching strategies to teach students knowledge, skills and concepts. In consideration of students with special educational needs, teachers can adjust the curriculum contents of Physical Education and Health with the following methods:

- Select materials from the curriculum or learning goals first, and then adjust the types and frequencies (quantity and quality) of the activities according to students' needs, abilities and progress;
- When designing suitable curriculum contents for students according to their age and needs, considerations of the scopes of learning contents should comply with the overall learning contents listed in "The Requirements of Basic Academic Attainment";
- When setting teaching goals, teachers may face challenges when teaching students with different learning abilities, and students may have various types of weaknesses. In such situations, teachers should use appropriate strategies to deal with the overall situations, adjust appropriate learning contents for students in order to improve their basic learning effectiveness;
- Use more descriptions, demonstrations, actual practices, consolidation exercises and transferrable skills, etc. to teach students new knowledge and skills.

(4) Enhancing the Effectiveness of Physical Education and Health Curriculum

Effective learning should be all-rounded, multi-angled and student-oriented. Teachers offer guidance during the teaching process. Through environment settings along with good teaching strategies, students' learning effectiveness can be enhanced. Since students with special educational needs have different kinds of needs, teachers should pay more attention to making adjustments in teaching in order to achieve better results. Some suggestions for the improvement of learning effectiveness of students with special educational needs in the Physical Education and Health Curriculum are as follows:

1. Students with hearing impairments:
 - Loop detection systems can be installed in auditoriums, classrooms, playground and students' assembly areas;

- Arrange students to stand at the front or in places where it is easy for them to see other students (1m to 1.5m away from the teachers), and let students stay away from corridors or objects that stimulate hearing;
 - The school bells and fire alarm bells should be equipped with flashing lights or with written indications. Messages delivered from amplifiers should also be shown through written indications on blackboards or digital screens;
 - Equipment or teaching tools with flashing lights are recommended;
 - Teachers may use gestures and facial expressions as aids of teaching to help students understand the lectures;
 - Teachers should give clear instructions to students when the themes or activities are changed;
 - When teaching new motor skills, teachers should demonstrate more to assist students' understandings;
 - Teachers should avoid standing with their back to the light or with their back to the students;
 - Teachers should avoid letting students deal with different sound sources simultaneously.
2. Students with visual impairments:
- Provide students with a safe environment, such as reduce noise clutter in the environment, put items in fixed places;
 - Provide facilities for the visually impaired, such as tactile paving or handrails;
 - Use teaching tools for the visually impaired such as balls with different textures, reflective stickers, sound balls;
 - Provide a personal walking guide, a voice operated guiding system to assist walking or to provide body direction feedback;
 - Use as much as possible the students' own senses of hearing and touch, and make use of hands on operations as means of learning.
3. Students with motor impairment:
- Provide a barrier-free school environment;
 - Provide facilities such as wheelchairs and elevators, etc.;
 - Arrange classrooms on lower floors;
 - Arrange students to sit close to the door area;
 - Adjust the requirement of students' physical fitness and motor skills, for example, ordinary students learn running, and student's with motor impairment (lower limbs) can be replaced by shooting a ball to a basket standing or sitting, etc.;
 - When it is necessary to use physical movements as content for assessment; teachers can estimate the importance of the relevant movements so as to adjust the assessment standards.
4. Students with speech impairment:
- Provide students with additional cues or asking questions as guidance when necessary (verbal or non-verbal clues), which helps students respond to questions and encourage verbal responses;
 - Additional information or corrections can be introduced during dialogues with students to make their responses more complete;
 - Be open and tolerant towards students' communication problems, avoid over-correcting students' mistakes which may hinder students' confidence in verbal communication, encourage active communications, pay attention to the expressed "contexts", rather than "styles".

5. Students with autism spectrum disorder

- Provide a structured teaching environment, for example, posting flow charts of classes, timetables, classroom rules in the classroom, clearly indicating the collection point of the teaching tools with written words or pictures, as well as places where students should stand during ball game competitions;
- Teachers may provide verbal, visual or circumstantial clues, for example, using pictures, sequential cards or timetables to let students know the changes they will be facing (i.e. change of classrooms, holidays, competitions, etc.), so that students could be psychologically prepared, thus reducing their anxiety;
- Provide more tangible objects and pictures, etc. as teaching tools and visual cues;
- Use a structured teaching work system so that students can have work to do and instructions to follow;
- Assessment should be made mainly through observations or actual practices.

6. Students with attention-deficit/hyperactivity disorder:

- Let students study in a quiet environment as much as possible, avoid making students sit near windows or doors;
- Teachers should use more verbal and body languages and tone of voice, divide activities contents into several small activities, use diversified teaching tools, etc. to direct students to focusing on a single learning item;
- Use structured teaching methods, for example, by posting flow charts of classes, timetables, classroom rules in the classroom, so that students can have work to do and instructions to follow;
- Use task analysis method by breaking down learning into several stages to shorten the activity time (less than 20 minutes each time) and increase the time for learning;
- Raise more questions to improve students' concentration;
- Implement incentive programmes, assist students to continuously complete their assignments, let students cultivate good conduct during class, and give students appropriate rewards.

7. Cross-disciplinary collaboration

- Discuss and communicate frequently with physiotherapists, occupational therapists and medical assistants, design sports activities according to students' abilities and needs, so that students may receive appropriate assistance when participating in sports.
- When necessary, assistance can be obtained from students' families, volunteers, different kinds of staff at school or other students, etc. Furthermore, helpers must ensure that students can react in safe spaces with enough time and let students try freely and use different types of equipment themselves to finish the arranged works.

4

Chapter IV

Learning Ability Progress Level and Requirements of Basic Academic Attainments

Since the 2015/2016 academic year, “The Requirements of Basic Academic Attainments for Local Formal Education” have been gradually implemented year by year across the education levels in Macao. This chapter elaborates on the connection between the Learning Ability Progress Level and “The Requirements of Basic Academic Attainments”, and further explains the function and application of the Learning Ability Progress Level.

A. Relationship between the Learning Ability Progress Level and the Requirements of Basic Academic Attainments

1. The Requirements of Basic Academic Attainments

The Macao Special Administrative Region promulgated “The Requirements of Basic Academic Attainments” in 2015, which set out the basic academic attainment expectations for all levels of formal education in Macao, including early childhood education, primary education, junior secondary school and senior secondary school education. “The Requirements of Basic Academic Attainments” aim to provide specific requirements on the fundamental qualities expected for students upon completing various education levels, including basic knowledge, skills, ability, emotion, attitude and values. It also provides standards to guide and regulate teaching practice, and to assess teaching quality.

2. The Learning Ability Progress Level

In principle, the content of “The Requirements of Basic Academic Attainments” should cover all students. However, each student with special educational needs features differences in learning ability and learning progress, while “The Requirements of Basic Academic Attainments” designed and formulated based on various education levels fail to give an effective demonstration of their learning outcome. Students learn through a continuous process and make progress step by step. A progressing level design which covers the entire learning journey may better reflect the learning outcomes of students with special educational needs. Therefore, the Learning Ability Progress Level refers to a set of systematic descriptions of performance indicators, where, starting from the very basic reflective act and the motor sensory perception, several progress levels are set to describe the ability of students, and demonstrate the learning progress of students with special educational needs within each learning area, and thus give a better exemplar of the uniqueness of special education.

3. The connection between “The Requirements of Basic Academic Attainments” and the Learning Ability Progress Level

“The Requirements of Basic Academic Attainments” and the Learning Ability Progress Level are both performance indicators within the subject area. “The Requirements of Basic Academic Attainments” describe the basic ability of the whole student community upon

completion of a specific education level in the formal school; while the progress level refers to a continuously developing spectrum of learning processes for an individual, targeted at the learning ability of each student with special educational needs. In line with the curriculum regulations, the Progress Level refers to the descriptions of learning performance from the “Requirements of Basic Academic Attainments” at each education level to the greatest extent, illustrating students’ learning efficacy..

B. Structure and Connotation of the Learning Ability Progress Level

1. Structure of the Learning Ability Progress Level

The Progress Level is a system composed of different levels, where different levels of learning ability are arranged in a progressive order. For the structure of the Learning Ability Progress Level, one may refer to the Learning Ability Progress Level Chart:

- In correspondence with the ability of students with special educational needs in Macao, the Learning Ability Progress Level is divided into 18 levels, which describes the features of motor sensory development of early-stage infants, and the learning ability of ordinary students in early childhood period, lower primary school period, higher primary school period and junior secondary school period.
- The levels are represented by the Letter “L”, which is taken from its English translation (Learning Ability Progress Level).
- Progress level for each subject is composed of two major parts, “the sensorimotor development stage” and the “curriculum subjects’ stage”. Progress level of both parts, based on learning development, is divided into different “levels”, from the learning model of the earliest stage (L1-1 to L3-2), to levels related to each subject (L4 to L18).
- The ability level at each stage during sensorimotor development is further divided into two sublevels to enable a better mastery of the learning progress by teachers and stakeholders, as the sensorimotor stage is based on the cognitive development of infants in the early stage which requires more detailed description. The ability descriptions from L1 to L3 are applicable to all subjects and learning areas. Subject related examples are provided to demonstrate the specific learning scenarios and experiences related to each subject.
- Descriptions regarding learning performance follow closely the contents of “The Requirements of Basic Academic Attainments” at each educational level, with appropriate modifications in accordance with the characteristics of students’ learning performance at each level.
- The progress level is classified into several areas based on the priorities in each subject:
 - ✧ Chinese: “listening”, “speaking”, “reading”, and “writing”;
 - ✧ Mathematics: “Numbers and Algebra”, “Measurement, Graphics and Space”, and “Statistics and Probability”;
 - ✧ Common knowledge, General Studies, Science and Humanities Education: “self-development”, “humanistic society and life”, “natural environment and life”, and “science and life”;
 - ✧ Physical Education and health: “sports skills”, “sports and fitness”, “sports and physical/mental health”, and “sports and social adaptability”;

- ✧ Information technology: “communication and cooperation”, “application and creation”, and “concept and perception”;
- ✧ Art: “developmental skills and process”, “artistic circumstances”, “creativity and imagination”, and “arts appreciation”.

Chart of the Learning Ability Progress Level

Senior secondary education level	Junior secondary education level	Primary education level	Infant education level					
Scope of learning ability for students with special educational needs				Learning Ability Progress Level	Learning ability for ordinary students	Special education levels		
Minority				L18	Junior secondary school	Senior secondary level		
				L17				
				L16				
Part of students	Minority			L15	Higher primary school	Junior secondary level		
				L14				
				L13				
Majority	Part of students	Minority		L12	Lower primary school	Primary level		
				L11				
	Majority	Majority		Part of students	L10		Early childhood period	
					L9			
					L8			
					L7			
All	All	Majority	Minority	L6	Motor sensory development stage	Infant level		
				L5				
				Part of students			Majority	L4
								L3-2
				L3-1				
All	All	All	All	L2-2	Motor sensory development stage	Infant level		
				L2-1				
				L1-2				
				L1-1				

2. Connotation of the Learning Ability Progress Level

- The scope of learning ability for students with special educational needs at each education level is assessed and evaluated based on the experience and observations of professional special-education teachers. In line with their growth and development, students with special educational needs are expected to reach L6 level to the utmost in the early childhood education stage, while students with special educational needs in senior secondary school stage rarely exceed L18. It should be pointed out that students with special educational needs do have the potential to demonstrate learning ability exceeding the estimated scope at certain education levels. For example, a student with special educational need in the early childhood stage may exceed the L6 level, and a student with

special educational needs in the senior secondary school stage may outperform L18 level. In these scenarios, the same curriculum structure should apply to the students to extend his/her learning level to L7 or the level of the formal senior secondary school education.

- The Learning Ability Progress Level describes the abilities of students demonstrated in the learning experience, arranged in a progressive learning process. The Learning Ability Progress Level only represents the significant indicators at each educational level for each subject, which shall not be considered as representations of the overall learning content, nor the specific curriculum. Therefore, descriptions of the Learning Ability Progress Level should not be considered as equal to the curriculum content or learning objectives.

C. Learning Development Stages

1. Sensorimotor Development Stage

Human development in (at) the infant stage is mostly reflected by the sensorimotor development. Motor sensory training plays an important role in fundamental education. All learning acts and cognitive behaviours of students start with information collection and analysis by effectively utilizing the motor sensory ability, followed by systematic processing of the information. The process of information selection highlights a sound rapport among the acute sensory motors and accurate sensory coordination, motors and technics. Therefore, whether students can receive and analyse information, extract and store knowledge in memory, and utilize knowledge in the proper time and condition is subject to his/her acute sensory ability, appropriate selection and react, and long term memory.

All children go through the sensorimotor development stage. Most children pick up these skills in a natural manner in daily life without taking specific courses; however, students with special educational needs are restricted to various extents by a slower development in intelligence and learning progress, therefore students with special educational needs require special training and study to master relative skills.

Uzgiris & Hunt (1975) proposed the six scales of sensorimotor and cognitive foundations in early developmental stage, including:

- The development of visual pursuit and the permanence of objects
- The development of means for obtaining desired environmental events
- The development of vocal imitation and gestural imitation
- The development of operational causality
- The construction of object relations in space
- The development of schemes for relating to objects

The above mentioned six scales, universally applicable to all learning fields, constitute the foundation for cognitive development for infants. In other words, these abilities are the foundations for all subjects; students with special educational needs, especially students with severe learning disorder, develop quite slowly in the early stage. Therefore, these students may not be able to surpass L3-2 level within the complete special education learning stages. Under such circumstances, a broad and balanced curriculum system within their capability is of great significance as it enables the opportunity to get access to rich learning experience.

2. Early childhood stage

The early childhood stage, as the starting point of formal education, is recognized as an important stage to lay the foundation for lifelong learning and whole person development. The early childhood growth and development is a continuous spectrum with established sequences. Generally speaking, children reaching a certain age or developmental stage demonstrate corresponding changes in their physical ability, cognition, language, behavior and social interaction patterns. These developments are subject to predetermined genetic factors as well as to acquired experiences and educational environment.

Though students with special educational needs fail to develop at the speed of ordinary children, their developmental process demonstrate(s) the same patterns. For example, a student learns to walk before mastering running, and learns to speak individual words before speaking full sentences. Thus, the purpose of establishing the Learning Ability Progress Level is to provide a stage-based reference for teachers and stake holders, so that the teachers can develop a better idea of the status quo of students and learning targets (direction). In compilation of descriptions on the level L4 to L9, special reference is taken from the materials regarding characteristics of early childhood development to include the developmental milestones in the description.

3. The stage of cognition and skill development

While students grow, they continue to make progress in physical ability, knowledge and skills on the basis of early childhood development. In accordance with the cognitive development theory proposed by Piaget, students reaching the mental age of six have entered the period of concrete operations. In this period, students are able to solve issues based on concrete experience and logical thinking, utilize specific objects to assist thinking, and better understand the principle of reversibility and conservation. They are fairly good at the use of inductive logic, and handling issues involving complicated and abstract standards.

As mentioned above, students with special educational needs are not different from ordinary children regarding the cognitive development process. If the mental age of students with special educational needs can reach the period of concrete operation, it is possible for them to learn more complicated and abstract content. However, due to the diverse and complicated patterns of students with special educational needs, their developmental process may not be the same as ordinary children. For example, they may not complete learning contents within one year that ordinary children are able to complete within one year. Therefore, the descriptions on ability and performance based on different levels enable teachers and stake holders to recognize the cognitive ability of students with special educational needs and their developmental curves. Starting from L10, each level is approximately equal to the learning content of the average child within one academic year.

4. The stage of higher-order thinking development

The recent decades witness a widely supported proposal on reforming the curriculum and teaching paradigms in the international community, which strongly calls for equipping students with higher-order thinking to cope with the ever-changing world. Yeung (2012) elaborated on the connotations of higher-order thinking, including four dimensions as below:

- Traditional thinking strategies
- Core thinking skills

- Integrated thinking models
- Thinking dispositions

Some students with special educational needs, especially those with severe learning disorders, may not be able to reach the stage of higher-order thinking regarding cognitive development, but this shall not rule out the possibility that they can cultivate (obtain) higher-order thinking upon abundant learning experience. Therefore, providing a broad range of balanced courses for students with special educational needs can help them to broaden their experience and enhance their abilities, which is also the duty of teachers.

D. Application of the Learning Ability Progress Level in Learning and Teaching

1. The Learning Ability Progress Level has the following advantages :

- The Learning Ability Progress Level provides a systematic and clear description concerning the learning performance of students at each level, enabling the school, teachers, parents and other stake holders to better understand the learning ability of students and communicate with among stake holders;
- The Learning Ability Progress Level provides details on the assessment of learning progress, a framework for teachers to refer to in the process of identifying and reporting learning outcomes. The Learning Ability Progress Level can also provide assistance to formulation and modification of future learning objectives and plans to promote the learning outcome;
- Teachers need to collect massive data on the learning performance as evidence of learning outcome; Teachers should carefully observe the learning performance of students, enhance knowledge of students, which is conducive to adjust the teaching strategy;
- In collection of performance evidence, teachers should discuss on “evaluation coordination” to reach common consensus on student evaluation, which is conducive to enhancing teacher’s understanding of the Level principles and their professional development.

2. Applying the Learning Ability Progress Level to promote learning

It is commonly believed that the subject area of formal education curriculum is too challenging, abstract and out of reach for students with special educational needs. The reason for this widely held perception lies in the current practice of prescribing levels of ability for each subject unit, which requires students to reach certain learning level at specific learning stages. For example, only students reaching primary school level are allowed to learn Tang poetry. As a matter of fact, the learning content should be considered as the vehicle of learning, while the core of learning should be put on the objective and the individual growth of students in each subject area, including knowledge, skills and attitude; Therefore, the method of establishing curriculum based on the framework and foundation of formal education in accordance with the ability level of students, can ensure that all students make balanced and extensive development. The level-based special education featuring high efficacy is also the foundation of inclusive education which can improve the students’ ability via the learning content.

The textbook in each subject is the learning vehicle. The guiding principle for curriculum design is to broaden students' life experience, enable them access to objects at different levels and develop knowledge together with individual experience and understanding. Students with severe learning disorders, due to genetic limitation, may not exceed the motor sensory development stage even with years of learning. However, learning that connects multiple subjects provides students with an extensive perspective, which is also the principle of depth and scope in curriculum design.

Students with special educational needs should adopt the same teaching topics and modules as those of the ordinary students to ensure the scope and balance of curriculum, though teachers with professional experience can exercise discretion to adjust the contents based on the learning ability of the students. This practice may properly address the lack of proper teaching textbooks for classes or students with special educational needs. When the teachers get hold of the learning progress of students, they should adjust the learning contents on the basis of regular curriculum, and design learning experience attending to the students with special educational needs. Schools should hold "learning units" for each level, each subject and each area, to satisfy the learning requirements of students at each educational stage, so that they won't be exposed to the same teaching units repeatedly.

3. Applying the Learning Ability Progress Level to assess learning efficacy

To enable students with special educational needs to learn under the curriculum framework of formal education, the key lies in designing a set of progress level that includes the fundamental abilities within the scope of each subject. We believe that all students, irrespective of their ability level, have the ability to learn, though to different degrees of development and progress. Therefore, the Level start(s) from the motor sensory development stage of infants; each student (including a student with severe learning disorder), in principle, could demonstrate their learning ability within the scope of each subject. In this way, teachers can set goals, design activities and set out expected outcomes in each subject area in line with the learning content. The learning experience of students is based on his/her performance within individual ability, thus the teachers may effectively cater to the differences among students based on their learning ability.

The Learning Ability Progress Level is also a tool to assess learning progress, and should not be used as part of the teaching content. Students with special educational needs may not make learning progress as expected, with fluctuations from time to time, thus the Learning Ability Progress Level shall not be applied to daily progress assessment, but rather the learning outcome of students upon a period of study.

Data on the Learning Ability Progress Level of each school should be collected and uploaded to the data processing platform., where the system, with a certain amount of data accumulated, can conduct data analysis for the purpose of teaching feedback and improving teaching efficacy, including analysis on the cross-school, cross-subject, cross-area and cross-year performance report, as well as the annual progress for certain students.

4. Applying the levels to promote professional development

The Learning Ability Progress Level provides teachers with a set of language to describe the learning performance of students. It not only can strengthen professional communications among teachers working in the same and different schools, but also help to establish the special education culture within a school. The set of language can also play a role in home-schooling practice, enabling parents to better understand the students and their learning performance.

When applying the Learning Ability Progress Level to identify the level of students' learning ability, teachers should collect examples of students' learning performance, which may include photos, videos and audios. Teachers should organize an "assessment coordination" meeting to discuss the learning level of the student concerned. These processes help teachers to have a more thorough understanding of the status of the student and design more relevant learning activities.

When teachers describe or interpret the Learning Ability Progress Level, they can experience the multiple feasibility of special education, and understand the concept of the same curriculum framework; within the appropriate curriculum framework, it is possible and necessary to provide formal education opportunities to all students (including students with special educational needs). Schools should develop common consensus on this perspective, which may help to consolidate the professional foundation for special education, and improve professional development of teachers in special education schools.

5. The Learning Ability Progress Level is not designed for the following purposes:

- × to demonstrate the learning ability of students on a daily basis;
- × to conduct progress assessment on a daily basis;
- × to specify the learning content or to be used as a concrete development curriculum list;
- × to assume the same levels for students in each learning area or teaching unit;
- × to assume that the performance of students at a specific subject topic equals their annual progress, and form individual learning objectives on such basis;
- × to be the label to describe students;
- × to identify and recognize students with special educational needs.

5

Chapter V Opportunities and Activities

This chapter focuses on illustrating the learning opportunities and suggesting teaching activities feasible for students with various learning needs in different educational stages, within the realm of Physical Education and Health Curriculum.

Physical Education and Health Curriculum is a content-based curriculum which aims to educate through physical activities. Therefore, when teachers select their teaching units, they should consider how to help students improve the different skills needed for physical activities, understand relevant activities and safety, and establish students' active, healthy lifestyles and habits. These are the unique elements of Physical Education and Health Curriculum.

This chapter provides examples of teaching activities in four educational levels respectively. Each example takes into account the age, maturity and ability level of students, and lists the expected learning outcomes of students with different ability levels. The scheme of work demonstrates that students with different learning abilities can have different performances in different learning areas. In order to show the differences of students' abilities more concisely, only three levels with significant differences in each educational level are selected for illustration, and the actual teaching should be adjusted according to the students' actual abilities. The following examples provide practical suggestions for teaching contents and activities and serve as models for future schemes of work. Please refer to Appendix IV.2 for the table.

(1) Example of Teaching Activity in Early Childhood Education

Subject:	Physical Education and Health	Learning Areas:	Motor Skills	Stage:	Infant education
Duration of Learning:	4 lessons				

Unit Name:	Crawling
Formal Teaching Goal:	Exercise on the mat: to crawl with four limbs
Teaching Objectives:	Through this teaching unit, students can: <ul style="list-style-type: none"> • Experience and practise crawling skills with four limbs
Keywords:	Crawl, “going through the tunnel”

Teaching Objectives	Examples of Feasible Teaching and Learning Activities and Experience	Performance Descriptors	
		L2-1	<ul style="list-style-type: none"> • When students perform the “going through the tunnel” activity, they are able to stretch their hands to express their willingness to play again
Experience and practise crawling skills with four limbs	Students perform “going through the tunnel” activity: <ul style="list-style-type: none"> • When students are queuing, they will only depart after hearing the command “go” • When the activity pauses, students are able to stretch their hands (or use other gestures) to express their willingness to play the “going through the tunnel” game again (L2-1) • Students imitate teachers moving their bodies forward with both hands (L3-2) • When students perform the “going through the tunnel” activity, they crawl forward with their hands and feet alternately (L5) 	L3-2	<ul style="list-style-type: none"> • Able to imitate teachers moving their bodies forward with both hands
		L5	<ul style="list-style-type: none"> • During the “going through the tunnel” activity, students are able to crawl forward with their hands and feet alternately

(2) Example of Teaching Activity in Primary Education

Subject:	Physical Education and Health	Learning Areas:	Sports and Skills Sports and Social Adaptation	Stage:	Primary Schools
Duration of Learning:	6 lessons				

Unit Name:	Transporting Ping-Pong Ball Game
Formal Education Teaching Goal:	Bouncing ping-pong ball
Teaching Objectives:	Through this unit, students can: <ul style="list-style-type: none"> • Experience and practise ping-pong ball bouncing skills • Willing to share with schoolmates after learning from the activities
Keywords:	Ping-pong ball, bouncing, handling, passing

Teaching Objectives	Examples of Feasible Teaching and Learning Activities and Experience	Performance Descriptors	
<ul style="list-style-type: none"> • Experience and learn ping-pong ball bouncing skills • Willing to share with schoolmates after learning from the activities 	<p>Students perform the control of ping-pong ball activity in groups:</p> <ul style="list-style-type: none"> • Placing the ping-pong balls in front of the students, students are able to pick the balls up and imitate teachers' motions of placing the balls on their own paddles or on schoolmates' paddles (L3-2) • Students hold their own paddles. After receiving the balls from their schoolmates, students are able walk freely on the half-court. When hearing the teachers' whistle, students walk back to the courtsides and pass the ping-pong balls to the next schoolmates. (L5) • After finishing the activities, students share their feelings with schoolmates about the activities. (L9) 	L3-2	<ul style="list-style-type: none"> • Able to pick the balls up and imitate teachers' motions • Able to place the balls on their own paddles or on schoolmates' paddles
		L5	<ul style="list-style-type: none"> • Able to keep the ping-pong balls on the paddles when walking and moving • Able to listen to teachers' instructions, willing to pass the ping-pong balls to schoolmates
		L9	<ul style="list-style-type: none"> • Walk freely on the half-courts, able to keep the ping-pong balls on the paddles • Share feelings with schoolmates after participating in the ping-pong ball activities

(3) Example of Teaching Activity in Junior Secondary Education

Subject:	Physical Education and Health	Learning Areas:	Sports and Skills	Educational stage:	Junior Secondary Schools
Duration of Learning:	6 lessons				

Unit Name:	Basketball Relay Competition
Formal Teaching Goal:	Dribbling moves
Teaching Objectives:	Through this unit, students can: <ul style="list-style-type: none"> • Experience and practise ball dribbling skills
Keywords:	Basketball, ball dribbling, ball dribbling in place, ball dribbling in a linear path

Teaching Objectives	Examples of Feasible Teaching and Learning Activities and Experience	Performance Descriptors	
		L5	<ul style="list-style-type: none"> • Students keep bouncing the balls in place for one minute
<ul style="list-style-type: none"> • Experience and practise balls dribbling skills 	Basketball dribbling relays: Students are divided into three different groups according to their abilities; each student stands on the starting line getting ready for the basketball dribbling relay, the team that finishes first wins. <ul style="list-style-type: none"> • Students keep bouncing the balls in place (L5) • Students perform a 5 metre ball dribble forward with their left/right hand, and change their hands on the way of return (L9) • Students perform a 20 meters ball dribbling run (L12) 	L9	<ul style="list-style-type: none"> • Students are able to dribble a ball forward 5 metres with their left/right hand, and change their dribbling hands on the way of back
		L12	<ul style="list-style-type: none"> • Students are able to dribble a ball forward 20 metres

(4) Example of Teaching Activity in Senior Secondary Education

Subject:	Physical Education and Health	Learning Areas:	Sports and Physical and Mental Health	Stage:	Senior Secondary Schools
Duration of Learning:	6 lessons				

Unit Name:	Introduction to Volleyball Competition
Formal Teaching Goal:	Learn simple volleyball rules
Teaching Objectives:	<p>Through this unit, students can:</p> <ul style="list-style-type: none"> • Learn about sports activities in Macao, for example: volleyball • Learn about the scoring methods used for volleyball competitions • Learn the terms of volleyball positions each player takes up during volleyball competitions
Keywords:	Volleyball, scoring board, spiker, libero, position numbers 1 - 6, scoring, violation, serve

Teaching Objectives	Examples of Feasible Teaching and Learning Activities and Experience	Performance Descriptors	
Learn about the sports modalities in Macao (volleyball)	Students watch a video clip of the Macao Inter-school Volleyball Competition. Students learn that the Macao's school sector is arranging inter-school competitions, and teams from different schools in Macao are participating in the Inter-school Volleyball Competition. (L9) When students are watching the video clip of a Macao Inter-school Volleyball Competition, teachers provide them with scoring boards, when certain team scores, students flip over the pages on the scoring boards (flip once on scoring each point). (L12) When students are watching the video clip of a Macao Inter-school Volleyball Competition, teachers narrate and give description to the terms and the positions the players take up. (L15)	L9	<ul style="list-style-type: none"> • Able to identify that the video clip is about the Macao Inter-school Volleyball Competition from the uniforms/title etc.
Learn about scoring methods used for volleyball competition		L12	<ul style="list-style-type: none"> • Able to flip over the pages on the scoring boards to show the accurate scores
Learn the terms of volleyball positions each player take up during competition		L15	<ul style="list-style-type: none"> • Able to label the players' positions and their proper terms (position number 1 – 6, spikers and liberoes etc.)

6

Chapter VI

Assessment and Rating Coordination Mechanism

This chapter explicates the methods to apply the Learning Ability Progress Level to student's assessment, putting the emphasis on professional consultation. In daily teaching practice, teachers are encouraged to observe the learning performance of students, collect examples and identify the learning outcome. It is suggested to read this chapter together with Section 4 in Chapter IV on the application of the Learning Ability Progress Level in teaching and learning.

A. Need for Rating Coordination

It is inadequate and unreliable to judge the students' ability level based on the observation of one single learning event. Examples for student assessment should be accumulated from multiple learning scenarios over months. Teachers, based on the examples collected from different learning opportunities and scenarios, can make professional decisions concerning the students' ability to proceed to learning in a new level.

Teachers should adopt the principle of "comprehensive judgment", based on the data and results of school assessment, to determine the appropriate level when judging the level of students' ability. However, different opinions may arise among teachers on the performance for some students. In order to reach valid and consistent judgment, it is necessary to develop a rating coordination mechanism within the same school or among schools.

"Comprehensive judgment", as is indicated by the name, refers to the practice of determining the ability level of students through multiple examples. It is not compulsory for students to obtain the learning outcomes fitting all the descriptions for the level concerned, yet they do need to fit a majority of the descriptions to be qualified for the level considered. To be more specific, among the 6 described items in the specific level, the student should fit 4 or 5 items and demonstrate potential in the remaining items for which he/she may temporarily fail to meet the standard due to environmental factors or physical disability. In other words, more rigorous standards should be adopted to determine student performance.

The "rating coordination" mechanism, which enables teachers and stake holders to review, revise and determine the descriptions concerning rating judgments of students' ability, is initiated to help schools to achieve reliability and consistency in student performance assessment. A solid assessment procedure can thus be established via regular "adjustment" practice. An effective adjustment cycle starts from a team of teachers launching the assessment project, followed by the whole school participation which helps to enhance the skills and confidence on assessment validity, and finally develops into a robust assessment procedure with cross-school identification.

Conducting “rating coordination” among teachers within one school can generate the following effects:

- To have focus group meetings to discuss student ability;
- To familiarize teachers with the application of the Learning Ability Progress Level;
- To consolidate the teachers’ understanding on descriptions of levels;
- To promote teachers’ understanding of the assessment and promote their professionalism;
- To enable dialogues among teachers, staff and professionals for the purpose of reaching proper judgment based on personal observation and experience.

Schools can also improve the quality of “rating coordination” via discussions with students and their family. The teachers should realize that:

- discussion with students on their homework and sharing with student their progress contributes to student’s perception of their own study and ability;
- discussion on student progress with people who interact with the students at various environments is beneficial to decide the most appropriate “ability and performance” of students;
- Informal discussions among teachers could offer important insights into the student development in other areas, which is conducive to enhance all the teaching staff’s recognition and perception of the students’ ability.

B. Practice of Rating Coordination

The rating coordination mechanism is a simple process designed to ensure the reliability and adequacy of the assessment approaches teachers adopt. Participants in rating coordination can be teachers and other professionals within the same school, or teachers from other schools. Teachers firstly conduct preliminary rating for an individual student in accordance with the levels on the basis of the collected examples for students’ performance. Teachers should share their assessment decision and supporting examples on the rating coordination meeting, and discuss with colleagues to reach consensus on the reliability of the judgment. In this process, teachers will discuss the examples of performance for students of similar levels on the same subject to reach judgment consistency. The rating result should be recorded in the table provided in Appendix 4.1.

The rating coordination mechanism is based on professional dialogue. Teachers can adjust their judgment and reach consensus in the rating coordination process, to reach an agreement on the reliable examples that can powerfully support the level of ability students have achieved. The rating coordination mechanism aims to ensure the effectiveness and consistency of the teacher’s judgment, and to promote teachers’ professional development. Subject directors as well as other professionals also play an important role in the process of rating coordination.

A school should conduct rating coordination activity within the school each academic year, to ensure a unified judgment of teachers on the understanding and learning outcomes of the assessment principles; the following approaches are suggested for rating coordination activity:

- Teachers collect examples regarding the learning performance of students via various learning opportunities and scenarios.

- Teachers apply the principle of “comprehensive judgment” to decide the levels of students’ ability based on the collected examples and other materials.
- The school should hold rating coordination meeting to discuss the students’ learning ability and reach consensus.
- Teachers discuss the learning ability of other students based on the principle and examples in the first discussion.
- It may be necessary to revise the results achieved in the first discussion to keep the consistency of judgment.
- The school should design a specific system to appropriately save the records of performance examples for each individual student and upload the rating level into the level database for further analysis.
- The assessment based on the levels and rating coordination meetings is suggested to be conducted once each academic year.

After the rating coordination meeting, teachers can save the examples supporting the level judgments as part of the school assessment framework, and discussion materials for joint activities among schools (if applicable) concerning the rating coordination mechanisms.

C. Notes on Example Collection

It is very important for teachers to collect multiple learning examples to support the judgment.

Examples and evidence can be from various sources in diversified forms, including:

- Pictures and video clips
- Observation records
- Class quiz
- Anecdotes
- Reports
- Self-evaluation of students
- Peer review
- Students’ works
- Other forms of works and practices

Teachers can keep records based on their own observation, or the observation reported by other people, to assist and support judgment on students reaching a certain level of learning ability. The providers may include:

- Other teachers
- Teaching assistants
- School staff
- Speech therapist
- Physiotherapist
- Occupational therapist
- Social worker
- Parents
- Siblings
- Classmates
- Peers, etc.

Learning environment has a significant impact on students' behavior. Factors in the learning environment, such as lack of experience, limited opportunities, overly low or high expectations, and inappropriate teaching practice, may become obstacles to learning and hinder the students from understanding their potential. When students get along with strangers in an unfamiliar environment or a formal learning environment, they will feel great pressure, and thus fail to learn or demonstrate their ability in an effective manner. In other words, students, in familiar surroundings and accompanied by trusted teachers, can reliably repeat some reactions. However, students should be able to transfer what they have learned to new scenarios or generalize for similar situations.

Teachers can observe the performance and reaction of students outside the classrooms, to develop a more thorough understanding of the students' ability to apply the learned knowledge to the new scenario. In addition, it is also crucial to record the response of students at home, in the community, different classrooms and other learning opportunities and activities. Scenarios outside the classroom can provide a good opportunity to judge the performance and ability of students in applying the communication skills, literacy, social interaction and computation.

No matter what kind of examples teacher collect, they should provide background information for record and supporting judgment. Relevant background information includes:

- Date and time of the performance recorded;
- The scenario. For example: in class, in the community, or at home;
- The people with the students, such as therapist, teaching assistant or peers;
- Related resources used, such as the computer or teaching equipment;
- Whether the response is “new” (first time), “manifesting” (new but unstable response), or “established” (expected response of students under certain occasions and conditions);
- Degree of guidance, support or prompts offered to the students in making the responses, such as demonstration, imitation or verbal prompts;
- Usage of communication assisting tools (reasonable assistance);
- Whether the teacher has made adjustments or revisions to demonstrate the learning process, such as the learning outcomes to be replaced, or specific examples recorded.

Most importantly, teacher can develop a clear understanding of the current ability of students and their expected learning progress in the process of collecting examples. The examples of learning performance include:

- Examples of what students “are capable of”;
- Evidence collected over a long period from different learning situations;
- Works of students completed without assistance (the degree of assistance also need to be recorded. The gradually declining assistance is also a recognition of progress.);
- Learning outcomes that fit the level, but not included in the descriptions;
- Reasonable usage of assisting tools to help students achieve learning outcome;
- Exemption of learning performance due to special needs of students;
- Non-monolithic learning event;
- Learning outcomes beyond the descriptions;
- Example of students' interest in looking for not yet mastered content.

Chapter VII

Attainment Level Descriptors of Learning Ability Progress Levels in Physical Education and Health Curriculum

This Chapter is composed by “Seed Teachers” with reference to curriculum guides, “The Requirements of Basic Academic Attainments”, and textbooks in conjunction with their accumulated teaching experience. The levels are divided into two parts: motor sensory development stage and disciplinary development stage, covering learning performances from early childhood education to senior secondary education. Descriptions for the motor sensory development stage apply to all learning areas and the disciplinary development stage has four learning areas: including “Sports Skills”, “Sports and Physical Fitness”, “Sports and Physical and Mental Health” and “Sports and Social Adaptation”

(1) Motor Sensory Development Stage (applicable in all learning areas):

L1-1 : Students start to engage in the activity and gather experiences.

- Students start to visually trace slow-moving objects although in an unsteady manner. For example, the student attempts to keep track of a colourful moving ball in front of his/her eyes.
- Try to observe objects. For example, when students are moving their both hands, they acquire conditioned reflexes, so they look at both their hands at the same time.
- Students can make sounds apart from crying or laughing when they are emotionally stable, for example: “ah”, “um”.
- React to some basic motions that they are familiar with. For example, they will look at adults who clap hands with them.
- Able to perform activities or show experiences with small signs of consciousness. For example, moving both their hands towards their visual field.
- Attempt to connect with objects by sight. For example, when seeing teachers whom they are familiar with walking into the classrooms or hearing the teachers’ voices, students turn their heads towards the teachers.
- Able to produce reflex responses. For example, when putting small balls into their palms, they close their hands reflexively.

L1-2: Students gradually become aware of the activity and learn from it.

- Notice the disappearance of a slow-moving object. For example, students staring at the colorful balls moving in slow motions until they gradually disappear.
- May focus their vision on certain people, events, objects, or parts of an object and try to touch those objects. For example: teachers can show the sound-making toys to students within their sights and place them within the area where they can easily reach so that students can try to touch them with their hands.
- Respond to similar sounds made by babies and try to imitate them but in an unsuccessful way. For example, when teachers say “ball”, students will pronounce a sound that is not similar to it.
- Express interest in familiar simple gestures and try to imitate them even though it does not look the same. For example, when teachers push the colourful balls, students will try to imitate.
- Able to repeat arm (or body) movements to keep an object moving. For example,

students are able to hold plastic sound-making balls with their hands and keep moving their arms.

- Able to locate sound-making objects, and focus their visions on the sound sources. For example, teachers can stand behind students and randomly make some sounds with items on the left, right or above the students. Students can find and locate the sound source.
- Able to explore objects with their mouths. For example, they try to separately put bean bags and small balls into their mouths.

L2-1: Students start to have relatively consistent reactions to the people, incidents and objects that they are familiar with.

- Able to find an object that is completely hidden. For example, when teachers use cloths to cover the colourful balls, students are able to remove the cloths and get them.
- Able to imitate similar sounds. For example, when teachers say “clap”, students are able to imitate the pronunciation with a similar sound “clap”.
- Able to imitate familiar movement instantly. For example, when teachers shake their arms, students can imitate it immediately.
- Able to repeat one movement (e.g.: systematically shaking their arms) and express interest in this movement. For example, when holding sound-making balls with their hands, they keep shaking the balls to make sounds and they are happy about it.
- When a continuous action suddenly stops, students can react with an obvious action to indicate a “request”. For example, when teachers bounce a plastic ball before students and suddenly stop, students can indicate that they want their teachers to continue bouncing the ball by tapping the table.
- Able to visually track fast-moving objects. For example, when a ball is falling down within the students’ visual field, students are able to follow the falling ball with their visual senses.
- Able to observe several objects simultaneously with visual senses with an intention to stimulate responses or reaction. For example, when students look at several yoga blocks on the desks, they hit the yoga blocks with their hands, or knock one yoga block with another yoga block.

L2-2: Students start to have proactive performances in interactive activities.

- Able to find an object that is completely hidden from one out of three different locations directly and accurately. For example, teachers can show three upside-down boxes within the sights of students and place a colourful ball into one of the boxes. Students are able to open the box with the ball which is totally covered.
- Able to explore different objects with an experimental approach and have short-term memory of the result. For example, students are able to pull the baskets close to themselves and take out the colourful ball from the baskets.
- Imitate the pronunciation of familiar monosyllabic vocabularies. For example, the teacher pronounces “ball”, the students can imitate the pronunciation of “ball”.
- Attempt to imitate unfamiliar actions. For example, when teachers use both arms to toss a ball for the first time, students attempt to imitate the movement.
- Able to show “requests” through movements. For example, students actively pick up the ball to show that they want to play it with their teachers.
- Become active during interactions. For example, students are able to pick up and throw the bean bags up actively at play.
- Able to express their emotions in their own ways. For example, when activities they are familiar with are being stopped, students are able to express dissatisfaction in a consistent way.

L3-1: Students start to communicate with people consciously.

- Able to keep their attention in a short period of time and find a specific object under three layers of things. For example, teachers can put a ping-pong ball into one of the boxes within the sights of students and move the boxes slowly and randomly. Students are able to find the box containing the ping-pong ball and take it out.
- Able to memorize things that they have learnt for a longer period. For example, students through their experience know how to retrieve the building block which is tied up with a string and located far from them, by pulling it towards them.
- Imitate unfamiliar sounds without high accuracy. For example, when teachers say “morning exercise” to students, students are able to imitate it and make a sound that is not too similar to it.
- Able to imitate unfamiliar actions. For example, when teachers move the badminton racquets for the first time, students are able to imitate it.
- Able to make continuous movements or facial expressions to keep things or activities they are interested in happening. For example, when students are playing a ball passing game with teachers and the game suddenly stops, students are able to raise their hands to indicate that they want to keep playing.
- Able to explore objects in a more complicated way. For example, when teachers place a plastic ball on an inclined plane, students will observe the ball rolling and imitate teachers’ action by putting the plastic ball on the inclined plane to let the ball roll.
- Students perform various kinds of complex movements adapting to the characteristics of different objects. For example, to slide, crumble, shake, pull, tear off, rub roughly or lightly the objects.

L3-2: Students gradually employ common ways of communication.

- Able to find an object hidden in one of three layers of things. For example, when teachers put ping-pong balls into boxes within the sights of students and hide the boxes inside layers of cloths, students are able to find the ping-pong balls.
- Use tools to solve problems. For example, taking their favourite things back with the help of a stick.
- Able to use regular communication methods and imitate similar sounds. For example, students are able to imitate teachers’ slogans.
- Able to observe and imitate unfamiliar actions at the same time. For example, when teachers demonstrate class exercises for the first time, students are able to imitate the exercises simultaneously through observation.
- When intending to switch on some objects, they hand the objects to the teachers. For example, they hand the sound-making balls to the teachers to indicate that they need assistance from teachers to switch them on.
- Able to predict the consequence of certain incidents when they keep happening. For example, when teachers keep putting the colourful balls that students like behind some obstacles, students are able to cross over the obstacles to get them back.
- Able to spend longer time exploring an object. For example, using different methods to play with rubber balls.
- Able to retain the memory of the things they have learned for a longer period of time. For example, students are able to push the rubber balls to certain locations on the floor without demonstrations.

(2) Disciplinary Development Stage (divided into “Sports Skills”, “Sports and Physical Fitness”, “Sports and Physical Fitness” and “ Sports and Social Adaptation”):

L4: Sports Skills

- Able to control physical movement and able to finish the following single movements consciously. For example:
- Able to step their feet or swing their arms during track and field exercises.
- Able to kick forward or raise their elbows during ball exercises.
- Able to perform four-point kneeling during mat exercises.
- Able to voluntarily move their bodies when hearing the music during rhythmic exercises.
- Able to walk up the stairs with two feet on each step by holding the handrails during outdoor exercises.
- Able to do flutter kicking by the pool side during swimming exercises.

L5: Sports Skills

- Able to connect two simple movements in sequence as follows, for example:
- Able to do preparative movements like bending their knees, swinging their arms or two-feet jumps during track and field exercises.
- Able to hold the basketball with both hands and toss it during ball exercises.
- Able to crawl with hands and feet alternately during mat exercises.
- Able to bend their bodies and walk forward and pass through bars at chest level during rhythmic exercises.
- Able to push forward a trolley with both feet standing on the ground, or climb the infants’ climbing frames during outdoor exercises.
- Able to sit by the pool side and turn around their bodies to get into the water during swimming exercises.

L6: Sports Skills

- Able to control objects or their bodies with different levels of strengths and directions in order to finish the following movements. For example:
- Able to throw objects to different directions during track and field exercises.
- Able to use both feet to jump continuously forward, backward, left, right or do single leg jumps.
- Able to control the 8-inch or size 4 plastic balls following instructions and pass the balls to fixed points during ball exercises.
- Able to stretch or bend their bodies following the beat during mat exercises.
- Able to move their bodies according to the rhythm of music during rhythmic exercises.
- Able to walk on balance beams with side steps during outdoor exercises.
- Able to sit by the pool side and turn around their bodies to get into the water during swimming exercises.

L7: Sports Skills

- Start having control and coordination abilities, able to demonstrate the following simple and connected movements towards identified goals. For example:
- Able to finish the standing start movement for running according to the “on your mark, get set, go” command during track and field exercises.
- Able to kick the football towards identified goals or pass the basketball to schoolmates during ball exercises.

- Able to crawl with hands and knees on the ground during mat exercises.
- Able to do heels and toes from left feet to right feet and jump forward with both feet during rhythmic exercises.
- Able to use pedals to move forward and use hands to control the direction of tricycles during outdoor exercises.
- Able to hold the pool edge with their hands and do flutter kicking during swimming exercises.

L8: Sports Skills

- Able to follow and to imitate sequencing or specific actions. For example:
- Able to imitate running to the predetermined locations and perform the abrupt stops, bending forward to pick up objects, and running back to the original position during track and field exercises.
- Able to get the basketball and pass it to their teammates, and kick the rolling ball during ball exercises.
- Able to do side rollovers during mat exercises.
- Able to create simple body moves during rhythmic exercises.
- Able to walk on the balance beam by placing one foot in front of the other during outdoor exercises.
- Able to walk in shallow water, swim and float with auxiliary floats during swimming exercises.

L9: Sports Skills

- Able to control and adjust body movement abilities. For example:
- During track and field exercises, they are able to finish the following tasks independently :
 - Running: perform a 25-metre sprint relay;
 - Jumping: jumping with both legs alternately;
 - Throwing: throwing bean bags to 10-metre away from where they stand.
- During ball exercises, they are able to finish the following tasks independently :
 - Basketball: perform a 5-metre ball dribbling with their left/right hand, and switch hands when returning;
 - Football: perform a 1-minute ball push-pull drill with their left/right foot;
 - Ping-pong ball: perform a 1-minute ball juggling.
- During physical exercises, they are able to roll back and forth, do front and side splits.
- During traditional ethnic exercises, they are able to finish the 30-second rope skipping with either left or right foot alternately.
- During swimming exercises, they are able to acquire the essentials breathing techniques in water, the rhythms of breathing out, breathing in, and breath holding, as well as breathing exercises for in-place breaststroke swimming in pools.

L10: Sports Skills

- Able to use adequate levels of strength, speed and concept of space to control sports equipment. For example:
- During track and field exercises, they are able to finish the following tasks independently :
 - Running: perform a 30-metre speedy run;
 - Jumping: perform a 20-metre continuous single leg hopping alternately;
 - Throwing: finish bean bags throwing relays in pairs.
- During ball exercises, they are able to finish the following tasks independently :

- Basketball: perform a 1-minute ball passing in-place in pairs;
- Football: perform ball dribbling in linear paths with the inner sides of the feet;
- Ping-pong: playing back and forth in pairs for 1 minute.
- During physical exercises, they are able to finish front rollovers.
- During swimming exercises, they are able to slide and float along the pool walls and perform freestyle swimming feet movements while holding kickboards.

L11: Sports Skills

- Able to control and coordinate movements when combining two skills. For example:
- During track and field exercises, they are able to finish the following tasks independently :
 - Running: perform a 25-metre shuttle-run;
 - Jumping: perform standing triple jumps;
 - Throwing: perform long distance softballs stand throws.
- During ball exercises, they are able to finish the following tasks independently :
 - Basketball: perform a 1-minute basketball shoot individually;
 - Football: perform cross-pole dribbling;
 - Ping-pong: forehand drive.
- During physical exercises, they are able to perform bilateral hips and knees bent in an overhang position.
- During traditional ethnic exercises, they are able to finish a two-person side by side rope skipping for one minute in pairs.
- During swimming exercises, they are able to hold the kickboards and perform hands and feet coordination in freestyle swimming.

L12: Sports Skills

- Able to integrate various kinds of continuous movements. For example:
- During track and field exercises, they are able to finish the following tasks independently :
 - Running: shuttle relays;
 - Jumping: squat jump forward;
 - Throwing: throws softball in-place (flexing the elbows towards the shoulders, backswing the arm, propel with legs, and throw the softball forward with trunk rotation).
- During ball exercises, they are able to finish the following tasks independently :
 - Basketball: perform a 20-metre ball dribbling run;
 - Football: perform a forward dribble with insteps;
 - Ping-pong: play with backhand drives for 1 minute.
- During physical exercises, they are able to finish front rollovers followed by side splits.
- During traditional ethnic exercises, they are able to finish side by side rope skipping on either left or right foot alternately for two minutes in pairs.
- During swimming exercises, they are able to adapt breathing in freestyle swimming.

L13: Sports Skills

- Able to integrate various kinds of continuous movements with relatively stable skills. For example:
- During track and field exercises, they are able to finish the following tasks independently :

- Running: perform cross relays;
- Jumping: perform standing vertical jumps to reach certain height;
- Throwing: perform stepped up softball throws.
- During ball exercises, they are able to finish the following tasks independently :
- Basketball: perform a 1-minute location-oriented and single-shoulder ball shooting/a 1-minute ball shooting combining self-shooting and self-catching.
- Football: perform balls kicking or shooting with the inner sides of the feet.
- Ping-pong: perform ball pushing/chopping for 1 minute..
- During physical exercises, they are able to finish front rollovers and stand jumps.
- During traditional ethnic exercises, they are able to finish side by side rope skipping forward in pairs.
- During swimming exercises, they are able to do backstroke swimming and floating by holding kickboards with their hands.

L14: Sports Skills

- Able to select movements appropriately and smoothly control the sequential movements that are applicable to competitive events. For example:
- During track and field exercises, they are able to finish the following tasks independently :
- Running: perform obstacle relays;
- Jumping: perform high jumps with feet-first leaps;
- Throwing: perform softball run-up throws/solid ball stand throws.
- During ball exercises, they are able to finish the following tasks independently :
- Basketball: dribbling to shoot (three-step layups)/a 20-metre dribbling run with changing directions;
- Football: passing the balls with insteps, kicking or shooting the balls with insteps;
- Ping-pong: to serve and receive balls for 1 minute/using backhands to serve upper (lower) right spinning balls.
- During physical exercises, they are able to finish overhang shakings with bent legs.
- During traditional ethnic exercises, they are able to finish rope skipping with both feet for 1 minute individually.
- During swimming exercises, they are able to do backstroke swimming by holding kickboards with their hands, with hands and feet coordination.

L15: Sports Skills

- Able to apply simple tactics/strategies/routines during competitions or presentations in classes. For example:
- During track and field exercises, they are able to finish the following tasks independently :
- Running: during a 4x100 metre relay, they will pass the batons with down sweep exchange into the receivers' hands;
- Jumping: perform high jumps with feet-first leaps during high jump competition;
- Throwing: throwing solid balls with backward motions during competition.
- During ball exercises, they are able to apply specific skills for competitions:
- Basketball: dribbling moves competition;
- Football: 1-minute inner feet ball passing competition;
- Soft volleyball: 1-minute volleyball digging against the walls competition;
- Ping-pong: use forehands topspin serves during competition;

- Badminton: use forehands high serves during competition.
- During traditional ethnic exercises, they are able to demonstrate:
- Rope skipping: single freestyle, the first subset of rope skipping;
- Martial arts: the 5-step Chuan.
- During orienteering, they are able to finish the individual in-school 1000-metre orienteering.
- During gymnastics exercises, they are able to demonstrate dive roll forwards.
- During swimming exercises, they are able to set off from the starting blocks according to commands, and finish 15-metre freestyle swimming.

L16: Sports Skills

- Able to apply tactics/strategies/routines during competitions or presentations at schools. For example:
- During track and field exercises, they are able to finish or participate in the following tasks independently :
 - Running: perform hurdle runs (3 low bars);
 - Jumping: apply squat jumps in competition;
 - Throwing: participate in solid ball stand throw competition.
- During ball exercises, they are able to apply specific skills for competitions:
- Basketball: 1-minute ball dribbling and multi-angle ball shooting competition;
- Football: cross-pole dribbling competition;
- Soft volleyball: 1-minute ball digging against the wall competition;
- Ping-pong: 1-minute ball blocking competition;
- Badminton: use forehand overhead clear during competition.
- During traditional ethnic exercises, they are able to demonstrate:
- Rope skipping: single rope freestyle in pairs;
- Martial arts: Tai Chi Chuan 8 forms.
- During orienteering, they are able to finish the 100-metre orienteering (outdoor).
- During gymnastics exercises, they are able to demonstrate supported shoulder stands (for females) and supported headstands (for males).
- During swimming exercises, they are able to finish freestyle flip turns 10-metre away from the pool walls and swim 10 metres after the turns.

L17: Sports Skills

- Able to apply different tactics/strategies/routines during inter-school competitions or presentations. For example:
- During track and field exercises, they are able to finish or participate in the following tasks independently:
 - Running: finish a 400-metre run;
 - Jumping: apply triple jumps in long jump competition;
 - Throwing: shot put stand throw competition.
- During ball exercises, they are able to apply specific skills for competitions:
- Basketball: half-court back and forth ball dribbling and layup competition;
- Football: ball dribbling with instep competition;
- Soft volleyball: use underhand serves during competition;
- Ping-pong: 1-minute balls looping competition;
- Badminton: use forehands overhead clears during competition.
- During traditional ethnic exercises, they are able to demonstrate:
- Rope skipping: double ropes freestyle in pairs;
- Martial arts: Chin Na grappling styles (reach around the opponents' necks with wrists rolling, wrists grabbing).

- During orienteering, they are able to finish the in-school teams orienteering.
- During gymnastics exercises, they are able to demonstrate balance standing in swallow positions (for females) and side flips (for males).
- During swimming exercises, they are able to finish 25-metre swimming relays.

L18: Sports Skills

- Able to integrate the learnt tactics/strategies/routines and to apply them during open sections competitions or demonstrations. For example:
- During track and field exercises, they are able to finish the following tasks independently :
 - Running: male 1000-metre run, female 800-metre run;
 - Jumping: perform triple jumps in long jump competition;
 - Throwing: perform glide shot put throws in competition.
- During ball exercises, they are able to finish the following tasks independently :
 - Basketball: three-on-three half-court competition;
 - Football: five-a-side football competition;
 - Soft volleyball: volleyball competitions;
 - Ping-pong: single competition;
 - Badminton: single competition.
- During traditional ethnic exercises, they are able to demonstrate:
 - Rope skipping: create freestyle rope skipping in group performances;
 - Martial arts: Chin Na grappling techniques (shoulder locks, elbow locks).
- During orienteering, they are able to finish field orienteering in teams.
- During gymnastics exercises, they are able to demonstrate straddle jumps.
- During swimming exercises, they are able to finish the 50-metre swim continuously in various styles without grounding.

L4: Sports and Physical Fitness

- Able to finish the basic body composition tests, for example: students are able to take height measurements or weight measurements consciously.
- Under the guidance of the teachers, students are able to do stretching exercises, for example: after hearing commands, students move their bodies consciously.
- Able to walk and run, for example: the upper bodies of students are straight or slightly leaning forward, with relaxed shoulder muscles, natural arm swinging, and landing lightly with both legs.
- Able to be aware of the changes of body movements during different motions, for example: students must raise their feet for running and raise their hands for receiving things.

L5: Sports and Physical Fitness

- Able to finish the standing long jump (feet off the ground and then leap forward) tests, for example: students standing before the start line and then leap forward with both feet.
- Able to finish the jumps by sequence, for example: able to jump off from the 4 to 8 inches high platforms to the ground, with both feet standing without falling.
- Able to control both hands and feet movements simultaneously, for example: able to clap hands and stamp feet at the same time.
- Able to walk 5 steps on toes.

L6: Sports and Physical Fitness

- Able to finish sit-and-reach tests or back sit-and-reach tests on the floors.

- Able to control body balance, for example: able to perform pivot on the grounds, single leg stand, tip-toeing with eyes closed, spinning.
- Able to walk forward 6-feet on linear paths with both feet not leaving the paths.
- Able to jump over a 2-feet height skipping rope, and able to jump 2-feet forward.
- Able to walk freely in spaces filled with obstacles, able to hop on either left or right foot, or walk up and down the stairs on either left or right foot alternately.
- Able to walk 10-feet backward.

L7: Sports and Physical Fitness

- Able to finish the balance beams walking tests, for example: students are able to finish walking the 10-feet long balance beams.
- Able to control and coordinate their bodies for climbing and crawling, for example: tightening the bodies for front or side crawls, flexibly adjusting speeds and directions.
- Able to walk 6-feet backward on linear paths with both feet not leaving the paths.
- Able to jump over 3-inches high obstacles and jump 3-feet forward.

L8: Sports and Physical Fitness

- Able to participate in long distance tennis ball throwing tests, for example: students are able to throw the balls out when standing behind the restraining lines.
- Able to follow instructions in climbing particular facilities, for example: students are able to climb various climbing facilities with hands and feet alternately, carefully, confidently and flexibly.
- Able to toe-walk 8-feet.
- Able to hop for 5 to 8 times, able to jump on either left or right foot in big steps with each step around 1.5 feet.

L9: Sports and Physical Fitness

- Able to participate in tests which require continuous jumping with both feet, for example: students are able to jump with both feet at the same time, and jump across 10 soft packs.
- Able to participate in partial squats exercises with bare hands so as to train their lower body muscles.
- Able to participate in cross jumps, for example: students stand on the centre of a cross and jump by sequence to the numbers 1, 2, 3, 4. Whenever they finish jumping to one number, they have to go back to the centre and jump to the next number.
- Able to run a 25-metre relay with balanced bodies and coordinated hand and feet movements.
- Able to stand on tip toes for 10 seconds or able to run tip-toeing lightly.
- Able to hop on linear paths, able to finish jumping on either left or right foot for 20 feet in 6 seconds, and able to jump over a 10 to 12 inches high skipping rope with both feet.
- Able to use strength with hands and feet to perform whole-body movements, for example: pole climbing.

L10: Sports and Physical Fitness

- Able to participate in a 10-metre shuttle running test.
- Able to use correct body postures and increase the walking speed and route during exercises, for example: students walk together in the basketball court in consistent paces, and go back and forth once.
- Able to run fast for 30 metres with balanced bodies, coordinated hand and feet movements, and forefeet standing on the grounds first.

- Able to climb rope ladders.
- Able to skip their own ropes and make 5 loops.

L11: Sports and Physical Fitness

- Able to participate in a 50-metre running test, for example: students use standing start positions in running, after hearing the starting signals, they run all the way to the finishing lines.
- Able to shuttle run for 25 metres with balanced bodies, coordinated hand and feet movements, running speeds and coordination.
- Able to do high knee running in place, high knee running forward, jogging and kicking backward running, etc. to improve leg strength.
- Able to do rope skipping for 2 minutes.

L12: Sports and Physical Fitness

- Able to participate in handgrip strength tests, for example: students apply as much grip pressure as possible on the dynamometers, standing upright, both feet are naturally separated and both arms are naturally dropped, squeezing the upper and lower handles of dynamometers with maximum isometric effort.
- Able to do flexed arms hang trainings, for example: students hang from the pull-up bar with underhand grips, the gripping distance is the same as the shoulder's width, shoulder blade down and back, keep the biceps brachii muscle tight and pull the entire body weight against gravity up to the bar, until the chins are above the bar level, hold there for 10 seconds, and then return to the original position slowly.
- Able to do bent-knee hangings, for example: students are able to do a straight hang from the pull-up bar, with both knees bending up when they start doing the hangings, and keep both legs in standard postures.
- Able to finish side by side rope skipping in pairs with either left or right foot alternately for 2 minutes.

L13: Sports and Physical Fitness

- Able to participate in vital capacity measurement, for example: students inhale deeply until they feel their lungs are completely full and then exhale hard towards the spirometers with their mouths, until they feel their lungs are completely empty and cannot breathe out any further.
- Able to finish a 50-metre shuttle run relay test.
- Able to finish two sets of 10-minute laps brisk walk.
- Able to finish a 3-minute ladder drills exercise.

L14: Sports and Physical Fitness

- Able to participate in a 1-minute sit-up test.
- Able to finish a 30-second crunch exercise.
- Able to finish straight leg raise exercise with either left or right foot alternately for 5 times.
- Able to finish a 10-second plank exercise.

L15: Sports and Physical Fitness

- Know how to participate in a 50-metre x 8 shuttle running test.
- Able to finish a 20-minute consecutive brisk walk exercise.
- Able to analyse their own body condition through Body Mass Index (BMI), for example: students understand the significance of BMI.

- Able to calculate the maximum heart rate and understand the relationship between heart rate and exercise, for example: when the students' heart rate is 55% of the maximum heart rate after exercise, they realise that it is a low impact workout according to the chart.

L16: Sports and Physical Fitness

- Able to finish a stick drop test for 5 times.
- Able to finish 5 beginners' level movements on the speed ladder, such as side feet run, high knee run, fast run, forward and backward run, every other square run.
- Able to estimate and compare their body physical fitness, for example: after finishing the standing long jump test and with a 2-metre score, students realise that their muscle performances are at medium level from the evaluation checklists.
- Able to generalise some examples of healthy lifestyles, for example: able to sum up the benefits of doing exercise according to different physical fitness data.

L17: Sports and Physical Fitness

- Able to finish a 9-minute running test.
- Able to apply high-intensity interval trainings to daily trainings.
- Able to analyse the results of personal physical fitness tests, understand their personal body and health status and inadequacies so as to design physical exercise methods for improving their health condition.
- Able to analyse the relationship between diet and exercise, for example: take carbohydrates as the body's main source of energy in order to provide the body with required energy during exercise.

L18: Sports and Physical Fitness

- Able to apply exercise prescriptions: Frequency (F), Intensity (I), Time (T), and Type (T) to improve physical fitness.
- Able to plan personal exercise timetables and keep doing exercise persistently.
- Able to apply TABATA intermittent trainings to training plans, for example: for the purpose of improving body qualities, incorporate appropriate TABATA movements into exercise prescriptions so as to improve exercise performance.
- Able to use maximum heart rate to improve personal cardiorespiratory fitness, for example: the maximum heart rate of proper exercise intensity is below 60-80%, so doing exercise for 20-50 minutes every time can improve cardiorespiratory fitness.

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L4: Sports and Physical and Mental Health

- Willing to participate in warm up and cool down exercises before and after competition; for example: able to cooperate with teachers, letting teachers assist them with different stretching exercises and be able to imitate simple movements.
- Able to cultivate healthy lifestyle habits, for example: wash their hands or drink water after exercise.
- Able to distinguish sports tools, for example: be able to identify balls or hula hoops.
- Able to understand some vocabularies related to physical movements, such as jump, stop, run, hit, kick and throw.

L5: Sports and Physical and Mental Health

- Able to follow teachers to do simple warm up exercises or beat counting, for example: able to shake both hands 10 times slowly.
- Able to follow simple safety commands, for example: stop running fast and stop throwing balls at classmates after listening to commands.
- Able to seek assistance from adults and make some simple expressions, for example:

pointing out where the painful wound is when they are injured.

- Able to name some basic sports competitions, for example: football match, running competition.
- Able to connect causal relationships, for example: students are able to use toy bowling balls to knock down toy bowling pins.

L6: Sports and Physical and Mental Health

- Able to seek assistance from teachers, for example: students are able to inform teachers about where they feel uncomfortable on their bodies by telling or pointing to the spot.
- Able to do exercise in appropriate places with self-discipline.
- Able to point out some simple safety rules, for example: it is dangerous for students to run too fast.
- Able to point out the relevant venues, facilities and tools used in activities, for example: students are able to identify the facilities and tools used in basketball courts or swimming pools.

L7: Sports and Physical and Mental Health

- Able to learn warm up and cool down techniques, for example: students will not overdo or overexert themselves during warm up exercises.
- Able to grasp the essentials of warm up and cool down exercises, for example: do different warm up and cool down exercises according to the characteristics of the activities.
- Able to identify the operation methods according to the characteristics of sports equipment, for example: using hands to bounce basketballs and using feet to kick footballs.
- Able to choose the appropriate environment for sports activities, for example: it is not suitable to run along pool sides.

L8: Sports and Physical and Mental Health

- Able to list some simple first aid items, for example: adhesive plasters are used for wounds.
- Able to follow the rules and use game equipment and venue in a safe and proper way, for example: students will not touch the equipment or switch on/off the running machine, etc. prior to receiving commands.
- Able to name some of Macao's sports events, for example: aerobics.
- Able to play simple games and follow the rules, for example: able to use throwing and catching skills for grabbing balls games.

L9: Sports and Physical and Mental Health

- Able to learn basic sports rules, for example: the rules of a 25-metre sprint relay.
- Able to tell what they have to pay attention to during exercises, for example: students know that they should avoid eating too much before doing exercise, and they should drink water before and after doing exercise.
- Able to tell the safety measures for different kinds of sports activities, for example: they should not swim when no lifeguards are on duty.
- Able to follow the safety rules during collective activities, for example: when students with visual impairment have to throw or catch bean bags, they are able to first ask for a partner, and then wait for their response before they start throwing the bean bags.
- Able to use sports equipment and venues in good order, for example: when getting sports equipment, students are able to queue orderly.

- Able to identify various sports skills, for example: able to point out ball dribbling in linear paths with inner feet in terms of football activities.

L10: Sports and Physical and Mental Health

- Able to use sports equipment appropriately and safely, for example: able to pay attention to the environment when using racquets and make sure that no students get hurt.
- Able to use simple first aids items, for example: students are able to use adhesive plasters and disinfectants.
- Able to describe how exercise can cause changes to their bodies or how they feel, for example: it is normal to experience a fast heart beat and sweat during exercises.
- Able to participate in certain types of training, for example: running exercises.
- Able to name the relevant warm up exercises for various sports activities, for example: doing arm and wrist warm up exercises prior to throwing exercises, stretching before running.

L11: Sports and Physical and Mental Health

- Able to be aware of dangerous environments and adopt some safety measures, for example: dry the wet floor or remove the obstacles on the running tracks prior to activities.
- Able to pay attention to and name some of the common sports competitions, for example, the Macao Inter-school Track-and-Field Competition.
- Able to execute simple step by step nursing procedures, for example: when they fall, they know how to wash the wounds before bandaging.
- Able to identify dangerous actions to avoid injuries, for example: avoid using the neck to support the whole body when doing front rollover.

L12: Sports and Physical and Mental Health

- Able to learn and take proper safety measures during group activities, for example: actively remind the audience to stay away from the competition areas.
- Able to grasp the scoring methods used in some of the sports activities, for example: the scoring methods used in ping-pong.
- Able to name some of the common sports events and competitions, for example: tell the origin, development and rules of football, basketball, track and field, swimming, the Macao Grand Prix competition, etc.
- Cultivate good and healthy attitudes and habits and practice them in daily lives, for example: pay attention to and participate in different kinds of sports activities.

L13: Sports and Physical and Mental Health

- Able to name some common sports competitions, for example: the Olympic Games, the Asian Games and the FIFA World Cup, etc.
- Able to participate in different kinds of training programmes, for example: running training and ball game training.
- Able to name some “physical fitness” activities, for example: endurance running, weight exercises and stretching exercises, etc.
- Able to describe the rules of certain sports activities, for example: violating travelling and hacking in playing basketball.

L14: Sports and Physical and Mental Health

- Able to arrange appropriate positions according to their capabilities, for example: during track and field exercises, they are able to arrange their running distance according to their capabilities.

- Able to grasp some simple sports tactics and strategies that are important to activities, for example: passes and switches, picks and rolls, etc. can help scorings during basketball competition.
- Able to indicate inappropriate skills and suggest self-improvement techniques during activities, for example: during standing long jump exercises, they are able to squat down prior to jumping in order to jump further.
- Able to apply different emotion-control methods during sports activities, for example: use abdominal breathing and muscle relaxation methods.

L15: Sports and Physical and Mental Health

- Able to describe different first aid procedures for different kinds of injuries, for example: treatments for abrasion and fainting are different.
- Able to grasp basic knowledge in health and sports nutrition, for example: adequate nutrition intake before doing exercises.
- Able to use sports equipment and facilities correctly, and assist in setting up a venue for training.
- Able to share their knowledge about sports competitions, for example: names of positions (striker, midfielder), simple tactics and strategies.

L16: Sports and Physical and Mental Health

- Able to reserve venues through apps or the internet.
- Able to keep calm when dealing with accidents, and handle accidents with different procedures, for example: when students experience epilepsies, they are able to clear the things around the student first before informing their teacher.
- Able to follow sports messages through different channels, for example: learn about the news of Macao's sports activities from TDM's sports channel.
- Able to name some vocabularies used in physical fitness, for example: cardiorespiratory function, flexibility, coordination, balance, reaction, body elements, strength, etc.

L17: Sports and Physical and Mental Health

- Able to give examples through raising questions and pass the tests so as to examine personal advantages, for example: a student states that his explosive strength is his own advantage, therefore his performance is relatively better among classmates during the short run test.
- Able to estimate the severity levels of accidents, so as to decide whether they should seek assistance, for example: when facing relatively serious accidents, students will not try to move the injured casually.
- Able to predict the possible dangers of group activities, so as to arouse team members' safety awareness, for example: actively remind classmates to pay attention to the safety of their team members and also the opponent's team during competitions.
- Able to formulate personal training plans, for example: students are able to formulate daily exercise plans for themselves.

L18: Sports and Physical and Mental Health

- Able to apply the Game Performance Assessment Instrument (GPAI), for example: during basketball competitions, students are able to adapt GPAI to count the total number of goals made.
- Able to grasp and perform different procedures of Cardiopulmonary CPR in sequence.

- Able to understand different types of training that are helpful to physical fitness and health, for example: students understand that cardiorespiratory function can be strengthened through endurance running.
 - During sports competitions, they are able to analyse and apply tactics for competitions, for example: use 2-1-2 or 3-2 zone defense in basketball competitions; use serve-then-attack tactics in badminton competitions.
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L4: Sports and Social Adaptation

- Able to cope with the activities arranged by teachers, for example: holding a ball and passing it to their companion with both hands.
- Able and willing to wait and queue during activities.
- Able to be responsible and finish their assigned tasks, for example: assist in packing sports equipment.
- Able to understand that wearing tidy sportswear is required when attending physical education class.
- Able to express their feelings or give appropriate responses when being exposed to and participating in sports activities, for example: express likes or dislikes when participating in games.

L5: Sports and Social Adaptation

- Willing to share with others, for example: willing to pass the ball to their companions during ball games.
- Able to pack the sports equipment after doing exercise.
- Able to be aware of their relationship with others, for example: able to pay attention to their classmates' gestures.
- Able to obey commands in group activities, for example: able to throw the bean bags out after hearing the whistle during throwing games.

L6: Sports and Social Adaptation

- Able to cooperate with their companions when participating in activities, for example: able to play ball games together with their companions.
- Able to be aware of the needs of their companions and be willing to help others, for example: able to pick up the ball for their companions when playing basketball.
- Able to encourage others after watching their performances.
- Able to dress neatly after doing exercise.

L7: Sports and Social Adaptation

- Able and willing to accept and cooperate with different classmates, for example: willing to pass the ball together with their classmates.
- Able to follow the rules of various kinds of sports events, for example: running is not allowed during race walking competition; false start is not allowed in running.
- Able to compare their own movements with others and tell the difference, for example: students are able to compare their dance movements with others and are able to tell the difference during dancing activities.
- Able to enjoy games and interesting activities, for example: students are able to keep participating in activities that they have participated in before, and are able to share their interest with others.

L8: Sports and Social Adaptation

- Able to grasp the rhythm of rhythmic movements and give relevant responses, for example: students are able to express their interest in rhythms.

- Able to pick classmates that they like for grouping activities, for example: when playing the “sugar bean game”, students will pick their favourite classmates for grouping.
- Willing to express their feelings in team work or small group activities, for example: able to spin around lightly to express their happiness.
- Able to care for sports equipment facilities, for example: use racquets appropriately to avoid damages.

L9: Sports and Social Adaptation

- Able to show concerns to their injured team members, for example: take the initiative to ask after their injured team members.
- Able to show self-confidence when participating in sports activities, for example: able to demonstrate or dance before classmates.
- Able to finish activities with the spirit of fair play, encourage and support team members to participate in activities.
- Able to explain the key to success or failure, understand their own shortcomings and appreciate others’ advantages.

L10: Sports and Social Adaptation

- Able to share their feelings with classmates after participating in activities, for example: talk about the joy and pressure experienced in activities.
- Able to gain experience from success or failure and know how to express their emotions and feelings.
- Able to give opinions towards others’ movements to help them improve, for example: give opinions on how to improve the throwing movement during throwing events.
- Able to accept the difference between themselves and others, for example: they will not isolate team members for their shortcomings.

L11: Sports and Social Adaptation

- Able to follow competition etiquettes, for example: shake hands with other team members after ball games.
- Able to respect others’ reasonable opinions when playing games with classmates, for example: able to respond to opinions given by classmates.
- Able to observe the sports skills used by classmates during activities and do some simple comparisons, for example: during rope skipping activities, able to identify which classmate is skipping better or meet certain requirements.
- Able to express emotions and feelings clearly and give appropriate reactions or responses through various sports activities, for example: able to appreciate the beautiful movements of diving and running, etc. through different visual mediums.

L12. Sports and Social Adaptation

- Able to understand and follow sports rules and obey referees, for example: able to respect referees’ decisions during competitions.
- Able to describe their own movements and others’ movements and give opinions on them, for example: describe their own movements and those of others in shooting basketballs and express preference for movement combinations.
- Able to play games in a fair manner, for example: during grouping activities, students are able to arrange groupings according to the number of participants, gender ratios, etc.
- Able to participate in competitions with correct attitudes, for example: try their best during competitions.

- Able to show concern and offer help to those who are relatively weak in sports, for example: when students find that their classmate cannot finish the movement, they will try to demonstrate it to them.

L13. Sports and Social Adaptation

- Able to suggest appropriate skills for others when seeing others applying inappropriate skills in activities through observation and discussion. For example, give suggestions on how to enhance the beauty of dance movements when learning dancing.
- Able to describe the aesthetic standards for sports events, for example: appreciate performers' beautiful movements during gymnastics performance.
- Be brave to face difficulties and take up challenges, for example: after facing failures in competitions, students are still willing to participate in them.
- Dare to take up responsibilities in a small group and work hard to achieve the group's shared goals, for example: able to stick to the post as a goalkeeper during football games.

L14. Sports and Social Adaptation

- Able to respect companions' opinions when participating in activities, for example: able to accept the assigned positions after negotiating with team members.
- Able to show team spirit and have a sense of belonging towards their own team, for example: students are proud to be one of the team members in the team.
- Able to compare and summarise the differences between their own movements and those of others, for example: students summarise the differences between their own and others' dance movements.
- Able to express interests and feelings towards different kinds of movements through appreciating the wonderful skills performed by elite athletes.

L15. Sports and Social Adaptation

- Willing to have close cooperation with team members and participate in group competitions, for example: participate in relays and 3x3 basketball competitions.
- Able to accept the failures made by themselves or classmates during sports events, for example: able to encourage themselves or accept classmates' failures.
- Able to appreciate the wonderful skills performed by elite athletes through information and technology and express interests and feelings towards different kinds of movements.
- Able to pick classmates for cooperation based on cooperation results during team work or small group activities.

L16. Sports and Social Adaptation

- Able to express attitudes of winning without arrogance and failing without giving up, for example: not losing their temper or giving up when facing failure.
- Know their personal strengths and endeavor to develop them.
- Actively participate in various kinds of in-school and inter-school sports events, for example: regularly participate in orienteering activities.
- Understand that enjoying the process is more important than the result, able to accept failures and enjoy the process of activities or competitions.

L17. Sports and Social Adaptation

- Able to recognise their national identities, for example: support their own countries when watching the Olympic Games.

- Able to cultivate serious attitudes, for example: able to set timetables for personal sports training and execute training according to the timetables.
- Able to actively participate in social sports activities, for example: students are able to participate in social sports activities through getting information from school posters and promotional materials.
- Able to reflect on the advantages and disadvantages of used tactics and strategies after review, for example: reflect on their advantages and disadvantages according to their scorings from gymnastic competitions.

L18. Sports and Social Adaptation

- Able to manage stress during competition and seek methods to reduce stress and keep competing.
- Able to reflect after activities or competitions, for example: able to analyse the reasons contributing to success and failure and look for breakthroughs.
- Able to actively participate in certain activities so as to practice the “One Life One Sport” philosophy, for example: actively practice rock climbing.
- Able to encourage family members to participate in sports activities, for example: inviting family members to participate in the Citizens Sports Games competitions.

Appendix 1

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Appendix 2

Key words

Curriculum Framework for Formal Education of Local Education System

- It refers to a set of curriculum framework formulated by the government to apply to ordinary schools. The content of the framework generally includes the aim, objective and development principle of the curriculum framework, classification of the subjects, arrangement of educational activity period, as well as the learning contents for major subjects at each education level. The formal curriculum in Macao is determined through legislative process.

The Requirements of Basic Academic Attainments

- The Requirements of Basic Academic Attainments refer to the basic qualities that students should possess upon completion of the education levels including the early childhood period, primary school, junior secondary school and senior secondary school education, covering progress in basic knowledge, skills and competence, as well as development in emotion, attitude and values.

Formal Education Curriculum

- The Formal Education Curriculum refers to the curriculum suggested by the government towards all schools, including a series of curriculum documents which specify the curriculum objective and target, learning objective, structure of the subjects, generic skills, values, attitudes and subject instructions.

School-based Curriculum

- The School-based Curriculum refers to the curriculum developed by the school and teachers, in line with the learning status quo of students for the purpose of helping students to realize the educational aim and objective. School-based Curriculum is the balanced outcome between the central curriculum guidance and the professional autonomy of the school and teachers.

Learning Ability Progress Level

- The Learning Ability Progress Level refers to a set of descriptions regarding performance indicators, which are used to express the learning level of students in a progressive manner. The Learning Ability Progress Level of Macao is divided into 18 levels (from L1 to L18), which correspond to the motor sensory development in infancy period, and the learning abilities of students in early childhood, lower primary school, higher primary school and junior secondary school period. Therefore, the Learning Ability Progress Level serves as a shared framework for reference for teachers to assess and report the learning outcome of students.

Attainment Level Descriptors

- The Attainment Level Descriptors, corresponding to the Learning Ability Progress Level, are the textual descriptions on the learning ability of students at each level. The Attainment Level Descriptors apply to all students, including students in formal schools or students with special educational needs in special education schools. Each descriptor

provides reference on the ability level of students within the learning area. The contents of the Attainment Level Descriptors do not represent the whole curriculum nor the learning outcome.

Education Level

- The Education and Youth Affairs Bureau of Macao classifies formal education in Macao into four different educational levels, the early childhood education (3 years), primary education (3 years), junior secondary education (3 years), and senior secondary school education (3 years). Each education level has its own special curriculum framework and requirement for basic academic attainments.

Learning Stage

- The Learning Stage refers to different learning periods for a student in the whole learning process. Generally speaking, a three-year learning period is defined to be a learning stage. The learning stages in Macao include the early childhood stage, lower primary school stage, upper primary school stage, junior secondary stage, and the senior secondary school stage. The learning stage carries slight difference compared to the education level formulated by the Education and Youth Affairs Bureau of Macao.

Students with Special Educational Needs

- Students with Special Educational Needs usually carry one or multiple features of learning difficulty, thus they are in need of special education service. The primary categories of learning difficulty include, listening disorder, visual disorder, physical disorder, mental disorder, learning disorder, emotional and behavioral issues, attention-deficit/hyperactivity disorder, autism, dyslexia, and education for intellectually gifted students.

Motor Sensory Training

- Motor Sensory Training plays a significant role in fundamental education. To learn or to engage in cognitive behavior of any kind, students first need to effectively appropriate and perceive, to collect and analyze data or materials. All students need to receive motor sensory training. While most students have naturally mastered the skill in daily life, some students with special educational needs need to enhance and grasp this skill via special motor sensory training experience.

Scheme of Work

- Scheme of Work is the template for the learning units in each subject. Every Scheme of Work specifies the teaching objective of the unit, students' ability level and learning activities, while providing an enumeration of the expected performance for students of different ability levels.

Learning Outcome

- The Learning Outcome refers to the expected learning performance of students upon completion of a course or a certain learning stage. The learning outcome is devised based on the learning objective and learning focus. Therefore, the learning outcome could promote learning by serving as the basis for learning performance assessment and by reflecting the expected learning performance of students upon completion of a course.

Learning Focus

- The Learning Focus refers to the key contents developed in accordance with the learning objective, providing reference to schools in curriculum design and teaching. The learning focus provides a detailed description on the knowledge and ability to be mastered, as well as the interest, attitude and habits to be cultivated in different learning areas and various learning stages.

Learning Diversity

- The Learning Diversity refers to the learning differences among students in the learning process. In teaching practice, we should cherish the unique talents of each student, attend to their diversified learning needs, adapt teaching methods based on individual needs, help students to discover their aptitude and talents, and provide opportunities for students to create and release their potential towards obtaining appropriate achievements.

Frequently Asked Questions

1. Is the Learning Ability Progress Level equal to the curriculum? If not, what is the relation between the Learning Ability Progress Level and the curriculum?

The Learning Ability Progress Level refers to a set of systematically progressive Attainment Level Descriptors. The Learning Ability Progress Level, composed of selected indicative contents from the Curriculum Framework for Formal Education of Local Education System and the Requirements of Basic Academic Attainments, serves the function of assessing the learning ability and learning progress of students. Teachers can refer to the assessment results based on the Learning Ability Progress Level so as to adjust the learning objectives and activities, and to determine the expected learning outcome. However, the Learning Ability Progress Level does not represent the overall content of what ought to be a broader curriculum.

2. Why “The Requirements of Basic Academic Attainments” cannot be directly used to describe learning ability and learning performance?

“The Requirements of Basic Academic Attainments” refer to the basic qualities that students should possess upon completion of the education levels including the early childhood, primary school, junior secondary school and senior secondary school education. The philosophy behind this concept is based on the generalized performance of the targeted population. For students with special educational needs, designing or formulating learning ability objective merely on the basis of education levels may not adequately reflect their learning process. Therefore, introducing the Learning Ability Progress Level enables full display of the ability level for students with special educational needs at the Progress Level for each learning area, attending to individual differences while improving the step-by-step learning progress.

3. What is the relationship among “The Requirements of Basic Academic Attainments”, the Learning Ability Progress Level, and classroom teaching?

“The Requirements of Basic Academic Attainments” are targeted at students who have completed a certain educational level; the Learning Ability Progress Level refers to the level of learning performance and ability at a certain process, which is aimed at individual students. The former refers to the requirement on learning outcome, while the latter focuses on the learning process. In class teaching, a teacher should always examine students’ learning outcome based on “The Requirements of Basic Academic Attainments”, and adjust expected learning performance in accordance with their ability level. It should be noted that neither “The Requirements of Basic Academic Attainments” nor the Learning Ability Progress Level constitutes part of the teaching content.

4. When should rating be conducted? Do students all advance by one ability level each year?

Rating for the purpose of ascertaining learning performance baseline for reference can be conducted at the beginning or at the end of each academic year, or conducted every two years depending on different school conditions. However, rating more than once each year is not recommended. Students with special educational needs exhibit ability diversity. Some students may advance by one or two ability levels within one year, while others may improve one ability level every few years. There are also cases where students with severe learning disorder

stay at one certain ability level or even regress due to various physical conditions within more than 10 years of learning experience.

5. As the fundamental stage for the learning area of each subject starts with the motor sensory development stage, will a student with severe learning disorder stay in the initial motor sensory development stage from early childhood period to senior secondary school period, without making progress to learn proper subject knowledge? If so, what is the point of dividing into six subjects?

Textbook content for each subject is the carrier of learning. The principle for curriculum design is to expand the students' learning experience. The six subjects expose students to different learning situations and objects of different levels, enabling them to develop individual cognition combining their personal experience and perception. Though it is possible that students with severe disorder may stay at the motor sensory development stage even after years of learning, the linked subjects will broaden and enhance student's learning experience. This is the concrete practice of the principle of width and depth in curriculum design. Otherwise, students with severe learning disorder will be exposed to repeated motor sensory trainings over a long time, which goes against the principle of integrated education, or the special education we aspire to achieve.

6. A student starts receiving education at 3 and completes education at 21. If the curriculum is not compiled based on education level, or even if the ability level of students is specified based on a region in the Learning Ability Progress Level, does it mean that students without making improvement in learning ability for over 10 years have to learn the same content from 3 to 21? How are the operational specifications explained?

The purpose of designing the Learning Ability Progress Level for six subjects is to make it a tool to assess the learning process, rather than to define it as the teaching content. Teachers should adjust the learning content and design the learning experience for individual students on the basis of the regular curriculum. The school should prepare sufficient Scheme of Work for each grade and each subject within each area to cover each learning level, so that students will not learn the same unit repeatedly.

7. Why is the peak level of learning ability set at Form 3 of formal education for special education curriculum in Macao?

Based on past experience, when highly competent students with special educational needs reach Form 6, their learning performance is similar to formal education students at Form 3. Therefore, we made reference to the learning outcome at junior secondary school in formal education curriculum to describe the levels in senior secondary school (L16-L18) in the Learning Ability Progress Level. If a student's learning performance reaches the level of Form 3 in formal education curriculum, it is not necessary for the student to study in a special education class.

8. Is the teacher for special education required to use the textbooks prepared for the educational level of the students and design the teaching content in accordance with the level of the students' learning ability? Do students learn the same content at different education level?

The answer is yes. The learning topics/units for students with special educational needs should be the same as students in regular schools, to keep the breath and balance of the curriculum.

The age and learning experience of students with special educational need should be taken into consideration by teachers who are specialized in adjusting the teaching content based on the learning ability of students.

9. Currently, most teaching materials for special education class are compiled by the teachers. How will the issue of students' use of textbook in special education class be tackled?
All teachers should design adequate teaching materials for students. Schools with special education classes may consider forming a network to compile and share the Scheme of Work, which is ideally the long-term development objective for special education in Macao.

10. When the Learning Ability Progress Level and the Curriculum Supplements are completed, how should teachers apply them to teaching practice? What else should be used together with the Learning Ability Progress Level and the Supplementary Guide? How can they benefit the teachers in teaching practice?

The Learning Ability Progress Level is used to identify indicators of students' learning performance, serving as the shared language for teachers to describe learning performance, which enables teachers to master the learning progress of students. Teachers should not consider the Learning Ability Progress Level to be formal teaching content. The Supplementary Guide serves as guiding documents for special education curriculum, to supplement the formal education curriculum document with special education descriptions. The Supplementary Guide specifies the principles, forms and direction for special education curriculum development. The Learning Ability Progress Level and the Supplementary Guide combined will benefit teacher to understand the ability of students and decide appropriate teaching content.

Appendix 4

Forms

The appendices provide useful documents for teachers to develop the Learning Ability Progress Level. Depending on their concrete situations, schools may adapt these forms accordingly.

1. Record of examples of students' learning performance

This form is used for the rating coordination mechanism. Schools may use this form to record the collected examples and contents, or to reassess students' learning performance. Details on how to use this form is provided in chapter VI: Rating coordination mechanism and example collection.

2. Scheme of Work

The Scheme of Work presents the opportunities and feasible practices for students with special educational needs to be educated according to the formal curriculum. The form lists the learning performances of students with different learning ability under different learning areas and objectives. The Scheme of Work can also provide practical suggestions to the teacher to design and improve the teaching plan, teaching contents and activities.

Appendix 4-1

XXX School

Record of examples on student learning performance

Subject:	Learning Areas:	Learning Stage:
Name of Student :	Learning Diversity:	
Unit Name:		Date:
Teaching Activity:		
<u>Types of Learning Performance Examples:</u> performance in class activity homework assessment/test case exploration/ case study multimedia files(videos/pictures/audios) self-evaluation peer review others		
Content and description of the examples-in-learning performance:	Content and description of the examples-review learning performance:	
Initial Rating:	Review Rating:	
Comprehensive Rating:		
Rating Director: Rater/Subject Teacher:	Date:	

Appendix 4-2

Annual Scheme of Work of XXX school in xxx Year

Subject:		Learning Areas:		Stage:	
Duration of Learning:					

Unit Name:	
Formal Teaching Goal:	
Teaching Objectives:	Through this unit, students can:
Keywords:	

Teaching Objectives	Examples of Feasible Teaching and Learning Activities and Experience	Performance Descriptors	

Item description:

Item	Description
Unit Name	<ul style="list-style-type: none"> • selected from the formal curriculum • a common topic that helps to broaden students' learning experience • could inspire students' learning interest
Formal Teaching Goal	<ul style="list-style-type: none"> • selected from the formal curriculum, specifying that the teaching content originates from the formal curriculum • have enough content for a given teaching session • include the basic knowledge that most students are able to master in this teaching unit
Teaching Objectives	<ul style="list-style-type: none"> • divide the formal teaching goal into three to four tasks to reach formal learning goal of the teaching unit • outline the learning objectives within the reach of the students' ability through a given teaching unit, with a precise description of the learning areas for students with special educational needs at various learning levels • use assessable descriptions and encourage students to get involved. For example, students should be able to tell/differentiate/apply the formats of letter writing .
Keywords	<ul style="list-style-type: none"> • list the vocabulary (around 10 words would be sufficient) students need to use for learning the teaching unit • include keywords that are important and relevant to the subject, so as to enrich the students' ability to express ideas in relation to the subject • place important keywords in prominent locations in the classroom
Examples of Feasible Teaching and Learning Activities and Experience	<ul style="list-style-type: none"> • adopt student-centered teaching • describe the activities carried out by students • make reference to the formal curriculum when designing activities, adding local cultural elements • design activities targeting the whole class participation in large scale activities to motivate and enhance learning experience • specify activity requirements for students with different learning abilities • nature of activities in line with the age and social experience of students
Performance Descriptors	<ul style="list-style-type: none"> • describe the performance with reference to the targeted teaching objectives, not the activity performance • refer to the descriptions on the progress level • specify observable learning performance

Editorial team (Hong Kong) for Compilation Plan for Special Education Curriculum of Macao

Centre for Advancement in Inclusive and Special Education (CAISE)

Dr. Man Tak Yuen (Associate Professor at Faculty of Education, University of Hong Kong, Director of CAISE\Director of the plan)

Mr Tse Chung Yee (Research Associate, CAISE; senior principle, plan coordinator)

Mr Lee Cheuk Hong (Research Associate, CAISE; senior principle, plan coordinator)

Ms. Wong Yuen Ping (Research Associate, CAISE; senior principle, plan consultant)

Ms. Ho How Sim (Research Associate, CAISE; senior principle, plan consultant)

Ms. Liu Suet Chun (Senior Instructor in special education, project GE)

Ms. Cheung Hoi Yan (Administration Manager of CAISE)

Professional instruction

Ms. CHAN Choi-Mi (Haven of hope Sunnyside school, Hong Kong)

Editorial team (Macao) for Compilation Plan for Special Education Curriculum of Macao

Ms. Choi Io Chan, Function Head and Coordinator, Centre of Psycho-pedagogical Support and Special Education, Education and Youth Affairs Bureau of Macao

Editorial team for the Supplementary Curriculum Guide to Physical Education Curriculum (special education)

Mr. Lei Kin Kuok (Escola Secundária Luso-Chinesa de Luís Gonzaga Gomes)

Mr. Lei Wan Kin (Caritas School) [from January 2018 to June 2018]

Ms. Chan Yin Shiuan (Escola Kai Chi)

Mr. Fu Hoi Tou (Concordia School for Special Education)

Ms. Lo In Peng (Caritas School) [from July 2018 to December 2018]

Ms. Sou Weng I (Centre of Psycho-pedagogical Support and Special Education)

Acknowledgements

HHCKLA Buddhist Po Kwong School, Hong Kong

Buddhist To Chi Fat She Yeung Yat Lam Memorial School, Hong Kong

Po Leung Kuk M. & Mrs. Chan Pak Keung Tsing Yi School

Haven of Hope Sunnyside School, Hong Kong

In case of any discrepancy between the English version and the Chinese version, the Chinese version shall prevail.
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