

PALACKÝ UNIVERSITY OLOMOUC
Faculty of Physical Culture

**European Standards
in Adapted Physical Activity**

Olomouc 2010

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Contents

| | |
|--|-----------|
| 1 EUSAPA: An Introduction | 7 |
| <i>Martin Kudláček</i> | |
| 1.1 Adapted Physical Activity | 7 |
| 1.2 Adapted Physical Activity in Europe | 8 |
| 1.3 European Standards in Adapted Physical Activities | 10 |
| 2 Adapted Physical Education in School..... | 11 |
| <i>Martin Kudláček and Aija Klavina</i> | |
| 2.1 Education of students with special education needs in Europe..... | 11 |
| 2.2 State of inclusive physical education in Europe | 13 |
| 2.3 Competencies of physical education teachers | 14 |
| 2.4 Adapted physical education teacher/consultant occupation description | 16 |
| 2.5 Functional map (FM) in Adapted Physical Education | 17 |
| 2.6 Knowledge, competence and skills framework (KCSF) in APE | 20 |
| 2.7 Summary..... | 24 |
| 2.8 References | 24 |
| 3 Adapted Physical Activities in Rehabilitation..... | 27 |
| <i>Joeri Verellen, Bartosz Molik and Yves Vanlandewijck</i> | |
| 3.1 Definition of rehabilitation | 27 |
| 3.2 Adapted Physical Activities in rehabilitation | 28 |
| 3.3 Standard occupations | 29 |
| 3.4 Key activities | 29 |
| 3.5 Competences..... | 32 |
| 3.6 Curriculum requirements | 33 |
| 3.7 Future recommendations..... | 35 |
| 4 Adapted Physical Activities in the Sport Area..... | 37 |
| <i>Natalia Morgulec-Adamowicz and José Pedro Ferreira</i> | |
| 4.1 State of Adapted Sports in Europe | 37 |
| 4.2 Do we need APA professionals? If so why? | 38 |
| 4.3 Do we need APA professionals in sport? | 39 |
| 4.4 What kind of professionals do we need? | 39 |
| 4.5 What can we do to improve this situation? | 40 |
| 4.6 APA coach – occupation description | 40 |
| 4.7 Functional map (FM) of APA coach | 40 |
| 4.8 Knowledge, competence and skills framework (KCSF) of APA coach | 43 |
| 4.9 References | 46 |
| 5 Summary of Project | 47 |
| <i>Martin Kudláček</i> | |

| | | |
|----------|--|-----------|
| 6 | Examples of Good Practice in Adapted Physical Education | 49 |
| | <i>Ursula Barrett, Niamb Daffy, Christina Evaggelinou, Lena Hammar, Aija Klavina, Kaisu Laasone, Pauli Rintala</i> | |
| 6.1 | Adapted aquatics and outdoor education physical education undergraduate training at the Institute of Technology Tralee, Ireland..... | 49 |
| 6.2 | In-service physical education teacher training in adapted physical education for students with disabilities | 51 |
| 6.3 | Research project “Peer tutoring for students with severe and multiple disabilities in inclusive physical education”..... | 53 |
| 6.4 | Best Start: Inclusive Schools Project, Ireland | 55 |
| 6.5 | Special Education support in APA in Sweden..... | 56 |
| 6.6 | SDM – Sherborne developmental movement – a holistic method for training social and motor skills | 57 |
| 6.7 | Reflecting through Art: Paint with us..... | 60 |
| 6.8 | Behavioural management in physical education..... | 61 |
| 6.9 | Buntús DVD with practical examples of how to adapt programme for inclusion of students with disabilities (Ireland) | 63 |
| 7 | Examples of Good Practice in Adapted Physical Activity in Rehabilitation | 65 |
| | <i>Nidia Amorim, Patrice Flore, Tarja Javanainen-Levonen, Bartosz Molik, Pavel Mustafin, Sandrine Tomasi, Joeri Verellen</i> | |
| 7.1 | Adapted physical activity education for physiotherapy students | 65 |
| 7.2 | COPD rehabilitation training..... | 66 |
| 7.3 | Functionally based exercise program for children with cerebral palsy | 68 |
| 7.4 | Handcycling and tricycling as a part of rehabilitation program of persons with lower extremity impairments..... | 69 |
| 7.5 | Sitting and standing volleyball in post war countries | 70 |
| 7.6 | Foundation for Active Rehabilitation..... | 72 |
| 7.7 | APA in rehabilitation – case study Satakunta/Finland | 73 |
| 8 | Examples of Good Practice in Adapted Physical Activity in Sports | 77 |
| | <i>Niamb Daffy, Jose Pedro Ferreira, Kati Karinbarju, Aija Saari, Hana Válková, Debbie Van Biesen</i> | |
| 8.1 | Sport Specific National Training Program to Coach Athletes with disabilities | 77 |
| 8.2 | Different world ... (program for football coaches)..... | 80 |
| 8.3 | Activities for All – adapted windsurfing | 83 |
| 8.4 | Sporting Chance Programme – Ireland | 87 |
| 8.5 | Coaching Skills Development in Boccia and Swimming..... | 90 |
| 9 | Appendices..... | 95 |
| | Appendix 1: EUSAPA Functional Map – Adapted Physical Education..... | 95 |
| | Appendix 2: EUSAPA Competence Skill Knowledge Framework – Adapted Physical Education..... | 98 |
| | Appendix 3: EUSAPA Functional Map – Rehabilitation | 101 |
| | Appendix 4: EUSAPA Competence Skill Knowledge Framework – Rehabilitation..... | 103 |
| | Appendix 5: EUSAPA Functional Map – Sport | 104 |
| | Appendix 6: EUSAPA Competence Skill Knowledge Framework – Sport | 105 |
| | Appendix 7: Basic structure of European Master in Adapted Physical Activity EMMAPA 2 | 107 |

1 EUSAPA: An Introduction

Martin Kudláček

1.1 Adapted Physical Activity

Adapted Physical Activity (APA) is a service delivery profession and an academic field of study which supports an attitude of acceptance of individual differences, advocates enhancing access to active lifestyles and sport, and promotes innovation and cooperative service delivery and empowerment systems. Adapted Physical Activity includes, but is not limited to, physical education, sport, recreation, and rehabilitation of people with disabilities (EUFAPA, 2006). Adapted physical education is a relatively young scholar discipline. On the other hand this discipline can be traced back as far as 3000 BC. Ancient Chinese believed in the importance of a healthy body and early on developed exercises that promoted health. These were internal forms of Kung fu; Taichi and Chikung. Most adapted physical education textbooks trace its roots to Europe and acknowledge Swedish gymnastics as the forerunner of adapted physical education Per Henrik Ling (1776–1839) started gymnastics in Sweden. His approach to gymnastics was more calisthenics than gymnastic. Ling explored the beneficial influence of exercise, when it helped him to cure his weak arm.

Some readers will be familiar with term Adapted Physical Education, which is the most commonly used term for the discipline, profession and service delivery in the USA. It encompasses mainly direct teaching of students with special education needs (SEN) and providing support to general PE teachers. The French-speaking leaders of Canada and Belgium who founded Federation Internationale de l'Activite Physique Adaptee – International Federation of Adapted Physical Activity (IFAPA) in 1973 had a broader vision, which included many professions, age groups, and service delivery settings. IFAPAs original purpose was “to give global focus to professionals who use adapted physical activities for instruction, recreation, remediation, and research”

In the 1970s, the concepts of adapt and adapted were believed to be well understood in French, English, and other Romance languages. Techniques for adapting activities, instruction, programs, and facilities were described in sources with such titles as *corrective physical education*, *corrective sport*, *APE*, *sport therapy*, and *sports for the handicapped*. In countries like Germany, Czech Republic, and Japan, whose languages were derived from different roots, adaptation strategies were used also, although the word *adapted* was not well understood (Hutzler & Sherrill, p. 3)

Hutzler and Sherrill (2007) also propose to utilise the conceptual framework ICF 2001 developed by the World Health Organization and in their article provide example of implementation of APA context and terminology within ICF 2001 (Table 1).

Table 1. Specific Example for APA Practices Using Across ICF Categories in APA Planning

| ICF Category | Significance to participant | APA practices | Service provider, level; track accent | Examples of activity goals |
|--|---|--|---|--|
| Body structure | Have physical foundation & acceptable appearance | Prevent from deterioration, enhance or improve | APA specialist; accent on rehabilitation (European perspective) | Reduce weight; align posture; increase bone density |
| Body function | Be able to perform | Prevent from deterioration, develop, improve | APA specialist; accent on rehabilitation (European perspective). In USA, this could be fitness training. | Restore range of motion; increase power; lose weight |
| Activity or task performance, related to physical activity | Doing meaningful tasks | Teach, train, coach | APA specialist teacher; General PE teacher / Instructor / Coach, each with additional APA knowledge; accent on education, recreation, & sport | Reach for the ball; finish 10 laps in swimming; maintain position; cross the road; enter a bus |
| Participation in physical activity for enjoyment | Being accepted as part of a reference group | Educate, reflect, empower, | APA specialist co-working with Class teacher / Social worker / Psychologist / important significant others; accent on education & recreation | Participate in ball games; be assertive; be accepted among peers; achieve leadership |
| Elimination of barriers to goal achievement | Having no restrictions, or opposition to participation (Equity) | APA practices | APA practitioner across levels together with social worker, volunteer community activist; accent on recreation & sport | Change attitudes, set rules for; use law and affirmative action |

1.2 Adapted Physical Activity in Europe

The area of adapted physical activity on a European level is promoted mainly by the European Federation of Adapted Physical Activity, which dates its beginning in the 80s, when the first European congress was organized by *Dr. Jean-Claude DePotter*, at the Université Libre de Bruxelles (Belgium), in order to found a European branch of the international federation (*IFAPA*). *DePotter* became then also the president of *IFAPA* (1987–1991) and was a very active collaborator for the development of the respective study programs (*EMDAPA* and *DEUAPA*). The European chairpersons of the European Association of Research into Adapted Physical Activity (*EARAPA*) in the following years have been: *Dr. Gudrun Doll-Tepper*, Free University Berlin, Germany (1987–1993), *Dr. Herman Van Coppenolle*, K.U. Leuven, Belgium (1993–2002), *Dr. Maria Dinold*, University of Vienna, Austria (2002–2006), and *Dr. Jean-Claude DePotter* (2006–2010, new name: European Federation of Adapted Physical Activity – *EUFAPA*) and currently *Dr. Martin Kudláček*, Palacký University Olomouc, Czech Republic.

EUFAPA is a European organisation concerned with the promotion and dissemination of experiences, results and findings in the fields of adapted physical activity and sport science, and their practical application to the benefit of individuals across the life span. **The fundamental purposes of EUFAPA are:** (a) To encourage European cooperation in the field of physical activity to the benefit of individuals of all abilities; (b) To promote, stimulate, and coordinate scientific research and experiences in the field of Adapted Physical Activity (APA) throughout Europe, and to support the application of research results in various areas of professional practice such as education, adaptation, inclusion, coaching, leisure, recreation, and rehabilitation.; and (c) To make scientific knowledge of adapted physical activity and practical experiences available to all interested national and international organizations and institutions.

EUFAPA also promotes scientific finding in the discipline in the *European Journal of Adapted Physical Activity (EUJAPA)* and *European congresses (EUCAPA)*. *EUJAPA* is an international, multidisciplinary journal, introduced to communicate, share and stimulate academic enquiry focusing on physical activity of persons with special needs. Articles appearing in *EUJAPA* reflect the cross disciplinary nature of the academic discipline of adapted physical activity ranging from physical education, through sport, recreation, rehabilitation, dance, sport medicine or health care. This multidisciplinary journal provides the latest academic inquiry related to physical activity for special populations. Regular features include qualitative and quantitative research studies, case studies, review articles, viewpoints, methodological guidelines, and editorial commentary.

The European conferences (*EUCAPA*) took place in following places:

| | |
|---------------------|----------------------------|
| 1993 | Leuven (Belgium) |
| 1995 | Leuven (Belgium) |
| 1998 | Thessaloniki (Greece) |
| 2001 | Vienna (Austria) |
| 2002 | Amiens (France) |
| 2004 | Dortmund (Germany) |
| 2006 | Olomouc (Czech Republic) |
| 2008 | Torino (Italy) |
| 2010 | Jyväskylä (Finland) |
| <i>Planned 2012</i> | <i>Killarney (Ireland)</i> |

There are multiple organisations on European and national levels, which focus on activities related to sport and physical education of persons with disabilities. The most influential include: International Paralympic Committee/ European Paralympic Committee, Special Olympics International, IWAS, CP-ISRA, INAS-FID and IBSA. Many of these organisations or their national members play an important role in service delivery and training professionals, Therefore there are many initiatives in the field of APA, although many of them can be named by terms alternative to APA. However our knowledge of the state of the APA profession in Europe is very limited and at many times outdated (in relation to relatively fast developments in legislation and social inclusion of persons with disabilities in Europe). A closer look into state of APA in three areas: (a) adapted physical education, (b) APA in rehabilitation and (c) APA in sports will be provided in following chapters.

1.3 European Standards in Adapted Physical Activities

It has been shown that sport and physical activity in general can lead into the empowerment of those who have both acquired and congenital disabilities. As societal paradigm and attitudes toward persons with disabilities changed, they are facing new challenges. All developed societies should be establishing support services and networks, which would aim towards greater acceptance, involvement and inclusion of persons with disabilities. These changes should not be only “paper based suggestions” but the set of real initiatives. The education of professionals working in education, recreation and sport in both segregated and inclusive settings should be a priority in all EU countries as competent professionals (e.g. teachers, coaches, physiotherapists) are one of the keystones to inclusion (European Charter of Sport for all person with disabilities, 2001). In order to ensure this there should be clear requirements on competencies that all specialists in this area should acquire as well the competencies that should be transferred to general PE, sport and recreation specialists. This project is initiated by European Federation of Adapted Physical Activity, whose aim is among others: “To encourage European cooperation in the field of physical activity to the benefit of individuals of all abilities.” According to the published studies teachers of physical education still do not manage to include children with disabilities in general physical education and the level of sport participation of persons with disabilities is significantly lower than in mainstream society.

Our project aimed to contribute to more social inclusion by setting up the standards for training professionals who will be responsible for inclusion in the areas of physical activities. In accordance with the recommendation of ministers of education of EU country from 30.4.2003 (rec. Nr.1 improvement of physical education for children, including those with disability). The objectives of the project are: (a) To describe the professional competencies in each of the three areas of Adapted Physical Activities: (1) adapted physical education in schools; (2) APA in sport, and (3) APA in rehabilitation; (b) To identify the needs for each APA area in all partner counties and; (c) To define academic standards (subject specific competencies and learning outcomes) in the three areas of APA. This book is one of key outcomes of the project presenting a theoretical framework of professional competencies needed by those working in the area of APA. The present book consists of two parts. The first part, EUSAPA FRAMEWORK, presents three areas of Adapted Physical Activities and a functional map with the knowledge competence and skills framework for each of the areas. The second part of the book is devoted to the EXAMPLES OF GOOD PRACTICES IN APA. Examples are presented separately in three areas and are accompanied by a DVD.

2 Adapted Physical Education in School

Martin Kudláček and Aija Klavina

2.1 Education of students with special education needs in Europe

Education of students with special education needs (SEN) in Europe has undergone major changes in past 20 years and the situation in different European countries is significantly different. Teaching of students with SEN is driven by educational legislation, which defines SEN, appropriate education and support services. In the following text we can see differences in SEN services and APE in selected countries of the project partners. Updated information about the area of APE and support services in European countries can be found on the EUFAPA website at www.eufapa.eu

Belgium

In Belgian legislation special education is reserved for children and adolescents, on the basis of a multi-disciplinary assessment. Specialised education is provided for students whose needs are of the same type, their needs defined in terms of the principal disability common to one of eight groups. APE is not explicitly mentioned in legislation. Professional preparation in relation to APA is being delivered at Catholic University in Leuven.

Finland

In Finland students have special educational needs when their possibilities for growth, development or learning are decreased by the reason of disability, sickness or decreased working order. Students in need of psychological or social support or who are at risk in these areas have the right to have assistance for their learning. Students with minor learning or adjustment difficulties have the right to receive part-time special needs education in conjunction with mainstream instruction. If a student cannot be included in mainstream education due to disability, illness, delayed development, emotional disorder or other reasons, he or she may be admitted to special needs education. Special education is provided primarily in conjunction with mainstream instruction or in a special class or at some other appropriate location. Adapted physical education can be delivered by teachers (daycare/classroom/special education/basic education/P.E. teachers/APA-teachers etc.) according to the age of pupils. Teacher preparation in relation to APA is being delivered in multiple institutions (e.g. University of Jyväskylä or Haaga-Helia University of Applied Sciences in Vierumäki).

France

There is no established term in France which refers to the population of children who benefit from specific measures defined on the basis of special educational needs: the terms used (disabled children, non-adapted children) are all very specific, linked to certain connotations, and marked by a historical situation. According to *the Law n° 2005-102 of February 11, 2005* for equal rights and opportunities, participation and citizenship of disabled persons, the definition of disability is constituted by any limit on activity or restriction on the participation in social life in person's environment due to a substantial, durable, or permanent alteration of one or several physical, sensorial, mental, cognitive, or psychic functions,

to a multiple disability or to a disabling health problem. *APA professionals in France have an advantage over colleagues from other European countries because APA is explicitly mentioned in law. Article L.212-1 of Sport Code, Decree of 12/10/2006 published (official Journal JO: n° 259 du 08/11/2006 text number 21) by the Ministry of Health, Youth, Sports and Associative Life states: A professional with a Bachelor degree in APA can lead physical activity sessions in the aims of maintaining health, of rehabilitation or integration for persons with motor or psychological disabilities, except in the sport field. APA studies are offered in multiple French institutions.*

Ireland

In Ireland 'Special educational needs' are defined in relation to a person as a restriction in the capacity of the person to participate in and benefit from education on account of an enduring physical, sensory, mental health or learning disability, or any other condition which results in a person learning differently from a person without that condition.' Adapted physical education is not explicitly mentioned, but the Special Needs Education Act 2004 (EPSEN) defines Support Services for inclusion, which should be responsible also for support in inclusive PE. Relevant services can be: (a) Junior Cycle PE Programme-Inclusion Officer, (b) Physical Education Association of Ireland, (c) Primary Curriculum Support Programme or (d) Special Education Support Services. APA studies or modules are delivered in multiple institutions with the Institute of Technology Tralee being leading institution in multiple national and international APA projects (e.g. Sport inclusion disability officers).

Portugal

In Portugal students with SEN are defined as children and young people receiving special education because they have difficulties in their learning process and participation in education, considering the interaction between inter-related factors and limitations in their functioning (*DGIDC Direção-Geral de Inovação e de Desenvolvimento Curricular (Innovation and Curricular Development Department), Ministry of Education*). PE (APE) is not explicitly mentioned in the law, but the law includes statements about areas where special needs have been identified and requires a certain type of specialised support. PE is one of those areas, however without indicating it as the APA/APE. The professionals that work with children with special needs in PE (APA/APE) on a daily basis are PE teachers. Among them are PE teachers with complementary formation on APA (at undergraduate and pos-graduate level) taught for example at the University of Coimbra.

Latvia

In Latvia the term "special needs" is given to the child if she/he has an assigned impairment that is included in the list developed by the Latvian Ministry of Education and Science (LMES): (1) visual impairments, (2) hearing impairments, (3) learning disability, (4) moderate and light mental retardation, (5) language problems, (6) chronic diseases like diabetes, asthma, (7) physical problems, and (8) some psycho neurological diseases (*Regulation Nr.542, LMES, 2003*). Adapted physical education is not explicitly mentioned in law. Requirements for pedagogical staff at education settings: teacher must have highest education study programme diploma in particular subject (for example, in sport education). The APE teacher is not included in the list of professions in education and accommodations in sport education are not explicitly listed. Adapted physical education is being taught as part of studies of PE and physiotherapy at the Latvian Academy of Sport Education in Riga.

Poland

Special Needs Education (SNE) in Poland concerns children and youths with developmental disabilities who require special organisation of work, working methods and special equipment. It can take place in general schools, integration schools/classes, or special schools/classes. Special Education covers the fol-

lowing groups of students with special educational needs: slight mental disability, moderate and severe mental disability, profound mental disability, hearing impairment, visual impairment, physical disabilities, chronic diseases, psychiatric problems, multiple disabilities, autism, social and behavioural problems, language disorders and communication problems. SNE is regulated by the *Act on School Education of 7 September 1991*, with further amendments and the resolution of Minister of National Education about special needs education. All pupils with SEN receive the assistance from Psychological and Educational Services Centres free of charge and on the voluntary basis. Results of psychological, pedagogical and medical assessment serve as a basis for qualifying pupils for suitable forms of education (general schools, integration schools, special schools) although the final decision is up to the parents. There is no information about APE. However, the educational system in Poland created the so called special educational system (*ACT about System of Education, 7/09/1991*). Teachers in special PE should participate in special life-long learning courses for developing their own competencies.

2.2 State of inclusive physical education in Europe

Growing number of students with disabilities being included in general education results in a situation where more and more physical education teachers are faced with the reality of teaching these students together with the rest of the children. In most cases teachers are not permitted to decide if they will have a student with a disability in their class, but they can decide to which extent they will include this student (Lienert et al., 2001). According to Sherrill (1998, p. 107), “The practice of assigning almost everyone to regular physical education and assuming that teachers will take the initiative in adapting instruction is widespread.”

The process of educating children together has had many titles in past starting with mainstream, changing into integration and finally arriving to current title of *INCLUSION*. Inclusion means providing students with appropriate support and assistance as need to ensure success. Inclusion means that the student with a disability is part of the classroom and not an outsider. The student is thus included in activities, and activities are adapted to ensure participation. The term “inclusion” is almost universally accepted in English terminology, but in some countries different terms (e.g. integration) are still used preferably. Recently Block and Obrušniková (2007) as well as O’Brien, Kudláček and Howe (2009) presented extensive reviews of studies on inclusive physical education and criticised the limited numbers and quality of published studies. To understand the nature of inclusion and service delivery in adapted physical education is crucial for the improvements of physical education of students with SEN. Lienert et al. (2001) focused on the experiences and perceptions of physical educators from the USA and Germany. Teachers had personal concerns about uncertainty and worry about everyday demands and their competence to meet these demands. In managerial concerns teachers were worried about lack of resources, large class sizes and inadequate facilities. Teaching was also reported to be much more difficult in an inclusive setting. Finally teachers held collaboration concerns about support and team teaching with other professionals or support personnel. Morley, Bailey, Tan and Cooke (2005) found that teachers were concerned with the lack of support services and training and also about the accessibility of environment. Fitzgerald (2005) also found discrepancies between inclusive curriculum policies and school-day realities. Herold and Dandolo (2009) emphasized the need to upgrade initial teacher training programmes to address inclusive physical education more effectively and pointed out the limitations of British National Curriculum in PE as a framework for inclusion. Learning more about teachers concerns, perspectives and experiences with inclusive physical education can help European and National policy makers with policy and decision making related to school rules and curriculum guidelines. Teachers can also feel like their voice is being heard and finally this information can be used for teacher preparation programmes. Currently most teachers do not feel competent to teach students with SEN in inclusive physical education and in most cases there is absence (or lack of) support services and resources to facilitate inclusion in PE.

Therefore the following changes should be made in order to bring together educational policies and strategies of social inclusion with the everyday school reality of inclusion/exclusion of students with special education needs in physical education:

- (a) **All physical education teachers should receive appropriate training**, which should empower them to teach students with SEN in an inclusive setting. Suggested model for such training can be found on website of project **EIPET** European inclusive physical education training (www.eipet.eu).
- (b) **All professional teaching physical education in special schools or institutions should have an appropriate training**. While inclusion of students with SEN is the preferable mode of teaching, there are still a significant number of special schools and countries should make sure that physical education is part of schools services and these services are being delivered by qualified professionals.
- (c) **Adapted physical education consultants should be employed in all European countries** in order to provide an appropriate support for physical education teachers in inclusive PE. These professionals could also work part time as PE teachers in special schools or classes and part time as APE consultants. The framework of competencies needed to become a qualified APE professional is one of key outcomes of this project (Appendix 1 and 2). Adapted physical education builds its APE related competencies on professional foundations in physical education and special education training programmes.
- (d) **Appropriate support** to physical education of students with SEN should include also:
 - (i) trainer paraprofessionals (teacher assistants),
 - (ii) programmes for peer tutoring,
 - (iii) adapted equipment and
 - (iv) support by community or disability sport services.

2.3 Competencies of physical education teachers

Physical education is a compulsory part of education in most European countries. What differs is the amount of allocated teaching hours for PE in EU countries, the approach to curriculum and the requirements for professional preparation of physical education teachers. The key European project in the area of PE aimed to align professional preparation and develop European qualification framework in physical education and other sport studies was titled AEHESIS (Aligning a European Higher Education Structure In Sport Science). As we strongly believe that European Qualifications Framework (EQF) in adapted physical education should be based on foundation of EQF in physical education we present key outcomes of AEHESIS project in the area of physical education. The presented text is the digest from the publication **Implementation of the Bologna Process and Model Curriculum Development in Physical Education Teacher Education** authored by Ken Hardman, Gilles Klein, Göran Patriksson, Antonín Rychtecký & Francisco, Carreiro da Costa (pp. 75–77), which covers the outcome of AEHESIS project in relation to knowledge and skills needed by physical educators in Europe.

Programmes of Study Outcomes (Knowledge)

- Generic knowledge related to education
 - Knowledge and understanding of pupils' individual needs and development
 - Knowledge of a curriculum that is formatively/developmentally based and progressively sequenced with clearly defined aims, learning outcomes and key concepts
 - Knowledge of a range of pedagogical and didactical processes and skills to include evaluation of student progress, reflective thinking, appropriate decision-making and initiative taking, and adaptive behaviours

-
- Knowledge and skills to support pupil’s learning, progression and development within the school curriculum in an informed and imaginative manner
 - Knowledge of ethically and professionally sound attitudes, values and safe behaviours (teaching and learning, physically and socially)
 - Knowledge of the school as a social institution and contextualisation of professional practices.
 - Management of risk-taking
 - Specific knowledge related to physical education
 - PE-related subject (specialist) knowledge and understanding to include acquisition of a subject content knowledge base in a variety of physical activities and related scientific areas of study embracing key concepts and skills that provide the material to be taught and the ability to employ a range of teaching styles and methods within a variety of contexts
 - Knowledge of PE curriculum development and implementation
 - Knowledge of structure, function and control of physical systems as well as understanding and application of anatomical and biomechanical principles to movement
 - Knowledge of PE/Sport in society, historical, cultural and sociological developments
 - Psychological/sociological knowledge of human movement
 - Knowledge of preparation, conduct and reporting of a PE-related project

Competencies specific skills (Do)

- Generic skills related to education
 - Curriculum planning and delivery competence with a range of teaching interventions
 - Effective classroom management with the ability to respond to, and manage, change learners, and handle issues in an informed way so as to develop their practice in a changing world.
 - Application of a range of pedagogical and didactical processes and teaching/learning management techniques/skills that **guarantee differentiation of learning tasks** and teaching styles, which are appropriate both to the tasks and to the students
 - Effective planning and setting of expectations
 - Undertake assessment and evaluation and monitor formative progress and achievement
 - Manage own performance and development
 - Manage and develop staff and other adults
 - Manage resources
 - Policy formulation and strategic leadership
- Specific skills related to physical education
 - Actively commit to the provision of equal opportunities **respecting principles of inclusion and differentiation** of teaching in PE
 - Ability to demonstrate competence in PE curriculum planning and review and appreciate the need for curriculum development connecting theory with practice
 - Apply a range of PE-related practical and teaching skills
 - Ability to synthesise and apply knowledge and understanding to the critical analysis and evaluation of physical education theory research and practice
 - Relate aims of PE to more general curricular objectives
 - Prepare, conduct and report on a PE-related project

It is important to build any APE related activities on already existing physical education programmes. In our case the efforts on strengthening competencies of PE teachers should be built on the findings and outcomes of previously mentioned AEHESIS project. The AEHESIS PE Area Research Group (**Hardman** et al.) identified categories of teachers qualified to teach PE in schools across Europe and, in accordance with the existing diverse practices, recommends that consideration be given to recognising three dedicated category levels of **PE Teacher: (a) Physical Education Teacher (One Subject Specialist)** usually 240 ECTS dedicated to acquiring PE related competencies; **(b) Physical Education**

Teacher (2–3 Subjects) usually minimum of 35–50 % (that is 84–120 ECTS) of content excluding professional training is PE-related; and **(c) Generalist Teacher** usually minimum of 10 % (that is 24 ECTS) of content is PE-related. The ‘Generalist Teacher’ will usually be responsible for teaching PE in primary schools. In light of these facts we must advocate for an **appropriate training in pre-service and in-service PE teachers education related to inclusive PE**, which should empower them to teach students with SEN in an inclusive setting. Considering limited space allocated for PE area in PE teachers studying also another subject or generalist teacher, we should expect that it might be challenging to introducing courses or topics aimed to teach APE specific competencies. For minimum appropriate training we suggest to follow EIPET module aims to provide an appropriate training for PE teachers to be successful in inclusive PE. In the EIPET module (course) students learn to: (a) Plan developmentally appropriate learning experiences in physical education, which are also suitable for students with special educational needs (with disabilities); (b) Teach students with special educational needs in an inclusive setting; (c) Evaluate progress of learning of students with special educational needs; (d) Advocate for the needs and rights of students with special educational needs. The module consists of 48 contact hours (12 weeks x 4 hours) with 24 hours of lectures aimed to cover the knowledge base identified on the knowledge, skills and competencies framework, 12 hours of tutorial aimed to assist student in planning, discuss specific needs, encourage sharing of ideas and encourage reflective practice and 12 hours of practicum aimed to give students a positive experience, provide progression which will increase student confidence and provide contacts and experiences with local disability organisations. The suggested model for such training can be found on website of project EIPET European inclusive physical education training (www.eipet.eu). It is important to emphasise the need to have practicum as integral part of this module as only contact and positive experience in work with students with SEN can assure acquiring substantial competencies needed in inclusive PE.

2.4 Adapted physical education teacher/consultant occupation description

In light of previous facts, we strongly believe that there is a great need to introduce APE professionals in Europe. These professionals should be the main source of support to general physical education (GPE) teachers to ensure true and appropriate inclusion in physical education of students with SEN without too great burden on GPE teachers. However to our understanding based on a thorough literature review as well as studies of project partners in their countries, currently APE school based professionals do not exist (or are very limited) in Europe. The nature of work of adapted physical education teachers in Europe has not been studied and thus we provide examples from the USA, where this profession has been well recognised since 1960s. Kelly and Gansender (1998) have pointed out that adapted physical educators can provide both direct and indirect services, while direct services mean direct teaching of children with disabilities and indirect service means providing support to teachers attempting to include children with disabilities in their general physical education. A study by Lytle and Collier (2002) investigated APE specialists’ perceptions of consultation. Results indicated that the skills, attitudes and knowledge of the APE specialist combined with the educational environment were influential factors in the types of services provided. The use of consultations and their implementation were often influenced by the social, intellectual and physical environment. All participants commented that no formal training in consultation was provided as part of their training. In another study Lytle and Hutchinson (2004) discovered the following roles of the APE teachers in the USA: (a) advocator; (b) educator; (c) courier; (d) resource coordinator; and (e) supporter/helper. There were some negative reactions to the supporter/helper role, as the situation of territorial issues with the GPE teacher often arose. Overall it was highlighted that the various roles in the consultation process is a huge part of the APE teacher’s daily life. Specific training in consultation was not part of the participants’ APE training. Lytle and Hutchinson suggested that more training in areas such as adult interactions and effective communication in the consultation process

is required. Kudláček et. al. (2008) studied the nature of work and roles of public school adapted physical educators in selected school districts in the United States with the aim of adding to the information base to enable the improvement of service delivery and professional preparation. Results showed the differences in the nature of work among APE specialists. Participants had high teaching loads (44–90 students) and served a wide range of schools (1–20), which created quite different teaching profiles. Most teachers were involved in APE consulting. Results also indicated the need to incorporate issues of consulting into teacher preparation and to change the university studies to make them more relevant to “real life teaching”. The EUSAPA project partners also studied the situation of APE in their country but found very limited evidence by different professionals somehow related to inclusive physical education or PE in special schools. Their finding and report were incorporated in creation of functional map and knowledge, competence and skills framework for APE professionals. It is important to mention that in the USA there are national standards APENS (Adapted Physical Education National Standards) and APE professionals passing the exams can become Certified APE specialists (CAPEs). EUSAPA project aims to be first step by creating framework of competencies needed by APE professionals in functional map and knowledge, competence and skills framework.

2.5 Functional map (FM) in Adapted Physical Education

The functional analysis of the survey led to the development of the **Functional Map** (appendix 1), which is a structured way of describing the functions of the Adapted Physical Education teacher/consultant. The **Key Purpose** of APE professional is: (a) to plan developmentally appropriate learning experiences for students with SEN, (b) Teach students with special educational needs together with students without SEN; (c) Evaluate learning progress of students with SEN and effectiveness of applied teaching and support strategies; and (d) to take part in professional collaboration to improve teaching quality for students with SEN.

Key Areas (planning, teaching, evaluating and collaborating) need to be fulfilled with **Key Roles** and **Key Functions**. Key roles (“basic functions”) are understood as the essential functions needed to achieve particular key areas (“major functions”), while the key functions (“sub-functions”) are detailed functions needed to be performed in order to achieve particular key roles. Therefore each key area is broken into the key roles (A.1 to A3, B.1 to B4, C.1, etc.), which are composed of the key functions (A.1.1 to A.1.2, A.2.1 to A.2.3, A.3.1 to A.3.4, etc.). The functional map provides a substantial framework of expected tasks that the APE professional will be responsible for. The functional map was developed as part of EUSAPA project by the working group on education, which took into consideration PAPTECA model published by Sherrill (2004) as well as findings of published studies in the area. *Following is the structured description of job expectation.*

A. Plan developmentally appropriate learning experiences in physical education (PE), which are also suitable for students with special educational needs (SEN)

Many professionals consider the most challenging part of APE profession teaching and adaptations, but careful and responsible preparation creates solid foundation for successful teaching. APE teacher must be able to: (1) assess the needs of students, (2) adapt school curriculum, (3) plan developmentally appropriate learning, (4) prepare teaching environment and (5) be able to collaborate with relevant partners. These key roles are listed below together with key functions to describe job expectations in detail.

- A.1 Assess the needs (current level of performance) of students with (SEN)
 - A.1.1 Identify the special needs of students in relation to adapted physical education (APE) (e.g. information from family, using appropriate screening tests)
 - A.1.2 Identify the support services and resources, which can facilitate APE (e.g., assistant personnel, equipment, environment)
 - A.1.3 Identify special needs for the purposes of prescription of individual goals and the most appropriate teaching strategies
 - A.1.4 Identify competencies and attitudes of students, teachers and other staff in relation to participation of students with SEN in physical education.
- A.2 Adapt school curriculum in physical education to meet the individual needs of all students with special educational needs
 - A.2.1 Identify the strengths and weaknesses in school physical education curriculum in relation to adapted physical education
- A.3 Plan developmentally appropriate learning experiences in adapted physical education
 - A.3.1 Prepare individual educational plan for the physical education of students with special educational needs
 - A.3.2 Identify the most appropriate level of support (e.g. no support/ part time support/ full time support)
 - A.3.3 Plan the most appropriate communication strategies in relation to students with special education needs
 - A.3.4 Plan the most appropriate behavioural management strategies in relation to students with special education needs
- A.4 Prepare teaching environment before arrival of student with special educational needs
 - A.4.1 Prepare assistant personnel (e.g. teacher assistants, peer tutors)
 - A.4.2 Prepare other students
 - A.4.3 Prepare school staff
 - A.4.4 Ensure that facilities, equipment and environment are appropriate and safe
- A.5 Collaborate with out of school organisations
 - A.5.1 Contact relevant community based disability organisations for potential cooperation (e.g. Special Olympics, Local sports clubs)

B. Teach students with special educational needs together with students without SEN

The art of teaching is the core of adapted physical education teachers. Some say that all good teaching must (should) be adapted to the needs of students with various disabilities and thus all PE should therefore be adapted PE. However it is crucial to recognise possible difficulties and challenges PE teachers can face in teaching students with SEN (e.g. accounts of studies by Lienert et al, 2001; Morley, Bailey, Tan and Cooke, 2005). The following three key roles can be expected: (1) adapting teaching to meet the needs of all students, (2) managing student's behaviours and (3) communication with students with SEN. These key roles are listed below together with key functions to describe job expectations in detail.

- B.1 Adapt teaching in order to meet the needs of ALL students in adapted physical education.
 - B.1.1 Use appropriate adapted equipment, which can facilitate inclusive physical education (e.g. brightly coloured, sounded, lighter or heavier, bigger)
 - B.1.2 Use task analysis for desirable skills
 - B.1.3 Adapt the rules of games, teaching style and physical setting (current environment) to facilitate participation
 - B.1.4 Use appropriate instructional accommodations (e.g., physical/verbal cues, prompts, feedback, reinforcement)
- B.2 Manage students' behaviour to assure the most appropriate and safe learning for ALL students in APE
 - B.2.1 Positive/negative reinforcement of desirable/undesirable students' behaviours where appropriate
 - B.2.2 Keep records related to behavioural management plan
- B.3 Communicate with students with SEN to assure their understanding and maximum participation
 - B.3.1 Use appropriate communication tools (e.g., Braille, sign language, augmentative and other alternative communication tools)

C. Evaluate learning progress of students with SEN and effectiveness of applied teaching and support strategies

A crucial aspect of teaching students with SEN is evaluation of their learning progress and success of our teaching strategies. Many times the progress in learning of our students is very slow and we need to keep evidence of learning in relation to students IEP. Key roles in this area are: (1) evaluation of learning progress, (2) evaluation of suitability of curriculum and (3) evaluation of applied strategies. These key roles are listed below together with key functions to describe job expectations in detail.

- C.1 Evaluate learning progress of student with SEN in relation to his/her Individual Education Plan (IEP) goals
 - C.1.1 Use appropriate evaluation tools to measure students' progress in relation to the IEP
 - C.1.2 Assign appropriate grade according to IEP
- C.2 Evaluate the suitability of the curriculum adaptations to students with SEN
 - C.2.1 Assess appropriateness of curriculum to individual needs and abilities
- C.3 Evaluate effectiveness of applied teaching and support strategies.
 - C.3.1 Assess appropriateness of applied teaching
 - C.3.2 Assess appropriateness of support strategies

D. Professional collaboration to improve teaching quality for students with SEN

Adapted physical education is cross disciplinary in nature and frequent collaboration with other professionals or parents of students with SEN can be expected by APE professionals. Key roles in this area are: (1) collaboration with other professionals, (2) collaboration with parents of students, (3) advocacy for rights of students with SEN and finally (4) professional life-long learning in. These key roles are listed below together with key functions to describe job expectations in detail.

- D.1 Collaborate with professionals in APE
 - D.1.1 Collaborate with other specialists providing PE/APE
 - D.1.2 Collaborate with health and rehabilitation professionals (e.g., Physiotherapist, Occupational Therapist, Speech Therapist, psychologists)
 - D.1.3 Collaborate with the disability sport and recreation representatives
- D.2 Collaborate with other advocates of students with SEN
 - D.2.1 Collaborate with parents/guardians of students with SEN
 - D.2.2 Collaborate with Non- Governmental Organisations (e.g., in children rights)
- D.3 Improve professional skills and knowledge
 - D.3.1 Identify needs for professional development in the area of APE.
 - D.3.2 Engage in continuing professional development activities (e.g. reading professional publications; attending conferences (workshops, seminars) to learn about new trends in APE)
 - D.3.3 Communicate with other PE/APE specialists to share your experiences and learn about the examples of best practices
 - D.3.4 Self-evaluate
- D.4 Advocate for the needs and rights of students with special educational needs
 - D.4.1 Advocate appropriate support in physical education service delivery for students with SEN
 - D.4.2 Advocate the utilisation of adapted physical education specialist, teacher assistants or peers tutors where appropriate
 - D.4.3 Advocate for the rights of persons with SEN for physical activities

2.6 Knowledge, competence and skills framework (KCSF) in APE

After the completeness of the functional map more detailed analysis was carried out to develop the Knowledge, Competence and Skills Framework (KCSF), which describes **Performance Requirements** for adapted physical education teacher/consultant (appendix 2). Key competencies APE professionals should acquire can be divided in four areas focused on (1) preparation, (2) teaching, (3) evaluation and (4) collaboration and life-long learning. Competencies described in KCSF are (being able to perform): (a) Assess the needs (current level of performance) of students with special educational needs (SEN); (b) Adapt school curriculum in physical education (PE) to meet the individual needs of all students with SEN; (c) Plan developmentally appropriate learning experiences in adapted physical education (APE); (d) Prepare teaching environment before arrival of student with SEN; (e) Adapt teaching in order to meet the needs of ALL students in PE; (f) Manage students' behaviour to assure the most appropriate and safe learning for ALL students in PE; (g) Communicate with students with SEN to ensure their understanding and maximum participation; (h) Evaluate learning progress of student with SEN in relation to his/her IEP goals; (i) Evaluate the suitability of the curriculum adaptations to students with SEN; (j) Evaluate the effectiveness of applied teaching strategies; (k) Collaborate with various relevant professionals; (l) Collaborate with other advocates of students with SEN; (m) Improve professional skills and knowledge; and (n) Advocate for the needs and rights of students with special educational needs. With all competencies we should consider range of students of school age with various SEN among which we can include (1) visual impairments, (2) hearing impairments, (3) learning disability, (4) moderate and

light mental retardation, (5) language problems, (6) chronic diseases like diabetes, asthma, (7) physical problems, and (8) some psycho neurological diseases (Regulation Nr.542, LMES, 2003 from Latvia). Thus all APE professionals should acquire below specified knowledge also in relation to these SEN (and possible more in accordance with national regulations and legislation).

Assess the needs (current level of performance) of students with special educational needs (SEN)

In order to plan developmentally appropriate education to students with SEN APE professional must be able to: (a) Select appropriate assessments fitting the students profile; (b) Administer assessment; and (c) Write the report.

The knowledge the individual needs to learn to do this:

- Special education needs (different functional abilities, motor, cognitive, social, behavioral, communication)
- Variety of assessments approaches (holistic, norm reference, criterion based etc)
- Variety of assessments (Movement ABC etc)
- Relevant regulations on report writing and dissemination

Adapt school curriculum in physical education (PE) to meet the individual needs of all students with SEN

In order to adapt school curriculum in PE in relation to the needs of students with SEN APE professional must be able to: (a) Analyse current PE curriculum in relation to students needs and (b) Adapt curriculum.

The knowledge the individual needs to learn to do this:

- Current curriculum (school district/national)
- Curriculum development principles
- Curriculum adaptation principles and strategies

Plan developmentally appropriate learning experiences in adapted physical education (APE)

In order to plan appropriate learning APE professional must be able to: (a) develop Individual Education Plans (IEP) in PE; (b) plan inclusive PE lesson to ensure appropriate and safe learning for all students; (c) plan appropriate behavioural management strategies; (d) plan motivation strategies for students to participate; and (e) plan appropriate communication strategies.

The knowledge the individual needs to learn to do this:

- Relevant regulations on IEP development
- Philosophy, purpose and aims of IEP
- Strategies for development of an IEP (e.g. multidisciplinary team)
- Concept of the least restrictive environment and continuum of support in physical education
- Health and safety issues in relation to inclusive PE (e.g. contraindications)
- Causes and consequences of behavioral problems
- Behaviour management and modification techniques
- Motivation strategies
- Communication strategies (interpreter, communication boards etc)

Prepare teaching environment before arrival of student with SEN

In order to prepare environment APE professional must be able to (a) prepare human environments (assistant personnel e.g., teacher assistants, peer tutor, students without disabilities and school staff); and (b) prepare the physical environment (facilities, equipment, temporal).

The knowledge the individual needs to learn to do this:

- Knowledge of peer tutor/para-educator programmes

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- School structures and functions
 - Attitudinal theories and disability awareness
 - Adaptation theory and practical application in relation to equipment etc.
 - Physical access issues

Adapt teaching in order to meet the needs of ALL students in PE

In order to adapt teaching APE professional must be able to: (a) use appropriate instructional strategies (e.g., physical/verbal cues, prompts, feedback, and reinforcement); (b) adapt the rules of games, physical setting and equipment; and (c) use task analysis for desirable skill.

The knowledge the individual needs to learn to do this:

- Instructional strategies
- Adaptation strategies
- Adapted games, rules, teaching styles
- Task analysis

Manage students' behavior to assure the most appropriate and safe learning for ALL students in PE.

In order to successfully manage many students behaviour APE professional must be able to: (a) provide positive/negative reinforcement of desirable/undesirable students' behaviours where appropriate; (b) observe and keep records related to behavioural management plan; and (c) counsel/ guide students towards adopting more appropriate behaviours – choice.

The knowledge the individual needs to learn to do this:

- Identify and understand the causes of behavioural problems
- Appropriate behavioural management strategies and theories (e.g., positive and negative reinforcement, self-actualisation, self-empowerment, Hellison model etc.)

Communicate with students with SEN to ensure their understanding and maximum participation

In order to teach students we must assure maximum understanding and thus appropriate communication. Thus APE professional must be able to use appropriate alternative and augmentative communication tools.

The knowledge the individual needs to learn to do this:

- Appropriate communication strategies for students with SEN (e.g. Braille, sign language, augmentative and other communication tools)

Evaluate learning progress of student with SEN in relation to his/her IEP goals

As teaching in relation to all students but specially those with SEN must be evaluated the APE professional must be able to use appropriate assessment methods to measure students' progress and grade the student according to his/her potential and progress.

The knowledge the individual needs to learn to do this:

- Differing methods of assessment
- Individualised holistic approach for evaluating student's progress

Evaluate the suitability of the curriculum adaptations to students with SEN

In order to evaluate the suitability of curriculum adaptations APE professional must be able to assess appropriateness of curriculum to individual needs and abilities.

The knowledge the individual needs to learn to do this:

- National PE standards
- Curriculum adaptation strategies

Evaluate the effectiveness of applied teaching strategies

In order to evaluate the effectiveness of applied teaching strategies APE professional must be able to evaluate effectiveness of applied teaching and support strategies.

The knowledge the individual needs to learn to do this:

- Methods and tools to assess teaching and support strategies (e.g., peer tutor programme, use of behaviour plan, adaptations to environment, rules, task etc.)

Collaborate with various relevant professionals

The nature of teaching of students with SEN requires frequent collaboration with other related professionals APE professional therefore must be able to: (a) collaborate with other specialists providing PE/APE; (b) collaborate with health and rehabilitation professionals (e.g., physiotherapist, occupational therapist, speech therapist, psychologists); and (c) collaborate with sport organisations, relevant professional organisations for persons with disabilities.

The knowledge the individual needs to learn to do this:

- The role of relevant professionals and their approaches in relation to APE
- Nature of cooperation and communication with support staff
- Team working
- Disability sport organisations for potential cooperation (e.g., local sports clubs)

Collaborate with other advocates of students with SEN

Parents or guardians of students with SEN are key partners in teaching in APE (legally responsible), as are government and non-governmental organisations. The APE professional therefore must be able to collaborate with parents/guardians of students with SEN and collaborate with Non-Governmental and governmental organisations (e.g., in children rights).

The knowledge the individual needs to learn to do this:

- Roles and rights of parents guardians (legally responsible)
- Nature of cooperation and communication with support parents guardians (legally responsible)
- Team working
- Rules and roles of relevant organisations

Advocate for the needs and rights of students with SEN

As currently situation in most EU countries is not appropriate in the area of teaching APE/PE to students with SEN APE professional should be able to advocate for equal provision of PE for all students as well as advocate for the rights of students with SEN for participation in PE/APE (e.g., support services, adapted equipment).

The knowledge the individual needs to learn to do this:

- Legislation and relevant national and international policies
- Disability services, APA and disability sports structures
- Educational structures and services
- Advocacy approaches (leverage, literature etc)

Improve professional skills and knowledge

Finally in every changing post-modern societies and professional field of education of students with SEN the APE professional must be able to: (a) identify needs for professional development in the area of APE; (b) engage in continuing professional development activities (e.g. reading professional publications; attending conferences (workshops, seminars) to learn about new trends in APE; (c) share their experiences

with other APE teachers (e.g. learn about the examples of best practices) and (d) self-evaluate him/herself in relation to professional issues (e.g. burnout, need for support or learning).

The knowledge the individual needs to learn to do this:

- Appropriate professional development opportunities
- Sources of information (e.g. in-service training, associations, organisations etc.)
- Tools for self evaluation in relation to the ability to implement PE/APE (e.g. video recording and analysis of sessions, written reports etc.)

2.7 Summary

In summary of this chapter we must say that the situation in educating students with SEN in PE in Europe currently needs substantial improvements. As mentioned in previous text we suggest the following changes in order to bring together educational policies and strategies of social inclusion together with the everyday school reality to inclusion/exclusion of students with special education needs in physical education: (a) **All physical education teachers should receive an appropriate training;** (b) **All professionals teaching physical education in special schools or institutions should have an appropriate training;** (c) **Appropriate support** to physical education of students with SEN should include: (i) training of paraprofessionals (teacher assistants), (ii) programmes for peer tutoring, (iii) adapted equipment and (iv) support by community or disability sport services and (d) **adapted physical education consultants should be employed in all European countries** in order to provide an appropriate support for physical education teachers in inclusive PE. These professionals could also work part time as PE teachers in special schools or classes and part time as APE consultants. The framework of competencies needed to become qualified APE professional is one of key outcomes of this project (Appendix 1 and 2). Adapted physical education builds its APE related competencies on professional foundations in physical education and special education training programmes. **We suggest that APE professionals are being prepared as a specialisation within physical education teacher education training with substantial space allocated for acquiring APE specific competencies developed as part of EUSAPA KCSF in adapted physical education.**

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3 Adapted Physical Activities in Rehabilitation

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The following chapter aims to define the purpose and the added value of an Adapted Physical Activity programme as a part of the rehabilitation programme. Furthermore, pointing out the goals and the benefits of adapted physical activities, and defining the key activities of an Adapted Physical Activity programme in rehabilitation, will result in the specification of a number of competences required to successfully fulfil such a programme. From these competencies, suggestions will be made for the optimisation of current curriculum requirements in order to enhance the education of professionals. Finally, recommendations will be outlined to define, develop and safeguard a legislative professional status for the Adapted Physical Activity programme and its therapists, specialists, instructors, etc..., i.e. those who are coordinating the Adapted Physical Activity programme.

3.1 Definition of rehabilitation

Rehabilitation is a health care profession that provides treatment to individuals to develop, maintain and/or restore maximum movement and function throughout life. This includes providing treatment in circumstances where movement and function are threatened by aging, injury, disease or environmental factors. Rehabilitation is concerned with identifying and maximising quality of life and movement potential within the spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation. This encompasses physical, psychological, emotional, and social well being. Rehabilitation therefore requires a multidisciplinary approach. Depending on the target group (cf. supra), contributing disciplines to the rehabilitation programme include among others medicine and nursing, physiotherapy, occupational and physical therapy, psychological therapy and social therapy.

Rehabilitation programmes can comprise both in and outpatient settings. Often, a distinction can be made between *formal rehabilitation settings* such as rehabilitation centres and rehabilitation units or departments in local hospitals, as well as *informal settings* such as service-homes and departments for patients/clients with particular needs (e.g. persons with physical, physiological, intellectual or psychiatric impairments, elderly, war veterans, abuse victims, etc.).

However, both the relative contribution of the various aforementioned disciplines in rehabilitation and the definition of the rehabilitation setting (formal and/or informal) is largely varying between the different cooperating European partner countries. As a consequence, although rehabilitation across European countries has a number of similarities, the interpretation of rehabilitation with respect to programme content and programme environment is dependent of each country's policies and legislation. Nonetheless, the suggestions and recommendations stated in the further course of this chapter can be applied to all countries.

3.2 Adapted Physical Activities in rehabilitation

In the last decades, *Adapted Physical Activity* has been acknowledged as a valuable addition to the aforementioned disciplines within the rehabilitation programme. Similar to rehabilitation, the definition, the purpose and evolution, the setting and the character of the Adapted Physical Activity programmes is largely varying between the different cooperating European partner countries. Therefore, a survey was performed to analyse these differences. The results of this survey indicate that in some countries, Adapted Physical Activity is not included in the rehabilitation programme. Other countries have a modest sports programme, which is mostly optional for patients/clients, and should therefore not be considered a significant part of the rehabilitation programme. At present, more and more countries have a fully developed physical activity programme. However, these programmes are also often optional for patients/clients. As well, in most countries the Adapted Physical Activity programme is not considered as a separate entity within the multidisciplinary character of rehabilitation. Adapted Physical Activity is mostly embedded within the physiotherapy programme, possibly due to the fact that there is no legislative nomenclature for the inclusion, and the application of an Adapted Physical Activity programme as a separate discipline in rehabilitation in any of the cooperating European partner countries, nor is there a legislative professional status for adapted physical activity therapists, specialists, instructors, etc..., i.e. those who are responsible for the Adapted Physical Activity programme within the rehabilitation programme. Consequently, it can be concluded that although most countries have done many efforts to implement adapted physical activities within the rehabilitation programmes, there are still a number of steps that can be taken with respect to the formation and legislative protection of therapists, instructors, specialists, and all those who are involved in the rehabilitation programmes, and the legislative structure and nomenclature of adapted physical activity as a fully acknowledged discipline in rehabilitation.

Benefits of APA in rehabilitation

The meaningfulness of an Adapted Physical Activity programme as an additional discipline to the rehabilitation programmes is situated on three echelons. The first is directly related to the rehabilitation programme, and is associated with the complementary character of physical activity and sports participation to the classical physiotherapy programmes. Previous investigations in scientific research have already suggested that physiotherapy programmes often have an insufficient attention for the patient's/client's general physical fitness level, their functionality and functional potential, and the adaptation and optimisation of potential aids, taking into consideration the patient's/client's functionality, and the activities of daily living to be performed. Nonetheless, it has already been demonstrated that adapted physical activities during, but also after the rehabilitation phase have a beneficial effect on these indications. As such, implementing adapted physical activities within the rehabilitation programme may result in an enhanced quality and successfulness of the rehabilitation programme, and prevent for patients/clients to relapse.

Secondly, adapted physical activities have a beneficial effect on the patient's/client's psychosocial well-being. Patients/clients with irreversible impairments /disorders often slide into a downward spiral of social isolation due to a sedentary lifestyle. It has been suggested that adapted physical activities in a non-disability oriented approach enhances personal contacts during sports participation, therefore creating opportunities to share experiences and to learn how to accept or come to terms with an impairment, disorder, etc...

A third major purpose of adapted physical activities in rehabilitation applies to educational and health related issues. Through physical activity and sports patients/clients experience how their body responds to exercise in a variety of circumstances with respect to intensity (both maximal and sub maximal efforts) and external conditions (weather, environment, etc...). As well, through adapted physical activities in rehabilitation, patients/clients learn how to interpret these responses, how to recognise symptoms that contraindicate physical activity and sport, and how to counteract or treat these symptoms. In addition, patients/clients experience the benefits of physical activity and sports with respect to their qual-

ity of life, and the execution of activities of daily living. Consequently, the Adapted Physical Activity programme has to convince patients/clients about its usefulness, to ensure a continuation of an active lifestyle after rehabilitation.

Due to the arguments and benefits discussed previously, the strategy to realise an Adapted Physical Activity programme in rehabilitation is of the utmost importance. It is necessary to offer a wide range of sports disciplines to get acquainted, and be initiated with, allowing for patients/clients to select a proper sports discipline for post-rehabilitation continuation. Moreover, through the inclusion of a wide variety of physical activities in the programme, the functionality of the patients/clients is optimally stimulated, therefore maximising the functional potential of each patient/client. As well, the extreme characteristics of certain sports disciplines allow an optimal adjustment and fine-tuning of the aid to the patient's/client's functional abilities. Finally, the Adapted Physical Activity programme is preferably organised in an integrated setting, including recreational and competitive athletes, i.e. hands-on experts, to maximise the transfer of knowledge and experience from hands-on experts to patients/clients in rehabilitation, optimise the social reintegration into society.

3.3 Standard occupations

Only in a few rehabilitation centres across Europe, the Adapted Physical Activity programme is considered as a separate entity within the rehabilitation programme, and coordinated by professionals (physiotherapists or physical educators) with a specialisation in Adapted Physical Activity. The Adapted Physical Activity programme however, is often considered as a part of the physiotherapy programme, and is therefore mostly coordinated by physiotherapists. As mentioned previously, currently there is no legislative professional status for Adapted Physical Activity therapists, specialists, instructors, etc..., i.e. those who are responsible for the Adapted Physical Activity programme within the rehabilitation programme (in future references the term programme coordinator will be used). The development and safeguarding of such a professional status for the Adapted Physical Activity coordinator is therefore warranted to optimise the implementation and quality of an Adapted Physical Activity programme in rehabilitation.

3.4 Key activities

This section describes the key activities associated with the Adapted Physical Activity programme coordinator. These key activities constitute a set of tasks and duties that correspond with the responsibilities of coordinating an Adapted Physical Activity programme. They are subdivided in a number of key areas, consisting of various key roles with a number of specific key functions. The key activities of an Adapted Physical Activity programme comprehend 4 major responsibilities: planning, information and education, assessment and evaluation, and implementation (Appendix 3).

Planning

Implementing a qualitative and successful Adapted Physical Activity programme requires careful planning and cooperating with the other disciplines within the rehabilitation programme. Programme coordinators need to realistically assess the values, the benefits and the responsibilities of adapted physical activities within the multidisciplinary character of rehabilitation, taking into consideration the patient's/client's well-being both during and after the rehabilitation phase. This also demands a profound understanding of the patient's/client's condition, functional abilities and potential, and the impact of the Adapted Physical Activity programme here on. This includes the possible benefits as well as potential contraindications, health risks and risk factors to participate in physical activities.

The planning activities of the Adapted Physical Activity programme coordinator can be summarised as follows:

- Assess the role and added value of an Adapted Physical Activity programme within the multidisciplinary character of the rehabilitation programme.
 - Identify the responsibilities of the Adapted Physical Activity programme as a complementary part of the rehabilitation programme.
 - Identify the strengths and weaknesses of the currently used rehabilitation and Adapted Physical Activity programme.
 - Identify the available and required resources (facilities, equipment) to implement the APA programme.
 - Develop a structured Adapted Physical Activity programme in collaboration with rehabilitation team.
 - Identify the short and long term aims of the Adapted Physical Activity programme.
- Assess the (dis)abilities, risk factors, needs and potential of the patient / client.
 - Understand the condition of the patients / clients and its consequences in terms of functional (dis)abilities, health conditions, etc...
 - Understand clinical investigation data (e.g. X-rays, gait analyses, cardiorespiratory tests) and the conclusions and recommendations of rehabilitation specialists.
 - Assess the patient's / client's current and potential level of functioning.
 - Understand the patient's / client's response to physical activity; identify and remediate potential contraindications, health risks and risk factors.

Information and education

As mentioned previously, the benefits of physical activities and sports during and after rehabilitation are countless. In order to ensure a continuation of an active lifestyle after being discharged from rehabilitation, patients/clients need to be provided with sufficient information regarding possible physical activities and sports disciplines, and the existing community based physical activity programmes and sports organisations in the patient's/client's home region.

As well, patients/clients are often unaware of the consequences of an impairment or disorder on their functional potential. Moreover, an impairment or disorder often results in an altered response to exercise and sports, and may even lead to hazardous health situations if not taken into consideration. Patients/clients need to be educated about the benefits of physical activities and sports, and the potential risks of a sedentary lifestyle on their well-being. Therefore it is important for a programme coordinator to educate patients/clients about the consequences of an impairment or disorder on the patient's/client's functional potential, how the body responds to exercise, how to interpret these responses, how to recognise symptoms that contra-indicate physical activity and sport, and how to counteract or treat these symptoms.

The information and education responsibilities of the Adapted Physical Activity programme coordinator can be summarised as follows:

- Provide the appropriate information to guarantee a continuation of an active lifestyle post rehabilitation.
 - Inform the patient/client about community based physical activity programmes and the short and long term benefits of physical activity.
 - Provide a database with information regarding companies and community based organisations to ensure a continuation of active life style post rehabilitation.
 - Provide information regarding legislation about possible benefits from national, regional and local governing bodies with respect to physical activity and sports post rehabilitation.
- Educate patients/clients about their (dis)abilities and potential through physical activity.
 - Educate the patient / client about his/her functional (dis)abilities, response to exercise, potential health risks, risk factors and contraindications with regards to physical activity.

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- Educate the patient / client about the recognition and remediation of symptoms that potentially lead to health risks, injuries, etc...
 - Educate patients / clients about the APA programme and its benefits during rehabilitation.

Assessment and Evaluation

In order to guarantee a qualitative and successful Adapted Physical Activity programme, evaluations of the quality of the Adapted Physical Activity programme are necessary. This requires a regular monitoring of the programme outcomes, and regular programme refinements in dialogue with the other discipline coordinators in the rehabilitation programme.

In addition, to ensure a maximal participation and optimal result of all patients/clients, the progress of the patient/client needs to be assessed on a regular basis as well. This includes evaluating the physical fitness level, the psychological well-being, and the social status of the patient/client, and adapting the programme content to these evaluations if necessary.

The evaluation activities of the Adapted Physical Activity programme coordinator can be summarised as follows:

- Evaluate the effects of the Adapted Physical Activity programme as a part of the rehabilitation and post-rehabilitation process.
 - Monitor the long term health related outcomes of the Adapted Physical Activity programme.
 - Determine the effects of the Adapted Physical Activity programme on functional ability of the patients/clients in collaboration with rehabilitation team.
- Evaluate the patient's/client's response to physical activity, his/her progress, and compare with the preset goals.
 - Assess and evaluate the patient's / client's physical and psychological well being and its progress, and remediate if necessary.
 - Assess the motivation of the patient/client toward the Adapted Physical Activity programme, and remediate if necessary.
 - Monitor and assess the responses to physical activity to ensure safe and successful participation.
 - Document individual development and progress according to the aims of the rehabilitation and the APA programme.
 - Identify tools, methods, etc... to optimise the patient's / client's functional abilities in daily life and in physical activity.

Implementation

The main key activity of the Adapted Physical Activity programme coordinator is the implementation, coordination and application of the Adapted Physical Activity programme. This includes the development of an individualised programme, fine-tuned to the specific needs of each patient/client, and yet applicable in a group setting within the total schedule of the rehabilitation programme. The implementation of a successful Adapted Physical Activity programme coordinator also comprises optimal participation through the implementation of a wide variety of physical activities and sports in the programme, and through the adaptation of the instructions, encouragements, rules and settings when appropriate. Finally, it is recommended to organise part of the Adapted Physical Activity programme in a community based setting to ensure an active lifestyle post rehabilitation, to guarantee a maximal transfer of experience from athletes and hands-on experts to patients/clients in rehabilitation, and to optimise the patient's/client's reintegration process into society.

The implementation activities of the Adapted Physical Activity programme coordinator can be summarised as follows:

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- Implement an individualised Adapted Physical Activity programme complementary to the other disciplines within the rehabilitation programme.
 - Develop a structured and individualised APA programme in collaboration with the multidisciplinary team.
 - Facilitate and optimise participation through adaptation of the instructions, encouragements, rules and settings when appropriate.
 - Initiate community based physical activity.

3.5 Competences

Mastering the aforementioned key activities to run a qualitative, safe and successful Adapted Physical Activity programme in rehabilitation requires the development of various competences interwoven within those key activities. These competences comprehend specific background knowledge in combination with a variety of skills, and can be subdivided in a number of therapeutic, pedagogical and management aspects (Appendix 4).

Therapeutic competences

Competences regarding the therapeutic aspects in Adapted Physical Activity programmes are mainly associated with the characteristics of the target population, and the impact of physical activity and sports on the target population's potential and well-being. Coordinating an Adapted Physical Activity programme in rehabilitation demands a profound knowledge of the consequences of an impairment or disorder on the patient's/client's functional status and general well-being, and its consequences with respect to the patient's/client's response to physical activity and sports. This includes an understanding of the pathology of the patients/clients and its consequences in terms of functional (dis)abilities, health conditions, etc...; an understanding of clinical investigation data (e.g. X-rays, gait analyses, cardiorespiratory tests, psychological evaluations) and the conclusions and recommendations of rehabilitation specialists from other disciplines; the assessment of the patient's/client's current and potential level of functioning; and an understanding of the patient's/client's response to physical activity; identify and remediate potential contraindications, health risks and risk factors. The main goal of these competences is to guarantee a qualitative and successful Adapted Physical Activity programme, and to ensure a safe environment for the implementation of and participation to the programme.

In addition, in order to match the patient's/client's functional status to the pre-set programme goals and targets, it is necessary to develop, conduct and interpret regular progress evaluations through direct assessments such as field and laboratory tests, questionnaires, etc..., and indirect assessments such as team meetings, observations, etc... furthermore, it is important to understand these progress evaluations according to the aims of the programme and the potential of the patient/client, and adjust the individualised schedule if necessary.

Therapeutic knowledge and skills further include:

- Understand the general recreation and sport adaptation model for patients/clients including their personal profile, the function related implications, the specific activity requirements, and the aim of participation.
- Understand and evaluate the interrelation between determinants of human functioning.
- Understand and evaluate the impact of impairment on human functioning.
- Estimate and assess the activity potential of a patient/client through tests, observations, etc... and describe the resulting functional profile.
- Understand the pathophysiological basis of chronic disease, disability and disorder.
- To understand the impact and risks of physical activity.
- To know the impact of medication on exercise performance.

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- Understand indications and contra-indications of sports and adapted physical activities in the rehabilitation of specific populations.
 - Master the ability to safely apply the Adapted Physical Activity programmes, including regular evaluations, using risk stratification and pre-programme screening.

Pedagogical competences

Pedagogical aspects in Adapted Physical Activity programmes mainly include skills regarding working with groups, teaching strategies, and principles of adapting physical activities and sports. Due to specific target population characteristics, the instructions, encouragements, rules and settings of the physical activity or sport often need adaptations to maximally motivate patients/clients, and ensure optimal and successful participation. Pedagogical aspects are often neglected in rehabilitation settings, but nonetheless, they constitute a key determinant in the quality and successfulness of the Adapted Physical Activity programme. Pedagogical knowledge and skills further include:

- Understand the theory of programme development.
- Master teaching, training and coaching skills (didactical skills), needed for a well-balanced approach in a therapeutic environment.
- Understand the principles of adapting activities, games and sports.
- Master a comprehensive overview on disability sports.
- Understand the sport-specific equipment – user – interfaces.
- Be able to adapt activities to the functional potential of the participants.
- Understand the major components influencing the process of adapting activity situations.
- Master the professional skill to initiate and effectively process adaptation.

Management competences

Optimising the quality of both the Adapted Physical Activity programme and the entire rehabilitation programme as a whole requires an understanding of the multidisciplinary character of rehabilitation, and the content and relative contribution of the different disciplines within the programme. As such, programme coordinators need to be able to offer the best suitable Adapted Physical Activity programme taking into consideration the various disciplines in rehabilitation, and the value of the relative contribution of the Adapted Physical Activity programme to the rehabilitation programme. Management knowledge and skills further include:

- Master management strategies including a planning model approach in providing sport and physical activities for people with impairments, disabilities handicaps, disorders, etc...
- Master those skills which are necessary in the preparation of a strategic policy for management and integration of Adapted Physical Activity programmes within the multidisciplinary character of rehabilitation.
- Understand the various community based physical activity and sports organisations eligible for patients/clients in the Adapted Physical Activity programme.

3.6 Curriculum requirements

Current status: Adapted Physical Activity courses and orientations in academic curriculums

Most European countries have implemented Adapted Physical Activity courses in the academic curriculums of Physiotherapy, Physical Education and Human Movement Sciences. However, these are often introductory course aiming at offering a brief overview of Adapted Physical Activity as a domain. As a consequence, the course often dissolves within the curriculum as it offers only little practical tools or none whatsoever for future professionals encountering Adapted Physical Activity. In addition, with re-

spect to the development of the aforementioned competences for Adapted Physical activity programme coordinators, the strengths of the physiotherapy programmes are often the weaknesses of the physical education and kinesiology programmes, and vice versa. Screenings of the content of the physiotherapy, physical education and kinesiology programmes related to the required competences for Adapted Physical activity programme coordinators indicate that physiotherapy programmes pay maximal attention to the therapeutic context, whereas pedagogical aspects of Adapted Physical Activities are often neglected. On the other hand, the main focus in physical education and kinesiology programmes is mostly pedagogical, with less attention for adapted physical activities in a therapeutic context. In addition, the implementation of Adapted Physical Activity courses in the physical education and kinesiology programmes across Europe is organised less universally. Some programmes exclusively pay attention to pedagogical aspects of Adapted Physical Activities, whereas others mainly focus on active lifestyles and recreational sports in specific populations. Consequently it can be stated that the existing programmes are not optimal to deliver professionals capable of coordinating a qualitative Adapted Physical Activity programme as a part of the rehabilitation programme.

Many European universities and colleges have a special orientation “Adapted Physical Activity” on a Master level within the curriculums of Physical Education or Kinesiology besides other orientations such as “Fitness and Health”, “Training and Coaching”, “Sports Management”, “Sports Psychology”, “Sports Pedagogies”, etc... However, all the existing Adapted Physical Activity orientations across Europe include all target populations (e.g. persons with physical, physiological, intellectual or psychiatric impairments, elderly, war veterans, abuse victims, etc...), all target levels (from health related physical activities to recreational and elite sports), and all professional disciplines (education, fitness and health, training and coaching, management, sports psychology, etc...). The currently existing programmes are therefore only able to offer an extensive but still limited overview of the entire domain, rather than specialising professionals in a specific professional discipline. As a consequence, students graduating from Adapted Physical Activity orientations are discipline wise insufficiently armed to compete with peers graduating from other specialised orientations.

Future recommendations for studies in APA

Because of the aforementioned arguments, the existing Adapted Physical Activity courses need to be expanded, optimised and integrated in the curriculums to alleviate the shortcomings of the existing programmes. This can be realised with complementary obligatory courses such as “Indications and contra-indications of sports and adapted physical activities in rehabilitation” and “Pedagogical aspects in Adapted Physical Activities” in the existing curriculums for medical and paramedical professionals as well as physical educators and kinesiologists.

As well, with respect to academic orientations, it is recommended to develop an orientation Adapted Physical Activity consisting of a firm introductory *truncus communis* covering all areas of Adapted Physical Activity, with specialisations using a discipline based rather than a population based subdivision, as presented later in text. For future references however, it is recommended to strive to an implementation of sufficient Adapted Physical Activity courses in the curriculums of Physiotherapy, Physical Education and Kinesiology and its special orientations, rather than organising a separate orientation “Adapted Physical Activity”.

In the end, the aim of all courses and curriculums should be to deliver professionals (physiotherapists, fitness and health instructors, trainers and coaches, managers, sports psychologists, etc...), all with sufficient competences, background knowledge and skills (cf. supra) to master the key activities (cf. supra) necessary to develop, organise and coordinate a valuable, qualitative and successful Adapted Physical Activity programme within the multidisciplinary character of rehabilitation.

3.7 Future recommendations

The surveys and partnership meetings conducted throughout the course of this project have revealed a number of new insights with respect to the implementation of adapted physical activities in rehabilitation programmes, the professional status of Adapted Physical Activity programme coordinators, and the education of professionals in rehabilitation. The following future recommendations to optimise the quality of the Adapted Physical Activity programme within the multidisciplinary character of rehabilitation can be summarised:

- Develop a legislative structure and nomenclature of adapted physical activities, so that the Adapted Physical Activity programme can be considered as a fully acknowledged discipline in rehabilitation.
- Fragmentation of medical and paramedical care in various small rehabilitation units results in reduced expertise and funding per unit. A centralisation of rehabilitation programmes in only a few specialised centres is therefore warranted to ensure an optimal and qualitative rehabilitation programme.
- Initiate and facilitate co-operations between rehabilitation centres and community based sports and physical activity organisations through a subsidised regional sports and physical activity administration.
- Create governmentally acknowledged and subsidised mandates for the employment of a programme coordinator in all rehabilitation centres, responsible for the development, organisation and coordination of the Adapted Physical Activity programme complementary to the other disciplines within the rehabilitation programme.
- Provide the means to allow academic Adapted Physical Activity experts to develop, optimise, implement and evaluate an Adapted Physical Activity programme as a special orientation in the existing curriculums for medical and paramedical professionals as well as physical educators and kinesiologists.
- Provide the means to allow academic Adapted Physical Activity experts to define, develop, optimise, add and/or expand, implement and evaluate the necessary Adapted Physical Activity courses in the existing curriculums for medical and paramedical professionals as well as physical educators and kinesiologists.
- Integrate complementary obligatory courses such as “Indications and contra-indications of sports and adapted physical activities in rehabilitation” and “Pedagogical aspects in Adapted Physical Activities” in the existing curriculums for medical and paramedical professionals as well as physical educators and kinesiologists to deliver professionals with sufficient competences to develop, organise and coordinate a valuable, qualitative and successful Adapted Physical Activity programme within the multidisciplinary character of rehabilitation.
- Enhance the attitude of medical and paramedical professionals regarding the role of sports and physical activities as a complementary discipline in the existing rehabilitation programmes through the integration of Adapted Physical Activity courses in the respective curriculums.

4 Adapted Physical Activities in the Sport Area

Natalia Morgulec-Adamowicz and José Pedro Ferreira

Sport is often considered part of play. Play by definition is a non-utilitarian practice that has both intellectual and physical components (Guttmann 2004) that is pursued simple for the joy of it. In an organised form play becomes a game. However games can be competitive or non-competitive. The competitive games are known as contests that can again be divided into intellectual and physical components. Sport has both intellectual and physical components but traditionally in Europe we celebrate the physical nature of sporting context. Because of the complex interrelationship between play, games and sport the definition of sport varies greatly across Europe. Generally sport can be divided on: (a) participation sport and (b) performance sport. Some authors then further differentiate on sports for children and elite performance sports (Sports Coach UK), while other also include physical fitness and health and outdoor recreation (adventure) as part of sport sector (Pilkington). Regardless sport is growing social phenomenon in Europe and its importance can be documented by EU commission publishing White paper on sports (EU Commission, 2007, p. 3) which defines sport as:

...an area of human activity that greatly interests citizens of the European Union and has enormous potential for bringing them together, reaching out to all, regardless of age or social origin. According to a November 2004 Eurobarometer survey, approximately 60 % of European citizens participate in sporting activities on a regular basis within or outside some 700,000 clubs, which are themselves members of a plethora of associations and federations. The vast majority of sporting activity takes place in amateur structures. Professional sport is of growing importance and contributes equally to the societal role of sport. In addition to improving the health of European citizens, sport has an educational dimension and plays a social, cultural and recreational role. The societal role of sport also has the potential to strengthen the Union's external relations.

Clearly it is important topic and part of the potential of sport identified by sport science experts as well as European political leaders is its ability for sport to include participation of persons with disabilities at all levels. EU commission encourages Member States and sport organisations to adapt a sporting infrastructure to take into account the needs of people with disabilities. “Member States and local authorities should ensure that sport venues and accommodations are accessible for people with disabilities. Specific criteria should be adopted for ensuring equal access to sport for all pupils, and specifically for children with disabilities. Training of monitors, volunteers and host staff of clubs and organisations for the purpose of welcoming people with disabilities will be promoted (White paper on sport, pp. 7–8).”

4.1 State of Adapted Sports in Europe

The present situation of Adapted Physical Activity (APA) in Europe is deeply and clearly influenced by the idea of *heterogeneity*. In spite of the common European Union guidelines and policies for Education and Sport supported by different agreements and official reports (the Bologna Process, the 2010 Education and Training Programme, the 1997 Amsterdam Treaty's Declaration on Sport, 1998 Helsinki Report on Sport, the 2000 Nice's Council Declaration on Sport, the 1992 Recommendation 1185 *on rehabilitation policies for the disabled*) built up over the two last decades, aiming to provide similar opportunities to all the European citizens, the reality is slightly different. Europe is still characterized by a

huge diversity of social, educational and health systems with different priorities, very much influenced by regional policies and by the strength of each individual member's economy.

In Sport, this heterogeneity of policies is clearly accepted as the European Union assumes to play a minor and mostly indirect role in sport policy, because (a) sport is normally considered to be outside the competences conferred by the member states to the European Union and (b) sport is in general organised internally, on a European continental level (which is not the same as the level of the European Union), or globally. The idea of *heterogeneity* is also very much supported by the continuous increase of new members, ever increasing the Union's diversity as a result of enrichment and enlargement, but also different levels of development which directly influence the type of services and the quality of the services provided to different European citizens in different state members.

Because APA is essentially focused on a service delivery profession and as an academic field of study, it is expected that the quality and availability of services in APA differs from one European country to another, very much influenced by Education, Sport and Health policies and priorities in each State member. Some countries offer good quality service delivery and training systems for professionals working with persons with disabilities while other countries have well developed academic study programs in APA but limited service delivery and some other countries have neither service delivery nor study programmes.

Four distinct groups of European countries could be identified based on the information collected during this project, in ten different European countries:

- Countries where APA already exists as a profession, providing services in the three different areas of intervention (education, sport and rehabilitation) and the services provided are financed by the national educational, sport and health systems (ex: Finland).
- Countries where APA exists as a profession in one of the three intervention areas and services on the other two are offered by other professionals with expertise in APA (ex: Belgium, Czech Republic, France, Sweden).
- Countries where APA does not exist as an official profession but where APA services are provided for all the areas of intervention (education, sport and rehabilitation) by other professional with background in APA¹ (P.E. teachers, coaches or physiotherapists) (ex: Ireland, Latvia, Poland, Portugal, United Kingdom).
- Countries where APA does not exist as an official profession and where APA services are offered by none or poorly qualified professionals (volunteers).

4.2 Do we need APA professionals? If so why?

Some people may consider this as an utopia position but we stand for the idealistic approach that if inclusion would be a reality in each European State Member we would not need APA professionals. All professionals would have an APA background for education, sport and rehabilitation, and would be qualified to answer the specific needs of children, youngsters and adults with disability. From this point of view, perhaps we will not need APA professionals in the future in Europe and the present need would be a temporary one.

However, the present reality in Europe is much different, and yes we need APA professionals in Europe and yes we will probably need them for longer than we expect because many European countries are not yet providing good quality services in APA, and many children, youngsters and adults with disability still do not have the same sport and exercise opportunities offered to other individuals without disability. Unfortunately the future is not bright as recent policies in some state members show a slow down or even important cuts in the investment made to maintain or improve the quality of APA services already provided based upon political and economical decisions.

¹ In these countries Professional providing APA services could be considered as APA Professional if APA would be recognized as a profession.

4.3 Do we need APA professionals in sport?

Yes we do. In the last decades, the number of athletes with disability participating in sport has increased dramatically. Top level sport for athletes with disabilities has become increasingly organized, highly competitive and achieved the potential to create additional needs both at physiological, technical and tactical domains, requiring higher levels of expertise and deeper levels of training skills and knowledge different from those required until then just for therapeutic and recreational purposes.

Over the years the impact of disability sport on society has been increasing much as a result of the growing exposition of disability sport on the media and the inclusive policies implemented in most of the European countries. On the other end, economic interests realized that disability world is still an unexplored diamond for publicity and business purposes so better opportunities and conditions are provided to elite disability sport athletes, however there is a price to be paid. Higher levels of competition, pressure for better results, different competitive environments, more pressure from the media, sponsors commercial interests are just a few examples how disability sport achieved the potential to create anxiety in many disability sport participants. This new reality requires further specialised services in psychological counselling and training as well as the development of new competences and expertise for a new generation of APA coaches involved both in recreational and/or performance sport contexts.

This need for APA specialists in sport is also recognised and reinforced by a recent review of the European Union 5-level structure for the qualification and recognition of coaching qualifications, when highlighting the need for equality of opportunity in sport as a key underpinning principle of the European Qualifications Framework, and providing a strong emphasis on the inclusion of minority groups (ENSSEE, 2007) and the need for adequate coach qualifications to provide opportunities to work with these groups.

4.4 What kind of professionals do we need?

We need qualified and skilful professionals able to meet athlete's needs related to disability sport. Also of importance are qualified sport professionals that are able to assess, plan, prescribe and monitor good quality training sessions, according the specific needs of the athletes, in different disability sports, as well as to understand athletes behaviour both in training and in competition and able to motivate them to focus in pre-defined goals in order to empower them as athletes and give them the opportunity to improve performance.

EUSAPA project aims to establish the major guidelines for key roles and key functions as well as knowledge, competences and skills framework for professionals working in disability sport/ APA coaching. These types of guidelines developed in this first stage of the project are general ones, applicable to both levels identified for professional purposes in the area of coaching (ENSSEE, 2007):

- a) Coach of participation-oriented sportspeople, i.e., coaches involved in leisure and non formal competitive training as well as coaches involved in lower non-competitive development levels.
- b) Coach of performance-oriented athletes, i.e., coaches involved in formal talent orientation athletes/ teams and high performance levels.

Future stages of this project will focus their attention on the definition of specific competences, skills and knowledge based on the revised structure of 4 levels for recognising the competences and qualifications of coaches suggested by the ENSSEE (2007), providing further in-depth for the minimum qualifications needed to achieve each level.

4.5 What can we do to improve this situation?

The major contribution of European Standards in Adapted Physical Activities project is to provide guidelines to improve the level of service delivery in APA both at local and European level providing further evidence for the importance and need of APA as a profession in Europe. The main objectives of project are:

- (a) Describe the professional competencies in each of the three areas of Adapted Physical Activities:
 - (1) Adapted physical education in schools;
 - (2) Adapted sports and recreation;
 - (3) Adapted physical activities in rehabilitation;
- (b) Identify the needs for each APA area in all partner countries;
- (c) Define academic standards (subject specific competencies and learning outcomes) in the three areas of APA and develop international academic framework to guarantee the quality of professional preparations in the fields of APA at European level.

4.6 APA coach – occupation description

The nature of work of sports coaches (in some countries also named trainers) and instructors is already described by European Classification of Sport and Sport Related Occupations (NEORS²) which is a European classification of occupations for the sport sector produced by European Observatoire of Sport and Employment (EOSE). Sport coaches and instructors plan, develop, implement and evaluate coaching programmes and sessions meant to guide improvement of athletes/teams (performance-oriented sports participants at a competitive or a high performance stage) or sportspersons (participation-oriented sports participants, including children, adolescents and adults at a initiation stage or a ongoing/non-competitive stage) in a single sport and at identifiable stages of the athlete/sportsperson pathway (EOSE, 2008a).

In order to describe and specify the nature of work of the APA coaches, the methodology of The Sport and Active Leisure Sector Qualification Strategy (step 3) was used (EOSE, 2008b). To identify the key tasks and activities undertaken by the worker it is recommended by EOSE approach (in the step 3rd of the strategy) to use surveys and focus groups of practicing professionals. In EUSAPA project the survey was prepared by experts from 10 participating countries (Belgium, Czech Republic, Finland, France, Ireland, Latvia, Poland, Portugal, Sweden, United Kingdom) and addressed to coaches from sport and/or recreation federations, organizations and associations for individuals with and without disability at the national, regional and local level (e.g. Czech Olympic Committee, Polish Paralympic Committee, Great Britain Wheelchair Basketball Association, Special Olympics Ireland, Swedish Basketball Federation, Rekryteringsgruppens, Association of Physical Culture, Sport and Truism of Blind and Weakseeing “CROSS”) in all partner countries. Additionally, the experts asked selected APA coaches about the work activities in which they are engaged; the knowledge and skills needed in their occupation; the behaviours required in their work; the tools and equipment used; and the future trends and concerns that may affect what they do and how they do it (EOSE, 2008b).

4.7 Functional map (FM) of APA coach

The functional analysis of the survey led to the development of the **Functional Map** (appendix 5), which is a structured way of describing the functions of the APA coach. The **Key Purpose** of APA coach is to

² Nomenclature Européenne des Professions/Occupations du sport et en relation avec le sport

plan, develop, implement and evaluate adapted coaching programmes and sessions meant to guide improvement of athletes with disabilities/teams (performance-oriented sports participants with disabilities at a competitive or a high performance stage) or sportspersons with disabilities (participation-oriented sports participants with disabilities, including children, adolescents and adults at a initiation stage or a ongoing/non-competitive stage) in a single sport and at identifiable stages of the athlete/sportsperson pathway. To achieve the above key purpose the five **Key Areas** (planning, management, coaching/instructing, monitoring, adapted sport development) need to be fulfilled with **Key Roles** and **Key Functions**. Key roles (“basic functions”) are understood as the essential functions needed to achieve particular key areas (“major functions”), while the key functions (“sub-functions”) are detailed functions needed to be performed in order to achieve particular key roles. Therefore each key area is broken into the key roles (A.1 to A3, B.1 to B4, C.1, etc.), which are composed of the key functions (A.1.1 to A.1.2, A.2.1 to A.2.3, A.3.1 to A.3.4, etc.).

Following functional map describes what job roles and functions can be expected from APA coach:

A. Planning

Many professionals consider the most challenging part of APA profession coaching athletes with disabilities, but careful and responsible preparation creates solid foundation for successful and safe instructions in sport. APA coach must be able to: (1) Develop and adapt exercise and training programs, (2) assessment the current situation and past history of athletes with disabilities; and (3) Develop and adapt exercise and training plans. These Key roles are listed bellow together with key functions to describe job expectations in detail.

- A.1 Develop and adapt exercise and training programmes for individuals with disabilities for specific sports
 - A.1.1 Identify mission, vision, aims and objectives of the organization in relation to provision of opportunities for people with disabilities in sport and recreation in different settings (e.g. inclusive/segregated/unified or competitive/recreational)
 - A.1.2 Identify competencies, environments and attitudes needed to meet programme objectives
- A.2 Initial assessment of current situation and past history
 - A.2.1 Compile a comprehensive account of previous history relevant to future participation in sport/recreation (e.g. medical, achievements, social, communication etc)
 - A.2.2 Assess individual in the following areas: interest and motivation; sports specific (i.e. anthropometrics, bioenergetics, neuromuscular, psychological, functional ability, classification); communication
 - A.2.3 Assess the environment of the individual (e.g. economics, sport and recreation structures, extrinsic barriers, family, supports etc)
- A.3 Develop and adapt exercise and training plans
 - A.3.1 Agree short, medium and long term goals based on strengths and weaknesses.
 - A.3.2 Identify resources (e.g. human, equipment, finance)
 - A.3.3 Devise training plan to cover following areas: physical, tactical, technical and psychological
 - A.3.4 Agree monitoring process and schedule

B. Management

In disability sport APA coach can many times also be expected to deal with management issues including: (a) communication and cooperation with key partners, (b) administration, (c) financial tasks, and (d) human resources related responsibilities. These Key roles are listed bellow together with key functions to describe job expectations in detail.

- B.1 Communication and Cooperation
 - B.1.1 Consult with other professionals as part of a multi-disciplinary team
 - B.1.2 Communicate with staff/volunteers, athletes, families, school, organizations and media

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- B.2 Administration
 - B.2.1 Prepare reports
 - B.2.2 Make bookings
 - B.2.3 Maintain correspondence
 - B.3 Finances
 - B.3.1 Plan budgets
 - B.3.2 Organize fundraising strategy
 - B.4 Human Resources
 - B.4.1 Recruit and evaluate staff
 - B.4.2 Recruit and evaluate volunteers

C. Coaching/Instructing

Most expectations from APA coach will be in the area of adapting coaching methods and strategies to the needs of persons with various disabilities. These Key roles are listed bellow together with key functions to describe job expectations in detail.

- C.1 Adapt coaching strategies
 - C.1.1 Adapt coaching styles to meet the needs of the individual
 - C.1.2 Adapt coaching methods
 - C.1.3 Plan communication strategies
 - C.1.4 Plan behavioural Strategies

D. Monitoring

Key part of good coaching also relates to the monitoring of progress in relation to training or exercise plans. These Key roles are listed bellow together with key functions to describe job expectations in detail.

- D.1 Evaluate impact and re-adjust the plan
 - D.1.1 Regularly establish if goals have been met (as per plan)
 - D.1.2 Re-assess individual and social strengths and weaknesses according to plan
 - D.1.3 Identify causes for under/over achievement of goals
 - D.1.4 Re-agree short, medium and long term goals based on strengths and weaknesses.
 - D.1.5 Re-Identify resources (e.g. human, equipment, finance)
 - D.1.6 Re-devise training plan to cover following areas: physical, tactical, technical and Psychological

E. Adapted sport development

As adapted sports (in some countries disability sports) and inclusion of athletes with disabilities into mainstream sports is in many EU countries underdeveloped expectations from APA coach can also be in the areas of: (a) advocacy for the adapted sports and (b) life-long learning. These Key roles are listed bellow together with key functions to describe job expectations in detail.

- E.1 Advocacy
 - E.1.1 Promote adapted sport
 - E.1.2 Lobbying for realization of rights
 - E.1.3 Advocate for standards in APA including the need for specialists
- E.2 Lifelong learning
 - E.2.1 Identify own needs for professional development
 - E.2.2 Engage in continuing professional development activities (e.g. reading, workshops etc)
 - E.2.3 Networking
 - E.2.4 Self-evaluation

It is important to state that it was decided in EUSAPA project to focus on general/complex model of APA coach functions. However the extent and number of functions needed to achieve the key purpose depend on APA coach environment and context. The application of this approach also need to take into account the disability sport structure differences among EU countries, for example APA coach working

for a big national federation (e.g. Special Olympics Poland) will not make bookings (B.2.2), while for APA coach in a small association (e.g. Warsaw Goalball Club) it may be the regular function. In addition, the detailed recognition of APA coaching functions with respect to the existing levels of coaching and including 8-level structure of European Qualification Framework (EQF) will be the following step in the next project.

4.8 Knowledge, competence and skills framework (KCSF) of APA coach

After completing the functional map more detailed analysis was carried out to develop the Knowledge, Competence and Skills Framework (KCSF), which describes **Performance Requirements** for APA coach (appendix 6). In the present KCSF approach the performance requirements are based on the key roles from the functional map (A.1 to A.3, B.1 to B.4, C.1, D.1 to D.2, and E.1 to E.2). All performance requirements are described in terms of skills³ and knowledge⁴ needed for APA coach. Moreover KCSF provide information of appropriate evidence to demonstrate the particular performance requirements.

Recently, some changes in the EU have occurred that impact on the structure of coach education. ENSSEE (2007) has observed important new perspective on the education of coaches, where coach education has been strongly embedded within the higher education sector. Focus on the employability and the need of the labour market is likely to lead to a greater degree of interaction between the higher education sector and national/international federations than than previously has been the case (ENSSEE, 2007). Taking into account this new context the European Standards of Adapted Physical Activity (EUSAPA) were prepared together with reviewed version of Erasmus Mundus Master in Adapted Physical Activity (EMMAPA), which now incorporates an introductory course on coaching. However, there is still an emerging doubt about the recognition of APA coach's qualifications (knowledge, skills and competences). It should be recommended that university-based APA coach education will be recognized by the relevant federation/organizations which are issuing the coaching licences. Moreover, future recognition of APA coach vocational qualification has also to identify non-formal learning⁵ (e.g. volunteers in disability sport) and informal learning⁶ (e.g. family members of individuals with disability who get involved in disability sport).

Develop and adapt exercise and training programmes for individuals with disabilities and/or special needs for specific sports

In order to develop and adapt exercise and training programmes for individuals with disabilities professional must be able to: (a) develop appropriate programme; (b) communicate in the appropriate environment; and (c) adapt in the appropriate environment.

The knowledge the individual needs to learn to do this:

- Mission, vision, aims and objectives of the programme
- Individuals with disabilities and/or special needs in relation to sport (exercise and training)
- Sport opportunities and settings for individuals with special needs
- Sports Sciences and theory of sport training

³ Abilities to perform tasks and solve problems (Cedefop, 2008).

⁴ The outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of study or work (Cedefop, 2008).

⁵ Learning which is embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support), but which contain an important learning element. Non-formal learning is intentional from the learner's point of view. It normally does not lead to certification (ENSSEE, 2007).

⁶ Learning resulting from daily activities related to work, family or leisure. It is not organized or structured in terms of objectives, time or learning support. Informal learning is in most cases unintentional from the learner's perspective. It typically does not lead to certification (ENSSEE, 2007).

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- Sports specific background with rules and classifications
 - Legal and ethical issues
 - General principles of adaptation

Initial assessment of current situation and past history

In order to execute initial assessment APA professional must be able to: (a) consider and assess accessibility in the sports specific context; (b) use specific assessment instruments; and (c) analyze and interpret the data on the basis of theory.

The knowledge the individual needs to learn to do this:

- Protocols, test measurements, batteries, biographical information, techniques for questioning
- Accessibility issues

Develop and adapt exercise and training plans

In order to develop and adapt training plans APA professional must be able to: (a) identify resources; (b) adapt and use appropriate equipment; (c) apply principles of theory of sport training; and (d) set realistic goals.

The knowledge the individual needs to learn to do this:

- Rules and classifications
- Sports Science
- Theory of sport training
- Sports specific background

Competencies related to communication and cooperation

In order to cooperate effectively APA professional must be able to: (a) communicate with the appropriate support networks; (b) communicate effectively with participants and target groups; and (c) identify and choose appropriate strategies to communicate with key individuals or networks.

The knowledge the individual needs to learn to do this:

- Methods of alternative communication
- General communication strategies as required

Competencies related to Administration

In order to be effective administrator APA professional must be able to: (a) perform administrative tasks and organize and prioritize information.

The knowledge the individual needs to learn to do this:

- Basic administration systems
- Language and information technology
- Prepare reports

Finances

In order to be successful in financial issues APA professional must be able to effectively manage accounts and be able to source appropriate funding.

The knowledge the individual needs to learn to do this:

- Basic Book Keeping

Human Resources

In order to be successful in human resources area APA professional must be able to manage people and recruit and evaluate staff and volunteers.

The knowledge the individual needs to learn to do this:

- Motivation, coping, leadership strategies
- Recruitment process principles

Adapt coaching strategies

Adapted coaching is at the heart of APA profession. In order to be good in this areas APA professional must be able to: (a) use appropriate coaching methods; (b) communicate; and (c) actively engage with the coaching environment e.g. interaction, learning process, cooperation, cohesion.

The knowledge the individual needs to learn to do this:

- Coaching styles and coaching methods
- General communication strategies and methods of alternative communication as required
- Appropriate Sports Science knowledge

Evaluate impact and re-adjust the plan

To be able to evaluate the impact of training plan APA professional must be able to: (a) use specific assessment instruments; (b) practically interpret, reassess and re-adjust the plan; and (c) be self reflexive.

The knowledge the individual needs to learn to do this:

- Protocols, observation techniques, test measurements, batteries, biographical information, techniques for questioning

Advocacy

As currently situation in most EU countries is not appropriate in the area of including persons with disabilities in sports APA professional should be able to advocate for equal provision of sport for all. Therefore APA professional needs to acquire the ability to communicate and develop networks as well as the ability to create opportunities for empowerment.

The knowledge the individual needs to learn to do this:

- Legislation at local, national and international levels
- Support services
- Marketing

Lifelong learning

To keep up to date with new trend and findings in the area of sport training and adapted physical activities all APA professionals must be able to: (a) effectively manage time; (b) accept/re-act to new trends; (c) identify individual needs for professional development; and (d) actively engage with other relevant professions.

The knowledge the individual needs to learn to do this:

- Access and evaluate appropriate resources
- Educational/career progression opportunities

4.9 References

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5 Summary of Project

Martin Kudláček

Adapted physical activity is a profession needed in Europe in the year 2010. There is growing social inclusion of people with disabilities and with their emancipation also growing participation in physical activity, sports and physical education. The International Paralympic movement was pioneered in Europe, where sport was considered an integral part of rehabilitation at Stoke Mandeville in United Kingdom, Kladrby in Czech Republic and many other rehabilitation places since 1940s. On the other hand currently in most European countries coaches and instructors of various sports are usually not being prepared to include people with disabilities in their everyday practice. There are also numerous accounts of the need to ensure support systems for inclusion in physical education. We believe that without appropriate support there is danger that inclusive PE becomes only a political statement or cliché without true participation. Therefore we strongly advocate for inclusion of APE related services in national legislation and education, therapeutic and coaching practice.

Adapted physical education must be built on the foundation on physical education teacher preparation (PETE) programmes and APA in sport or rehabilitation settings should be built on a foundation of sport coaching. We should hope that in future APA specific competencies will become integral parts of PETE programmes and programmes for sport coaches and instructors at all levels in all sports. There is always a danger that inclusion related issues will be changed only “on paper” as a “political initiative” rather than a professional approach. Therefore we must work: (a) on further developments and promotion of APA related competencies and standards; (b) changes in national legislation and practices; and (c) introduction of specialised studies at all levels of professional preparations before APA competencies will be fully integrated in all professional preparations in the sport sector. A good example of such a study programme is the EU masters in APA EMMAPA 2 (appendix 7).

6 Examples of Good Practice in Adapted Physical Education

*Ursula Barrett, Niamb Daffy, Christina Evaggelinou,
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6.1 Adapted aquatics and outdoor education physical education undergraduate training at the Institute of Technology Tralee, Ireland

The Institute of Technology Tralee offer Health and Leisure studies with an option of transferring to Physical Education Studies in year 3. In the first 2 years of their Health and Leisure studies approximately half of the cohort of students completes a major in aquatics completing level 1 Assistant Swimming Teachers and Full Swimming Teachers Qualifications. As part of the full Swimming Teachers they will discuss the different disabilities and working with people with disabilities. They would sometimes teach a child with a disability in their teaching classes. They also cover activities to develop water confidence in the water and later to progress onto all strokes. They cover an introduction to the Halliwick concept covering entries, exit's supports and activities related to the Ten Point Programme. They also complete the National Rescue Award for Swimming Teachers and Coaches and the National Pool Lifeguard Qualification. As part of the National Pool Lifeguard qualification they become aware of issues to consider when supervising and rescuing all groups including people with disabilities. The second half of the student group completes a major in outdoor education and a minor in aquatics. The minor includes a foundation level Halliwick course during their second year of study.

In third year the students who have selected Physical Education Studies will all complete a module in Adapted Physical Activity: Outdoor Environments. This module is designed to help students to work in the area of adventure/outdoor activities with individuals with a variety of disabilities. The module aims to prepare and enable students to deliver activities for specific populations promoting full inclusion, enjoyment and success. Activities include Kayaking, surfing, adventure games, and rock climbing among others. Students work alongside Adventure Activity instructors in the implementation of activities with specific population groups. These sessions act as practical workshops and allow the students to put to practice the theoretical knowledge they have gained at lectures. Students are also given opportunities to lead activities in a closely supervised and supportive environment. Following this, students are required to design a programme for a specific population group and offer means of review for the individuals. Reflective journals are kept of the work they undertake. Formal lectures are used to ensure the learners are aware of the special needs of a participant with disability in an adventure sports setting. Case studies and lesson planning exercises help prepare the students for the practical workshops run under the supervision of Specialist Outdoor instructors.

In the fourth year of their studies the Physical Education undergraduates undertake a module in adapted physical education. This module aims to give the student the knowledge and skills to design, implement and assess physical education classes for people with disabilities in both inclusive and segre-

gated settings. The lectures provide the theoretical underpinning for the module area, while the practicals allow the students to implement a series of classes for people with disabilities under supervision. While this module covers all strands of the Irish PE Curriculum some students will receive additional experience in either the aquatics or outdoor education settings. One example is the swimming classes for children with intellectual disabilities where students work with participants in low ratios for 45 minutes per week over a 10 week period. The session consists typically of 30 minutes developing water confidence, motor ability and stroke technique. The final 15 minutes is usually a games session with activities ranging from aqua aerobics to Halliwick style games or aquatic basketball. Swimmers are examined relative to their ability level through an aquatic examination pack called “Aquaducks” which was developed and produced by the ITT students, which ranges from basic water confidence, stroke technique and basic lifeguard techniques.

Graduates of the Physical Education Studies honours degree at ITT go on to complete a Post-graduate Diploma in Education and to teach Physical Education in second level schools. The adapted elements of the aquatics and outdoor education training they receive as part of their undergraduate degree cover all of the knowledge skills and competencies identified in the EUSAPA project in relation to the strands of aquatics and outdoor education.

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Relevance of EGP to EUSAPA project

Adapted aquatics and outdoor education physical education undergraduate training at the Institute of Technology Tralee is an excellent example in physical education teacher training helping students to acquire competencies needed to work with students with special needs. Key to success of ITT APE related programs is supervised and supported practicum where students get positive experiences in work with persons with disabilities.

EUSAPA competencies presented in this EGP

- a. Ability to use appropriate instructional strategies (e.g., physical/verbal cues, prompts, feedback, reinforcement)
- b. Ability to adapt the rules of games, physical setting , equipment
- c. Ability to use task analysis for desirable skill
- d. Ability to collaborate with other specialists providing PE/APE

Example of good practice was described by Ursula Barrett from Institute of Technology in Tralee, Ireland.

6.2 In-service physical education teacher training in adapted physical education for students with disabilities

Target group: Physical education teachers, physical education students, sport instructors.

Purpose: Provide PE teachers with theoretical and practical knowledge about using adapted physical activities within general PE programme to increase safe, meaningful and successful participation of students with disabilities.

Description of EGP

The in-service training for PE teachers in adapted physical activity for students with disabilities is a four day (36 hours) workshop organised by the Education Centre “A Sports” in Latvia. Participants acquire knowledge, effective methods etc. for improving their skills toward more efficient and competent provision of PE services to diverse groups of students. The location is a special school for students with physical impairments in Riga. Since in-service training courses usually are organised during school holidays (Autumn and Spring), organisers have full access to all facilities needed for workshops, for example, the gym and sport equipment, small gyms with mirror walls, hall, changing rooms etc.



The themes of workshops are:

- (1) Special exercises for students with posture problems (e.g., scoliosis, orthopaedic problems)
- (2) Adapted physical activities for students with visual impairments
- (3) Adapted physical activities for students with hearing impairments
- (4) Adapted physical activities for students with intellectual impairments
- (5) Adapted physical activities for students with physical impairments
- (6) Dancing for people with intellectual impairments
- (7) Adapted physical activities for students with attention deficit and hyperactivity disorder
- (8) What PE teachers should know about health issues and physical load of students with disabilities?
- (9) Information on sport organisations providing out of school sport activities for children with disabilities in Latvia

All workshops are provided by highly experienced specialists with more than 10 years experience in working with students with disabilities. 70 % of training sessions are practical activities so that teachers learn themselves and understand the exercises and activities taught in workshops. Also, the in-service training promotes cooperation between various people in the same field. It is a proper place for exchanging ideas and helping to solve problems.

Relevance of EGP to EUSAPA project

In-service training example from Latvia is an excellent example in physical education in-service teacher training helping teachers to acquire basic competencies needed to work with students with special needs and to change their attitude toward inclusive PE.

EUSAPA competencies presented in this EGP

- a. Ability to use appropriate instructional strategies (e.g., physical/verbal cues, prompts, feedback, reinforcement)
- b. Ability to adapt the rules of games, physical setting , equipment
- c. Ability to collaborate with other specialists providing PE/APE
- d. Ability to collaborate with health and rehabilitation professionals (e.g., physiotherapist, occupational therapist, speech therapist, psychologists)
- e. Ability to collaborate with sport organisations, relevant professional organisations for persons with disabilities
- f. Ability to identify needs for professional development in the area of APE
- g. Ability to engage in continuing professional development activities (e.g. reading professional publications; attending conferences (workshops, seminars) to learn about new trends in APE

Example of good practice was described by Aija Klavina from Latvian Academy of Sport Education.

6.3 Research project “Peer tutoring for students with severe and multiple disabilities in inclusive physical education”

Target group: Students with multiple and severe disabilities, students without disabilities.

Purpose: Increase interactions between students with severe and multiple disabilities (SMD) and their peers without disabilities in physical education. Furthermore, to enhance students’ with SMD inclusion in everyday life in school and increase access to all of the activities for students with SMD.

Description of EGP

This research project was done in two elementary schools. Participants were three students with severe and multiple disabilities (Cerebral palsy, muscular dystrophy and intellectual disability) and nine general education students who served as peer tutors. All students with SMD attended special classroom for most of their school day, but they participated in general physical education with age appropriate peers without disabilities. The class sizes were about 25–30 students. The physical education was taught by GPE teachers and students with SMD were assisted by teacher assistants and adapted physical education (APE) personnel. The project consisted of three stages:

- 1) Observation of intact physical education class
- 2) Selection and training of peer tutors
- 3) Implementation of peer tutoring

During observation of intact PE class students with SMD most frequently interacted with adults (i.e., APE teacher, assistant teacher). All students were socially isolated from others and most of activities did together with adults. It might be attributed to continuous close proximity of the assistant personnel and students with SMD that increased students’ dependence on adults and limited their interactions with classmates.

Peer tutors were selected from the same class students with SMD joined in PE. Tutors were trained for three 30-minute training sessions. The student with SMD and his or her teacher assistant attended the second and third session. The training manual was provided to all peer tutors including five tutoring steps they had to learn: (1) instructions (e.g., cues, prompts), (2) demonstration, (3) physical assistance, (4) feedback, and (5) error correction. On the second and third session peer tutors practiced their skills working in pairs including student with SMD.

When the peer tutoring intervention was implemented, interaction behaviours between target students and peer tutors raised immediately. Teacher assistants and APE specialist monitored tutoring activities from about a 3–5 m distance and ensured a systematic rotation of peer tutors (10 min period for one tutor) so that none of the tutors would get tired or overwhelmed during the tutoring process. Also, the use of multiple peer tutors and the organisational arrangement including systematic peer tutor rotation benefited maintenance of the high level of interaction behaviours between students with SMD and peer tutors. Furthermore, the interaction behaviours between students with SMD and other peers (not peer tutors) also slightly increased during peer tutor intervention. Students not designated as peer tutors occasionally joined the tutors and students with disabilities dyad and showed desire to assist in activities.

Relevance of EGP to EUSAPA project

This project contributed to the practice on peer tutoring as an effective instructional strategy to increase interactions between students with SMD and other peers without disabilities in the inclusive learning environment. Peer tutoring seems to be very successful and efficient way of support in adapted physical education and thus should be considered in all European countries.

EUSAPA competencies presented in this EGP

- a. Ability to prepare human environments (assistant personnel e.g., teacher assistants, peer tutor, students without disabilities and school staff)
- b. Ability to prepare the physical environment (facilities, equipment, temporal)
- c. This EGP also relate with transfer of basic competencies in adaptation and appropriate support to peer tutors
- d. Introduction of peer tutoring depends on teachers ability to advocate for equal provision of PE for all students and ability to advocate for the rights of students with SEN for participation in PE/APE (e.g., support services, adapted equipment)

Example of good practice was described by Aija Klavina from Latvian Academy of Sport Education.

6.4 Best Start: Inclusive Schools Project, Ireland

Description of EGP

The Best Start: Inclusive Schools project has evolved out of schools visits that the Irish Wheelchair Association (IWA) – Sport development team have been conducting around the country since 2007. It was recognised early on that no resources were available to offer teachers in the way of training courses or material which would facilitate the full inclusion of children with physical disabilities into Physical Education classes. In addition following research into the resources provided at primary teacher training colleges and specialist physical education teacher training universities, again a lack of resources was evident.

As such IWA – Sport set about researching the Primary Physical Education (PPE) syllabus and the Junior Certificate Physical Education (JCPE) to identify areas of potential exclusion and identifying ways of overcoming them, while still supporting the aims of the syllabus and allowing teachers to deliver an effective class for all participants. The resource pack concentrates on the PPE as these resource materials have the potential to have the greatest impact in the shortest period. The PPE is divided into five strands, Athletics, Aquatics, Games, Gymnastics & Outdoor & Adventure activities, which in turn divided into 22 core areas, e.g.: Games is divided into Ball handling, Kicking, Carrying, Striking, Games & Appreciation, which in turn have 76 Sub-Core areas, e.g.: Ball Handling is divided into Rolling, Throwing & Catching. Across the syllabus there is potential to draw on other NGB's resources, as there are direct links to 36 other mainstream NGB's within the syllabus. Involving these NGB's as much as possible will have the dual advantage of using their resources and exposing them to our philosophy of inclusive practices.

Following on from the launch and rollout of the IWA – Sport Inclusive Schools Resource Pack the following approach will be taken to the delivery of the project over the oncoming academic year:

- Inclusive Schools visits ongoing;
- Inclusive Physical Education In-Service training;
- Inclusive Physical Education Teacher Education;
- European Inclusive Physical Education Training.

The full resource pack is readily available on line at www.iwasport.com.

Relevance of EGP to EUSAPA project

This EGP is an excellent example from Ireland where disability sport organisation IWA developed and launched in 2007 project, in which helps PE teachers to acquire basic competencies needed to successfully teach students with physical disabilities. Many sport organisations are aware of fact that children with SEN must be exposed to sport in physical education in order to develop fundamental movement competencies upon which, sport specific skills can be build.

EUSAPA competencies presented in this EGP

- a. Ability to collaborate with Non- Governmental and governmental organisations (e.g., in children rights)
- b. Ability to engage in continuing professional development activities (e.g. reading professional publications; attending conferences (workshops, seminars) to learn about new trends in APE)
- c. Ability to use appropriate instructional strategies (e.g., physical/verbal cues, prompts, feedback, reinforcement)
- d. Ability to adapt the following: the rules of games, physical setting, equipment
- e. Ability to use task analysis for desirable skill

Example of good practice was described by Niamh Daffy for Institute of Technology, Tralee, Ireland.

6.5 Special Education support in APA in Sweden

Description of EGP

Swedish schools has special educators and each municipality has support team that is responsible to ensure that all students receive basic support. When the municipality needs additional support, schools can apply for it at the National Agency for Special Education and schools. The Agency is the State's supplementary support of Special Education issues for students with disabilities.

APA is one of many areas in which the agency gives support. Support must be given equal and where there is a need for it, all over the country. The current situation is that about 10 persons (Advisors) is working to give support and advice in various degrees with issues related to APA. Efforts are that all students must achieve the objectives of education and offer an education that is characterized by equivalence, inclusion, accessibility and fellowship. UN Convention on the Rights of the Child, Salamanca Declaration and the UN Standard Rules for Persons with Disabilities is the basis for curriculum organization in Sweden. The education must therefore be inclusive and shall only in exceptional cases, take the forms of segregation.

An advisor in the agency provides support for educators and school management at individual, group and organizational level. Advice in the field of APA also includes consultation with educational publishers on the development of appropriate teaching material and in different development projects. The Authority also cooperates with various universities in courses and training related to APA and organizes and participates in courses, in-service training and conferences.

Skills and knowledge as an advisor within the Agency should have to provide special educational assistance in the APA are

- Pedagogical strategies
- Success Factors for an inclusive education in PE
- Approaches and attitudes and Value issues
- Movements impact for child and adolescent development and learning
- Psychomotor Training
- Approach, methodology and application in practice
- Equipment and materials
- Assessment and analysis

Efforts to provide advice and assistance in the field of APA are relatively new and are therefore still under development.

Relevance of EGP to EUSAPA project

This is an excellent example from Sweden with effort to provide the appropriate support of inclusive PE by trained and experiences specialist. Ideally these specialists should receive education, which would allow them to acquire all APE relevant competencies listed bellow.

EUSAPA competencies presented in this EGP

- a. Assess the needs (current level of performance) of students with special educational needs (SEN).
- b. Adapt school curriculum in physical education (PE) to meet the individual needs of all students with SEN.
- c. Plan developmentally appropriate learning experiences in APE and prepare teaching environment before arrival of student with SEN.
- d. Adapt teaching in order to meet the needs of ALL students in PE.
- e. Manage students' behavior to assure the most appropriate and safe learning for ALL students in PE.
- f. Communicate with students with SEN to ensure their understanding and maximum participation.

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- g. Evaluate learning progress of student with SEN in relation to his/her IEP goals.
 - h. Evaluate the suitability of the curriculum adaptations to students with SEN and the effectiveness of applied teaching strategies.
 - i. Collaborate with various relevant professionals and other advocates of students with SEN.
 - j. Improve professional skills and knowledge.
 - k. Advocate for the needs and rights of students with special educational needs.

Example of good practice was described by Lena Hammar, The National Agency for Special Education and schools.

6.6 SDM – Sherborne developmental movement – a holistic method for training social and motor skills

Description of EGP

SDM – a method for training social and motor skills was developed by Ms. Veronica Sherborne (1922–1990) and it is based on the theory of movement analysis by Rudolf Laban. This method was developed first for the needs of children and adults with intellectual disabilities, but because of its variability and possibilities for adaptation it is widely used in general and special education in schools and kindergartens and also for adult and elderly people. Teachers, trainers, physiotherapists, occupational therapists, speech therapists and other professionals working with children and adults use the SDM-method in teaching and in individual and group therapy. Many children with special needs have problems in motor control and academic skill but also in senses, perception, controlling the level of activation, attention and concentration. All these problems make acquiring the socio-cognitive skills (social perception, role taking, problem solving and accuracy of self-evaluation) very complicated. The ability to communicate is based on neural development and the neural connections need training in order to develop. We need social-cognitive skills, self-competence and communication skills in all kinds of social interaction and social relations, also in every lesson and learning situation. In normal PE-lessons there are lot of people, motion, disturbance, demands of fast learning, hidden or open competition, maybe even frustration. In SDM-lessons we try to avoid these hidden problems by analysing and comparing the demands of situation and abilities of the children. Children with special needs are often rejected from the group due to their problems. The subsystems in the classroom's non-controlled situations may exclude those who would benefit most from the interaction that occurs in the group. In PE it means a lack of training of both motor and social skills during the lessons and free time. This segregation happens mostly during the years which are the most important for the child's development. In SDM-lessons the teacher and the supporters control the learning environment very strictly. They help the child to control the situation and emotions and help solving the problems. However, they do not do the things the child has to do in order to learn! Affective atmosphere supports learning and is especially important for children with learning problems. The more the child enjoys, the more he/she is willing to train.

The SDM-method includes training of basic motor skills, which enable learning complicated motor skills. Most sports skills demand combining motor skills and they are difficult, if the child can not perform simultaneous movements or movement chains. The objectives of the training are not special sport skills, velocity, muscle strength or fitness. Training concentrates in skills and the elements of motor control process, but it is in any case physically very versatile and can also be straining. The exercises form a progressive system. The first ones are very simple, like those children have always done with each others or with their parents. Later on the exercises become as demanding as possible – without the upper limit. The method does not use any equipment, just people, space and bodies.

The objectives of SDM and their background

- **Supporting the child to work in a controlled way so that he/she can discriminate and integrate sensations.** Being able to use sensory information for starting and correcting the movement is the basis of skilful moving. The impairments of sensory organs cannot be corrected by movement exercise, but the problems in sensory integration and using the sensory information can be diminished.
- **Supporting the child to seek developmentally important experiences on his/her own initiation.** When the child masters the basic skills, he/she starts to train motor skills almost all the day. The normal motor development needs more training than just therapy sessions or PE-lessons. All children must have possibility to play with other children.
- **Creating safe conditions and situations for developing strong self-competence.** The exercises are selected so that the child can succeed in them. In the beginning the child can have support, but as soon as possible training will be independent and on child's own initiation. There is a lot of possibilities to differ objectives and level of demands, so every child can find the suitable exercise without the fear of failing or losing in competition. The more the child gets positive experiences the more he/she enjoys and wants to try more demanding tasks, like peers do.
- **Creating situations where the child can train socio-cognitive skills.** Peer learning is a very remarkable part of development both in motor and social skills. The teacher's task is to support interaction between children and between children and adults. The objective is that interaction transfers also outside the lessons.
- **Supporting the development of child's learning abilities.** Aside from training motor skills SDM concentrates on supporting the development of orientation, observation, perception, concentration, memory, time concepts, planning, problem solving and controlling activity level. All these skills are important also in classroom situations, in games and other peer relations.

The Themes of the SDM-programme

The exercises are grouped under the basic movement elements. In the beginning the child trains the basic skills, simple single movements. The exercises become more and more difficult according to the development of skills. Actually the themes cannot be totally separated, because all elements exist in every movement, the question is just in the focus of training.

The body awareness is the background of all movements. The theme includes body parts and size, personal space, laterality etc. The child learns to name his/her body parts and find their possible movements. The child learns to control and use them on the way he/she wants to. The most problematic issues seem to be body size, awareness of the trunk, laterality and crossing the midline.

The spatial awareness is very important in our everyday life, including games and traffic. This theme deals with personal and shared space. Personal space is more part of movement elements. Shared space means the space you share with other people during the activity, relationships with people and objects. The child learns the spatial concepts and how to use them: in front, forward, backward, sideward, under, over, to the left, to the right etc.

Awareness and control of movement elements, which means ability to control space, time and strength. The spatial form of movement includes levels, directions and wideness of movement and positions, e.g. the direction of steps or arm and body movements, small and large, straight and round movements. In controlling the time elements the child learns to recognise different rhythms and control the rhythm of movement, time sequences (how long time the exercise lasts, time to exercise and rest etc.) and the velocity of the movement. Controlling strength concerns the appropriate amount of power used in movement and differences between relaxed and active muscles. In movement element themes the objective is to be able to vary and control one element at a time, the tasks are very easy.

Movement flow is the result of controlling simultaneously all the elements of movement appropriately and being able to connect the movement patterns and chains. In the movement flow theme the objective is to control more complicated movements and situations. This theme is the basis of special sport skills. Working in pairs and groups may be the most enjoyable theme and it is combined as a method to

training former themes. The group may be formed of one child and one adult, many children and adults or children without adults. Forming the group depends on the functional level of children. In particular when the children are severely disabled, very impulsive, withdrawing etc. the ideal is to have an adult partner or an older child for each child to help the child in crossing thresholds. The roles of the partners are supporting or assisting (to you), doing together (with you) and opposing the partner (against you). The adults' activity diminishes all the time and the responsibility of the initiation, contact, solving problems, forming and obeying rules etc. is transferred to the children little by little, yet as soon as possible.

Steps or items in working in pairs and groups start from being aware of other people in the group. This objective concerns mainly most severely disabled or some autistic individuals. Almost all children need training in tolerating the presence and disturbance of other people's voices and moving. Making contact with a partner and other people (eye contact, speaking, touching), communicating and being in close contact with them are the next steps. Little by little the tasks contain more working in groups, problem solving elements, creativity, expression, helping each others etc. The result will be fluent working in different roles in the partnership and as a member of productive team. This is normal play.

Controlling one's level of activation

The ability to work with appropriate intensity, calm down and relax and change these levels fluently and at speed according the demands of the situation are the preliminary demands of successful action. Without the appropriate control of activation attention, observing, gaining information, planning and implementing the tasks in an enjoyable way are not possible. Many children need help in learning these skills, especially the most impulsive children. This theme exists in every task and the teacher must plan all tasks so that the child gets the needed support for controlled performance. Like in all other themes the responsibility is transferred to the child little by little. Concentration, exertion and even emotions vary a lot during the lesson. Maybe the most visible exercises in this theme are the real 3–5 relaxations during the lesson. They are as important exercises as all the others. There are also "minibreaks" between tasks helping the child to move from one task to another.

Conclusion

It is very important to take time for real learning, repetitions and training again and again. The programme stays almost the same for several lessons. The elements can be added to the same exercise. When the basis becomes strong the training gives a very positive impulse to the child's development, because the skills will follow the child to playing outside of gyms and classrooms. The SDM-method is easy to start and rewarding to use. The teacher can use one's own creativity in planning tasks and lessons, he or she is not bound to ready made programmes. SDM is a very reflective method and the teacher must be a very active observer during the lesson to be able to follow the individual needs of children. You need just a basic education, (a few days), to start. Further education takes you to more and more advanced levels and international gatherings give support for continuing.

Relevance of EGP to EUSAPA project

This is an excellent example of specific programme, which has been used in an adapted physical education setting. It can be considered as part of psychomotorics activities sometimes also called movement activities. We believe that all APE professionals should be aware of basic principles of such programmes and can become specialists in licensed programmes as part of life-long learning.

EUSAPA competencies presented in this EGP

- a. Ability to use appropriate instructional strategies (e.g., physical/verbal cues, prompts, feedback, reinforcement).
- b. Ability to use task analysis for desirable skill

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- c. Ability to provide positive/negative reinforcement of desirable/undesirable students' behaviours where appropriate
 - d. Ability to counsel/ guide students towards adopting more appropriate behaviours – choice
 - e. Ability to use appropriate alternative and augmentative communication tools

Example of good practice was described by Kaisu Laasonen, Research Manager in Saimaa University of Applied Science in Finland.

6.7 Reflecting through Art: Paint with us

Description of EGP

The implementation of several Paralympic School Days in Greece was an excellent opportunity for the implementation of different kinds of activities/projects in Greece. Lately, in the frame of a PhD thesis a series of activities were implemented with High school students in the city of Serres in Greece. One (of the totals thirteen) is of a particular importance since it is conducted in the local community. This particular activity is entitled **Reflecting through Art: Paint with us**.

Goals of activity

- a) To cooperate with the local municipality in order to alter their policy towards the sensitisations of the citizens towards disability in general and disability sports in particular.
- b) To bring together young students with elderly individuals in order the first to become sensitive towards movement difficulties and recognise the value of sports.
- c) Students learn about Paralympic wheelchair sports for elite athletes with physical disabilities; students learn about road sports and the athletes with different disabilities who are eligible to participate.
- d) Elderly people will learn about sports for individuals with a disability or movement difficulties.

Environment : Outdoor activity within the city.

People involved in the activity: Art teacher, High school Students, elderly home residents, residential administration staff, university students.

Introduction to the activity: The art teacher provides the basic information regarding the Paralympic Games, wheelchair Paralympic sports, and Paralympic School Day Program.

Running the activity: The leader divides the group accordingly, assigns them with a particular task, helps them and guides them toward the outside of the sketch. Participants are asked to paint the wall holding the brush with mouth or holding the brush with the fingers or their toes.

Assessment: Participants are invited to discuss with the art teacher and group leaders the value of the outcome of this activity towards themselves, towards the retiring home aesthetics, toward the city in general.

Relevance of EGP to EUSAPA project

The Paralympic school day project mentioned in this EGP is an excellent example of an activity for preparing the environment for inclusive physical education. The follow up project “Reflecting through art” can help us to bring issues of disability sport into normal life of school and outcomes of such activity can become integral part of school environment.



View of the final product of the activity

EUSAPA competencies presented in this EGP

- a. Ability to advocate for equal provision of PE for all students
- b. Ability to advocate for the rights of students with SEN for participation in PE/APE (e.g., support services, adapted equipment)
- c. Ability to collaborate with sport organisations, relevant professional organisations for persons with disabilities
- d. Ability to collaborate with parents/guardians of students with SEN
- e. Ability to collaborate with Non-Governmental and governmental organisations (e.g., in children rights)

Example of good practice was described by Christina Evaggelinou from Aristotle University of Thessaloniki, Department of Physical Education and Sports Science – Serres, Greece.

6.8 Behavioural management in physical education

Description of EGP

Behaviour management skills are particularly of importance to teachers in the educational system. Often we talk about behaviour modification in which the focus is on changing behaviour, while in behaviour management the focus is on maintaining order. The purpose of behaviour management is all of the actions and conscious inactions to enhance the probability that students will choose behaviours which are personally fulfilling, productive, and socially acceptable. For example, a physical education teacher may use these techniques to teach appropriate social behaviours for his/her students. Many of the principles and techniques of behaviour management used are the same as behaviour modification yet delivered in a less intensive and consistent fashion. Behaviour modification approaches involve students more actively

in planning and shaping their own behaviour through participation in the negotiation of contracts with their teachers and through exposure to training designed to help them to monitor and evaluate their behaviour more actively, to learn techniques of self-control and problem solving, and to set goals and reinforce themselves for meeting these goals.

Experts agree that a lack of behaviour management skills is the most significant barrier to effective physical education teaching. The inability to manage and motivate student behaviour is the most often mentioned reason given by beginner teachers for leaving the teaching profession. The problem is magnified if there are a large number of students with diverse emotional, social, cognitive, and physical abilities in the same physical education class. Lately, effective behaviour management has become even more challenging with the inclusion of an increased number of students identified as at-risk or with serious behaviour problems in general physical education classes. These students represent a growing number of all students in schools. In general behaviour management strategies have been very effective in reducing classroom disruption. The goal of all teachers is to minimise behaviour problems by creating a positive teaching and learning environment. The following strategies help teachers reinforce desirable behaviours to prevent behaviour problems (Dunn & Leitschuh 2006):

- **Structuring the physical environment:** Before children enter an instructional environment they should know what they are expected to do, where they should go, and what to do when they get there. The room should be organised with activity areas and equipment clearly marked. Activity stations, for instance, can be lettered or numbered to help students who have difficulty following directions.
- **Modeling:** Teachers must serve as effective models for their students. All students, including those with disabilities, look to the teacher as a standard for proper conduct.
- **Reinforcing desirable behaviour:** The sensitive teacher seeks every possible opportunity to provide positive reinforcement. Using techniques such as verbal praise and public recognition increases the likelihood that appropriate behaviours will be exhibited again in future class session.
- **Regulated permission:** There are times when it is desirable to permit exceptions or deviations in the normal class routine for a student who is having difficulty. For example, a student who finds it exceptionally difficult to stand in line before returning to the classroom could be assigned the responsibility of gathering and returning equipment to the proper area.
- **Developing, stating and enforcing consequences:** Students need to know that there are rules, standards of behaviour, and consequences for inappropriate behaviour. The rules must be clear and reasonable and the consequences appropriate to the infraction.
- **Student and teacher contracts:** There are times when it is desirable for the teacher and student to develop a contract as part of a conference in which a problem is acknowledged, expected behaviours are identified, and rewards and consequences are specified.

Beyond the formal techniques of positive reinforcement, modeling, extinction, and time-out, there are some informal approaches teachers can use to deal with undesirable behaviour. 1. Teachers employ a variety of signals that communicate to the student approval or disapproval for selected behaviours. Some of the nonverbal techniques that can be employed include: eye contact, hand gestures, snapping fingers, frowning, or various body postures. These signals, if employed before the behaviour gets out of control, can be very effective in stopping or minimising the intensity of the inappropriate behaviour. 2. A very old but effective strategy to use when a teacher senses that a student's behaviour is beginning to deteriorate is for the teacher to move close to the child. The close presence of the teacher may assist the student in regaining self-control and/or ceasing the undesirable behaviour. 3. Most teachers are aware that humour can be very effective in defusing a tense situation. A funny comment by the teacher may release tension of the situation. Of course, care must be exercised to avoid ridicule or sarcasm. The humour must be in good taste and appropriate to the situation. For many students, inappropriate behaviour may be the only behaviour in a student's repertoire which has been effective in meeting his or her needs. Positive programming serves to increase the options in a student's repertoire and provide more choices for the student. Finally, it is important to remember that it is the behaviour which is troublesome, not the student.

It is important to make this distinction even though in some cases a student may seem to continually try your patience. Separating the student from his or her behaviour will help prevent and dissipate negative feeling that you may have about a student and help make you and your teaching more effective.

Reference: Dunn, J.M & Leitschuh, C.A. 2006. Special Physical Education (8th. ed.). Dubuque, Iowa: Kendall/Hunt Publishing Company.

Relevance of EGP to EUSAPA project

Behavioural management is one of the key competencies of the APE teacher. The presented EGP provides a basic overview of behavioural management in the context of physical education.

EUSAPA competencies presented in this EGP

- a. Ability to provide positive/negative reinforcement of desirable/undesirable students' behaviours where appropriate
- b. Ability to observe and keep records related to behavioural management plan.
- c. Ability to counsel/ guide students towards adopting more appropriate behaviours – choice

Example of good practice was described by Pauli Rintala from University of Jyväskylä.

6.9 Buntús DVD with practical examples of how to adapt programme for inclusion of students with disabilities (Ireland)

Description of EGP

Buntús is an exciting Irish Sports Council initiative, which is delivered and supported by the network of local sports partnerships to Primary Schools in Ireland. Buntús is a skills-based programme that provides young people with a quality, fun and enjoyable introduction to physical education and sport suited to their own level of development. The Buntús programme is available to primary schools through the provision of training for teachers, child friendly equipment and resource cards across a variety of sporting activities.

The Programme offers: Two large bags of colourful child friendly equipment, combined with resource cards illustrating a range of progressive activities in the areas of: Rolling; Receiving; Travelling with a ball; Running and jumping; Throwing and catching; Striking and Kicking. The cards have been carefully designed to ensure that children can use them, support the Irish P.E. curriculum and give useful hints to teachers on issues such as safety and organisation.

Following the Buntús training, teachers are then empowered with the skills and resources to use Buntús to support the delivery of the PE curriculum. Quality training for Primary School teachers in the delivery of the programme offers opportunities for enhanced curriculum planning and for increasing the confidence of non-specialist teachers responsible for delivering physical education. Buntús offers a broader skill-based sporting experience for Primary school children increasing participation opportunities for all levels of ability.

In March 2007, the Irish Sports Council officially launched its teacher's resource DVD for its national primary school sports programme; Buntús. Staff of Waterford Sports Partnership and children from 4th class Waterpark National School, Special Olympics Waterford and the Fun4All sports club were selected by the Irish Sports Council to participate in the filming of the promotional DVD. The DVD shows the practical implementation of the Buntús programme in a classroom setting. The DVD also includes a chapter titled "Sports Inclusion" which shows teachers how to include children with physical disabilities in PE with examples of drills and games and the adaptations that allow for the inclusion of

everyone. Skills featured on the DVD include catching and throwing; striking and travelling with a ball, and games include: Catch Up; Treasure Chest; Inclusion Outback; Challenge Relay and Mini Rounders. Practical tips on adapting activities are highlighted (e.g. Wheelchair users may prefer to begin with a bounce pass or bats and balls may be placed on a chair for wheelchair users), and can be applied to other games and activities included in the Buntús programme as well as other areas of the PE curriculum.

This Buntús DVD has been distributed to all primary schools in Local Sports Partnership areas in Ireland to be used as a teaching aid for primary school teachers to assist them in the delivery of the programme. The DVD aims to add to the teacher's knowledge to include some basic adaptation strategies which promote inclusion in PE.

Contact details

Irish Sports Council

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Relevance of EGP to EUSAPA project

The DVD described here is a useful teaching aid that shows teachers practical examples of how simple adaptations can be made in a PE class to facilitate inclusion. The DVD aims to add to the teacher's knowledge to include some basic adaptation strategies which promote inclusion in PE. By providing images of the implementation of adaptation in a real PE class it is also hoped to have a positive impact on the attitudes of teachers towards inclusion in PE.

EUSAPA competencies presented in this EGP

- a. Ability to use appropriate instructional strategies (e.g., physical/verbal cues, prompts, feedback, reinforcement)
- b. Ability to adapt the rules of games, physical setting , equipment
- c. Ability to use task analysis for desirable skill

Example of good practice was described by Ursula Barrett from Institute of Technology in Tralee, Ireland .

7 Examples of Good Practice in Adapted Physical Activity in Rehabilitation

Nidia Amorim, Patrice Flore, Tarja Javanainen-Levonen, Bartosz Molik, Pavel Mustafin, Sandrine Tomasi, Joeri Verellen

7.1 Adapted physical activity education for physiotherapy students

Field: Education

Target group: Physiotherapy students

Institution: Jozef Pilsudski University of Physical Education in Warsaw, Poland

Purpose:

- Practical skills of leading sport and recreation activities with special populations.
- Opportunity to achieve degree of Sport Instructor of Persons with Disabilities.
- Experience in the field of sport for persons with disabilities and adapted physical activity.
- Chance for future education as: referee, coach, classifier, manager.
- Promote an active lifestyle and sports for persons with disabilities.

Programme:

The Faculty of Rehabilitation was established in Jozef Pilsudski University of Physical Education in Warsaw, Poland in 1985. It was established to educate physiotherapy specialists. The Faculty follows educational standards created by the Polish Ministry of Education. However the Faculty created an additional programme of APA education for all physiotherapy students. The Department of Theory and Methodology of Teaching Moving is responsible for APA education of physiotherapy students.

In the first grade of education (bachelor degree) the Faculty of Rehabilitation offers 330 hours of lectures and practice lessons (15 ECTS points). The following classes are proposed for students: theory and methodology of special physical education, Games and players for persons with disabilities wheelchair dancing, gymnastics, swimming, team games for persons with disabilities, track and field.

In the second grade of education (master degree) the Faculty of Rehabilitation offers 225 hours of lectures and practice lessons (11 ECTS points). The following classes are proposed for students: methodology of sport events for persons with disabilities (team games, track and field, swimming), theory of adapted physical activity and, theory of sport for persons with disabilities.

The Faculty of Rehabilitation is a unique structure with a complex multi-level programme of active rehabilitation and sport for people with disabilities. Teachers educate how to convince persons with disabilities to engage in active rehabilitation and an active life. They serve as examples of what people with disabilities are able to do. They recommend different forms of activities and different practice solutions. One of results of education is the possibility to pass the exam for sport instructor for people with disabilities.

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This unique programme in context of adapted physical activity helps to develop the following comprehensive rehabilitation competences:

- Understand the general recreation and sport adaptation model for patients/clients including their personal profile, the function related implications, the specific activity requirements, and the aim of participation.
- Understand and evaluate the interrelation between determinants of human functioning.
- Understand and evaluate the impact of impairment on human functioning.
- To understand the impact and risks of physical activity.

Pedagogical competences are mainly developed in:

- Understanding the theory of programme development.
- Mastering a comprehensive overview on disability sports.
- Understanding the sport-specific equipment – user – interfaces.

This programme represents a good opportunity for understanding the various community based physical activity and sports organisations eligible for patients/clients in the Adapted Physical Activity programme in the management competences.

Example of good practice was described by Bartosz Molik from Jozef Pilsudski University of Physical Education.

7.2 COPD rehabilitation training

Field: Rehabilitation program

Target group: Patients/clients in rehabilitation with COPD

Institution: Dieulefit Santé, Grenoble University Hôpital Sud, Grenoble, France

Purpose:

- Prepare patients/clients for participation in standard physical activity programmes in rehabilitation.
- Improve the patients'/clients' physical activity and physical fitness level.
- Promote an active lifestyle after rehabilitation.
- Prepare patients/clients for reintegration into society after rehabilitation.

Programme:

COPD (chronic obstructive pulmonary disease) causes breathlessness while providing effort due to respiratory troubles and induces muscular weakness and dysfunction, and thus, poor exercise tolerance. This physical limitation is bound by amyotrophy and myopathy related to a sedentary life-style, structural changes in muscles fibre types, nutritional deficiencies, side effects of corticotherapy and oxidative stress lead by low-grade systemic inflammation associated to the disease and cigarettes smoking. Rehabilita-

tion training affords the lowering of ventilatory demand and the improvement of muscular strength and endurance by reducing some of the limiting factors mentioned above.

“Dieulefit Santé” is a cardiopulmonary rehabilitation centre in France which focuses on follow-up care for patients on discharge from hospital and on patients’ rehabilitation through regular adapted physical activities and health education in order to optimise their health and quality of life and to acquire better knowledge about their illness and its treatments. Part of the rehabilitation programme is a COPD preparation programme aimed at training patients with COPD in order to enhance their exercise capacities, to reduce their symptoms and to improve their quality of life and autonomy. This allows patients to get involved in the long range in their rehab programme and more generally in physical activities. The programme is planned for four weeks duration. At day 1, a 6-minutes Walking Test is provided as well as a maximal cardiopulmonary exercise test to assess the safety of exercise and the training level. Patients are split in different groups according to the severity of their affection. General and muscle endurance and strength are trained through a variety of playful adapted physical activities. The exercise training programme is regularly assessed to adjust it to the patient’s needs and progress. As well, community based programmes are suggested to patients at discharge from pulmonary rehabilitation to stabilise muscular and respiratory improvements and to keep on practising physical activities to maintain these benefits.

The programme is coordinated by both APA teachers and physiotherapists. Physiotherapists offer standardised exercises on ergocycle or treadmill, essentially at the beginning of rehabilitation process (re-education stage) while APA teachers offer physical activities based on modified and adapted sports activities allowing patients to enjoy physical activity so that they may keep on practising after discharge from the rehabilitation centre (post rehabilitation stage).

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This interesting programme primarily helps clients with chronicle diseases. If we think about the required competences of professionals we consider specifically about therapeutic competences:

- Understand and evaluate the interrelation between determinants of human functioning.
- Understand and evaluate the impact of impairment on human functioning.
- Understand the pathophysiological basis of chronic disease, disability and disorder.
- To understand the impact and risks of physical activity.
- To know the impact of medication on exercise performance.
- Understand indications and contra-indications of sports and adapted physical activities in the rehabilitation of specific populations.

Example of good practice was described by Sandrine Tomasi & Patrice Flore from Grenoble 1 University in France.

7.3 Functionally based exercise program for children with cerebral palsy

Field: Rehabilitation programme

Target group: Patients/clients in rehabilitation with Cerebral Palsy GMFCS level I or II (mostly children)

Purpose:

- Improve the patients'/clients' physical activity and physical fitness level.
- Promote an active lifestyle after rehabilitation.
- Prepare patients/clients for reintegration into society after rehabilitation.

Programme:

Children with cerebral palsy (CP) have distinctly subnormal aerobic and anaerobic capacity in comparison with typically developing peers. Also, muscle mass is low, muscle strength is reduced and energy cost of locomotion is high. Low levels on these fitness components may contribute to the difficulties in motor activities most children with CP encounter in daily life. Moreover, evidence suggests that hypoactive children are more likely to become physically sedentary adults and that encouraging the development of physical activity habits in children will help us to establish activity patterns that continue into adulthood.

A functionally based exercise programme, that had to be easily implemented in clinical practice, was developed. All children, regardless of their age and GMFCS-level (I or II), performed the same exercises during the programme. The children worked in couples during the circuit training-sessions. We used task-specific exercises such as running and changing the direction of the body abruptly, step-ups and negotiating stairs since they are important in everyday life of children and adolescents with CP. The standardised exercises, aimed to improve daily functioning, were repeated throughout the programme. The training programme lasted for 8 months, and consisted of two training sessions a week. Each session lasted 45 minutes. Each training session started with an introduction of approx. 5 minutes. In these 5 minutes a heart-rate monitor was attached to the child during the first 6 months, because they used it to guide them during the aerobic training sessions. The remaining time was used to provide information and to explain the purpose of the training that was ahead. In the following 5 minutes different activities/games were used to get the children warmed-up. In the most important training-part we used 8 standardised task-specific aerobic and anaerobic exercises, which were based on walking activities, such as running / walking fast, step up and down, stepping over, bending, turning, and getting up from the floor. The children kept track of their progression using a score-sheet. On this score-sheet they recorded the number of repetitions they achieved. This kept most children motivated throughout the programme. Since the duration of the exercise increases in the first three months the number of repetitions will increase as well, even if they do not increase their fitness. This provides positive reinforcement for the first training months, which are the hardest. Every 6 weeks a game is played during the training sessions. In this way the children have something to look out for. Some of these games included are obstacle softball (between each base an obstacle was placed), soccer and dodge ball.

The target group of people with CP in this programme requires therapeutic competences and knowledge of:

- Understanding the general recreation and sport adaptation model for patients/clients including their personal profile, the function related implications, the specific activity requirements, and the aim of participation.
- Understanding and evaluate the interrelation between determinants of human functioning.
- Understanding the impact and risks of physical activity.
- Knowing the impact of medication on exercise performance.

-
- Understanding indications and contra-indications of sports and adapted physical activities in the rehabilitation of specific populations.

A well-run programme for persons with CP requires a pedagogical competences and knowledge in these areas:

- Understand the sport-specific equipment – user – interfaces.
- Understand the major components influencing the process of adapting activity situations.

Management competences and knowledge are equally important mainly in:

- Understanding the various community based physical activity and sports organisations eligible for patients/clients in the Adapted Physical Activity programme.

Example of good practice presented in book Functionally based exercise program for children and adolescents with cerebral palsy by Olaf Verschuren (2009; available for download on www.eufapa.eu) was described by Joeri Verellen.

7.4 Handcycling and tricycling as a part of rehabilitation program of persons with lower extremity impairments

Field: Rehabilitation program

Target group: Patients/clients in rehabilitation with lower extremity impairments (including wheelchair users)

Institution: University Hospitals UZ K.U.Leuven, Pellenberg site, Pellenberg, Belgium

Purpose:

- Prepare patients/clients for participation in the 20K race of Brussels.
- Improve the patients'/clients' physical activity and physical fitness level.
- Promote an active lifestyle after rehabilitation.
- Prepare patients/clients for reintegration into society after rehabilitation.

Programme:

The 20K race of Brussels has become a very popular sporting event in Belgium, with approximately 25.000 participants every year, including an opportunity for handbike users to participate as well. Since 2005, the rehabilitation centre of Pellenberg, a part of the Catholic University of Leuven's University Hospitals, has reserved a number of slots for patients/clients to participate in the race. To prepare possible participants, the rehabilitation centre has developed training programmes, and organises weekly training sessions to ensure successful participation. These sessions also include information seminars regarding nurture, injury prevention, benefits of active lifestyle, etc... As such, the handbike training programme has extended the existing sports programme, and has contributed to a further optimisation of the rehabilitation programme of patients/clients with lower extremity impairments. The programme aims to improve the patients'/clients' physical activity and physical fitness level, and therefore enhances the rehabilitation process as a whole. Furthermore, the programme promotes an active lifestyle after rehabilitation, and prepares patients/clients for reintegration into society after rehabilitation.

The handbike programme has led to the development of a counselling agency for handcycling and tricycling. The agency offers information about equipment, possible adaptations, training advice, etc... aiming to promote cycling as a means to enhance and ensure an active lifestyle in persons with lower extremity impairments.

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The target group of this programme requires therapeutic competences and knowledge in:

- Understanding the general recreation and sport adaptation model for patients/clients including their personal profile, the function related implications, the specific activity requirements, and the aim of participation.
- Understanding and evaluate the interrelation between determinants of human functioning.
- Understanding indications and contra-indications of sports and adapted physical activities in the rehabilitation of specific populations.

A well-run programme for persons with lower extremity impairments requires a pedagogical competences and knowledge in these areas:

- Understand the sport-specific equipment – user – interfaces.
- Understand the major components influencing the process of adapting activity situations.

Management competences and knowledge are equally important mainly in:

- Understanding the various community based physical activity and sports organisations eligible for patients/clients in the Adapted Physical Activity programme.

Example of good practice was described by Joeri Verellen from KU Leuven in Belgium.

7.5 Sitting and standing volleyball in post war countries

Field: Rehabilitation program

Target group: Patients/clients in rehabilitation with lower extremity impairments (mostly amputees)

Purpose:

- Improve the patients'/clients' physical activity and physical fitness level.
- Promote an active lifestyle after rehabilitation.
- Prepare patients/clients for reintegration into society after rehabilitation.

Programme:

Sitting volleyball is a Paralympic team sport to involve persons with locomotor disabilities, predominantly on the level of lower extremities. The main contingent for sitting volleyball are traumatic leg amputee – whether, mono- or bilateral. A sitting volleyball game is played as well by polio, CP and by the other persons with a variety of the permanent impairment of the musculoskeletal or nervous systems. Sitting volleyball has his roots in Europe and it is now a worldwide developed sport.

Historically, sitting volleyball is one of the oldest sports within a scope of the Paralympic family. The roots are going back to the fifties of the last century. The research data are showing that sitting volleyball is a safe sport; there is a little possibility of injury or the secondary, sport related health pathology. Health related quality of life of sitting volleyball players is higher comparing to their non physically active counterparts with a disability. Sitting volleyball promotes many modalities of the overall health, not only the physical functioning. Sitting volleyball can be used as a means of physical rehabilitation for a wide spectrum of persons with predominantly leg's impairments.

Sitting volleyball is a cheap sport. Sitting volleyball can be played in the ordinary sports hall or even outside. Only the ordinary net and volley balls are necessary to start playing. Sitting volleyball is played without the prostheses. There is no sophisticated equipment like the wheelchairs to be used.

When playing sitting volleyball, the sport specific biomechanical potential of the athletes with a disability is the same as for the able bodied ones. Because the game is played in a sitting position it makes the persons with a scope of disabilities even to the able-bodied peers. This fact, along with an attractively active game itself, gives a good reason for the able bodied players to be included into the sitting volleyball teams on a national level. Sitting volleyball is a fast and specific sport of its own. Normally, the able bodied volleyball teams are losing to their counterparts with a disability when playing sitting volleyball.

Being an attractive, simple, cheap and safe kind of sport for the persons with a disability, sitting volleyball can be widely advised as a mean of adapted physical activity. The main contingent comprises the traumatic amputee; therefore sitting volleyball is especially suitable, though is not limited to, for the post war countries to involve a wide spectrum of the persons with a disability.

This programme with international impact of scope helps the miscellaneous type of impairment. It requires mainly knowledge in:

- To understand the impact and risks of physical activity.
- To know the impact of medication on exercise performance.
- Understand indications and contra-indications of sports and adapted physical activities in the rehabilitation of specific populations.
- Understand the major components influencing the process of adapting activity situations.
- Understand the various community based physical activity and sports organisations eligible for patients/clients in the Adapted Physical Activity programme.

Skills are equally important:

- Master the ability to safely apply the Adapted Physical Activity programmes, including regular evaluations, using risk stratification and pre-programme screening.
- Master teaching, training and coaching skills (didactical skills), needed for a well-balanced approach in a therapeutic environment.
- Understand the principles of adapting activities, games and sports.
- Be able to adapt activities to the functional potential of the participants.
- Master the professional skill to initiate and effectively process adaptation.
- Master those skills which are necessary in the preparation of a strategic policy for management and integration of Adapted Physical Activity programmes within the multidisciplinary character of rehabilitation.

Example of good practice was described by Aivars Vetra and Pavel Mustafin from Riga Stradins University.

7.6 Foundation for Active Rehabilitation

Field: Rehabilitation

Target group: persons with spinal cord injury (SCI) using wheelchairs

Institution: Jozef Pilsudski University of Physical Education in Warsaw, Poland

Purpose:

- Rehabilitation of disabled people after SCI.
- Help persons with SCI return to normal, active life, education, job (social and vocational activation).
- Promote an active lifestyle and sports.

Programme:

Foundation for Active Rehabilitation (FAR) started its activity in 1988. It was established to help people with severe spinal cord damages. Every day at least 3–4 new persons suffer severe spinal cord damages resulting from accidents. In most cases they are young and in the midst of a professional career or college studies; the majority are between 15 and 30 years of age. Mentally fully competent, suddenly they became handicapped due to arm and/or leg paralysis, with all the emotional, psychological and social problems involved. It is not easy for them to accept the thought of spending rest of their lives on the wheelchair.

The Foundation follows the best world's standards, but also establishes its own methods of rehabilitation. Thousands of people are constantly in its care. FAR tries to provide them with everything they need in the particular moment, they are informed and taught to adapt to challenges of daily living and to cope with personal problems. FAR enables them gaining new job qualifications.

FAR fills the gap between medical treatment at hospital and isolated, chained to bed life that the disabled person have to face back home. FAR provides an alternative way of being for them offering the possibility to return to social and professional life.

FAR is a unique non-governmental structure with a complex multi-level programme of active rehabilitation for people with spinal cord damages in wheelchairs. It's the only organisation in Poland with a complete, advanced and efficient programme of social and professional rehabilitation of disabled people after spinal cord injury.

The first contact with FAR is the most important for a person after a spinal injury. It usually takes place in hospital or rehabilitation centre. First contact instructors – disabled people on wheelchairs, very active and independent – visit hospitals and rehabilitation centres in the whole country. They look for people with a spinal injury. They are trying to convince them to take part in 'active' rehabilitation. They serve as examples of what a person after spinal lesion is able to do. They recommend training camps organised by the Foundation for Active Rehabilitation. They also take care of the patient's family. They inform about abilities and needs of a disabled person, and they introduce methods of active rehabilitation to medical staff.

FAR arranges nationwide specialised rehabilitation courses conducted by instructors in wheelchairs. These instructors act as tutors and, most importantly, provide a role model for disabled persons who are often confined to bed, usually very vulnerable and more often, even depressed. At the camp, during 7-day workshops the participants learn to perform independently such every day activities like managing the new multi-function, "active" type of a wheelchair, getting dressed, moving about and moving around the city using public transportation etc., as a precondition to the independent work and/or study.

There are also lectures, seminars and discussions that cover a variety of topics starting with specific health issues, but also addressing psychological, social and other practical problems.

FAR directs its support not only to people with spinal cord injury. It also trains medical doctors, therapists, nurses and other people that have contact with disability, spreading the idea of active reha-

bilitation. Since 1995 the Foundation has made a significant effort to introduce the principles of active rehabilitation into the medical schools curriculum.

During FAR camps and regional courses disabled instructors use sport as a tool to make people, who just become disabled, more independent, and to help them return to normal life. FAR have eminent achievements in the field of such sport activities like sailing, canoeing, swimming and diving. Our instructors have created and implemented successfully a new swimming programme for persons with severe spinal cord damages. Every camp consists of five disciplines: technique of using a wheelchair, workout and condition building, swimming, table tennis and archery. Sport, as something very universal and common, is a perfect base for communication and integration of people from different environments.

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This comprehensive programme develops and requires nearly all of competences, skills and knowledge. We work on these mainly for these skills:

- Estimate and assess the activity potential of a patient/client through tests, observations, etc... and describe the resulting functional profile.
- Master the ability to safely apply the Adapted Physical Activity programmes, including regular evaluations, using risk stratification and pre-programme screening.
- Master teaching, training and coaching skills (didactical skills), needed for a well-balanced approach in a therapeutic environment.
- Be able to adapt activities to the functional potential of the participants.
- Master management strategies including a planning model approach in providing sport and physical activities for people with impairments, disabilities handicaps, disorders, etc...
- Master those skills which are necessary in the preparation of a strategic policy for management and integration of Adapted Physical Activity programmes within the multidisciplinary character of rehabilitation.

Example of good practice was described by Bartosz Molik from Jozef Pilsudski University of Physical Education in Poland.

7.7 APA in rehabilitation – case study Satakunta/Finland

Author: Senior Lecturer, PhD Tarja Javanainen-Levonen, Satakunta University of Applied Sciences

Aims: The aim of this article is to explore the role of physical activity within rehabilitation and to give examples of APA practice in various forms of rehabilitation.

Methods:

This survey was a part of the EUSAPA project preliminary inventory and needs analysis. A purposive sampling was carried out spring 2009 in Western-Finland, in Satakunta region (Fig.1). The survey was sent to 47 institutions. Institutions included *formal rehabilitation settings*: rehabilitation centres and re-

habilitation wards in local hospitals, as well as settings that are more informal. *Informal settings* covered institutions aiming at total rehabilitation of the clients. More informal settings included service-homes and departments for the elderly (for example war veterans), and for clients with particular needs (intellectual disability, psychiatric disorders, alcohol abuse etc.).

Thirty-four institutions filled in the EUSAPA rehabilitation questionnaire. The response rate was 72.3 %. Based on the results of SPSS-analysis, four interesting cases were selected for further interviews with APA experts or other professionals. The characteristics of these four institutions are described more detailed in Table 1.

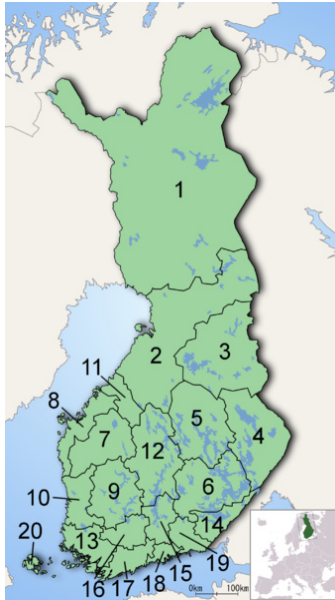


Fig.1. The location of Satakunta, region number 10 in Finland

Table 1. Characteristics of the four institutions in the interview data

| Rehabilitation setting: | Clients: | Particular environmental issues: |
|--|--|--|
| Kankaanpää rehabilitation center (formal rehab setting) – staff in all 190, 21 physiotherapists, 2 sports instructors, 1 recreation instructor | Neurological, musculoskeletal, geriatric, occupational training –218 clients (inpatient) | Nature trails, shelters, tennis courts, bowling center, fishing, rowing (Photos 1–3) |
| Harjavalta Hospital (formal rehab setting). Separate physiotherapy ward and sports ward (1 sports instructor/1 assistant nurse) | Psychiatric unit (inpatient and outpatient) | Gym, tennis, volleyball, beach volley, minigolf, soccer, canoes, kickbikes, bicycles, skates, skis, Nordic walking sticks etc. |
| Antinkartano rehabilitation center (formal rehab setting) Separate physiotherapy ward and sports ward (APA instructor – Deuapa) | Persons with severe intellectual disability ~100 clients (inpatient) | Sports hall, swimming pool, nature |
| Monituote rehabilitative work center (informal rehab setting) No APA-specialists | Youth and adults with intellectual disability (outpatient) | No physical activity facilities |

Results/survey:

More than 91 % of all institutions organised physical activity for their clients. At least four physical activity programmes were organised in 59 % of the institutions. Physical activity programmes were:

mostly group activities (aquatics, chair gymnastics, balance training), individual activities (for example aquatics for severely disabled clients with intellectual disabilities, gym training or bicycling for psychiatric patients etc.), as well as specific programmes for each ward (for example in child or adult psychiatric clients), sports happenings and even activities for out-patients – for example in psychiatric cases. Physiotherapists (53 % of cases), apa-instructors (12 %), as well as other professionals (71 %) were responsible for physical activity. The classification for “other professionals” covered for example assistant physiotherapists [a lower level education in physiotherapy] and assistant nurses [lower level education in nursing]. One third of the respondents considered human resources and time as restrictors for organising physical activity. Attitudes of the professionals were rarely mentioned.



Photos 1–3. Physical activity options offered in Kankaanpää rehab center

Results/Interviews:

Implementation of physical activity in formal rehabilitation settings (i.e., rehabilitation centres or wards in hospitals) seems to be based on structured planning. According to the interviews of professionals in the field, the implementation of physical activity as part of rehabilitation in *formal rehabilitation settings* is based on thorough written plans: year-plans, period plans, as well as on planned service delivery packages sent to wards (the client’s own caretaker with a team selects the activities). Work is carried out within teams (doctors, nurses, psychologists, social experts etc.). It is not always the APA expert who decides the placement in physical activity programmes: it might be the client office, medical doctor or client’s own caretaker as well. Nevertheless, the placement can be changed during the rehabilitation process.

APA experts take a lot of responsibility in planning and implementing the programmes. Usually they belong to the rehabilitation team. All documentation is carried out electronically in formal rehabilitation settings. APA experts are usually allowed to see patient documents and are supposed to do evaluation and documentation in accordance with the aims of rehabilitation. In some cases, they have the responsibility to work under a certain budget.

In rehabilitation, physical activity instructors run a counselling session in the beginning of the programme (according that discussion the programme might be changed). Furthermore, they carry out process evaluation as well as final interview with the client. They might consult the client’s home community for assistive aids and devices as well as for service-delivery in physical activity. According to the interviews, after rehabilitation period, the instructors also do the marketing for physical activity in client’s local community. Earlier days they did it more – more time to do it.

Various physical activities were included in the weekly programme of some of the more informal settings even without APA experts. *Monituote*, a rehabilitative work centre for adults with intellectual disabilities is a good example of those institutions. Monituote runs weekly and seasonal activities, as well as collaborates in projects in physical activity for their clients (Photos 4–6).



Photos 4–6. Physical activity options offered for Monituote clients

Conclusion:

The results showed that not all rehabilitative settings have APA experts. However, in Finland, “rehabilitative approach” should be presented in everyday practice. This means that empowerment and physical activation of all clients should be carried out by all professionals working with the client. Therefore, instructors in general, nurses, public health nurses, custodians (responsible for specific equipment in institutes) were mentioned in many answers. Physical activities are not always that organised, but physical activity is facilitated by institutions. Concurrently, every professional working in rehabilitation is supposed to activate the clients – physically as well. Therefore, more focus should be addressed to the training of a broad scope of professionals in order to include and develop physical activity as a part of rehabilitation for all clients.

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This research is focused on the professionals competences of rehabilitation workers. It draws attention not only to the developed competences, but mainly the working application and practical need for experts in APA in rehabilitation. You must notify legislative limits during employing of experts in APA in the implementation of rehabilitation programmes. Necessery is required of all those competences, skills and knowledge.

Example of good practice was described by Tarja Javanainen-Levonen from Satakunta University of Applied Sciences.

8 Examples of Good Practice in Adapted Physical Activity in Sports

Niamh Daffy, Jose Pedro Ferreira, Kati Karinharju, Aija Saari, Hana Válková, Debbie Van Biesen

8.1 Sport Specific National Training Program to Coach Athletes with disabilities

Name of the EGP

Sport Specific National Training Programme to Coach Athletes with disabilities

Description the EGP + what is the content of the programme?

One of the most elementary needs within the Flemish sports area is the need for more and better professional guidance. A necessary prerequisite for this is a decent training and education structure. Formation of sports trainers and coaches is crucial within this premise. The Flemish training school, a structure within BLOSO plays a central leading role.

The Flemish training school is the only recognised training centre for sports in Belgium, with central role and responsibility to educate trainers and coaches within specific sports on **all levels (from initiation over advanced B level towards advanced A level)**.

The Flemish training school recognises and organises the following formations:

- SSE: Sport specific education (in over 50 different sports and various sports disciplines)
- CSSE: Complementary sport specific education (e.g. coaching athletes with disabilities, coaching elderly, ...)
- Professional education (e.g. Lifesaver, Sports officer, Swimming coordinator, manager, ...)
- Guidance related education (movement recreation, coordinator of youth sport, jogging guidance, ...)
- Further training courses

Formation of trainers and coaches within disability sport is fully integrated within this national sport structures. The focus hereby is to work towards a fully integrated setting on organisational level, and to set equal high quality standards for coaches and trainers, no matter if they work in disability sport or regular sport settings.

The aim for the future is to merge the SSE and CSSE completely and ultimately become that **every qualified trainer within a specific sport also has basic knowledge about how to adapt his sport to athletes with all kind of abilities and disabilities.**

The current situation is that the SSE and CSSE are merged for some sports (walking, fitness, goal-ball and boccia). CSSE is not obligatory but required for trainers and coaches in the following sports: badminton, swimming, soccer, tennis, ski, athletics, basketball, gymnastics, judo and equestrian. It is an

obligatory requirement for coaches or trainers when they want to receive the certificate for a CSSE in their sport to firstly have reached at least initiation level within the SSE.

A qualified coach first of all needs basic knowledge, competence and skills within his specific sport, and additionally he needs the knowledge, competence and skills to adapt the sport towards persons with disabilities.

On SSE level, this includes: general didactical principles, development of training plans, safety and health, basic knowledge and skill of basic techniques and tactical principles of the specific sport, goal setting...

On CSSE level, this includes: knowledge of structure of disability sport in Belgium, using the didactical principles applied to persons with disabilities (various target groups), knowledge and skills on how to adapt exercise and training programmes within the sport for individuals with disabilities, evaluation of physical potential of athletes, safety and health considerations ...

Where is it provided?

The project is provided in Flanders, the Flemish speaking part of Belgium. Courses are given in the national BLOSO centres.

Who is providing this programme?

“BLOSO” is an organisation, lead by the Flemish Government of Belgium. The full name of the organisation is “Agency for Promotion of Physical Development, Sports and outdoor recreation”.

It is under government of the ministry of Sport, and its main tasks are the exploitation of 13 national sport centres, subsidising of Flemish Sports Federations and the outline of the Sport policy in Belgium from promotion of “Sports for all” towards government of elite sport.

Local/national/European level of programme?

The programme is running at national level, but only in the Northern part of Belgium (Flemish speaking part).

Segregated/inclusive setting?

Inclusive.

Recreational/competitive level?

Trainers are educated to be able to work on the highest (competitive) level, but how to work on a recreational level is also highlighted during the courses.

What is the target group?

The target group are all certificated coaches who want to gain extra knowledge about how to coach athletes with disabilities.

Why this EGP is relevant to be included in EUSAPA project?

Qualified coaches with in depth sport specific knowledge are necessary to bring disability sport towards a higher level and on the other hand all trainers and coaches on all levels need insight in how to adapt their sport to athletes with different kind of abilities. This national programme is aiming towards this twofold goal.

What skills, competences and knowledge are present in this EGP?

1. Develop and adapt exercise and training programmes for individuals with disabilities and/or special needs for specific sports
 - a. Ability to develop appropriate programmes
 - b. Ability to communicate in the appropriate environment
 - c. Ability to adapt in the appropriate environment
 - i) Mission, vision, aims and objectives of the programme
 - ii) Individuals with disabilities and/or special needs in relation to sport (exercise and training)
 - iii) Sport opportunities and settings for individuals with special needs
 - iv) Sports Science
 - v) Theory of sport training
 - vi) Sports specific background
 - vii) Rules and classifications
 - viii) Legal and ethical issues
 - ix) General principles of adaptation
2. Initial assessment of current situation and past history
 - a. Ability to use specific assessment instruments
 - b. Ability to analyse and interpret the data on the basis of theory
 - c. Ability to consider and assess accessibility in the sports specific context
 - i) Protocols, test measurements, batteries, biographical information, techniques for questioning
 - ii) Accessibility
3. Develop and adapt exercise and training plans
 - a. Ability to identify resources
 - b. Ability to adapt and use appropriate equipment
 - c. Ability to apply principles of theory of sport training
 - d. Ability to set realistic goals
 - i) Sports Science
 - ii) Theory of sport training
 - iii) Sports specific background
 - iv) Rules and classifications
4. Adapt coaching strategies
 - a. Ability to use appropriate coaching methods
 - b. Ability to communicate
 - c. Ability to actively engage with the coaching environment (e.g. interaction, learning process, co-operation, cohesion)
 - i) Coaching styles
 - ii) Coaching methods
 - iii) General communication strategies
 - iv) Methods of alternative communication as required
 - v) Appropriate Sports Science knowledge
5. Communication and cooperation
 - a. Ability to communicate with the appropriate support networks
 - b. Ability to communicate effectively with participants and target groups
 - c. Ability to identify and choose appropriate strategies to communicate with key individuals or networks
 - i) General communication strategies
 - ii) Methods of alternative communication as required

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6. Evaluate impact and re-adjust the plan
 - a. Ability to use specific assessment instruments
 - b. Ability to practically interpret, reassess and re-adjust the plan
 - c. Ability to be self reflective
 - i) Protocols, observation techniques, test measurements, test batteries, biographical information, techniques for questioning
 7. Administration
 - a. Ability to perform administrative tasks
 - b. Ability to organise and prioritise information
 - i) Basic administration systems
 - ii) Language and information technology
 - iii) Prepare reports

Example of good practice was described by Debbie Van Biesen from the Katholieke Universiteit Leuven.

8.2 Different world ... (program for football coaches)

Education of UEFA profi-license coaches oriented on football of persons with disability. Education course with self-work of students.

Description the EGP:

Example of coach's education, the purpose of education programme: UEFA profi-license of coaches is an education programme for future top football coaches. The programme lasts 2 years. One topic, included in modification for the Czech coaches education programme, is oriented on humanitarian activities in football. The coaches, usually former higher level football players, are use to living in a very good economic environment, in an atmosphere of best movement activities and achievements. Their knowledge about the "different" world (economy, health problems, social status, etc.) is very poor. There is a necessity to inform them about "different" environments with possibilities to participate in sports of persons with disability. Football players, coaches, youth – they are broad potential for inclusive activities, sponsorship, humanitarian activities, ambassadors position. The principle of profi-license education can be transformed to lower level of coach's education. The programme includes specific tasks:

- presentation of coaches former personal contacts with persons with phenomenon "the other", experience
- contact with centres, residential homes, sports clubs of sportsmen with disability (under advisory),
- training in relevant, appropriate communication, sensitive data saving,
- coaches education programme – 1 time per year (theory plus practice),
- final report,
- group presentation, discussion.

The characteristics of the training course

- Who is providing:
 - Trained experts – teacher of national UEFA profi-license courses with personal practical experience in disability football panel. Responsibility – national football federation accredited by UEFA to provide this type of courses.
 - Czech-Moravian Football Federation (leader of Education Panel).
 - APA – Faculty of Physical Culture, Palacký University (prof. Hana Válková, former member of UEFA Grass-root // Disability Football Panel).
 - CZ Special Olympics (Hana Válková).

-
- Where it was provided: Every year as the part of UEFA profi-license study programme, from May to September.
 - Level for usage: The materials were recently prepared for Czech coaches in Czech language and environment. It is possible to use them in other countries – with language modification (with copyright of group of experts). Output of the training course is available for local – national – European level.
 - Setting: Coaches are informed about possibilities to realise their humanitarian activities in both separated and inclusive setting. Their new knowledge, skills and practical training face to face of sportsmen with disability lead to:
 - understanding the differences, contact with spectators with disability,
 - extend positive attitudes among other persons,
 - support to contact and communicate with special centres, schools, clubs,
 - support to realise parallel and/or inclusive type of humanitarian events and competitions.
 - The content of the programme:
 - Duration and schedule: 4 hours (May) – basic information, principles of practical training, Team work: to contact groups of children – persons with disability, prepare activity, events, (May–September)
3 hours: student’s presentations, feedback
 - Periodicity: once every year
 - Target group: adults: students of UEFA profi-license, former football players
 - Closing requirements: presentation of team work with documents, feedback
 - Output value: part of UEFA profi-license
 - Training programme – description:

Training programme consists from 3 parts:

 - **Introductory part** (4 lectures): grassroots football and charity activities, disability football panel and humanitarian activities, football in Paralympics, Deaflympics, Blind Football, Special Olympics and UEFA Week, design and principles of Football Day (Football events – mutual contacts and visits, trainings, unified football, autographs meetings).
 - **Design of presentation:** management of event, position of team member, the type of group of participants with disability, photogallery, video, media inclusion, personal feedback. Team-work, teams per 4–6 profi-license students related to locality (May–September): to find available group, school, centre, club with individuals with disability, contact them, to prepare event – activity for them (mutual both football venue visits and centre facility very available), to provide documents (video, photo, DVD), to contact media and provide media documents in the locality, to provide presentation.
 - **Closing part:** 3 hours – presentation, feedback, evaluation.
 - Materials: teaching pack, documents provided with students
 - Competency:
 - understanding the phenomenon of “the different”,
 - principles of communication with sportsmen with different disabilities,
 - principles of football skills adaptations related to different disabilities,
 - knowledge of programmes: disability football panel, football against racism, against poverty, Special Olympics UEFA week,
 - skills to arrange and manage special or inclusive event,
 - skill to include individuals with disability in society through sports,
 - to present knowledge and attitudes in communication with media in the domain of disability,
 - to know how to present support positive public awareness,
 - to accept the role of “ambassador”,
 - skills to lead the team in available humanitarian projects.
 - Assessment: presentation, documents of group event

- Certified competency:
 - part of UEFA profi-license,
 - part of other football federation license
- Administration: Relevant to football federation administration (admission, checking of study programme, passing the education part Different world ... (programme for football coaches), tasks assessment).

Shoot - Moving



- It is a combination of dribbling and shooting skills
- The player, while dribbling, kicks the ball, preferentially with the toes.
- The range of movement of the kicking leg is smaller than the shoot of a sighted player
- The ball should be close to the base foot in the moment of the shoot.

Example of good practice was described by Hana Válková from Palacky University in Olomouc (Czech Republic).

8.3 Activities for All – adapted windsurfing

Name of the EGP

Activities for All – adapted windsurfing

Description the EGP

At the beginning the project was a part of an optional subject included in the 2009 APA curriculum of students in Faculty of Social Services and Health care Pori at Satakunta University of Applied Sciences (SAMK). As future professionals of health care and social service the students were prepared to work in multiprofessional teams of nurses, physiotherapists and social workers to run a challenge course in adapted windsurfing for people with disabilities. A pilot course of Adapted windsurfing was organised on summer 2009 in Yyteri (Finland) and during the pilot many practical ideas for accessibility, equipment modifications, teaching adaptation and co-operation were tested and developed further. As a result of the pilot the adapted windsurfing-course will be carried on integrated into the APE curriculum of SAMK.

Where is it provided?

Area of Satakunta, Yyteri, in the western coast of Finland.

Who is providing this programme

Programme is funded by EU, Satakuntaliitto and SAMK and run by SAMK (Finland) in co-operation with

- MALIKE, which is an adaptive equipment rental system & service provided by the Finnish Association for Persons with Intellectual Disabilities.
- Yyteri Surfcentre, which is a home place of Finnish Boardsailing Association (FBA).
- City of Pori, Department of Sport and Youth affairs?
- The Broadbeach surf school (Australia) served as an educational resource during the initialisation phase of the project.

Local/national/ European level of programme

The project has local, national and European input, since it aims:

- i) To increase accessibility for people with disabilities in the local services in the Yyteri area (local).
- ii) Create more opportunities for active lifestyle for people with disabilities (all levels).
- iii) Increase participation in the area of Satakunta for individuals with disabilities (local and rural).
- iv) Create a model for multiprofessional co-operation in the field of APA using the frame of ICF (all levels, but mostly European).
- v) Presenting a practical example of how windsurfing can be organised for all (all levels, but mostly European).
- vi) Developing and preparing the students for multiprofessional co-operation over the traditional boundaries inside each profession (all levels).

Segregated/inclusive setting:

The local pilot course in 2009 was segregated due to the nature of activities. Marketing and services were designed for people with disabilities only. The starting point for teaching adapted windsurfing was each participant's functional ability, balance and courage to act in water. The structure of the course proceeded step by step from getting familiarised with water and sea to different balance exercises with and without

board and sail. The level of assistance varied from personal assistant to different build-up utilities like side supporters and chairs.

The project aims towards inclusion. Many individual solutions and accessibility changes for carrying out adapted windsurfing were created. The pilot course indicated in practice that windsurfing can be organised for all. The pilot encouraged local service providers without previous experience of APA to run these activities and the future non-sport professionals, such as social services and health care students, to be part of, and even actively engage in APA teams.

Target group

Ten children and youngsters with special needs participated in the pilot adapted surfing course. Three students of SAMK were part of the pilot course carrying out their free-elective course APA 3. In all, there were 4 teachers; 1 person from SAMK, 1 person from City of Pori, Department of Sport and Youth affairs and two windsurfing educators of FBA.

Recreational/ competitive level

The nature of pilot and the future projects is recreational.

Contents of the programme

- A. Preparation and planning
 - i) SAMK free elective course; APA 3 for students who have completed courses APA 1 and APA 2.
 - ii) Lecturer's visit to Australia; working as volunteer at Disabled Surfing Association DSA.
 - iii) Preparation: students have 3 credits of educational courses of Adapted physical activities.
 - iv) Planning (financing, co-operational partners, environmental modifications and equipment needed, timetable and marketing).
 - v) Agreement with FBA (date, educators, equipment).
- B. During the course
 - i) Assessment of each participant's functional ability, balance and courage to act in water. Assessment of the level of individual assistance needed (from personal assistant to different build-up utilities like side supporters and chairs). (1–2 hours).
 - ii) Getting familiarised with equipment and sea 2 hours .
 - iii) Different balance exercises with and without board and sail, in the water and dry-out exercises.
 - iv) Training 10 hours.
 - v) Feedback from the participants and co-operational partners.
- C. After the course
 - i) Re-evaluation: Planning, preparation, contents and timetable of the course, environmental changes needed (accessibility), new equipment modifications with some new partners. For example the experiment of using Tandem-board as one of the teaching method turned out to be very important when teaching windsurfing for beginner. As a result of this pilot, the tandem board was bought to Yyteri Surfcenter by City of Pori.
 - ii) Feedback from the students of SAMK.
 - iii) Planning for next season's course and starting new bachelor theses.

Why this EGW is relevant to be included in EUSAPA project?

- The pilot showed that APA services can be offered by the “non-sport” professionals in co-operation and support of APA and/or (disability) sports expertise in order to promote inclusion.

- The pilot offered for each participant with a disability an opportunity to learn a totally new skill and try out a new activity which is mainly common for able-bodied adults but totally fresh for children and youngsters with special needs in Finland.
- This learning by doing APA project emphasises the vital element of participation among other ICF elements.
- The pilot stresses out how equal participation in sports and physical activity in case of a person with a disability may need various skills, competences and knowledge.
- Accessibility changes as well as and opportunities to participate in a wide range of activities and services in the area of Satakunta through the combined efforts of the University and the external professionals.
- APA praxis offers opportunities for practical research for various professions. In this project several bachelor theses were initialised: a guide book of adaptations in windsurfing (Bachelor degree in physiotherapy), register service of beach equipment and utilities in Yyteri (Master's Thesis in Rehabilitation degree programme), Yyteri for all – accessible beach routes (Master degree programme in Welfare Technology) and Yyteri for all – winter happening (Bachelor's thesis in Physiotherapy degree programme).
- Adapted windsurfing is a relatively new activity in the field of APA and Finland might seem an unusual site for such an activity. Still the pilot of adapted windsurfing indicated in practice that windsurfing can be organised for all despite some hindrances. The pilot may encourage other countries to follow the example in order to promote more inclusive services for all throughout European Union. In addition to that activities offered during the course will expand from windsurfing to new events like golf, kayaking and sailing.

What knowledge, competencies and skills are present in this EGP?

This project is an example of knowledge, competencies and skills requirements of a good APA practice, which can be produced in co-operation of a multi-professional team of students and professionals. The successful team consists of members who have knowledge, competencies and skills of following areas:

1. Develop and adapt exercise and training programmes for individuals with disabilities and/or special needs for specific sports
 - a. Ability to develop appropriate programmes
 - b. Ability to communicate in the appropriate environment
 - c. Ability to adapt in the appropriate environment
 - i) Mission, vision, aims and objectives of the programme
 - ii) Individuals with disabilities and/or special needs in relation to sport (exercise and training)
 - iii) Sport opportunities and settings for individuals with special needs
 - iv) Sports Science
 - v) Theory of sport training
 - vi) Sports specific background
 - vii) Rules and classifications
 - viii) Legal and ethical issues
 - ix) General principles of adaptation
2. Communication and cooperation
 - a. Ability to communicate with the appropriate support networks
 - b. Ability to communicate effectively with participants and target groups
 - c. Ability to identify and choose appropriate strategies to communicate with key individuals or networks
 - i) General communication strategies
 - ii) Methods of alternative communication as required

-
3. Initial assessment of current situation and past history
 - a. Ability to use specific assessment instruments
 - b. Ability to analyse and interpret the data on the basis of theory
 - c. Ability to consider and assess accessibility in the sports specific context
 - i) Protocols, test measurements, batteries, biographical information, techniques for questioning
 - ii) Accessibility
 4. Develop and adapt exercise and training plans
 - a. Ability to identify resources
 - b. Ability to adapt and use appropriate equipment
 - c. Ability to apply principles of theory of sport training
 - d. Ability to set realistic goals
 - i) Sports Science
 - ii) Theory of sport training
 - iii) Sports specific background
 - iv) Rules and classifications
 5. Adapt coaching and education strategies
 - a. Ability to use appropriate coaching methods
 - b. Ability to communicate
 - c. Ability to actively engage with the coaching environment (e.g. interaction, learning process, co-operation, cohesion)
 - i) Coaching styles
 - ii) Coaching methods
 - iii) General communication strategies
 - iv) Methods of alternative communication as required
 - v) Appropriate Sports Science knowledge
 6. Administration
 - a. Ability to perform administrative tasks
 - b. Ability to organise and prioritise information
 - i) Basic administration systems
 - ii) Language and information technology
 - iii) Prepare reports
 7. Evaluate impact and re-adjust the plan
 - a. Ability to use specific assessment instruments
 - b. Ability to practically interpret, reassess and re-adjust the plan
 - c. Ability to be self reflective
 - i) Protocols, observation techniques, test measurements, test batteries, biographical information, techniques for questioning
 8. Advocacy
 - a. Ability to communicate and develop networks
 - b. Ability to create opportunities for empowerment
 - i) Legislation at local, national and international levels
 - ii) Support services
 - iii) Marketing

Further Information

Contact Kati Karinharju from the Satakunta University of Applied Sciences (SAMK), Finland
kati.karinharju@samk.fi.

Example of good practice was described by Kati Karinharju from the Satakunta University of Applied Sciences and Aija Saari from the Finnish Sports Association of Persons with Disabilities.

8.4 Sporting Chance Programme – Ireland

Description the EGP:

In April of 2007, National Learning Network, Tralee was recommended for funding of €501,667 under round two of the Enhancing Disability Services programme to run the Sporting Chance Initiative. Funding was provided from the Department of Justice, Equality and Law Reform which is administered through POBAL. Sporting Chance is a ground breaking new training programme to enable people with disabilities to build careers in the sports and leisure industry. These posts could include coaches, leaders, educators and managers.

Many students who were coming to the National Learning Network centre in Tralee were identified as having a strong passion and aptitude for sport. The sports and leisure industry, particularly since the establishment of the Irish Sports Council, has undergone an unprecedented expansion. Despite this expansion, many members of society who have a disability have been unable to access sporting facilities and even less likely to undertake training and development programmes leading to career opportunities in this sector.

Sporting Chance was specifically developed to assist individuals with disability to gain the qualifications, skills and work experience necessary to obtain employment in the sports and leisure industry. The course would also interest students who wished to access further third level education in this area. The course would be targeted towards individuals with physical and sensory disabilities, intellectual difficulties and those with mental health difficulties. There was far greater demand than supply of places following the development and subsequent marketing of the programme

All courses also include job specific modules plus job seeking skills and work experience. No course fees apply to the training programmes and a training allowance is paid to students. In addition to mainstream qualifications, National Learning Network, Tralee also offers a person-centred approach. Courses are tailored to meet the needs of the individual by means of assessment and discussion. This leads to an Individual Action Plan for each student. Literacy and numeracy classes are also available to students who wish to improve their education skills as required by the course.

The centre staff provides training which maximises the benefit to the individual and also helps students obtain employment. The centre staff provides training on areas such as assertiveness training, confidence building and independent living skills as required by the student. Applicants do not require any formal entry requirements. An average of 90 % of National Learning Network students progress to employment, further education or further specialised training.

Where is it provided?

The National Learning Network (formerly called NTDI) is Ireland's largest non-government organisation with more than 50 purpose built training and employment facilities catering for around 4,500 students each year. The organisation offers over 40 different vocational programmes which carry nationally and internationally recognised certification and are designed to lead directly to jobs or progression to further education. National Learning Network, Tralee has been providing vocational training and employment opportunities for people with additional support needs for over 30 years. The centre offers a wide range of training courses.

Who is providing this program?

The Sporting Chance Programme is provided by the National Learning Network in Tralee Co Kerry Ireland

Local/national/European level of program?

The Sporting Chance Programme has a national focus providing people with disabilities throughout Ireland the opportunity to study in Kerry. This is an innovative, cutting edge course which is unique in an international context.

Segregate/inclusive setting?

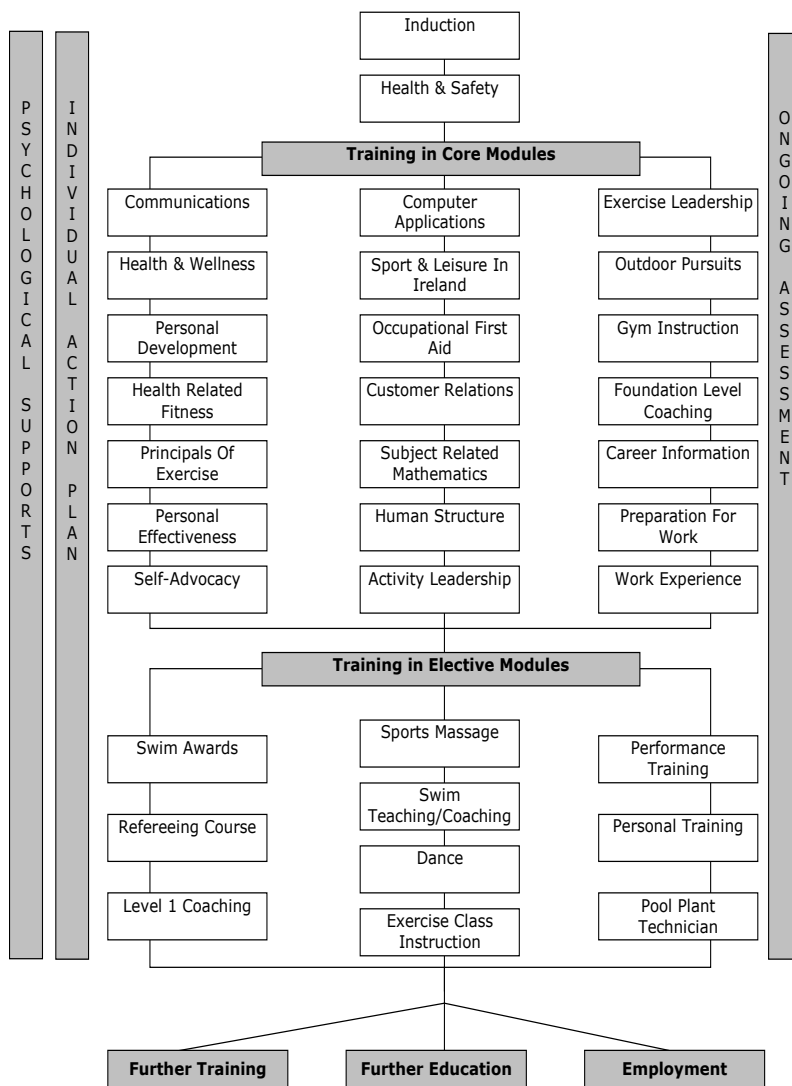
The programme is completed at the National Learning Network Tralee Kerry Ireland which is Ireland's largest non-government organisation with more than 50 purpose built training and employment facilities catering for around 4,500 students each year. While the programme is based at the National Learning Network, a vast majority of the course is completed in an integrated setting with links with National Governing Body of Sport courses and the Institute of Technology Tralee. In addition the students complete relevant work experience related to their area of interest and are supported in obtaining employment opportunities within this area or to support in furthering their education. An example of this is the close partnership with the Institute of Technology Tralee where students have on completion of the sporting chance programme furthered their education within the Health and Leisure Studies at the Institute of Technology Tralee.

What is the target group?

The Sporting Chance Programme targets individuals with physical and sensory, intellectual and mental health difficulties.

What is the content of the program?

OUTLINE TRAINING PLAN – FLOW DIAGRAM



Why this EGP is relevant to be included in EUSAPA project?

- (1) This Sporting Chance Programme at the National Learning Network Tralee Ireland is a unique innovative programme which provides opportunities for people with disabilities who can have the opportunity given appropriate direction and individualised academic and vocational supports, to pursue their chosen career path and achieve their potential in the sports and leisure industry.
- (2) It describes the importance of training and education courses to encourage and enable people with disabilities to become valued members of the sport and leisure industry profession.
- (3) It is a good example of the type of course that could be replicated in other areas of Ireland and Europe to encourage and support people with disabilities to obtain a career in the sport and leisure industry
- (4) As well as the vocational opportunities, there are strong social benefits for the students on the course.
- (5) It highlights the importance of partnership links between disability services and educational institutions for the design and delivery of such a programme. In particular the links with the Institute of Technology Tralee and Mr. Pat Flanagan APA Coordinator who played an influential role in advising and supporting the developments of the course. Subsequently this partnership has further developed to parts of the programme being facilitated at the Institute of Technology Tralee and students from the programme accessing opportunities to further their education at the Institute.

What skills, competences and knowledge are present in this EGP?

- Develop and apply a range of skills required to communicate effectively in both professional and personal life.
- Demonstrate personal, interpersonal, work related social skills.
- Demonstrate the ability to understand the concepts of self-advocacy and understand rights and become more assertive in making personal decisions.

- Develop an understanding of the concepts involved in teaching exercise classes such as circuit training, aerobics and stability ball classes.
- Partake in outdoor pursuits with a view to developing a career in this area where appropriate.
- Develop an understanding of the concepts involved to instructing in a gym.
- Experience a wide range of sports and leisure activities.
- Demonstrate the benefits of healthy lifestyle and an overall holistic approach to fitness.
- Understand the principals of exercise and practically apply them in a sports and fitness setting.
- Understand the movement of muscles and bones in the Human Structure.
- Understand and demonstrate how to use basic computer applications.
- Respond appropriately to first aid requirements.
- Understand the importance of customer relations and develop the skills to provide an exceptional standard of customer care in the leisure industry.
- Develop basic mathematical skills that can be applied to the leisure/health/sports industry.
- Research and identify community based sporting organisations and bodies.
- Engage in community based sporting/leisure activities as appropriate.
- Decide on specific/elective areas of sporting interest and pursue relevant qualifications/awards in this area.
- Implement learned skills in an external real work environment and obtain employer feedback.

Further Information

Contact Kevin Smith Sporting Chance Coordinator National Learning Network Tralee Co Kerry Ireland- kevin.smith@nln.ie

Example of good practice was described by Niamh Daffy from the Institute of Technology, Tralee, Ireland.

8.5 Coaching Skills Development in Boccia and Swimming

Name of the EGP

Coaching Skills Development in Boccia and Swimming

Description the EGP:

This project aims to provide additional coaching opportunities to Sport Sciences University Students aiming for a future professional career in APA. The project was developed in cooperation with the Sport Sciences and Physical Education Faculty, University of Coimbra, as part of an optional subject included in the undergraduate curriculum. This project is based on an optional *in loco* coaching practice period with a possible duration of one or two academic semester based on the student's choice.

The programme includes the following specific tasks:

- i) Assessment of the athlete
- ii) Periodisation of the competitive season
- iii) Annual training plan
- iv) Coaching two times per week 90 minutes training sessions
- v) Counselling and supporting athletes during the competitions
- vi) Final report for the all competitive season

Where is it provided?

The project is offered at the Associação de Paralisia Cerebral de Coimbra (APCC), Coimbra Portugal.

Who is providing this programme?

The project is based on a cooperation protocol between APCC and the Faculty of Sport Sciences and Physical Education from the University of Coimbra that exists since 1996.

Local/National/European level of programme?

The programme is running at local level but has national and international impact as the future APA professionals that benefit from the programme's experience are Sport Sciences students from different points of Portugal or Erasmus Students from different parts of Europe, involved in the Faculties undergraduate programmes.

Segregated/inclusive setting?

APCC is an institution with a very inclusive environment (many students with disabilities are included in the regular school environment, many of the projects developed by the institution are opened and involve strong participation from the community, the institution has a kindergarten where all the children play in an inclusive environment), however Disability Sport occurs in Portugal as in many other European Countries in a non inclusive setting. The recent extent of Boccia as a new sport for elderly people contributed for a more inclusive environment in particular at recreational event where competition and performance are not perceived as the primary goals.

Recreational/competitive level?

Competitive level – Periodisation, annual planning and coaching skills aim to prepare athletes to regional and national competition levels.

What is the target group?

The target group are individuals with cerebral palsy classes BC1, BC2, BC3 and BC4 and elderly people⁷.

What is the content of the programme?

The students in the role of coaches are requested to accomplish the following specific tasks and organise a portfolio that will express all the coaching work developed through a training season. This portfolio includes specific information built up by the coach in the following areas:

- i) Initial assessment of the athlete (functional, physiological and psychological)
- ii) Periodisation of the competitive season
- iii) Annual training plan
- iv) Training sessions plans (two times per week 90 minutes training sessions) including technical, tactical, physiological and psychological training
- v) Intermediate assessment and data analyses
- vi) Counselling reports about the support provided to the athlete during competition (weekends)
- vii) Final assessment and final report for the all competitive season

The programme also includes the student's participation in the organisation of sport activities pre-established in the institutions annual plan (as students, in the role of coaches, are viewed as a member of the staff).

Why this EGP is relevant to be included in EUSAPA project?

This example of good practices is relevant to EUSAPA because:

- i) It describes the importance of the cooperation between the academic world and the professional world for the preparation of more qualified APA professionals, with better intervention skills linking theory to practice.
- ii) It describes the opportunity given to future APA professionals still under academic training to experience, under qualified professional supervision, practical intervention daily situations in training that will have an important role for the development of competences and skills that they would only be able to acquire later in life, when included in the labour market.
- iii) It is a good example of the support and the type of links that should be established to facilitate the transition of students into professionals, aiming for better and faster quality services provided by young professionals that recently arrive to the labour market.
- iv) It is a good opportunity for students to test and confirm their vocational options and future professional career before they finish their training and re-direct their options if needed, avoiding to face that reality already included in the labour world.

⁷ BC1 – Players in this class throw the ball with the hand or foot. They may compete with an assistant who stays outside of the competitor's playing box, to stabilise or adjust their playing chair and give the ball to the player when requested.

BC2 – Players in this class throw the ball with the hand. They are not eligible for assistance.

BC3 – Players in this class have very severe locomotor dysfunction in all four extremities. Players in this class have no sustained grasp or release action and although they may have arm movement, they have insufficient range of movement to propel a Boccia ball onto the court. They may use an assistive device such as a ramp to deliver the ball. They may compete with an assistant; assistants must keep their back to the court and their eyes averted from play.

BC4 – Players in this class have severe locomotor dysfunction of all four extremities as well as poor trunk control. They can demonstrate sufficient dexterity to throw the ball onto the court. Players are not eligible for assistance.

What skills, competences and knowledge are present in this EGP?

1. Develop and adapt exercise and training programmes for individuals with disabilities and/or special needs for specific sports
 - a. Ability to develop appropriate programmes
 - b. Ability to communicate in the appropriate environment
 - c. Ability to adapt in the appropriate environment
 - i) Mission, vision, aims and objectives of the programme
 - ii) Individuals with disabilities and/or special needs in relation to sport (exercise and training)
 - iii) Sport opportunities and settings for individuals with special needs
 - iv) Sports Science
 - v) Theory of sport training
 - vi) Sports specific background
 - vii) Rules and classifications
 - viii) Legal and ethical issues
 - ix) General principles of adaptation
2. Initial assessment of current situation and past history
 - a. Ability to use specific assessment instruments
 - b. Ability to analyse and interpret the data on the basis of theory
 - c. Ability to consider and assess accessibility in the sports specific context
 - i) Protocols, test measurements, batteries, biographical information, techniques for questioning
 - ii) Accessibility
3. Develop and adapt exercise and training plans
 - a. Ability to identify resources
 - b. Ability to adapt and use appropriate equipment
 - c. Ability to apply principles of theory of sport training
 - d. Ability to set realistic goals
 - i) Sports Science
 - ii) Theory of sport training
 - iii) Sports specific background
 - iv) Rules and classifications
4. Adapt coaching strategies
 - a. Ability to use appropriate coaching methods
 - b. Ability to communicate
 - c. Ability to actively engage with the coaching environment (e.g. interaction, learning process, co-operation, cohesion)
 - i) Coaching styles
 - ii) Coaching methods
 - iii) General communication strategies
 - iv) Methods of alternative communication as required
 - v) Appropriate Sports Science knowledge
5. Communication and cooperation
 - a. Ability to communicate with the appropriate support networks
 - b. Ability to communicate effectively with participants and target groups
 - c. Ability to identify and choose appropriate strategies to communicate with key individuals or networks
 - i) General communication strategies
 - ii) Methods of alternative communication as required

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6. Evaluate impact and re-adjust the plan
 - a. Ability to use specific assessment instruments
 - b. Ability to practically interpret, reassess and re-adjust the plan
 - c. Ability to be self reflective
 - i) Protocols, observation techniques, test measurements, test batteries, biographical information, techniques for questioning
 7. Administration
 - a. Ability to perform administrative tasks
 - b. Ability to organise and prioritise information
 - i) Basic administration systems
 - ii) Language and information technology
 - iii) Prepare reports

Example of good practice was described by Jose Pedro Ferreira from the University of Coimbra, Portugal.

9 Appendices

Appendix 1: EUSAPA Functional Map – Adapted Physical Education

| Key Area | Key Roles | Key Functions |
|--|--|--|
| A Plan developmentally appropriate learning experiences in physical education (PE), which are also suitable for students with special educational needs (SEN) | A.1 Assess the needs (current level of performance) of students with (SEN). | <p>A.1.1 Identify the special needs of students in relation to adapted physical education (APE) (e.g. information from family, using appropriate screening tests).</p> <p>A.1.2 Identify the support services and resources, which can facilitate APE (e.g., assistant personnel, equipment, environment)</p> <p>A.1.3 Identify special needs for the purposes of prescription of individual goals and the most appropriate teaching strategies.</p> <p>A.1.4 Identify competencies and attitudes of students, teachers and other staff in relation to participation of students with SEN in physical education.</p> |
| | A.2 Adapt school curriculum in physical education to meet the individual needs of all students with special educational needs. | A.2.1 Identify the strengths and weaknesses in school physical education curriculum in relation to adapted physical education. |
| | A.3 Plan developmentally appropriate learning experiences in adapted physical education. | <p>A.3.1 Prepare individual educational plan for the physical education of students with special educational needs.</p> <p>A.3.2 Identify the most appropriate level of support (e.g. no support/ part time support/ full time support).</p> <p>A.3.3 Plan the most appropriate communication strategies in relation to students with special education needs.</p> <p>A.3.4 Plan the most appropriate behavioural management strategies in relation to students with special education needs.</p> |
| | A.4 Prepare teaching environment before arrival of student with special educational needs. | <p>A.4.1 Prepare assistant personnel (e.g., teacher assistants, peer tutors)</p> <p>A.4.2 Prepare other students</p> <p>A.4.3 Prepare school staff</p> <p>A.4.4 Ensure that facilities, equipment and environment are appropriate and safe.</p> |
| | A.5 Collaborate with out of school organisations. | A.5.1 Contact relevant community based disability organisations for potential cooperation (e.g. Special Olympics, Local sports clubs). |

| | | |
|---|--|---|
| <p>B</p> <p>Teach students with special educational needs together with students without SEN</p> | <p>B.1 Adapt teaching in order to meet the needs of ALL students in adapted physical education.</p> | <p>B.1.1 Use appropriate adapted equipment, which can facilitate inclusive physical education (e.g. brightly coloured, sounded, lighter or heavier, bigger).</p> <p>B.1.2 Use task analysis for desirable skills.</p> <p>B.1.3 Adapt the rules of games, teaching style and physical setting (current environment) to facilitate participation.</p> <p>B.1.4 Use appropriate instructional accommodations (e.g., physical/verbal cues, prompts, feedback, reinforcement).</p> |
| | <p>B.2 Manage students' behaviour to assure the most appropriate and safe learning for ALL students in APE.</p> | <p>B.2.1 Positive/negative reinforcement of desirable/undesirable students' behaviours where appropriate</p> <p>B.2.2 Keep records related to behavioural management plan.</p> |
| | <p>B.3 Communicate with students with SEN to assure their understanding and maximum participation.</p> | <p>B.3.1 Use appropriate communication tools (e.g., Braille, sign language, augmentative and other alternative communication tools)</p> |
| <p>C</p> <p>Evaluate learning progress of students with SEN and effectiveness of applied teaching and support strategies.</p> | <p>C.1 Evaluate learning progress of student with SEN in relation to his/her Individual Education Plan (IEP) goals.</p> | <p>C.1.1 Use appropriate evaluation tools to measure students' progress in relation to the IEP</p> <p>C.1.2 Assign appropriate grade according to IEP.</p> |
| | <p>C.2 Evaluate the suitability of the curriculum adaptations to students with SEN</p> <p>C.3 Evaluate effectiveness of applied teaching and support strategies.</p> | <p>C.2.1 Assess appropriateness of curriculum to individual needs and abilities</p> <p>C.3.1 Assess appropriateness of applied teaching</p> <p>C.3.2 Assess appropriateness of support strategies</p> |

| | | |
|---|---|---|
| D Professional collaboration to improve teaching quality for students with SEN | D.1 Collaborate with professionals in APE. | D.1.1 Collaborate with other specialists providing PE/APE. D.1.2 Collaborate with health and rehabilitation professionals (e.g., Physiotherapist, Occupational Therapist, Speech Therapist, psychologists) D.1.3 Collaborate with the disability sport and recreation representatives. |
| | D.2 Collaborate with other advocates of students with SEN | D.2.1 Collaborate with parents/guardians of students with SEN D.2.2 Collaborate with Non- Governmental Organisations (e.g., in children rights) |
| | D.3 Improve professional skills and knowledge | D.3.1 Identify needs for professional development in the area of APE. D.3.2 Engage in continuing professional development activities (e.g. reading professional publications; attending conferences (workshops, seminars) to learn about new trends in APE). D.3.3 Communicate with other PE/APE specialists to share your experiences and learn about the examples of best practices. D.3.4 Self-evaluate |
| | D.4 Advocate for the needs and rights of students with special educational needs. | D.4.1 Advocate appropriate support in physical education service delivery for students with SEN. D.4.2 Advocate the utilisation of adapted physical education specialist, teacher assistants or peers tutors where appropriate. D.4.3 Advocate for the rights of persons with SEN for physical activities. |

Appendix 2:

EUSAPA Competence Skill Knowledge Framework – Adapted Physical Education

| COMPETENCES Performance requirements | SKILLS The skills the individual needs to learn to do this | KNOWLEDGE The knowledge the individual needs to learn to do this |
|--|---|--|
| <p>Assess the needs (current level of performance) of students with special educational needs (SEN) <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Select appropriate assessments fitting the students profile • Administer assessment • Write the report | <ul style="list-style-type: none"> • Special education needs (different functional abilities, motor, cognitive, social, behavioural, communication) • Variety of assessments approaches (holistic, norm reference, criterion based etc) • Variety of assessments (Movement ABC etc) • Relevant regulations on report writing and dissemination |
| <p>Adapt school curriculum in physical education (PE) to meet the individual needs of all students with SEN <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Analyse current PE curriculum in relation to students needs • Adapt curriculum | <ul style="list-style-type: none"> • Current curriculum (school district/national) • Curriculum development principles • Curriculum adaptation principles and strategies |
| <p>Plan developmentally appropriate learning experiences in adapted physical education (APE)^a <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Ability to develop Individual education plan (IEP)^b in PE • Ability to plan inclusive PE lesson to ensure appropriate and safe learning for all students • Ability to plan appropriate behavioural management strategies • Ability to plan motivation strategies for students to participate • Plan appropriate communication strategies | <ul style="list-style-type: none"> • Relevant regulations on IEP development • Philosophy, purpose and aims of IEP • Strategies for development of an IEP (e.g. multidisciplinary team) • Concept of the least restrictive environment and continuum of support in physical education • Health and safety issues in relation to inclusive PE (e.g. contraindications) • Causes and consequences of behavioural problems • Behaviour management and modification techniques • Motivation strategies • Communication strategies (interpreter, communication boards etc) |
| <p>Prepare teaching environment before arrival of student with SEN <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Ability to prepare human environments (assistant personnel e.g., teacher assistants, peer tutor, students without disabilities and school staff) • Ability to prepare the physical environment (facilities, equipment, temporal) | <ul style="list-style-type: none"> • Knowledge of peer tutor/para-educator programmes • School structures and functions • Attitudinal theories and disability awareness • Adaptation theory and practical application in relation to equipment etc. • Physical access issues |

| | | |
|---|--|---|
| <p>Adapt teaching in order to meet the needs of ALL students in PE <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Ability to use appropriate instructional strategies (e.g., physical/verbal cues, prompts, feedback, reinforcement). Ability to adapt the following: <ul style="list-style-type: none"> - the rules of games - physical setting - equipment • Ability to use task analysis for desirable skill | <ul style="list-style-type: none"> • Instructional strategies • Adaptation strategies • Adapted games, rules, teaching styles • Task analysis |
| <p>Manage students' behaviour to assure the most appropriate and safe learning for ALL students in PE. <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Ability to provide positive/negative reinforcement of desirable/undesirable students' behaviours where appropriate • Ability to observe and keep records related to behavioural management plan. • Ability to counsel/ guide students towards adopting more appropriate behaviours – choice | <ul style="list-style-type: none"> • Identify and understand the causes of behavioural problems • Appropriate behavioural management strategies and theories (e.g., positive and negative reinforcement, self-actualisation, self-empowerment, Hellison model etc.) |
| <p>Communicate with students with SEN to ensure their understanding and maximum participation. <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Ability to use appropriate alternative and augmentative communication tools | <ul style="list-style-type: none"> • Appropriate communication strategies for students with SEN (e.g. Braille, sign language, augmentative and other communication tools) |
| <p>Evaluate learning progress of student with SEN in relation to his/her IEP goals. <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Ability to use appropriate assessment methods to measure students' progress • Ability to grade the student according to his/her potential and progress. | <ul style="list-style-type: none"> • Differing methods of assessment • Individualised holistic approach for evaluating student's progress |
| <p>Evaluate the suitability of the curriculum adaptations to students with SEN. <i>Range (School age children, Various SEN)</i></p> | <ul style="list-style-type: none"> • Ability to assess appropriateness of curriculum to individual needs and abilities | <ul style="list-style-type: none"> • National PE standards • Curriculum adaptation strategies |
| <p>Evaluate the effectiveness of applied teaching strategies</p> | <ul style="list-style-type: none"> • Ability to evaluate effectiveness of applied teaching and support strategies. | <ul style="list-style-type: none"> • Methods and tools to assess teaching and support strategies (e.g., peer tutor programme, use of behaviour plan, adaptations to environment, rules, task etc.) |
| <p>Collaborate with various relevant professionals. <i>Paraprofessionals^c, APE specialists, coaches, sport instructors, administration of sport organisations for persons with disabilities.</i></p> | <ul style="list-style-type: none"> • Ability to collaborate with other specialists providing PE/APE • Ability to collaborate with health and rehabilitation professionals (e.g., physiotherapist, occupational therapist, speech therapist, psychologists) • Ability to collaborate with sport organisations, relevant professional organisations for persons with disabilities | <ul style="list-style-type: none"> • The role of relevant professionals and their approaches in relation to APE • Nature of cooperation and communication with support staff • Team working • Disability sport organisations for potential cooperation (e.g., local sports clubs) |

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|--|---|---|
| <p>Collaborate with other advocates of students with SEN. <i>Parents/ guardians (legally responsible), government and non-governmental organisations</i></p> | <ul style="list-style-type: none"> • Ability to collaborate with parents/ guardians of students with SEN • Ability to collaborate with Non-Governmental and governmental organisations (e.g., in children rights) | <ul style="list-style-type: none"> • Roles and rights of parents guardians (legally responsible) • Nature of cooperation and communication with support parents guardians (legally responsible) • Team working • Rules and roles of relevant organisations |
| <p>Improve professional skills and knowledge. <i>APE/PE teachers</i></p> | <ul style="list-style-type: none"> • Ability to identify needs for professional development in the area of APE • Ability to engage in continuing professional development activities (e.g. reading professional publications; attending conferences (workshops, seminars) to learn about new trends in APE • Ability to share your experiences with other APE teachers (e.g. learn about the examples of best practices) • Ability to self-evaluate | <ul style="list-style-type: none"> • Appropriate professional development opportunities • Sources of information (e.g. in-service training, associations, organisations etc.) • Tools for self evaluation in relation to the ability to implement PE/APE (e.g. video recording and analysis of sessions, written reports etc.) |
| <p>Advocate for the needs and rights of students with special educational needs. <i>APE/PE teachers</i></p> | <ul style="list-style-type: none"> • Ability to advocate for equal provision of PE for all students • Ability to advocate for the rights of students with SEN for participation in PE/APE (e.g., support services, adapted equipment) | <ul style="list-style-type: none"> • Legislation and relevant national and international policies • Disability services, APA and disability sports structures • Educational structures and services • Advocacy approaches (leverage, literature etc) |

Endnotes:

- a Adapted physical education (APE)
- b Individual education plan (IEP)
- c Paraprofessionals

Appendix 3: EUSAPA Functional Map – Rehabilitation

| Key Area | Key Roles | Key Functions |
|------------------------------|---|---|
| A Planning | A.1 Assess the role and added value of an Adapted Physical Activity programme within the multidisciplinary character of the rehabilitation programme. | A.1.1 Identify the responsibilities of the APA programme as a complementary part of the rehabilitation programme. A.1.2 Identify the strengths and weaknesses of the currently used rehabilitation and APA programme. A.1.3 Identify the available and required resources (facilities, equipment) to implement the APA programme. A.1.4 Develop a structured Adapted Physical Activity programme in collaboration with rehabilitation team. A.1.5 Identify the short and long term aims of the Adapted Physical Activity programme. |
| | A.2 Assess the (dis)abilities, risk factors, needs and potential of the patient / client. | A.2.1 Understand the condition of the patients / clients and its consequences in terms of functional (dis)abilities, health conditions, etc... A.2.2 Understand clinical investigation data (e.g. X-rays, gait analyses, cardiorespiratory tests) and the conclusions and recommendations of rehabilitation specialists. A.2.3 Assess the patient's / client's current and potential level of functioning. A.2.4 Understand the patient's / client's response to physical activity; identify and remediate potential contraindications, health risks and risk factors. |
| B Education & Information | B.1 Educate patients / clients about their (dis)abilities and potential through physical activity. | B.1.1 Educate the patient / client about his/her functional (dis)abilities, response to exercise, potential health risks, risk factors and contraindications with regards to physical activity. B.1.2 Educate the patient / client about the recognition and remediation of symptoms that potentially lead to health risks, injuries, etc... B.1.3 Educate patients / clients about the APA programme and its benefits during rehabilitation. |
| | B.2 Provide the appropriate information to guarantee a continuation of an active lifestyle post rehabilitation. | B.2.1 Inform the patient / client about community based physical activity programmes, and the short and long term benefits of physical activity. B.2.2 Provide a database with information regarding companies and community based organisations to ensure a continuation of an active life style post rehabilitation. B.2.3 Provide information regarding legislation about possible benefits from national, regional and local governing bodies with respect to physical activity and sports post rehabilitation. |
| C Implementation | C.1 Implement an individualised Adapted Physical Activity programme complementary to the other disciplines within the rehabilitation programme. | C.1.1 Develop a structured and individualised APA programme in collaboration with the multidisciplinary team. C.1.2 Facilitate and optimise participation through adaptation of the instructions, encouragements, rules and settings when appropriate. C.1.3 Initiate community based physical activity. |

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|---------------------------------|--|---|
| D Assessment & Evaluation | D.1 Evaluate the effects of the Adapted Physical Activity programme as a part of the rehabilitation and post-rehabilitation process. | D.1.1 Monitor the long term health related outcomes of the Adapted Physical Activity programme. D.1.2 Determine the effects of the Adapted Physical Activity programme on functional ability of the patients/clients in collaboration with rehabilitation team. |
| | D.2 Evaluate the patient's/client's response to physical activity, his/her progress, and compare with the preset goals. | D.2.1 Assess and evaluate the patient's / client's physical and psychological well being and its progress, and remediate if necessary. D.2.2 Assess the motivation of the patient/client toward the Adapted Physical Activity programme, and remediate if necessary. D.2.3 Monitor and assess the responses to physical activity to ensure safe and successful participation. D.2.4 Document individual development and progress according to the aims of the rehabilitation and the APA programme. D.2.5 Identify tools, methods, etc... to optimise the patient's / client's functional abilities in daily life and in physical activity. |

Appendix 4: EUSAPA Competence Skill Knowledge Framework – Rehabilitation

| COMPETENCES Performance requirements | SKILLS The skills the individual needs to learn to do this | KNOWLEDGE The knowledge the individual needs to learn to do this |
|--|---|--|
| A Therapeutic competences | <ul style="list-style-type: none"> • Estimate and assess the activity potential of a patient/client through tests, observations, etc... and describe the resulting functional profile. • Master the ability to safely apply the Adapted Physical Activity programmes, including regular evaluations, using risk stratification and pre-program screening. | <ul style="list-style-type: none"> • Understand the general recreation and sport adaptation model for patients/clients including their personal profile, the function related implications, the specific activity requirements, and the aim of participation. • Understand and evaluate the interrelation between determinants of human functioning. • Understand and evaluate the impact of impairment on human functioning. • Understand the pathophysiological basis of chronic disease, disability and disorder. • To understand the impact and risks of physical activity. • To know the impact of medication on exercise performance • Understand indications and contra-indications of sports and adapted physical activities in the rehabilitation of specific populations. |
| B Pedagogical competences | <ul style="list-style-type: none"> • Master teaching, training and coaching skills (didactical skills), needed for a well-balanced approach in a therapeutic environment. • Understand the principles of adapting activities, games and sports. • Be able to adapt activities to the functional potential of the participants. • Master the professional skill to initiate and effectively process adaptation. | <ul style="list-style-type: none"> • Understand the theory of program development. • Master a comprehensive overview on disability sports. • Understand the sport-specific equipment – user – interfaces. • Understand the major components influencing the process of adapting activity situations. |
| D Management competences | <ul style="list-style-type: none"> • Master management strategies including a planning model approach in providing sport and physical activities for people with impairments, disabilities handicaps, disorders, etc... • Master those skills which are necessary in the preparation of a strategic policy for management and integration of Adapted Physical Activity programs within the multidisciplinary character of rehabilitation. | <ul style="list-style-type: none"> • Understand the various community based physical activity and sports organisations eligible for patients/clients in the Adapted Physical Activity program. |

Appendix 5: EUSAPA Fuctional Map – Sport

| Key Area | Key Roles | Key Functions |
|---------------------------|--|---|
| A Planning | <p>A.1 Develop and adapt exercise and training programmes for individuals with disabilities for specific sports</p> <p>A.2 Initial assessment of current situation and past history</p> <p>A.3 Develop and adapt exercise and training plans</p> | <p>A.1.1 Identify mission, vision, aims and objectives of the organisation in relation to provision of opportunities for people with disabilities in sport and recreation in different settings (e.g. inclusive/ segregated/unified or competitive/recreational)</p> <p>A.1.2 Identify competencies, environments and attitudes needed to meet programme objectives</p> <p>A.2.1 Compile a comprehensive account of previous history relevant to future participation in sport/ recreation (e.g. medical, achievements, social, communication etc)</p> <p>A.2.2. Assess individual in the following areas: interest and motivation; sports specific (i.e. anthropometrics, bioenergetics, neuromuscular, psychological, functional ability, classification, communication).</p> <p>A.2.3 Assess the environment of the individual (e.g. economics, sport and recreation structures, extrinsic barriers, family, supports etc)</p> <p>A.3.1 Agree short, medium and long term goals based on strengths and weaknesses.</p> <p>A.3.2 Identify resources (e.g. human, equipment, finance)</p> <p>A.3.3 Devise training plan to cover following areas: physical, tactical, technical and psychological</p> <p>A.3.4 Agree monitoring process and schedule</p> |
| B Management | <p>B.1 Communication and Cooperation</p> <p>B.2 Administration</p> <p>B.3 Finances</p> <p>B.4 Human Resources</p> | <p>B.1.1 Consult with other professionals as part of a multi-disciplinary team</p> <p>B.1.2 Communicate with staff/volunteers, athletes, families, school, organisations and media</p> <p>B.2.1 Prepare reports</p> <p>B.2.2 Make bookings</p> <p>B.2.3.Maintain correspondence</p> <p>B.3.1 Plan budgets</p> <p>B.3.2 Organise fundraising strategy</p> <p>B.4.1 Recruit and evaluate staff</p> <p>B.4.2 Recruit and evaluate volunteers</p> |
| C Coaching/Instructing | C.1 Adapt coaching strategies | <p>C.1.1 Adapt coaching styles to meet the needs of the individual</p> <p>C.1.2 Adapt coaching methods</p> <p>C.1.3 Plan communication strategies</p> <p>C.1.4 Plan behavioural strategies</p> |

| | | |
|--------------------------------|--|--|
| D Monitoring | D.1 Evaluate impact and re-adjust the plan | D.1.1 Regularly establish if goals have been met (as per plan) D.1.2 Re-assess individual and social strengths and weaknesses according to plan D.1.3 Identify causes for under/over achievement of goals D.1.4 Re-agree short, medium and long term goals based on strengths and weaknesses. D.1.5 Re-Identify resources (e.g. human, equipment, finance) D.1. Re-devise training plan to cover following areas: physical, tactical, technical and psychological |
| E Adapted sport development | E.1 Advocacy E.2 Lifelong learning | E.1.1 Promote adapted sport E.1.2 Lobbying for realisation of rights E.1.3 Advocate for standards in APA including the need for specialists E.2.1 Identify own needs for professional development E.2.2 Engage in continuing professional development activities (e.g. reading, workshops etc) E.2.3 Networking E.2.4 Self-evaluation |

Appendix 6: EUSAPA Competence Skill Knowledge Framework – Sport

| COMPETENCES Performance requirements | SKILLS The skills the individual needs to learn to do this | KNOWLEDGE The knowledge the individual needs to learn to do this |
|---|---|--|
| Develop and adapt exercise and training programmes for individuals with disabilities and/or special needs for specific sports | Ability to develop appropriate programme Ability to communicate in the appropriate environment Ability to adapt in the appropriate environment | <ul style="list-style-type: none"> • Mission, vision, aims and objectives of the programme • Individuals with disabilities and/or special needs in relation to sport (exercise and training) • Sport opportunities and settings for individuals with special needs • Sports Science • Theory of sport training • Sports specific background • Rules and classifications • Legal and ethical issues • General principles of adaptation |
| Initial assessment of current situation and past history | Ability to use specific assessment instruments Ability to analyse and interpret the data on the basis of theory Ability to consider and assess accessibility in the sports specific context | <ul style="list-style-type: none"> • Protocols, test measurements, batteries, biographical information, techniques for questioning • Accessibility |

| | | |
|---|--|---|
| Develop and adapt exercise and training plans | <p>Ability to identify resources</p> <p>Ability to adapt and use appropriate equipment</p> <p>Ability to apply principles of theory of sport training</p> <p>Ability to set realistic goals</p> | <ul style="list-style-type: none"> • Sports Science • Theory of sport training • Sports specific background • Rules and classifications |
| Communication and cooperation | <p>Ability to communicate with the appropriate support networks</p> <p>Ability to communicate effectively with participants and target groups</p> <p>Ability to identify and choose appropriate strategies to communicate with key individuals or networks</p> | <ul style="list-style-type: none"> • General communication strategies • Methods of alternative communication as required |
| Administration | <p>Ability to perform administrative tasks</p> <p>Ability to organise and prioritize information</p> | <ul style="list-style-type: none"> • Basic administration systems • Language and information technology • Prepare reports |
| Finances | <p>Ability to effectively manage accounts</p> <p>Ability to source appropriate funding</p> | <ul style="list-style-type: none"> • Basic Book Keeping |
| Human Resources | <p>Ability to manage people</p> <p>Ability to recruit and evaluate staff and volunteers</p> | <ul style="list-style-type: none"> • Motivation, coping, leadership strategies • Recruitment process principles |
| Adapt coaching strategies | <p>Ability to use appropriate coaching methods</p> <p>Ability to communicate</p> <p>Ability to actively engage with the coaching environment e.g. interaction, learning process, cooperation, cohesion,</p> | <ul style="list-style-type: none"> • Coaching styles • Coaching methods • General communication strategies • Methods of alternative communication as required • Appropriate Sports Science knowledge |
| Evaluate impact and re-adjust the plan | <p>Ability to use specific assessment instruments</p> <p>Ability to practically interpret, reassess and re-adjust the plan</p> <p>Ability to be self reflective</p> | <ul style="list-style-type: none"> • Protocols, observation techniques, test measurements, batteries, biographical information, techniques for questioning |
| Advocacy | <p>Ability to communicate and develop networks</p> <p>Ability to create opportunities for empowerment</p> | <ul style="list-style-type: none"> • Legislation at local, national and international levels • Support services • Marketing |
| Lifelong learning | <p>Ability to effectively manage time</p> <p>Ability to accept/re-act to new trends</p> <p>Ability to identify individual needs for professional development</p> <p>Ability to actively engage with other relevant professions</p> | <ul style="list-style-type: none"> • Educational/career progression opportunities • Access and evaluate appropriate resources |

Appendix 7:

Basic structure of European Master in Adapted Physical Activity EMMAPA 2

It is a two year MSc. study program delivered jointly by Four Universities from Belgium, Czech Republic, Ireland and Norway. It is based on the principle of specialisation in three professional streams: (a) Adapted Physical Education; (b) APA and sport management; and (c) APA and active lifestyle. The first year is focused mainly on acquiring theoretical framework at KU Leuven and in second year students will receive more specialised training in one of three partner universities. In the chart below you can find the basic structure of the EMMAPA 2 curriculum based on materials and discussion with prof. Yves Vanlandewijck.

| | | |
|--|---|---|
| Year 1 Semester 1 33 credits Delivered at KU Leuven | Action research (3 cr) | |
| | APA: International perspectives (3 cr) Disability and society (2 cr) | Disability models and classification (4 cr) Disability studies (1 cr) |
| | International perspectives on disability sport (1 cr) | Classification (3 cr) |
| | Holistic approach to APA I (8 cr) - Biomechanics - Physical activity, fitness and risk of exercise - Exercise management in chronic disease and disability | Holistic approach to APA II (8 cr) - Psychological aspects of APA - Socio-cultural theories - Sport pedagogy in relation to adapted physical education |
| Year 1 Semester 2 30 credits Delivered at KU Leuven | Introduction to all students (12 cr) - Principles of adapting physical activities (3 cr) - Introduction to APA (3 cr) - Introduction to Sp. Management (3 cr) - Introduction to Active Lifestyle (3 cr) | Specific professional streams 6cr <i>Students choose one of three streams</i> - Advanced APE (6cr) - Advanced Sport Management (6 cr) - Advanced Active Lifestyle (6 cr) |
| | Literature review (4 cr) | |
| | Disciplinary streams (8 cr) <i>Students choose one of three streams</i> Biomechanics and exercise physiology applied to APA (8 cr) or Motor control and psychology applied to APA (8 cr) or Applied pedagogy and socio-cultural theories (8 cr) | |
| Year 2 60 credits Delivered at EMMAPA 2 project partners | Practicum in specific professional stream (15 cr) <i>Students choose one of three streams</i> Practical training and internship in APE or Practical training and internship in Sport Management or Practical training and internship in Active Lifestyle | |
| | Optional courses related to research methodology (6 cr) | |
| | Choice of academic disciplinary stream . Students choose one of the six modules (6cr) Advanced Biomechanics; Exercise Physiology; Motor Learning; Psychology; Sociology or Pedagogy in relation to APA. | |
| | Master thesis (30 cr) | Capital selecta in APA (3 cr) |

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