TRAINING PARAMETERS

Major (R) S.Maniam
Director of Coaching
World Squash Federation

OVERVIEW

- ► To compete at the elite level, athletes require to develop and be proficient in a range of attributes.
- Ideally players use a periodised approach to training for optimal long-term development, which allow them to sequentially develop these attributes over a desired period of time

MODEL OF PLAYER DEVELOPMENT

- TECHNICAL SKILLS
- TACTICAL SKILLS
- PSYCHOLOGICAL SKILLS
- > PHYSIOLOGICAL SKILLS

TECHNICAL SKILLS

TECHNICAL

- STRIKING AND MOVEMENT TECHNIQUES
- **SOLO DRILLS**
- ► TECHNICAL DRILLS IN PAIRS
- DRILLS WITH COACH
- CONDITIONED GAMES
- MATCH PLAY
- COMPETITION

TACTICAL SKILLS

- ► GAME ANALYSIS NOTATIONAL AND VIDEO
- ► ERROR IDENTIFICATION AND CORRECTION
- ► TACTICAL DRILLS AND GAMES TACTICAL REACTION DEVELOPMENT
- **DECISION MAKING**

PSYCHOLOGICAL SKILLS

- ► GOAL SETTING AND MOTIVATION
- ► RELAXATION
- VISUALISATION AND IMAGERY
- ► BREATHING TECHNIQUES
- ► COPING WITH STRESS

PHYSIOLOGICAL SKILLS

COMPONENTS:

- Cardiovascular Endurance
- Muscular Endurance
- Strength
- Flexibility
- Agility
- Speed
- Reaction time & Response Time
- Balance Static and Dynamic
- Co-ordination
- Power

LIFE SKILLS

- ▶ Nutrition
- ► Athlete Career Guidance
- Athlete Education Guidance
- Rest and Recovery Patterns
- Drugs Counselling

PERIODISATION

"If you don't know where you are going, don't be surprised to arrive somewhere else."

- In terms of sports performance, that means if you fail to plan the development of your athletes properly, you will not be able to maximize their potential.
- ► This planning process in sports is called "Periodisation".

What is Periodisation

"...Periodisation is the process of dividing the annual plan into smaller phases of training..."

Tudor Bompa

"...Periodisation is a planning system to structure and organise a progression in training programs and methods to bring an athlete to a peak in performance during the main competitive season..."

Jeffrey Wollstein

- ▶ PREPARATORY
 - * GPP
 - * SPP
- COMPETITIVE
- * Pre-Comp
- * Comp
- **TRANSISITION**

- Preparatory Period
 - General Preparatory Phase
 - Rehabilitation from existing injury
 - ► Structural development
 - Fitness foundation with cross-training
 - ▶ Technical fault correction
 - ► Varied technical practice
 - Specific Preparatory Phase
 - Sport-specific fitness and training
 - ► Block technical practice
 - Maintain high volume

- Competitive Period
 - Pre-Competition
 - ► Lactate Training (if appropriate)
 - ▶ Taper
 - ► High intensity/low volume
 - **▶** Competition simulation
 - Competition
 - Maintenance of the components of performance
 - ► High intensity/very low volume
 - ► Focus on mental skills

- ► Transition Period (off-season)
 - Maintain fitness
 - ▶30-50% of competition load
 - Mental and Physical Rest
 - Screenings
 - Physical
 - Psychological
 - Career/Education
 - Possibly fitness testing?
 - Review year
 - Goal setting

Traditional Phases

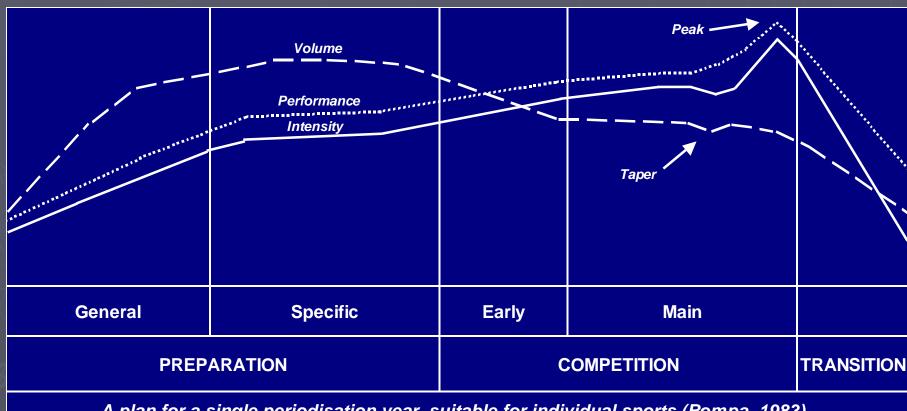
THE YEARLY PLAN

Phases of Training	PREPARATORY														COMPETITIVE													TRANSITION							
Sub- Phases	General Prepara						tio	n	Speci				fic Preparation					Pre- Competitive				Competitive							Transition						
Macro- Cycles		1			2			3		4			5			6				7			8			9		10							
Micro- Cycles																																			

A schematic illustration of the division of an annual plan into its phases and cycles of training (Bompa, 1983).

Single Periodisation Plan

Bompa's plan for a single periodisation year



A plan for a single periodisation year, suitable for individual sports (Bompa, 1983).

Periodisation for Perceptual Motor Skills

- **GPP**
- Error Correction
- Learning of new skills
- Closed drills
- Video Analysis
- Movement Technique
- **SPP**
- Open drills
- Deception and Anticipation
- Pressure Drills
- Movement Technique
- Understanding different game plans

Periodisation for Perceptual Motor Skills— cont' d

- Pre-Competition
- Conditioned Games
- Game plans
- Critical Games
- Match overload
- Match play
- Video Analysis
- Closed Drills
- ► Test matches

Periodization Of Mental Skills

- Introduction to the skill (Explain concept)
- Development of the skill in a quiet setting
- Incorporation of the skill in sport specific situation (Specific application)
- Refinement of the skill in training and in preparatory competition
- Integration of the skill in strategies of competition
- Use of the skill in competition to achieve IPS

Some of the mental skills

- Goal Setting
- Motivation
- Coping Strategy
- Visualization
- Concentration
- Self-Talk
- Relaxation
- Energizing (activation)

Periodisation for Physiological Skills

GPP

- Aerobic Build-up
- General Strength, Hypertrophy
- Fitness Test

SPP

- Speed and Agility
- Speed Endurance
- Maximum Strength
- Power Conversion
- Plyometrics
- Fitness Test

Pre-Comp

- Lactate Training (1:3)
- Strength Endurance
- Taper

ANNUAL TRAINING PLAN FOR 2000 CALENDAR YEAR SPORT.. SQUASH KEY COMPETITION Tactical terms are squash specific tactical training activities - each progressing on the previous. MOST IMPORTANT **LEAST IMPORTANT** The terms "Y Test" and "6-Pt Movements" are squash specific agility activities used for speed and agility training. NAME.... HYPOTHETICAL TRAINING TO COMPETE Endurance training is based on a "Sprint/Recovery" regime with the specified Work to Rest ratios. DATE..... 1-Jan-2000 DECEMBER JANUARY FEBRUARY MARCH AUGUST SEPTEMBER OCTOBER NOVEMBER ďONTΗ. APRIL MAY JUNE JULY **VEEK BEGINNING MONDAY** 14 21 28 10 17 24 12 19 26 10 17 24 31 7 14 21 28 13 20 27 13 20 27 10 17 24 31 7 13 20 27 3 15 22 29 4 11 18 25 9 16 23 30 ТТ т т с CAMPS / TESTING т С Т COMPETITION TRAINING PEAKING INDEX 3 3 3 3 3 2 3 2 2 2 2 2 LIFE PEAKING INDEX 5 5 4 5 3 3 3 3 2 2 2 5 5 4 3 3 OPEN OPEN BAIRNSDALE OPEN OPEN MOORABBIN OPEN VICTORIAN OPEN OPEN GLADSTONE PARK OPEN REFLEX OPEN SOUTH AUST EVENT AND LOCATION UNTAIN ACT Ē GEOFF SLUB TRAINING PHASE GENERAL PREPARATORY (GPP) SPECIFIC PREPARATORY (SPP) PRE COMP COMP PRE COMP COMP TRANSITION GPP MACROCYCLES 13 5 6 7 8 9 10 11 12 13 14 15 16 17 18 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 MICROCYCLES 1 2 3 4 MEDICAL / INJ. PREVENTION P ACE FLEXIBILITY YOGA PNF STRETCHING SPECIFIC FLEXIBILITY SPECIFIC & BALLISTIC MAINTAIN SPECIFIC & BALLISTIC | MAINTAIN MASSAGE ENDURANCE SPRINT RECOVERY V:R 1:4 V:B 1:4 W:R 1:3 W:R 1:2 LACTATE 1:1 V:R 1:5 LACTATE 1:1 LSD V:B 1:4 STRENGTH / POVER GENERAL STRENGTH CONV. TO ENDURE MAXSTRENGTH MAINTAIN CONV. TO ENDURE MAINTAIN REHAB SPEED SHADOV TRAINING 6-POINT MOVEMENTS MAINTAIN 6-PT MOVEMENTS MAINTAIN AGILITY / ACROBATICS O'SPEED Y TEST MAINTAIN MAINTAIN GENERAL OVERSPEED TRAINING Y TEST Y TEST SKILL REMEDIAL AND NEW TECHNIQUES VARIED PRACTICE BLOCKED PRACTICE BLOCKED PRACTICE TACTICS RANDOMOPTIONSPHASING REVIPH 1/4 CRTS GAME PLAN REHEARSAL SIMPLE PATTERNS GAME PLAN BEHEABSAL PSYCHOLOGY SELF MONITORING SKILLS DECISION MAKING COPING STRATEGIES VISUALISATION COPING STRATEGIES VISUALISE GOAL SETTING CROSS TRAINING (PRIORITY LMIMIMIMI VH VH VH VH H H PEAKING INDEX 1 SPORT______ 2 3 CAREER / EDUCATION 5 100% YOLUME 80% 60% INTENSITY 40% 20% % CONDITIONING 50% % SKILL 40% % TACTICS 30% % PSYCHOLOGY 20%

Maj(R)S.Maniam

A long-term training plan needs the following elements:

- Correct and sufficient multilateral development prior to specialisation
- Appropriate training volume and intensity
- Correct periodisation
- Appropriate loading of the work progressively and sufficiently throughout the season and from year to year
- Correct balancing of the various modalities of training i.e., flexibility, trunk stability, resistance training (strength and power), endurance training (aerobic & anaerobic threshold training and lactate tolerance) and speed training
- Ensuring appropriate recovery between sessions in order to keep young athletes fresh
- Make it fun over the long term

SUMMARY

- Athletic Development is a complex procedure
- The holistic approach ensures that the programme is consistent and comprehensive
- Ensuring appropriate recovery between sessions in order to keep young athletes fresh
- Make it fun over the long term
- Effective and dedicated implementation ensures desired results