

Modern Methods for Designing Exercises

Examples from Men's Table Tennis

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Vocational Training as an Instrument Mechanic and Model Maker

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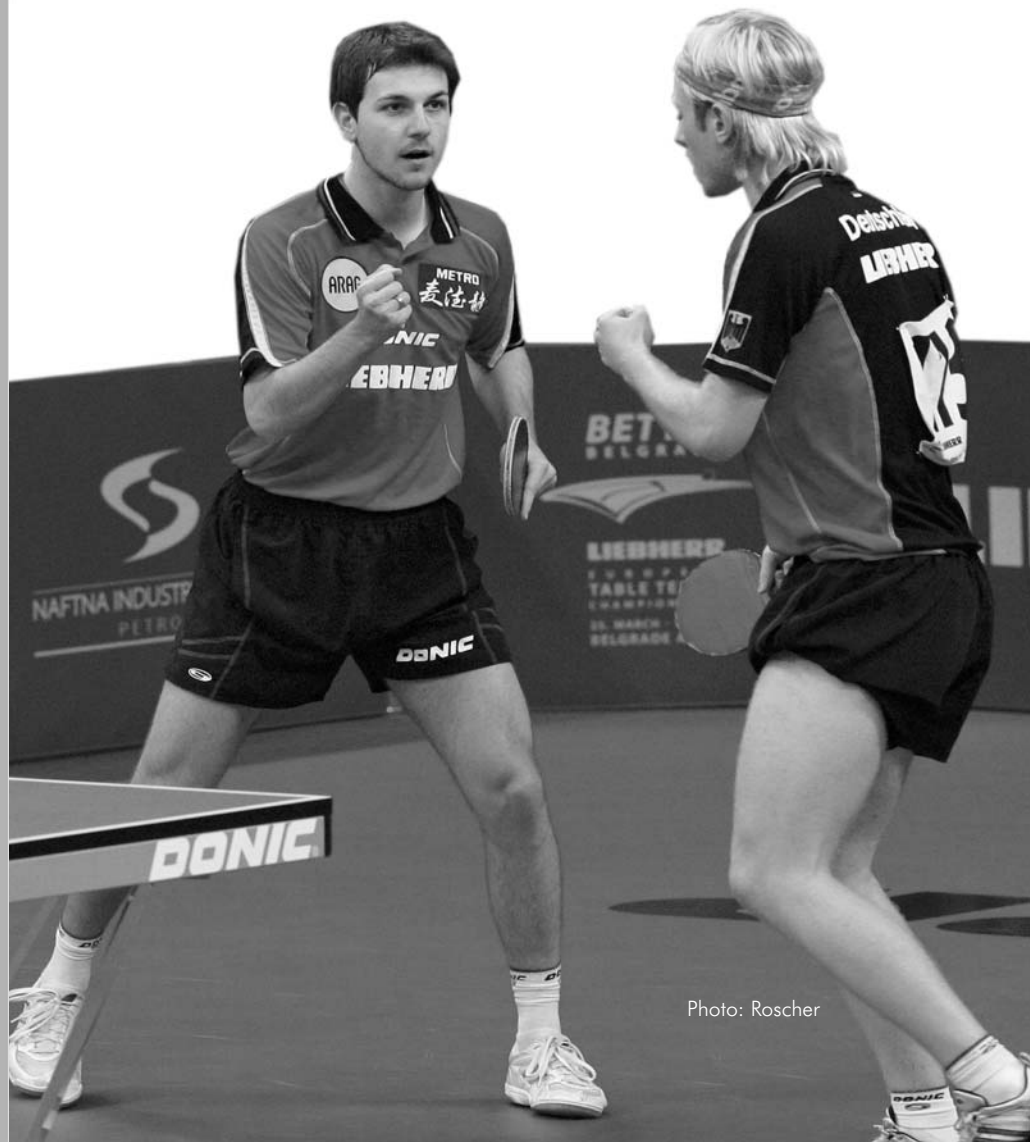
When I was assigned this topic by my colleagues from the VDTT this spring, the first step was to define the term. The idea that it basically refers to our method of working at the table was actually quite correct. For this reason, the following paragraphs will give insight into the daily exercises and training methods of a professional training group. At the same time they will give insight into the thoughts of a responsible coach.

We will distinguish between the "content" and "scope" of a exercise,

and will discuss performance control with reference to periodisation and training loads. We will also mention the daily constraints and obligations which influence the work of a coach considerably.

For the sake of clarity, the following three points will first be defined:

- What is an exercise?
- How is an exercise created?
- When do I practice which exercise?



Timo Boll and Christian Süß during the European Championship in Belgrade - this season they are Borussia Dortmund's two top-seeded players.

Photo: Roscher

Secondly, the following influencing factors will be discussed:

- Periodisation – how and what should be trained in which part of the training and competition cycle (depending on the course of the season)
- Training emphasis on items of greater importance at the table (The individual concept of the game); examples
- Setting priorities for individual players; examples

How is an "exercise" defined?

My understanding of doing exercises is of working in a "goal-oriented" manner. As such, this is in line with the general definition of "training". The most simple and probably the most well-known form of an exercise is the "warm-up" in its simple and regular form. The ball is played back and forth at a controlled speed and with a predetermined ball direction. The emphasis is on controlling the ball, improving the feeling for all strokes and to work out an ideal point of ball contact. A further point is to get used to the respective materials (tables, balls, racket surface, floor). In our training groups we usually take 10 - 12 minutes for this, depending on the general feeling. We finish the warm-up phase with a series of topspin-topspins across the whole table.

Summary:

Warm-ups are simple and regular
They last for 10-12 minutes
Balls are primarily hit diagonally
They serve to get a feel for the motions (specific warm-up exercises according to the type of sport in question) and to find the ideal point of ball contact,
Get accustomed to the external factors such as tables, balls, surfaces and floors

I personally consider the exercise "serve-free play" as being the most complex. In this case, the decisive factor is its direct relevance to competition. Our sport is characterized by the fact that the course of action is not predetermined. In this exercise, players are to experience various

stroke combinations. Experimentation plays an important role in service-return exercises. In this way you can "find out", for example, which returns the opponent plays against your different serves. At the same time, the server naturally also has the chance to find the right strokes with which to open the game. Concentration is essential at this point as is the desire to make points. If not, situations will be created which are not very close to the "real thing". I personally tend to keep this exercise variable and keep an eye on the quality of the performance of both players.

Summary:

Serve - free play
Duration: about 6-9 minutes
Ball direction is not predetermined and is relevant to competition
Work out stroke combinations such as serves and the following ball or returns and the next ball
Work out new possibilities and expand the repertoire of serves and returns

How an exercise is created

In all humility, I have to acknowledge that I don't have a single exercise in my collection for which I can take full credit for its creation. I actually rely on a number of sources. For example, a conversation with colleagues can be just as fruitful as dealing with the player himself. Another easy method is to copy what others are doing. Yes, I do have to admit that I copy a lot of things from more experienced colleagues. And I am not too shy to ask successful players for tips and advice. What often happens is that I see an exercise and then I run it through my mind with one of "my" players. I change a thing or two, such as the ball direction, and as simply as that, I have something new to work with in training. The only hard and fast rule I follow is that it must be relevant to competition. That is, it must serve the demands and requirements of the game.

Another important point for me is that the respective exercises allow for the players to develop their individuality.

The easiest exercise: "warm up", the most difficult exercise: "Serve - free play" exercise design for pros is mostly somewhere between these two opposite ends

In the examples mentioned later, which deal with the setting of individual priorities for each player, exercises are derived from actual games during the competition. At this point, necessary game tactics are defined. And based on these, specific solutions are developed. At the end of the process, exercises in more or less standardized forms are created.

compared to training sessions during the competition phase. It is not unusual for exercises to be done for up to 10 or even 12 minutes. However, in all fairness, we have to point out that the high-speed exercises and the physical presence at the table provide a huge reservoir which needs to be tapped in order to be able to keep up and compete with the best Asians.

When do I use which exercise?

For me, the question of "when" is the most crucial. If the players himself doesn't understand or sense the right timing or at least understands why a certain exercise is necessary at that point in time, even the most beautifully thought-out exercise will not interest the player – and he may even reject it completely. For this reason it is essential that the coach be well-informed about the following factors and has enough reasons to justify his decisions.

Summary:

Many ball contacts (14-20 per rally)
Simple exercises with an emphasis on regularity
Increase the duration of the exercise (on average 9-10 minutes)
Very few exercises with competition character

2. Competition Phases

The season's peaks and highlights take place during this defined time period. You only have short training blocks without any longer phases. At any given time you are most likely either in the last training units before the next competition or in the middle of a longer continuous competition period. Training is used to focus on exercises with less ball contact, higher intensity and a more competitive character. Further emphasis is placed on exercises which give the player the freedom to make his own decisions.

Summary:

Less ball contacts (controlled exercises up to 10; service and return exercises 2-4)
Combined exercises transitioning quickly into free play
Short duration of service/return exercises (up to 7 minutes)
Maintaining an emphasis on endurance (see also points of primary emphasis and importance)
A lot of competition or free style exercises



The choice of a certain exercise with respect to the course of the season

1. Preparation phases

During these phases, the highest possible number of ball contacts should be made. The emphasis is on improving the table tennis specific endurance requirements, technique and skills and on developing a "good feeling". It can be noted that the proportion of regular and / or long training sessions is much higher

The graph gives an example of one of Borussia Düsseldorf's national players' year's schedule. It clearly shows the difficulty in planning the scope and contents of the training units. The player, for example, has to cope with a preparation phase of about four weeks and a training block of ten days after the first Pro Tour Series in Asia. Besides this, he

has to reach and maintain his optimal form during the competition season while at the same time preparing for each competition specifically.

Points of Primary Emphasis and Importance at the Table

While individualized training is essential, the "big picture", or the development of the sport as such should not be neglected. It is therefore important to work on the fundamental details of primary importance during the daily training sessions. Together, all the members of the training group should analyse the preceding season and formulate common points of emphasis and work on them together.

Examples:

- Continue improving individual techniques and skills as well as endurance
- Increase endurance levels at the table (general energy reserves in order to be able to compete with the best Asians)
- Improve the contact point during play after block/counter-topspin or with spin-spin
- Work on the ability to adjust to the rhythm when playing against opponents who alternate passive-active plays
- Work on combining long returns with making the point with the following shot

Example exercises for the points of primary emphasis

1. Falkenberg exercise (often beginning with parallel FHT)
 - è with variations of 1-2 balls in FH and with x balls alternating FH and FH with subsequent spin-spin
2. Middle - corners with different starting variations
 - a) opening from the middle
 - block to the corners
 - b) opening from the corners
 - block to the body

3. Free against the BH with different starting variations

- 1) opening from the FH
 - block to the BH then free
- 2) opening from the BH
 - block to FH and then free

4. FHT from the 2/3s of the middle of the table against 1-1 in the corners

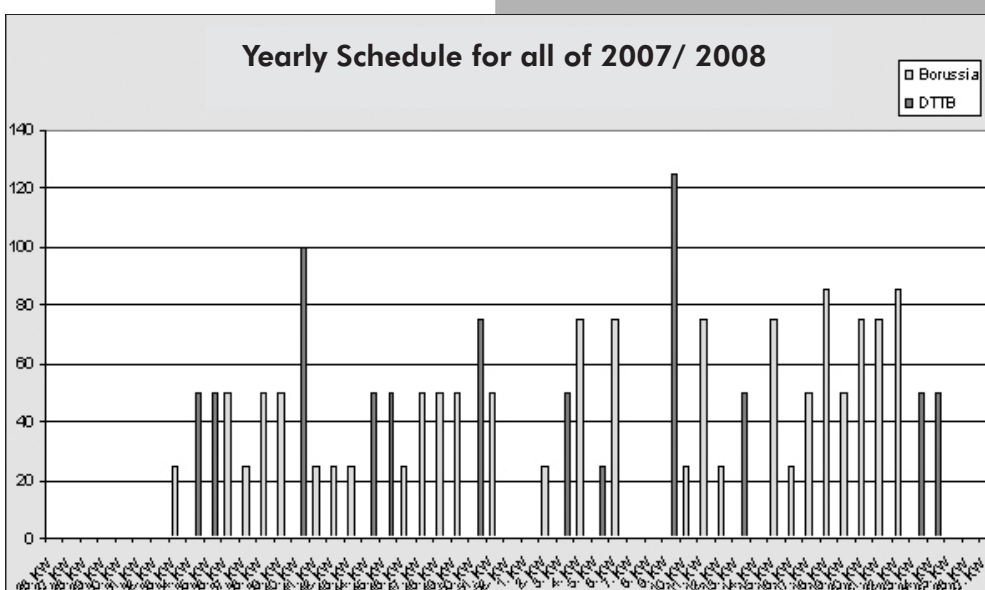
- a) Counterspin from the FH in FH and continuing with spin-spin
- b) active BH to FH and then free

5) FHT from the 2/3s FH-area against a block

- a) in FH
 - x = counter-top and continue with spin-spin
- b) in BH

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→ x = FH from BH corner - free play

Dirk Wagner's plan diagram for one of his players with Borussia Dortmund – do TT-professionals ever regenerate?

Individual points of emphasis

These must clearly be based on the respective playing system and the individual abilities of the player. This requires the coach to closely observe the player's game during competition. Asking the question "How do the opponents respond to my player's game" will often give an idea of where the emphasis in training should be placed. It is important to consider the player's own perceptions and desires since he must be willing to improve one thing or another – or even completely change something. This is especially true when

working with professional players.

Example Player 1

Information from the responsible National Coach after the World Cup in Zagreb, June 2007

General Situation

- The game is won over the BH side
- Opponents frequently open the BH side of And then put pressure on his BHT in the BH-half of the court.
- Practice decisive BH or FH situations
- Stabilize BH-openings at the same time
- Regular service-training (3-10 per week)
- Combine first and second ball
- Open out of the BH - diagonal
→ counter-spin comes to BH è decision BH or FH

Return Game

- Returns are short; especially after top spin and side spin
- "A" serves with top or side spin è... hits short → "A" hits short again, then it is free
- ... hits short è server flips frequently with his BH
- Push out of short FH diagonal (various angles)
- Parallel flip out of short FH - be forceful and fast

Service Game

- ... serves short
- short return to FH or long to BH-middle → open with free FH or with BH in racket → continues with forceful balls from the BH side
- practice serves 3 X 10 min. per week è practice longer serves

Example Player 2

Information from the responsible National Coach after the World Cup in Zagreb, June 2007

General Situation

- continue working on technique (FHT) and endurance
- decision-making in BH
→ increase pressure, use topspin or run around the ball

Game opening

- good quality openings on half-court
- keep low and make the balls longer

Return Game

- returns to top spin serves
 - practice long returns
 - surprise elements / feign short or long → i.e. don't get to the ball too early since this makes it easy to see that the ball will be played short
- Service Game

Could Christian Süß be "Player Nr. 2"?



Photo: Roscher

- player ... should make the game faster himself more often
- also practice longer serves
- improve and practice variations
- introduce regular service practice
- include more feints
- should respond with longer returns more often in order to open the game himself (especially against better players)

Technique and Skills

- gets to the ball too late for FHs (especially lower FHs)
- apply various backhand attack techniques in order to be able to accelerate the ball forwards
 - ➔ often falls out of the table area
 - ball goes diagonal with side spin - next ball is hard to play with the FH
- hand higher and contact point earlier
 - ➔ questionable; does material allow such an arc?

Example exercises for Player 2 - Service-Return

1. Short serve-return comes short, whole table or long to the BH
 - a) if return short, short again
 - b) if return long, opening often parallel
2. Player serves short
 - a) return short and be prepared for a flip or to open "halflong"
 - b) long return and make next shot aggressive (don't block if the opponent flips!!!)

Example Exercises for Player 2 - basic exercises

1. Topspin 2-2 from sides, send balls in all directions on FH-side on FH-side (2/3 FH-side) and vary, after running around the BH, open game
2. Falkenberg exercise with FHT beginning parallel
 - a) second ball out of deep FH in FH and on with counter-top to FH-half with FHT
 - b) first ball out of FH in FH and on with counter-top to FH-half with FHT
3. FHT from FH - Middle - BH - Middle ➔ block goes to the corners ➔ free play
4. FHT from 2/3 table area (vary!) against block
5. in FH ➔ X = counter-top to FH and on with spin-spin whole table
6. in BH ➔ x = player who blocks, runs around the ball and

takes FH in BH and on into free play (free variation – after running around the ball)

Concluding Remarks

In the preceding discussion we attempted to give a small insight into how professionals train. These discussions should not be considered guidelines or standards for professional work. The individual needs and daily requirements of each player are too diverse. It is not only necessary to take purely athletic factors into consideration, but also a large number of other influencing factors. These include the age and background of an athlete. Situations such as homesickness, private conflict situations, starting a family and general family situations need to be taken into consideration in the same manner as the physical condition or individual playing styles are. Furthermore, every player has his own personal goals which need to be recognized and respected. These may not always correspond with those of the coach. A pro-player's various sources of income can also influence his motivation. In conclusion, I hope that this article will be thought-provoking and motivating.

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... or were the exercises for Player 2 designed for Dimitri Ovtcharov?



Photo: Roscher