FÉDÉRATION INTERNATIONALE DE NATATION

WATER IS OUR WORLD

ARTISTIC SWIMMING

INTRODUCTORY GUIDE FOR SCORING SYNCHRONISATION

FINA Artistic Swimming Innovation Group

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How we will be Scoring Synchronisation in the new Judging System for Artistic Swimming?

A. INTRODUCTION

The synchronisation panel, comprised of three synchronisation technical controllers, will operate only in Duet and Team routines (Team Technical, Team Free, Free Combination and Acrobatic).

The goal is to objectively identify synchronisation errors during the routine performance and calculate deductions accordingly.

Definition of Synchronisation:

Synchronisation is the precision of movements in unison one with the other/s. It means to have actions happen at the same time or correspond exactly in design.

It can also be understood as an UNEQUAL ACTION (or accuracy error) when comparing two or more athletes swimming at the same time. Unequal actions can be due to timing and/or design errors of the movements that make the “picture” not precise, accurate and/or perfect to what the choreograpy is demonstrating.

Definition of an UNEQUAL ACTION:
Is any movement performed by two or more swimmers that is performed with a difference in timing or positioning (design/shape). Movements that are choreographed as intentional unequal movements shall not be penalized.

A difference in timing:

- Movements are not performed in complete unison one with the other(s).
- Actions do not happen at the exact same time.

A difference in positioning (design/shape):

- There is a difference in position of head, arms, legs or other body parts used.
- There is a difference in water level of head, arms, legs or other body parts used.
- There is a difference in spacing and pattern shape.
- Note: When you observe two or more swimmers showing different positioning – it is unknown which was the intended or correct one, that is, you do not know who made the error but you can clearly see a difference, and this is an unequal action.

  An example of a difference in positioning:

Fig 1: The pattern, direction of the legs and height of the legs are not showing a “perfect picture” of what we should be watching. As this is just a photo, we can’t speak about timing differences here.

General principles in regards to synchronisation errors:

- Synchronisation Technical Controllers start to count unequal actions when the music accompaniment begins.
- When a timing error and a positioning error (shape/design) occur simultaneously, controllers will only register ONE synchro error (unequal action).
- For those movements and positions for which there is a precise indication regarding degrees of deviation in execution (i.e Vertical Position and Vertical descent, perpendicular leg of Ballet Leg Position, Knight Position, Fishtail/Crane), Elements judges will also take this into account in their execution mark.
- Routines will have as many errors counted as are observed by the synchronisation controllers and validated by the system – therefore unlimited. It can be more than one during the same hybrid or transition sequence. This means that each movement is susceptible to generate a synchro error (unequal action). Two of the most significant examples of continued accumulation of deductions are:
    - A hybrid beginning unsynchronised and keeping a timing difference until the end. Each movement delayed will be counted as a synchro error (unequal action).
    - A rotation where a difference in timing or positioning may occur during the entire rotation. It is stated in the Introductory Guide for the Application of Declared Difficulty that each 180º rotation is considered as one movement, and therefore a difference in timing mantained from beginning to end of a 720º spin (or twist) could accumulate a maximum of 4 unequal actions (either small or obvious).
- When movements are very fast the controller registers as many unequal actions as seen with the time limitation of the validation system; that is: controllers can only register one unequal action approximately every 0.5 seconds.

Synchronisation errors are defined in THREE categories – Small, Obvious or Major:

Small	**Slight differences that cannot be considered as two different movements but distort the image of perfect synchronisation.**
	Small synchronisation errors include: • Slight differences in timing • All differences in positioning (design/shape) will be considered as a small error (as they are also considered by Elements panel) o Non-accurate movements in pattern alignment and spacing o Differences in angles or height o Non-parallel walkouts
Obvious	**Any unintentional difference in matching that produces the effect of two movements being done one after the other.**
	Obvious synchronisation errors include: • Clear difference in timing (one after the other)
Major	**Any error that produces an alteration in routine content (missing one or more movements by one or more swimmers).**
	Major synchronisation errors include: • An alteration of the routine content by one or more athletes (missing movements). • Any alteration (missing movement) counts as a major error – for example even if it's just one quick backstroke that is missed by an athlete. • All Major errors must have video review by the Referee since they result in the largest deduction.

*__Note__: When you are watching different routines, you might feel that some of the errors observed as "Small" in younger/developing athletes, may be considered "Obvious" in older/experienced athletes/routines. This is due to the length of time of the counting/speed of movement - speed adds more risk to synchronisation.

For example: when athletes are working at faster speeds (such as 4 movements per second), there's more risk to make "Obvious" errors (visual two different movements) than when routines are slower (such as one movement per second). Movements done one per second, need a complete second difference to appear to be two different movements.

B. PROCEDURES

i) Using Synchro Device or App

How we calculate the final result for the synchronisation panel:

There will be one panel of three synchronisation technical controllers, each of them with a synchro penalty device with three buttons. Each button will have a different colour:

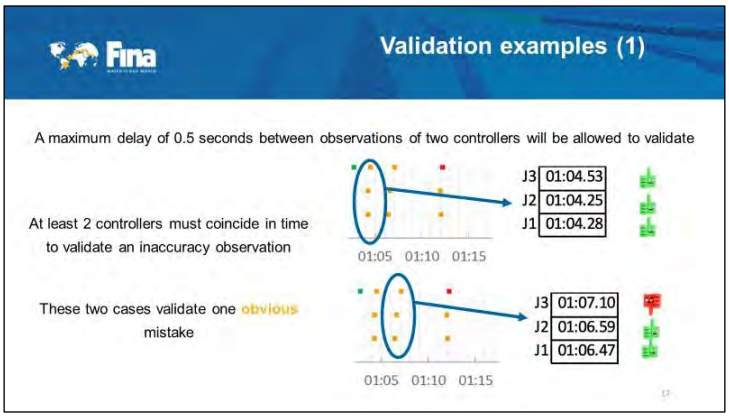
- The left button will be pressed for **Small** errors.
- The right button will be pressed for **Obvious** errors
- The middle button will be pressed for **Major** errors.
- Data needed:
  - Entry ID number of each button pressed
  - Judge/controller who pressed (1, 2 or 3)
  - Type of inaccuracy (small, obvious or major)
  - Time mark of each inaccuracy (mm:ss.xx)

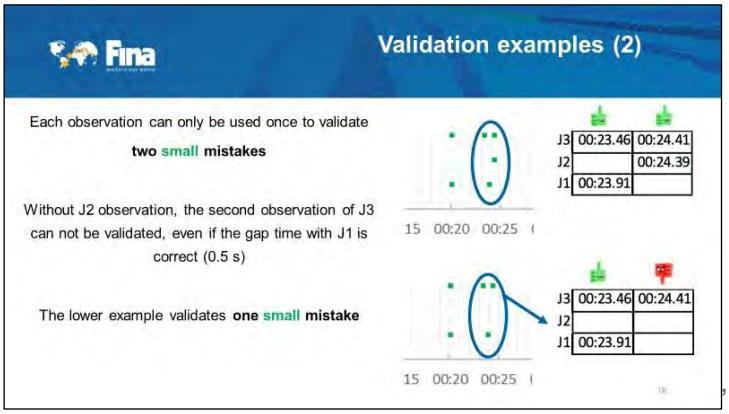
Regarding the App: In 2020 and 2021 a synchro app has been undergoing testing that works similar to the synchro device. It is however always better kinesthetically for the synchro controller to use buttons (the device) and not a mobile screen. More information to come as app finalized.

- Example of the results from the synchro device/app:

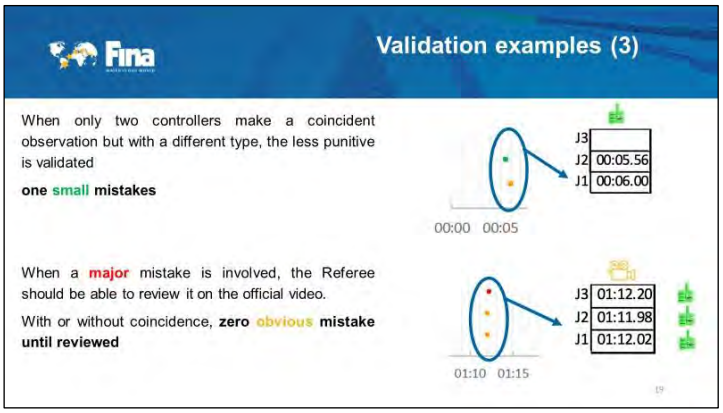
ID	Judge	Type	Time
1	Judge 1	Obvious	00:05.56
2	Judge 2	Small	00:05.56
3	Judge 3	Small	00:20.07
4	Judge 1	Small	00:20.09
Etc …			

- Validation of a synchronisation error (unequal action):
  - At least two synchronisation controllers must coincide in time to validate a synchro error (unequal action) observation.
  - A maximum delay of 0.5 seconds between observations of two controllers will be allowed to validate an unequal action observation.





  - When two controllers make a coincident observation but with a different type (ie Small and Obvious), the less punitive error is validated.
  - When a Major mistake is involved it must have video review by the Referee.



i) No Synchro Device or App = "Paper and Pencil" method

If the implementation of the synchro device or app is not posible then a "paper and pencil" method can be used by the panel of synchronisation controllers.

For this method a printed one-page chart should be made for each synchro controller with three columns divided by 4 laps horizontally (see template at end of this document). Synchro controllers then mark each **Small (S)**, **Obvious (O)** and **Major (M)** error they identify by lap (a checkmark or a "S", "O" and "M" can be used). One of the STC's will advise (call) when to change lap. Each controller then adds up their total number of errors per lap and the average is applied by lap for the deduction. This is the best approach as it best simulates the validation in time done with the other devices.

Example:

Controller 1			
Lap	Small	Obvious	Major
Lap 1	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	
	6	4	0
Lap 2	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓	
	8	2	0
Lap 3	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓	
	6	3	0
Lap 4	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓
	8	4	1

Controller 2			
Lap	Small	Obvious	Major
Lap 1	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	
	6	4	0
Lap 2	✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓	
	7	3	0
Lap 3	✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓	
	7	2	0
Lap 4	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓
	9	4	1

Controller 3			
Lap	Small	Obvious	Major
Lap 1	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	
	4	4	0
Lap 2	✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓	
	7	2	0
Lap 3	✓ ✓ ✓ ✓ ✓ ✓	✓ ✓	
	6	2	0
Lap 4	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓	✓
	10	3	1

Error Avg by Lap:	Controller 1			Controller 2			Controller 3			Average:		
	S	O	M	S	O	M	S	O	M	S	O	M
Lap 1	6	4	0	6	4	0	4	4	0	5	4	0
Lap 2	8	2	0	7	3	0	7	2	0	7	2	0
Lap 3	6	3	0	7	2	0	6	2	0	6	2	0
Lap 4	8	4	1	9	4	1	10	3	1	9	4	1
									Total:	**27**	**12**	**1**

C. DEDUCTIONS

- Predetermined deduction values for each validated unequal action:

Small	- 0.1
Obvious	- 0.5
Major	- 3.0

- Total of synchronisation errors will be deducted from total routine score
- Example:

Routine	Small Errors	x 0.1	Obvious Errors	x 0.5	Major Errors	x 3.0	Total Deduction
A	14	1.4	0	0	0	0	-1.4
B	9	0.9	2	1.0	0	0	-1.9
C	16	1.6	10	5.0	0	0	- 6.6

SYNCHRONISATION CONTROLLER FORM

Competition:				
Age Group:				
Event:	❑ Duet Tech	❑ Mixed Duet Tech	❑ Team Tech	❑ Acrobatic
	❑ Duet Free	❑ Mixed Duet Free	❑ Team Free	❑ Combo

Controller Name:_____ **Controller No**: **1** **2** **3**

Competitor No:			
	Small	**Obvious**	**Major**
Lap 1			
	Total:	**Total:**	**Total:**
Lap 2			
	Total:	**Total:**	**Total:**
Lap 3			
	Total:	**Total:**	**Total:**
Lap 4			
	Total:	**Total:**	**Total:**