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Original article

FEEDBACK IN THE LEARNING-CONSOLIDATION PROCESS OF TECHNICAL PROCEDURES IN SWIMMING IN CHILDREN (PRESCHOOLERS)

SINGURAN ANDRA IOANA¹, POPA CRISTIAN¹, CAZAN FLORIN¹

Abstract

We call “feedback” the consequences of our own behavior that become familiar/known to us. Like motivation, feedback can be grouped into primary and secondary sources.

Given the complexity and accelerated pace of the learning process among children, we will address this issue in order to capitalize on the feedback in the learning process and strengthen the technical procedures for swimming.

Valorization of visual and kinesthetic feedback in children's training ensures the correct and lasting learning of technical procedures specific to swimming.

The creation of a solid support of technical learning during childhood ensures the performance of technical procedures with maximum efficiency and optimal performance in competitions.

The sensory system of athletes, to which exercise and feedback belong, outlined by active instructions of the coach, contributes to improving the motor program in order to streamline the control of behavioral response.

The child reaches the phase of automation or the advanced phase of learning when his feedback consists of a natural, relaxed execution, performed with maximum efficiency, reaching the point of automating his skill without the need for conscious control or an excessive focus on the details of the movements.

Key words: feedback, learning, children, technique.

Introduction

In the opinion of Tulgan, B. (1999), “the feedback is a reactive form of communication, meaning a response to a kind of action or initiation/undertaking of an action”.

Let's imagine a tennis match: if the serve cannot be considered a feedback, than the return certainly is and, likewise, all other succeeding strokes. As an example offered by Tulgan: “the volleyball point ends when a player or the whole team is no longer in the position to provide adequate feedback.”

Regarding the transmission of information, by recording the feedback of each child, we understand the responses that he/she transmits following the provided instructions. On one hand, we will treat the coach's feedback in relation to the subjects, offering him the sender status, and on the other hand, we'll be monitoring the feedbacks of the subjects, after receiving the information, in the role of receivers.



¹ Faculty of Physical Education and Sport, University Ovidius Constanta, Romania
Corresponding author: singuran.andra@yahoo.com
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Circular form of feedback

When the subjects start to reproduce the requested/desired movements/executions, they change their status from receivers to response senders, and the coach becomes the receiver, because he is the one who is now observing the behavior of the subjects.

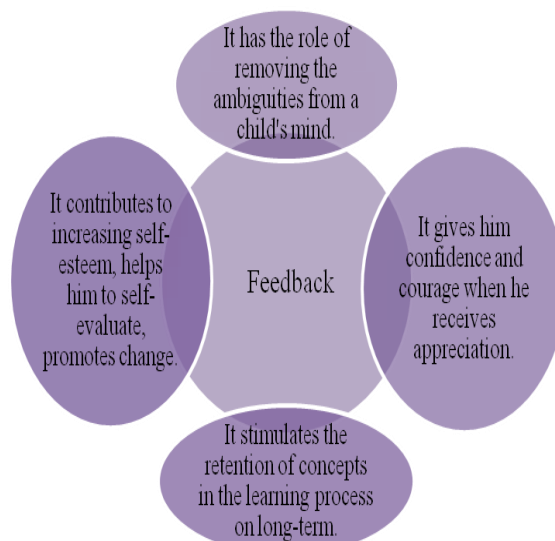
In order to create a solid foundation in which communication is at the top of the hierarchy and which, subsequently, generates a solid coach-athlete relationship, the feedback must be provided by both parties. If, initially, the coach is the one offering feedback and the athlete is the one receiving it, it's necessary, for the entire learning process to have positive results, that the athlete also emits feedback and the coach receives and interprets it in order to adjust and optimize strengths and weaknesses.

From a psychological point of view, regarding the feedback offered to children, it is extremely important to be aware of the value that every word they receive from adults has, as coaches, viewed both as role models and as trainers. The child, as a being in full process of growth and development, has a permanent need for support and encouragement, support that will give him the opportunity to become aware, from an early age, of his own abilities and strengths. At the same time, he needs to capitalize on

these capabilities and realize that it can acquire the internal resources needed to face various challenges or new situation. At this stage of childhood, it is recommended that the child know that he is able to integrate both in the family environment, parents, siblings, grandparents, as well as in the social environment, friends, colleagues, etc.

In other words, the quality of their performance, their behaviors, attitudes, responses depends on the way we, as coaches or trainers, send feedback to children. The constructive feedback offered to the athletes in the pool consists in information and appreciations that we offer regarding their performances achieved both in the water and on the edge of the pool, to their behavior related to the activity carried out to help them on the way to achieving the objectives.

The absence of response occurs when there is no feedback. The lack of feedback can cause unwanted behavior or execution and can lose a desired attitude. If the receiver does not transmit as a result of any action, whether it is appropriate or not, then the sender will not know what should be improved. This situation can also occur if the transmitter is unable to receive the feedback given to him. In the face of this lack of feedback, the individual feels isolation and indifference to his environment or relationships.



Brookhart, S.M. (2008), *Feedback that fits*

In the case of learning and consolidating the technique in preschool swimming children, the feedback can be described in terms such as “movement knowledge” (MK) and “results knowledge” (RK). Intrinsic to the task is movement knowledge and for this, children receive primary feedback following the movements they perform.

For example, when trying to perform the flutter kick movement of the legs in front crawl/freestyle stroke, a child receives information about the movement primarily through kinesthetic and proprioception feedback, meaning through the intensity, frequency and fluency with which he strikes the water with his/her feet and, at the same

time, receives information about the result by observing (visual) the success of his attempt and

through intercepting the sound (acoustic) produced by the kicks in the water.

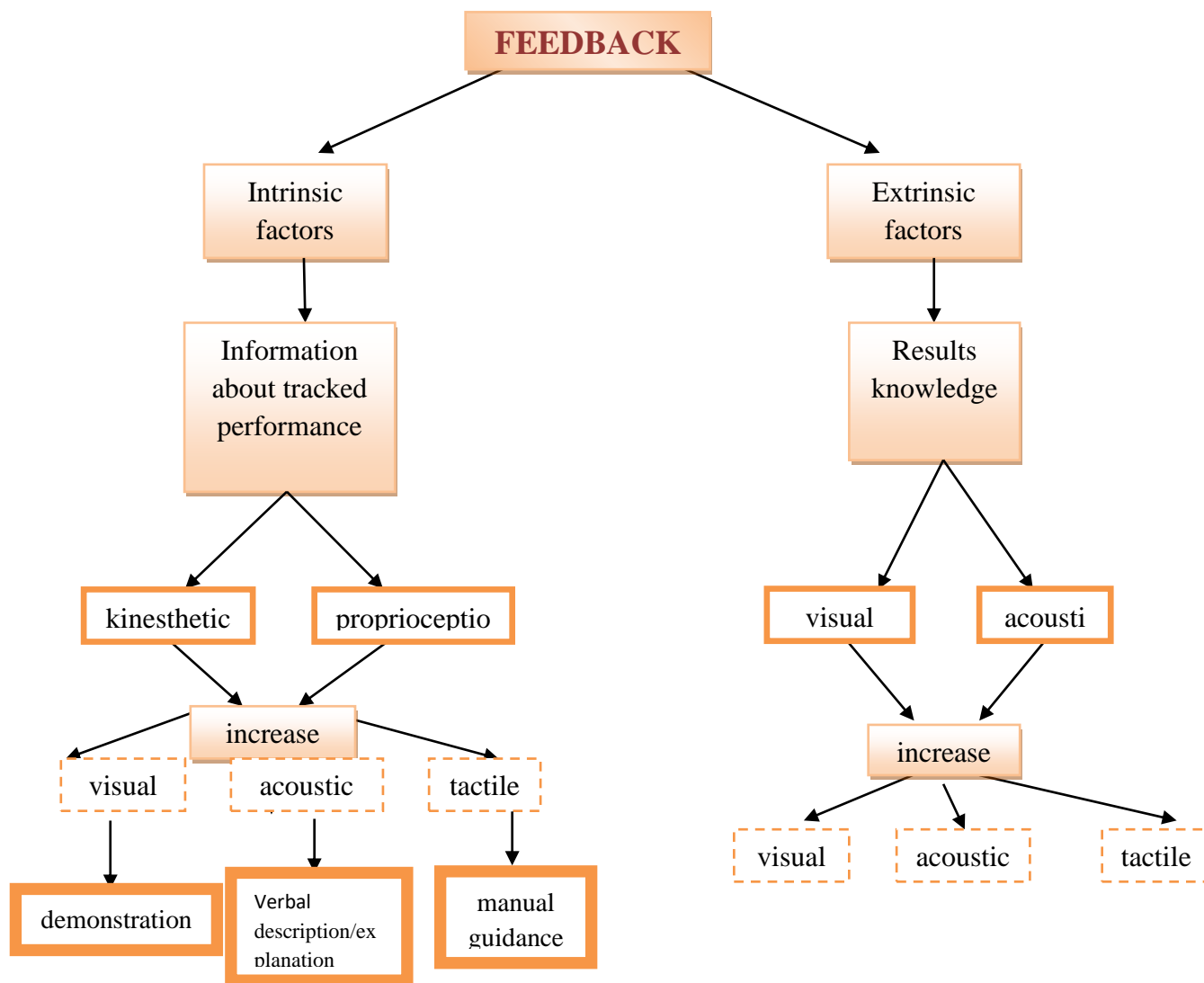


Figure 2 Feedback sources (after Stephen J. Bull)

The aim of a study conducted on 64 subjects, by the University of Physical Education in Wroclaw, Poland, was to determine the immediate impact of verbal feedback on the effectiveness of swimming. The authors also wanted to discover a method to support those performing motor tasks. In other words, to increase the effectiveness of their motor tasks. It started with the assumption that verbal feedback would increase swimming efficiency (as a desired goal). The recorded results from this study confirmed this hypothesis, however the most important finding

of the study is the confirmation the the verbal feedback offered immediately contributes to the successful achievement of the motor task (Zaton & Szczepan, 2013).

The study was conducted on a number of 64 subjects divided in two groups, the control group and the experimental group. They swam a distance of 25 meters using front crawl/freestyle stroke at maximum speed. The experimental group received immediate verbal feedback, focused on the length of the stroke, because a shorter stroke is considered the most

common reason for low speed in swimming, whilst the control group did not receive any feedback. From this perspective, stroke length is important due to its relationships with the mechanics and energy in all swimming procedures. Thus, in the experimental group, the average swimming speed increased by 2.92% (0.04m/s), which means that the significance of immediate verbal feedback in swimming could represent a step in the learning process.

In the case of swimming children, the starting point is at the level of their motivation. Therefore, the primary motivation derives from the actual activity. For example, the fact that the little one manages to dive without swallowing water gives him a primary motivation, since diving under water does not depend on anyone else. Many of the beginner children practice diving, including at home, in their own bathroom. Although we can say that this is only a mean to achieve the main goal (that of learning to breathe while performing movements in the water/0, many children find considerable satisfaction in the simple fact that they “train” in this playful manner. First of all, we must look at the relationship between motivation and feedback because, as Bull S.J. (2011) states: “What was not considered in the relationship between motivation and feedback is the initial motivation of people who want to try something they have never tried before.”

This statement leads us to the question of how much “success” (the combination between primary and secondary feedback) a child needs, so that his motivation is maintained at an optimal level. Following the statement of Bull S.J. (2011): “as much and as often as possible”, we conclude that in beginners case, especially where the largest part of “success” comes from the activity itself as primary source. Therefore, coaches have the most important

task in training young swimmers, by selecting practical exercises that will be appealing for a beginner child, in order to capture his/her attention, to support their will and allow them to experience “success” as often as possible, simultaneously as developing swimming specific aptitudes. At the same time, children search for positive feedback from secondary sources, such as the family.

At the same time, children are looking for positive feedback from secondary sources such as the family. As beginners enjoy the taste of success in its various forms, repeatedly at the beginning of the activity, the frequency of “success” may decrease, but maintaining motivation must remain at high standards. Throughout the process it should not be overlooked that as beginners make progress, the nature of success will change. Initially, the beginner will be satisfied with his performances, demonstrating both to himself and to those around him his abilities, while the experienced athlete becomes familiar, accustomed to such things and focuses his attention, for example, on his position in the ranking of a competition.

According to Piaget J. and Inhelder B. (2005), “any acquisition, from the simplest to the most complex, will thus be conceived as a response to external stimulus [...] any new connection is integrated into a schematic or a previous structure”. Therefore, we can understand that the subject could not become sensitive to external stimulus because, based on already built and well-developed structures, the child will be able to modify, enrich and perfect them according to the new assimilations. This creates a link between the subject’s activity and external stimulus when the first one offers an answer, a reaction as a result of the interaction with various stimulus.

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