Subjective Beliefs Among Sport Coaches About Communication During Practice

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Abstract

This article looks at subjective beliefs among sport coaches in terms of what they consider to be effective communication during practice. A sample of 36 different opinions about different underlying aims for communication, and how this affects athletes’ abilities to understand better (knowing), to perform better (doing), and/or improve their focus, was presented to 23 sport coaches from different top level sports. A sample from a concourse of statements was presented to the coaches who were asked to consider the statements regarding what they thought are optimal communication during practice in action.

The authors develop their analysis by employing the Q methodology. Four different factors emerged from the factor analysis, and one stronger factor had 18 cases when mixed cases were included. In general, coaches agree that during practice they must stimulate their athletes to be focused. In order to do this, their communication must be based on information and concepts that both coaches and athletes understand. Communication that effects common understanding and is based on clear and direct instructions seems to be beneficial to achieve a strong focus during action. The results also indicate that coaches must have conversations with their athletes in order to achieve common understanding, so that the information that is communicated during action is well discussed and clarified between themselves and their athletes.

Key words: sports coaching, sport coaches, communication, subjective beliefs
Introduction

Coaches in elite sports face a number of challenges, and often struggle to continuously develop their elite athletes in the competitive arena. The continuous struggle to maximize performances challenges coaches’ knowledge, skills and abilities. Elite coaches are in helping relationships with their athletes, whereby the aim is to help their athletes to improve in areas that are important for their performances. Thus, coaches must develop their capabilities to meet the demands of their roles in order to be successful in the competitive arena. Importantly, research states that coaches play an important role in the development of successful athletes (Blom, Watson II, & Spadaro, 2010; Moen, 2010; Moen & Verburg, 2011; Jowett & Cockerill, 2003).

Communication skills are the basis in all helping relationship roles, and are acknowledged as a critical piece in the puzzle that is the art and science of coaching within sport (Bloom, 1996; Ivey & Ivey, 2006; Spink, 1991). A previous study by Moen and Verburg (2011) found that communication skills are fundamental in creating an optimal helping relationship between coaches and their athletes. However, because elite sport coaches often struggle with multiple roles related to different situations, it will be of great importance to meet different situations with suitable and proper communication skills. Coaches and athletes interact in different situations such as training, competitions, team meetings, individual coach–athlete conversations, etc (Culver & Trudel, 2000). Thus, coaches’ communication skills will be one of several factors that decide how successful different situations turn out to be. This study will focus on situations where rehearsal and performance regarding sport specific skills and capabilities are in focus. The question to be addressed is therefore: What are sport coaches subjective beliefs about their communication during practice?

Theoretical Background

In social science terminology, communication is defined as the scientific study of the production, processing and effects of signal and symbol systems used by humans to send and receive messages (Hargie, Dickson & Tourish, 1999). Communication is therefore the exchange and flow of information from one person to another; it involves a sender transmit-
ting information, verbal or non-verbal, to a receiver (Hargie, 2006). Successful communication is achieved when there is concordance between the intended message being sent by a sender and its perception by the receiver (Røkenes & Hanssen, 2002; Ivey & Ivey, 2006).

The communication process
The communication process consists of at least four possible perspectives. It starts with an intention within a sender to communicate a message. The self perspective is the sender’s own world, as he or she experiences it based on his or her own experiences, personality, attitudes and knowledge. The message is then being encoded by the sender and sent to a receiver. The receiver starts his or her communication process by a decoding (interpretation) of the message being sent. The decoding process might result in an intention to reply to the message being sent, and the intention is then encoded and sent back to the sender as shown in figure 1 below (Fouss & Troppmann, 1981; Røkenes & Hanssen, 2002; Weinberg & Gould, 2007). This is the receiver’s perspective reflecting the receiver’s internal world. Both the sender and the receiver communicate based upon their subjective perception of reality. Importantly, this is not reality, it is the individual’s model of reality based on the individual’s experiences and knowledge (Bandler, 2008; Hargie, Dickson & Dennis, 2004). Each individual’s own model of reality might be different, which makes communication both important and challenging. The process results in an intersubjectively experienced fellowship, which implies a mutual understanding of one another’s different worlds. The last perspective is the interaction perspective, which is about understanding the interaction process and the relationship between the communicators (Røkenes & Hanssen, 2002).

As figure 1 shows, the communication process is characterized by an underlying intention to achieve something by sending information between a sender and a receiver. Habermas (1968) argues that the search for information and knowledge could be characterized by three universal intentions: control, common understanding and emancipator reflections. Understanding that there are three universal intentions when one communicates is important, because inter-human dialogue is characterized by the intentions that people have towards one another in the meetings.

Control. Is the sender’s intention to control the other person and influence him or her in a certain direction? Instructions are used to influence others in specific directions. An instruction is a direction or order
that is communicated to an individual that will influence the individual to either act or move in a certain direction. An instruction can include telling people a specific behavior that should be performed, the level of proficiency that should be achieved, or the level of proficiency that a performer should achieve in a desired skill or activity (Hargie, 2006; Weinberg & Gould, 2007).

![Figure 1](image)

**Figure 1** *The communication process.*

*Common understanding.* Or, is the sender’s intention to understand the other person and develop a common understanding about a given situation? One is able to predict an intention to achieve common understanding between individuals, when there is communication that is based on open-ended questions and active listening (Ivey & Ivey, 2006). Open-ended questions start with an interrogative, such as who, what, how, where and when and are advantageous because they encourage both descriptive and detailed answers from the receiver (Ivey & Ivey, 2006). Furthermore, interrogative questions give the receiver the power to generate rich descriptions with regards to his or her own experiences, feelings and interpretations. In this way, the sender is given the opportunity to achieve a deeper understanding of the receiver’s perspective. Listening is a fundamental part of attending skills and active listening is the most important attending skill (Kvalsund, 2006). The receiver needs to know that the sender has heard and understood what he or she has been saying,
seen his or her point of view, and has an understanding of the receiver’s perspective as he or she experiences it.

*Emancipator reflections.* Or, is the sender’s intention to stimulate the other to discover something new through emancipator reflections, so that he or she can be liberated from unfortunate unconscious behavior? When the sender uses powerful questioning, the receiver is invited to enter into a mental exercise, establishing awareness, reflecting, considering, evaluating and making decisions that relate to the information that is being discussed. When a sender actively listens and attends to the receiver, both the sender and receiver are focused on the dialogue and its complexities. In order for both individuals to have a deep understanding of one another, it is essential that each individual is actively engaged in both power questioning and active listening. In addition to the aforementioned communication skills, it is important to understand the crucial role that confrontation plays within communication. Confrontation is defined as a statement or question calculated to motivate the receiver to make a decision or face the reality of a situation (Hargie, 2006; Ivey & Ivey, 2006; VandenBos, 2006). Thus, confrontations can often involve conflict and differences of opinion, and has the potential to achieve raised awareness (Moen & Kvalsund, 2008). To achieve a positive outcome, it is necessary to confront with care, respect and empathy (Kvalsund, 2006), otherwise the challenge can result in defensiveness and counterattack. Ivey and Ivey (2006) argue that both powerful questioning and confrontations are methods that are frequently used to influence another individual within communication that stimulates reflections.

Therefore, the communication process between the sender and the receiver will differ quite a lot based upon what the sender’s intention is in the situation (Habermas, 1979, 1981).

*Communication within sport*

Within a sports setting, the relationship between a coach and an athlete is incredibly important. Jowett and Cockerill (2002) and Lyle (1999) found that the relationship between the athlete and the coach is invaluable, and the most important contribution to growth and development of an athlete. Although many people consider coaching to entail the teaching and instruction of technical skills and tactics, Bloom, Durant-Bush, Schinke, and Salmela (1998) discovered that the coach–athlete relationship must entail elements of reciprocity and trust, and that they are of a genuine and helping nature. Similarly, Poczwardowski, Barott, and Henschen (2002)
found that the athlete–coach relationship is underlined by respect, belief in, knowledge of, and contribution to the other’s goals, needs, and wants.

Furthermore, researchers argue that in order for both a coach and athlete to achieve a shared level of reciprocity and trust, and to be helping one another, there must be communication (Bloom, 1996; Culver & Trudel, 2000; Jowett & Cockerill, 2003; Spink, 1991). Importantly, the communication process requires a vast repertoire of skills, such as intrapersonal and interpersonal processing, listening, observing, speaking, questioning, analyzing, and evaluating. Specifically, researchers have found that effective communication between a coach and athlete is vital and may be one of the most important factors in developing athletes (Hargrove, 2003; Spink, 1991). For example, Jowett (2005) argues, “communication promotes the development of shared knowledge and understanding about various issues (e.g. goals, beliefs, opinions, values) and forms the basis for initiating, maintaining, and terminating the coach–athlete relationship” (p. 415). With this understanding, it is clear that communication can play a vital role in athletes’ development and performances in the competitive arena.

Therefore, communication is an important element of both the coach–athlete relationship and the act of coaching and leadership in general. Specifically, as Chelladurai and Saleh (1980) discuss, a coach may be responsible for “planning, organizing, budgeting, scheduling, recruiting, public relations,” (p. 35) and serving as leader of the team. As a result of the many and varied roles that coaches are responsible for undertaking, it is essential that they have a clear understanding of how to communicate effectively in order to successfully accomplish the different roles and tasks that they encounter. Although there have been many studies on the importance of the coach–athlete relationship, to our knowledge there are no studies that evaluate what kind of communication coaches utilize while completing different tasks and if coaches believe that their methods of communication should change if communicating during practice, compared to during a competition. Thus, the problem to be addressed in this study is: “What are sport coaches’ subjective beliefs about their communication during practice?”
Method

Q methodology provides a basis for a systematic study of subjectivity, and is often utilized by researchers who are interested in qualitative aspects of human behaviour. Thus, Q methodology is rooted in the qualitative research tradition, whereby one’s subjectivity is revealed by the systematic categorization of people’s thoughts, feelings, values and experiences related to the current research issue (Brown, 1996). Whereas quantitative methods normally require larger samples, Q methodology uses much smaller samples than what is common in quantitative research (Brown, 1980).

The process is completed through a series of five steps: 1) Definition of the concourse; 2) Development of Q sample; 3) The selection of P sample; 4) Q sorting; and 5) Analysis and interpretations.

1. Definition of the concourse
The first step in Q methodology is to establish a “concourse,” originally called a “trait universe” (Stephenson, 1950), which is a collection of thoughts, feelings, values and experiences related to a specific topic (Stephenson, 1986). The concourse in this study was established by analyzing discussions and interviews with coaches and athletes within sport related to this research issue, and a review of relevant literature within the field (Hargie, Dickson & Tourish, 1999; Hargie, Dickson & Tourish, 2004; Ivey & Ivey, 2006; Spink, 1991). Coaches need good communication skills in order to give technical and tactical instructions, manage their teams, both athletes and other staff members, and to provide psychological support to their athletes. The researchers compiled a list of approximately 80 statements, covering different possible viewpoints about the research issue. After all data was collected, the researchers systematically organized and analyzed the information, discovering the concourse of the data. In principle, the concourse contains all possible ways of communicating about the actual topic within a specific culture (Kvalsund, 1998). Once the researchers had a clear understanding of the concourse, the information was reduced into a meaningful Q sample.

2. Development of Q sample
The researchers developed the Q sample by drawing upon the concourse of statements. The Q sample is a comprehensive selection of the views within the concourse, and can consist of an infinite number of subjec-
tive statements (Kvalsund, 1998). Although one cannot fully grasp the entire (infinite) concourse, the researcher develops a wide range of statements, as they relate to the research topic, to gain a clear understanding of the participant’s beliefs. The size of a Q sample is dependent upon the number of statements that are necessary to ensure that all possible viewpoints are represented. In addition, sub-themes may emerge from the concourse and must be both organized and analyzed. In this study, the researchers discovered the following two themes, or effects, within the concourse: the intention behind communication and possible effects from communication. Within the theme “intention”, there are four sub-themes, also referred to as levels, which are goal oriented, mutual understanding, emancipator reflections, and the need for information. The theme of “effect”, produced three sub-themes, which are learning in form of understanding, learning in form of performing during action, and focus. In this study, it is important to discover what intentions coaches have with their communication during practice, and how this could affect either the athletes’ understanding, performances during action and/or their focus. In Table 1, the design of the statements was created to evaluate each possible relationship.

**Table 1**  
*The design of the statements based on cultural effects*

<table>
<thead>
<tr>
<th>Effects</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>a. Goal oriented control.</td>
</tr>
<tr>
<td></td>
<td>b. Mutual understanding and agreement.</td>
</tr>
<tr>
<td></td>
<td>c. Emancipatory reflections.</td>
</tr>
<tr>
<td></td>
<td>d. The need for information.</td>
</tr>
<tr>
<td>Effect</td>
<td>e. Understanding (knowing).</td>
</tr>
<tr>
<td></td>
<td>f. Performance (doing). (operational competence)</td>
</tr>
<tr>
<td></td>
<td>g. Focus</td>
</tr>
</tbody>
</table>

Each combination of independent effects and levels becomes a categorical cell. Based on this, we must look to the levels to see all possible combinations of cells, since they are the multiplication of levels by all four effects. Using the design in Table 1, twelve combinations of statements are obtained, as shown in Table 2.
### Table 2  The combination of levels in the design

<table>
<thead>
<tr>
<th>Effects</th>
<th>Combination of levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention</td>
<td>a</td>
</tr>
<tr>
<td>Effect</td>
<td>e</td>
</tr>
<tr>
<td>Statement No</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

In principle, there are 4x3 cells. Each cell consists of statements that are inter-related, but are somewhat different. After studying the statements and discovering the different levels that emerged, the authors elected to use the three statements that most clearly represented the viewpoints expressed in the different cells for the Q sample. The Q sample resulted in 36 statements (see Appendix). To make it impossible for the sorter to see the structure in the sample, statements were randomly allocated a number from 1 to 36.

3. The selection of P sample
The researchers collected data from 23 sport coaches who were attending a course organized by the Norwegian Olympic Committee and the Norwegian University of Science and Technology (NTNU) in Trondheim. The course was aimed at elite coaches who were currently working with sports elite teams in Norway. The coaches were from different sport: cross country skiing, biathlon, ski jumping, Nordic combined, ice hockey, alpine skiing, swimming, rowing, athletics, bicycling, wrestling, dancing, figure skating, orienteering and handball. The average age was 35 ½ years old (youngest 23 and oldest 53). Additionally, their educational background varied from masters degree to no formal education after high-school. Their experience as coaches at elite level varied from 1 year to 25 years.

4. The Q sorting
The coaches were given one condition to consider and sort the statements in the Q-sample in this study. They were asked to read through each statement and to consider what they thought was effective communication during a typical practice with their athletes. Specifically, the coaches were asked to select the statements that described the most optimal type of communication that should be utilized, and to consider what type of communication had the most effect on learning in the form
of understanding, performing, and/or the athletes ability to focus. Each coach was asked to rank each statement according what they believed was the most ideal in each situation. Consequently, each statement was evaluated on a scale from +5 for (most strongly agree) to -5 (most strongly disagree). A ranking of zero would indicate a neutral viewpoint or no meaning. This is an operation referred to as “Q sorting “ (McKeown & Thomas, 1988), and is considered to be a forced quasi-normal distribution of the statements, as shown in Figure 2 below. (Brown, 1980, p. 197-198).

<table>
<thead>
<tr>
<th>strongly disagree</th>
<th>very strongly disagree</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>neutral</th>
<th>agree</th>
<th>strongly agree</th>
<th>very strongly agree</th>
<th>most strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>-4</td>
<td>-3</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
<td>+2</td>
<td>+3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2  *The scoreboard for the Q sorting.*

The coach is free, however, to place an item anywhere within the distribution. As one can see, the scoreboard has less cells at both ends (+5, +4, +3, -5, -4, -3) than in the middle. This is done to provoke psychological significance among the coaches, as if something is psychologically meaningful/important/substantial or not, by forcing them to rank the statements by considering stringent options. While performing the Q sort, the coaches draw distinctions on the basis of psychological significance. The statements placed in the middle area (-1, 0, +1) raise no emotional feelings or are not particularly meaningful for the coaches. These statements are psychologically insignificant. At each end of the scale are statements that the coaches relate more strongly to, find more meaningful and important, and are psychologically significant (Brown, 1980). The coaches continued their Q sorting until all the statements were distributed into the scoreboard. Coaches had approximately one hour to dis-
tribute the 36 statements. Each coach signed their scoreboard, so that the researchers had the opportunity to clarify responses during the analysis and interpretations.

5. Analysis and interpretations
After all of the data was collected, the researchers entered each Q sort into the computer program PQMethod\textsuperscript{1} (Schmolck, 2002), which is a statistical program tailored for Q studies (Allgood & Svennungsen, 2008; Rhoads, 2007). For any \( n \) Q sorts, the correlations produce a matrix of size \( n \times n \), or in this case 23 x 23 cells in the overall matrix. If the correlation coefficient is high, this indicates that two coaches sorted the Q sample statements in a similar manner. The 23 x 23 correlation matrix was then subjected to a Centroid factor analysis, initially with the default value of seven factors extracted. The Centroid factor analysis showed that one of the factors had an Eigen value of 5.9, counting for 35% of the variance, whereas three other factors had an Eigen value higher than 1. The factor(s) with the highest Eigen value is defined as the stronger factor(s). The Eigen value is used in deciding how many factors to extract in the overall factor analysis and the factor with the highest Eigen value is the factor with the most variance. All factors with an Eigen value above 1 are defined as significant factors (Brown, 1980; Kvalsund, 1998).

It is important to decide how high a factor loading should be if that sort is to be regarded as an important contributor to a factor (Pett, Lackey & Sullivan, 2003, p. 208). In Q methodology an estimate is used to decide if a sort is contributing to a factor or not (Brown, 1980; Kvalsund, 1998). The minimum factor loading that is used for defining Q sorts (Q sorts marked by an X i the factor matrix) is the standard deviation of the forced distribution (2.58) multiplied with the result of 1 divided by the square root of the number of statements in the q-sample (36). In this study .43 was estimated to be the minimum contributor to a factor. Those Q sorts that define the factor have influence on the content of the factor that emerges. After experimenting with various alternatives by rotation by hand, the authors decided to consider a varimax rotation with a one-factor solution. The coaches who sorted the statements approximately similarly, produced this factor solution (McKeown & Thomas, 1988). Thus, the factor represents natural categories of subjectivity that can be discovered by the researchers (Brown, 2002). Stephenson points

\textsuperscript{1} PQMethod-2.11 by Peter.Schmolck@unibw-muenchen.de, http://www.rz.unibw-muenchen.de/~p4fbsmk/qmethod/
out that Q data and Q methodology is abductive in its approach, and its interest is in causes and laws, and not on a search for facts by testing hypotheses (Stephenson, 1950). This implies that the researcher must work to understand the Q sorter’s mind through gaining insight regarding the subjectivity that is disclosed (Stephenson, 1986, p.53). After the first analysis and interpretations of the factors, the researchers interviewed each Q sorter in an effort to check whether or not the factors did represent the common conversational modes for the individuals on the factors. In this way, Q analysis provides an understanding of the individual’s perspective, whereas quantitative methods tend to view the same events from an external perspective. Thus, this analysis maps the coaches subjective beliefs, and is based upon a concourse that represents all possible beliefs regarding this research issue. Q-methodology therefore refers to factors as operant factors, and uses different criteria in their analysis compared to what is seen in traditional quantitative methods (Brown, 1980).

Results

The 23 x 23 correlation matrix was subjected to a Centroid factor analysis, initially with the default value of seven factor extracted. After experimenting with various alternatives, the authors decided to consider a four-factor solution based on the Eigen values of the factors from the unrotated Centroid factor analysis as shown in Table 3.

Table 3  The matrix of rotated factors and their loadings. Factor loadings with bold type are pure cases loading on a factor, and loadings in italics are mixed cases loading on more than one factor.

<table>
<thead>
<tr>
<th>QSORT</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.51x</td>
<td>0.08</td>
<td>0.56x</td>
<td>0.45x</td>
</tr>
<tr>
<td>2</td>
<td>0.48x</td>
<td>0.08</td>
<td>0.55x</td>
<td>0.53x</td>
</tr>
<tr>
<td>3</td>
<td>0.63x</td>
<td>0.46x</td>
<td>0.32</td>
<td>0.12</td>
</tr>
<tr>
<td>4</td>
<td>0.64x</td>
<td>0.54x</td>
<td>0.32</td>
<td>-0.02</td>
</tr>
<tr>
<td>5</td>
<td>0.57x</td>
<td>0.55x</td>
<td>0.36</td>
<td>-0.06</td>
</tr>
<tr>
<td>6</td>
<td>0.81x</td>
<td>0.11</td>
<td>0.23</td>
<td>-0.06</td>
</tr>
<tr>
<td>7</td>
<td>0.71x</td>
<td>0.06</td>
<td>0.38</td>
<td>0.23</td>
</tr>
<tr>
<td>8</td>
<td>0.68x</td>
<td>0.35</td>
<td>0.23</td>
<td>0.06</td>
</tr>
</tbody>
</table>
As shown in the factor matrix, table 3, 18 cases load on factor A when mixed cases are included (sorts that load on more than one factor), which were marked “x” after each factor loading; factor B, 5; factor C, 6; and factor D, 3. The remainder of this paper analyzes the four types reflected in their sorting. The statements on the extreme side in Figure 1, with rank scores of +5, +4, -4, and –5, reflect the intense feelings and attitudes of each respondent and characterize the factor, so analysis was mainly focused on the interpretation of those statements (Brown 1980, pp. 23-24). Statements ranked on scores +3 and -3 will not be included in the discussion, if they reflect the same view as the statements ranked at scores +5, +4, -5 and -4 for each of the factors.

Factor A: Stimulating common understanding and focus

The most distinguished statements loading on factor A (+5 and +4) emphasize the importance of stimulating focus and achieving a common understanding in order to perform during action (statement number 5, 3 and 1). The most extreme statements on the negative side (-5 and -4) confirm that common understanding and focus are needed in order to perform in action (statement number 30, 17 and 29).
Table 4  
*Distinguished statements loading on factor A.*

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>I perform better when I have a clear understanding of what I am told and when others listen to my needs. When I’m understood by others and understand what I am told, my tasks are performed better.</td>
<td>+5</td>
</tr>
<tr>
<td>3</td>
<td>To stay focused on what is appropriate, it is important that the communication is clear and precise.</td>
<td>+4</td>
</tr>
<tr>
<td>1</td>
<td>It is easier for me to focus on what is appropriate when I receive both clear and direct information in small amounts.</td>
<td>+4</td>
</tr>
<tr>
<td>29</td>
<td>When my viewpoints are confirmed and acknowledged, I become in doubt and it is more difficult for me to perform.</td>
<td>-4</td>
</tr>
<tr>
<td>17</td>
<td>I feel no need for common understanding to improve the execution of my tasks.</td>
<td>-4</td>
</tr>
<tr>
<td>30</td>
<td>It is more difficult to keep focused when I am understood and understand what is communicated.</td>
<td>-5</td>
</tr>
</tbody>
</table>

Note: Including mixed cases, 18 cases loaded on factor A.

**Factor B: Reflections and understanding**

The most distinguished statements loading on factor B are emphasizing the importance of clear and direct information (instructions), understanding and reflections during action (statement number 1, 10 and 16). The most extreme statements on the negative side (-5 and -4) strengthen this finding, while the importance of understanding and reflections is underlined (statement number 28, 31 and 32).

Table 5  
*Distinguished statements loading on factor B.*

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It is easier for me to focus on what is appropriate when I receive both clear and direct information in small amounts.</td>
<td>+5</td>
</tr>
<tr>
<td>10</td>
<td>I am more likely to have a clear understanding of my performance, when the case in focus is explored from different perspectives.</td>
<td>+4</td>
</tr>
<tr>
<td>16</td>
<td>I understand how to develop and improve my performance, regardless if I feel understood or not by others.</td>
<td>+4</td>
</tr>
<tr>
<td>32</td>
<td>When I’m asked questions that stimulate new perspectives and thoughts, it makes it difficult for me to know which idea will allow me to have the strongest performance.</td>
<td>-4</td>
</tr>
<tr>
<td>31</td>
<td>The understanding about my performance is reduced when I’m asked open questions that stimulate me to discover new perspectives.</td>
<td>-4</td>
</tr>
</tbody>
</table>
When I am able to voice my opinions and I am included in the decision-making process, it is difficult for me to develop a clear understanding about my performances.

Factor C: Instructions and focus
The most distinguished statements loading on factor C (+5 and +4) emphasize the importance of stimulating focus through clear and direct information during action (statement number 1, 3 and 4). The most extreme statements on the negative side (-5 and -4) confirm this finding and instructions during action are emphasized (statement number 13, 14 and 19). Being listened to and acknowledged (statement number 4) are also emphasized in factor C.

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It is easier for me to focus on what is appropriate when I receive both clear and direct information in small amounts.</td>
<td>+5</td>
</tr>
<tr>
<td>3</td>
<td>To stay focused on what is appropriate, it is important that the communication is clear and precise.</td>
<td>+4</td>
</tr>
<tr>
<td>4</td>
<td>The understanding of my performance develops when I am listened to and acknowledged.</td>
<td>+4</td>
</tr>
<tr>
<td>19</td>
<td>I feel no need to be asked questions that lead to either reflections or common understanding.</td>
<td>-4</td>
</tr>
<tr>
<td>14</td>
<td>I feel no need to be told what to do to perform better.</td>
<td>-4</td>
</tr>
<tr>
<td>13</td>
<td>I feel no need to understand the focused case or being told how things are connected.</td>
<td>-5</td>
</tr>
</tbody>
</table>

Note: Including mixed cases, 6 cases loaded on factor C

Factor D: Instructions and focus
The most distinguished statements loading on factor D (+5 and +4) are emphasizing the importance of stimulating focus through clear and direct information during action (statement number 2, 1 and 21). The most extreme statements on the negative side (-5 and -4) confirm this finding, since instruction during action is emphasized (statement number 26, 18 and 14). In contrast with factor C above, factor D does not emphasize the importance of being listened to and acknowledged. However, factor D emphasizes the importance of common understanding in order to be focused (statement number 18).
Table 7  Distinguished statements loading on factor D.

<table>
<thead>
<tr>
<th>Number</th>
<th>Statement</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>When I am told exactly what to do, it is easier for me to improve my tasks.</td>
<td>+5</td>
</tr>
<tr>
<td>1</td>
<td>It is easier for me to focus on what is appropriate when I receive both clear and direct information in small amounts.</td>
<td>+4</td>
</tr>
<tr>
<td>21</td>
<td>I am focused regardless of being asked open questions that make me reflect in the situation.</td>
<td>+4</td>
</tr>
<tr>
<td>14</td>
<td>I feel no need to be told what to do to perform better.</td>
<td>-4</td>
</tr>
<tr>
<td>18</td>
<td>I keep an appropriate focus regardless of a common understanding exists or not.</td>
<td>-4</td>
</tr>
<tr>
<td>26</td>
<td>If I’m not told exactly what to do, it is difficult for me to perform.</td>
<td>-5</td>
</tr>
</tbody>
</table>

Note: Included mixed cases, 3 cases loaded on factor D

Discussion

The results in this study demonstrate that the coaches share common views about what they believe are effective communication with their athletes during practice. The results show that there is one stronger factor (Stimulating common understanding and focus) amongst the coaches, which 18 out of 23 coaches load on when mixed sorts are included (Table 3, Factor A). There are three other significant factors, B (Reflections and understanding), C and D (Instructions and focus), that 5, 6 and 3 coaches respectively load on, when mixed sorts are included. Interestingly, there seem to be individual mixed views among 7 of the coaches about what they believe is effective communication. Thus, coaches that load on factor A, also load on factor B, C and D. After analyzing factors C and D, the results indicate that both factors accept the idea that clear and direct instructions are preferred during actions, and that the most important thing is to stimulate the athletes’ focus during action. Since factor C and D mainly share the same viewpoints, these factors will be treated as one factor in the discussions below.

The most psychologically significant statements loading on factor A support the fact that the coaches believe that effective communication should stimulate common understanding and focus during practice (No. 5, 3, 1, 29, 17, 30). When analyzing the positive significant statements, the effect from clear and precise instructions in small amounts (No. 5, 3, 1) are the most effective for keeping the athletes to stay focused, stimulating
common understanding and improving their performances. These results may indicate that coaches believe that in order to improve performances during action, communication should be limited, and should strengthen the athletes’ focus and understanding of what action is appropriate. The results indicate that appropriate focus depends on if the information is clarified between the coach and the athlete or not. Thus, if the coach communicates something that hasn’t been communicated before it can stimulate astonishments and wonderings, instead of a strong focus on what is appropriate. If there is no common understanding about what is communicated during action, the athletes’ focus on what is appropriate could be weakened. Therefore, to improve the athletes’ capacity during action, the tasks that are in focus should be well clarified with their coaches, so that there is a sense of clarity and common understanding about what’s being communicated during action. If that happens, the athletes’ focus will be stronger and more appropriate during action. The significant negative statements loading on factor A strengthen this view. Common understanding and the importance of being understood and confirmed are influential on one’s ability to stay focused and perform during action (No. 29, 17, 30). This is the view that the coaches in general believe is most effective during action.

The most psychologically significant statements loading on factor B support the idea that effective communication should stimulate both reflections and understanding during action (No. 10, 32, 31, 28). This viewpoint is in contrast with factor A discussed above, which emphasizes the importance of clear instructions and common understanding. The intention with reflections is to stimulate someone to new discoveries and raised awareness regarding the case that is in focus. Thus, when the intention is to stimulate reflections, the athletes’ focus will expand. On the other hand, the results might indicate that coaches believe that in order to stay focused during action, different viewpoints regarding the case in focus should be taken into consideration. Reflections are necessary in order to achieve a deep understanding of the case in focus. One possible explanation of factor B is that if something is happening during action that is not thought of and communicated earlier, it might have the potential to disturb the athlete during action. This might indicate that the coaches believe that in order to achieve a deep understanding of a case, reflection during action is necessary. By also considering the meaning of factor A, it might indicate that the general and typical thing to do during action is to stimulate common understanding and focus, but that reflec-
tions during action are necessary once in a while, in order to achieve a deep understanding of the case in focus. Interestingly, 3 out of 5 subjects loading on factor B also load on factor A. Factor A and B therefore share some common dimensions, as common understanding might presuppose deep reflections to begin with.

Factors C and D share important similarities with factor A. The psychological significant statements loading on factors C and D are emphasizing that effective communication should stimulate focus through clear and direct information during action (No. 1, 2, 3, 14, 13, 18, 26). Unlike factor A, factors C and D are not emphasizing common understanding. This indicates that coaches believe that in order to improve performance during action, communication must strengthen the athlete’s focus on what is appropriate in the situation, and their intentions in terms of communication must be to control their athletes. A possible explanation might be that in some situations coaches need to be clear and direct in their instructions, regardless of what is communicated is commonly understood or not. Interestingly, 6 out of 9 subjects loading on factors C and D also loads on factor A.

Limitations of the study and conclusion
The scientific study of the communication process is rather complex (Hargie, Dickson & Dennis, 2004). The factor solution in this study is used to interpret coaches intentions in their communication during action and possible effects on their athletes’ understanding, performances and/or focus. However, the data from this study cannot draw conclusions regarding causal predominance between communication and effects. The sample is small, and the design was chosen to investigate subjective beliefs about the addressed problem, and one must be careful with generalizations and conclusions. However, the results of this study indicate that there is some important issues that should be investigated and explored in future research regarding communication in elite sport. Also, the problem addressed in this study should be investigated further among athletes in sport and in different situations in sport, such as in formal coach–athlete conversations and during competitions.

In conclusion, the results demonstrate that coaches believe that their intentions in communication during action should be to stimulate their athletes to be focused. In order to stimulate their athletes to be focused, their communication must be based on information and concepts that both coaches and athletes understand. Thus, communication that effects
common understanding and is based on clear and direct instructions seems to be beneficial to achieve a strong focus during action. However, the results also indicate that coaches must invest both time and opportunities for conversations with their athletes in order to achieve common understanding, so that the information that is communicated is well discussed and clarified between themselves and their athletes. If this is not the case, coaches will be in danger of creating cognitive dissonance among their athletes (Festinger, 1957). Cognitive dissonance is a discomfort caused by holding conflicting ideas or beliefs (cognitions) simultaneously, and this state of mind will be alleviated by the athlete establishing a consistent belief system. This will not be an appropriate focus for an athlete during action. On the other hand, the results also indicate that in order both to achieve a deep understanding and to stay focused during action, coaches need to stimulate reflections during action to a certain degree. Thus, the results indicate that the most common view among the coaches is that the main intention in communication is to stimulate their athletes’ focus during action. However, in order to do this, communication should also stimulate reflections during action when it is needed to achieve a deep understanding of the focused case. These results show that communication in elite sport is a dynamic process where coaches need to consider the situation continuously and decide which communication is appropriate.

References


Appendix: Statements

1. It is easier for me to focus on what is appropriate when I receive both clear and direct information in small amounts.
2. When I am told exactly what to do, it is easier for me to improve my tasks.
3. To stay focused on what is appropriate, it is important that the communication is clear and precise.
4. The understanding of my performance develops when I am listened to and acknowledged.
5. I perform better when I have a clear understanding of what I am told and when others listen to my needs. When I’m understood by others and understand what I am told, my tasks are performed better.
6. In order to keep my focus on what is important, it is essential that I have a clear understanding of the task and that I am included in the decision-making process.
7. When I am asked open-ended questions that stimulate deep, personal reflections, my understanding about the level of my performance develops.
8. Questions that make me explore the focused case make it easier to perform my tasks better.
9. It is easier for me to focus on what is appropriate when I’m asked questions that make me explore my understanding.
10. I am more likely to have a clear understanding of my performance, when the case in focus is explored from different perspectives.
11. It is easier for me to improve my specific tasks if I am given small amounts of information.
12. My understanding about the focused case improves when it is clearly explained to me how the case is connected to my current actions.
13. I feel no need to understand the focused case or being told how things are connected.
14. I feel no need to be told what to do to perform better.
15. My ability to stay focused on what’s appropriate is not influenced by what I am told to do by others.
16. I understand how to develop and improve my performance, regardless if I feel understood or not by others.
17. I feel no need for common understanding to improve the execution of my tasks.
18. I keep an appropriate focus regardless of a common understanding exists or not.
19. I feel no need to be asked questions that lead to either reflections or common understanding.
20. The execution of my tasks are improved regardless of questions that make me reflect in the situation.
21. I am focused regardless of being asked open questions that make me reflect in the situation.
22. My understanding develops regardless of how many perspectives of the case is explored.
23. I am able to perform regardless of the amount of information I have to deal with.
24. My ability to stay focused is not influenced by the amount of information that I have been given.
25. It is difficult for me to develop an understanding of my performance when explanations are both clear and evident.
26. If I’m not told exactly what to do, it is difficult for me to perform.
27. It is easier for me to stay focused on what’s appropriate if I am not instructed what to do.
28. When I am able to voice my opinions and I am included in the decision-making process, it is difficult for me to develop a clear understanding about my performances.
29. When my viewpoints are confirmed and acknowledged, I become in doubt and it is more difficult for me to perform.
30. It is more difficult to keep focused when I am understood and understand what is communicated.
31. The understanding about my performance is reduced when I’m asked open questions that stimulate me to discover new perspectives.
32. When I’m asked questions that stimulate new perspectives and thoughts, it makes it difficult for me to know which idea will allow me to have the strongest performance.
33. It is difficult to stay focused on what’s appropriate when I’m asked difficult questions that challenge my knowledge and understanding of how to perform.
34. If I’m going to stay focused on what’s appropriate, it is important that the case in focus is explored from different perspectives and that the amount of information is good.
35. When I receive large amounts of information it is difficult for me to improve the execution of tasks.
36. It is difficult for me to develop my knowledge about my performance if I’m not encouraged to discover new perspectives.

(Translated from Norwegian to English by the authors.)