Are Winning Coaches More Autonomy-Supportive?

Examining the Context of Varsity Boys’ Soccer

Collin A. Webster, Ph.D.
University of Wollongong

Kevin Hunt, Ph.D.
Georgia College

Marc LaFleche
City School District of Albany, NY

Author Note

Dr. Collin Webster is a senior lecturer in the Department of Physical and Health Education at the University of Wollongong. Dr. Kevin Hunt is an assistant professor in the Department of Kinesiology at Georgia College. Marc LaFleche is a substitute teacher in the City School District of Albany, NY.

The authors of this manuscript wish to acknowledge the LA84 Foundation for funding this study with a grant.

Correspondence regarding this article should be addressed to Dr. Collin Webster, Department of Physical and Health Education, Faculty of Education, University of Wollongong, NSW 2522, Australia.

Email: cwebster@uow.edu.au
Abstract

Recent research suggests autonomy-supportive coaching enhances athletes’ performances in competition. In this study, we tested the hypothesis that varsity boys’ soccer (VBS) coaches with higher career winning percentages provide more autonomy-support than less-winning VBS coaches. We analyzed descriptive-analytic data from systematic observation of three more-winning and three less-winning coaches and interviews with the coaches and their athletes to determine the extent and purposes of the coaches’ verbal autonomy-support. Based on descriptive statistics, we suggest there were minimal differences between more- and less-winning coaches, though during games there was a tendency for less-winning coaches to provide more autonomy-support. Overall, we observed low rates per minute of autonomy support behaviors across coaches. Based on interview findings, we suggest that when coaches used autonomy-support, it was to encourage athletes’ ownership as team members, improvement as players and balance between soccer and life. Other coaching behaviors and/or contextual elements may play a more significant role in VBS won/loss records than verbal autonomy support.

Key Words: self-determination theory; motivational style; systematic observation; coach behavior
Are Winning Coaches More Autonomy-Supportive? Examining the Context of Varsity Boys’ Soccer

Much research on coaching draws on self-determination theory (SDT; Deci & Ryan, 1985) to examine and understand associations between contextual, psychological and outcome variables in sport (Mageau & Vallerand, 2003). Of particular interest has been the role of coach motivational style in athletes’ motivation and myriad measures of success, such as enjoyment, satisfaction and performance. The central tenets of SDT employed in such research derive from a sub-theory of basic psychological needs (Deci & Ryan, 2000), which stresses that an autonomy-supportive motivational style supports individuals’ needs for autonomy, competence and relatedness which in turn enhances self-determined motivation and heightens desired outcomes.

Coaching science has drawn from the educational literature to understand what constitutes an autonomy-supportive motivational style (Mageau & Vallerand, 2003). According to Reeve (2009), autonomy-support encompasses interpersonal behaviors which “identify, nurture, and develop students’ inner motivational resources” (p. 159). Inner motivational resources include those that are inherent, such as the basic needs for autonomy, competence, and relatedness, and those that are internalized such as interests, preferences and values (Reeve, 2006). Within SDT, fostering these resources allows students to exercise their volition and engage in autonomous or self-determined learning (Deci & Ryan, 2000). Reeve (2009) identifies several autonomy-supportive teaching behaviors including providing explanatory rationales, relying on noncontrolling and informational language, displaying patience and allowing time for self-paced learning, and acknowledging and accepting expressions of negative affect. Similarly, Mageau and Vallerand (2003) suggest autonomy-supportive coaching behaviors include providing as much choice as possible within specific limits and rules; providing a rationale for tasks, limits and rules; inquiring about and acknowledging others’ feelings; allowing opportunities to take initiatives and do independent work; providing non-controlling competence feedback; avoiding overt control, guilt-inducing criticisms, controlling statements and tangible rewards; and preventing ego-involvement from taking place.
Studies in coaching have produced results consistent with SDT (Mageau & Vallerand, 2003) and have recently supported an hypothesized model in which Judo athletes’ (aged 14-43) perceptions of coach autonomy-support indirectly influenced their sport performance in a national tournament (Gillet, Vallerand, Amoura, & Baldes, 2010). Autonomy-support was measured using the French adaptation of the Perceived Autonomy Support Scale for Exercise Settings (Gillet, Vallerand, Paty, Gobancé, & Berjot, 2010) which includes items that reflect the aforementioned conceptualizations of the construct (e.g., “I feel that my coach provides me with choices, options, and opportunities about whether to do this sport activity;” “My coach makes sure I understand why I need to do this sport activity;” “I feel I am able to share my experiences of this sport activity with my coach”). The authors found that perceived autonomy support facilitated athletes’ self-determined motivation toward Judo, which enhanced self-determined situational motivation toward the competition. Self-determined situational motivation, in turn, predicted the athletes’ official rankings in the tournament with more self-determined athletes achieving higher rankings. These results seem to suggest that won-loss records in some sporting contexts might be associated with how much autonomy-support coaches provide their athletes.

Despite possible connections between coach autonomy-support and athlete performance in competition, coaching research has not directly addressed the question of whether more-winning coaches (i.e., with better career won-loss records) are more autonomy-supportive than less-winning coaches. In an early study, Claxton (1988) conducted a systematic observation of more- and less-successful (>70% and <50% of games won in a career, respectively) high school head tennis coaches using the Arizona State University Observation Instrument (ASUOI; Lacy & Darst, 1984) and found statistically significant differences between more- and less-successful coaches’ questioning, postinstruction and praise. More-successful coaches asked more questions than less-successful coaches, but less-successful coaches used more postinstruction (i.e., feedback) and praise (i.e., verbal compliments or encouragements). Later systematic observation research using the Coaching Behavior Assessment System (CBAS; Smith, Smoll, & Hunt, 1977) compared more- and less-experienced (with more and less winning records, respectively) high school head basketball coaches and showed no statistically significant between-group differences for
positive reinforcement (Jones, Housner, & Kornspan, 1997). Given that questioning, feedback, praise and
positive reinforcement resemble some of the coach behaviors authors use to conceptualize autonomy-
support (e.g., Mageau & Vallerand, 2003), the results of these two studies seem to suggest there may have
been few differences overall in the amount of autonomy-support the coaches provided. Yet, no studies
have specifically examined more- and less-winning coaches’ autonomy-support behaviors.

The present study focused on the context of United States-based high school varsity boys’ soccer
(VBS). Although an established literature base on soccer coaching already exists (Cushion & Jones, 2001;
Millard, 1996; Miller, 1992; Smith & Cushion, 2006; Wandzilak, Ansorge, & Potter, 1988), little research
has examined high school soccer coaching and no studies have examined the role of autonomy-support in
more and less winning VBS soccer coaches’ coaching. Between 1974 and 2004, growth in the number of
participants in boys’ high school soccer in the United States was ranked third behind football and baseball
(Stevenson, 2007) and there are currently over 383,000 soccer participants (National Federation of State
High School Associations, 2010). In light of the commonly held belief that what coaches do has an
influence on athlete performance (Horn, 2008), identifying characteristics that distinguish winning VBS
coaching should help to ensure athletes in this context attain maximum performance levels.

The game of soccer requires athletes to engage in autonomous decision-making while on the field
with little intervention from the coach. Therefore, it would seem autonomy-supportive coaching is an
important feature of player development in soccer and that more-winning VBS coaches would do a better
job than less-winning VBS coaches at harnessing athletes’ ability to exercise their own volition with
successful outcomes during game play. Based on this rationale and the emerging evidence of a link
between coach autonomy support and athlete performance (Gillet, et al., 2010a), the purpose of this study
was to compare more- and less-winning VBS head coaches’ autonomy-support. We hypothesized that
coaches with relatively high career win percentages (and who have therefore helped their athletes achieve
relatively better performance records) would provide more autonomy-support than coaches with relatively
low career win percentages. The research question underpinning this study’s purpose was, “To what
extent and for what purposes do more- and less-winning coaches support their athletes’ autonomy?”
The term “winning” is used to characterize coaches in this study instead of “effective” or “successful.” While a number of perspectives have been used to understand effective coaching in the literature, the term has often been defined in terms of successful performance outcomes, such as won/loss records, player development and success at the national or international level (Horn, 2008). The authors of this paper recognize the complex and multidimensional nature of the coaching process (Lyle, 2002) and believed narrowing the focus of the present study to coaches who had more and less winning records would help to answer specific questions about the relationship between sport performance and coach autonomy support. This decision in no way reflects an assumption that coach autonomy support is the sole variable accounting for a winning record or that winning should be the only perspective used to define effective coaching.

Method

Participants and Setting

Six VBS soccer head coaches were selected for this study from a Southeastern metropolitan area using purposive sampling. The aim was to recruit coaches with the most sharply contrasting career win percentages possible such that three coaches could be classified as relatively more-winning and three coaches could be classified as relatively less-winning. The final sample included coaches who had won between 14% and 89% of the games they had coached (see Table 1). More-winning coaches had won more than 70% of their games and less-winning coaches had won fewer than 50% of their games, which is consistent with criteria used in the study by Claxton (1988).

Each coach worked at a different school. Student enrollment at the schools ranged from 1200-1900 students. Five of the schools were very similar with regard to ethnic/racial make-up of the students, averaging 53% Caucasian, 39% African-American and 8% other. The average racial make-up of the varsity boys’ soccer teams at these schools included 15 Caucasians, three African-Americans and two Latinos. One school’s racial make-up was very different from the other schools in the sample and included 98% African-Americans, 1% Caucasians and 1% other. This schools’ varsity boys' soccer team
included 12 African-Americans, three Latinos and one Caucasian. The mean age of the athletes on more- and less-winning teams was 16.79 (± .91) and 16.37 (± .97) years, respectively.

With the exception of the team led by the coach with the lowest career winning percentage, the teams used an established school program implementing a feeder system where coaches used a junior varsity program to build and promote the varsity team. Additionally, all of the teams but the lowest performing one used assistant coaches (four on average). While all six teams had at least the basic facilities and equipment needed to run a varsity soccer program, there was some variation in the extent and quality of these facilities and equipment between more- and less-winning teams. The more-winning teams generally had access to newer and more practice and game balls, goals and practice nets, uniforms and training gear, cones and other training equipment, and lined practice fields and training space. Differences in facilities and equipment appeared to relate to school budgets and team budgets used to support the teams. The three more-winning teams were each provided with an average school budget of 1500 dollars and had also accrued an average savings of 30,000 dollars to support the teams’ needs. Additionally, the more-winning teams generated about 7,000-8000 dollars in revenue annually to supplement the teams’ savings accounts. Of the three less-winning teams, only the most winning of the three was provided a school budget (500 dollars) to support the team, although the second- and third-least winning teams generated between 8000 and 12000 dollars in revenue annually. The least winning coach indicated he had no operating budget for his team.

**Procedure and Instrumentation**

Approval to conduct the study was obtained from the researchers’ university review board for research with human subjects and from two local school districts before inviting coaches to participate and collecting data. VBS head coaches in the two districts were identified using school websites and the three coaches with the best career win percentages and the three coaches with the worst career win percentages were emailed an invitation to participate. The two coaches with the worst career win percentages declined to participate and invitations were subsequently sent to the coach with the next worst career win percentage, who accepted the invitation. This procedure resulted in a sample of six
coaches, three with relatively high and three with relatively low career win percentages. Coaches and their athletes provided informed consent/assent to participate in video/audio recorded observations and interviews during the study.

**Observations.** Observations across the 2010 regular season (approximately three months) were scheduled with each coach at the beginning of the study with the aim of observing three practices and one game in the first, second and third months of the season for a total of nine practices and three games per coach (teams typically practiced on all days they did not play games, except on weekends, and played an average of 24 games during the season). The purpose of the observations was to document and describe the extent of and patterns in the coaches’ use of autonomy-support behaviors. Inclement weather and schedule changes throughout the season made it impossible to observe all originally scheduled practices so coaches were observed between six and nine times in that setting with at least one observation representing relatively early (February 15-26), middle (March 9-25) and late (April 6-21) phases of the season.

Observations were video/audio recorded using a digital camcorder and a Bluetooth wireless microphone with transmitter. Coaches wore the microphone using a Velcro armband. The wireless audio signal transmitted clearly from any distance away on the soccer field from the sidelines and picked up both the vocalizations of the coach and others within about a 15-meter radius when speaking at a “normal” volume. While recording, the researchers wore an earphone attached to the transmitter to monitor the audio transmission and address any technical problems as soon as they occurred.

A video observation system was developed to code the coaches’ recorded verbal behaviors. Brewer and Jones’ (2002) guidelines were followed to ensure the instrument was contextually valid and could be reliably used. The procedure involved (a) training ourselves in two previously established systematic observation instruments containing relevant behavior concepts (the ASUOI [Lacy & Darst, 1984] and Cheffers’ Adaptation of the Flanders’ Interaction Analysis System [CAFIAS; Cheffers & Mancini, 1989]), (b) amending these existing instruments to fully incorporate autonomy-support behavior concepts from the published literature in coaching (Mageau & Vallerand, 2003) and teaching {Reeve,
207 2006; Reeve, 2009), (c) establishing the instrument’s face validity by testing the instrument with samples
208 of the videorecorded practices and games, (d) establishing inter-rater reliability, and (e) establishing intra-
209 rater reliability. The final system included six behavior concepts: offers choice; praises/encourages; gives
210 rationale; solicits input; accepts/confirms unsolicited input; and prompts (see Table 2). Event recording
211 was used to code coach behaviors such that each time a behavior was observed it was coded.
212
213 The first and second authors analyzed the observation data. We established both inter-rater and
214 intra-rater reliability three times during the study: before analyzing data and after analyzing about one
215 third and two thirds of the data. In each instance, we compiled a 30-40 minutes of un-coded data from the
216 recorded observations of the coaches’ practices and games and independently coded the coaches’
217 behaviors using the instrument. Inter-rater reliability scores for both aggregated and individual behavior
218 concepts were calculated using the standard formula ([number of agreements/number of agreements +
219 disagreements] X 100) (van der Mars, 1989). Scores ranged from .86 and 100%, which are above the
220 acceptable .85 level of agreement (Siedentop, 1976). To establish intra-rater reliability, each rater recoded
221 the video clip after a two-week interval and compared his first and second ratings of the clip using the
222 same formula indicated above. Scores ranged from .94-.96.

222 Interviews. Relatively little coaching research employing systematic observation methodology
223 has taken advantage of complimentary research techniques, such as interpretive interviews to address
224 queries concerning not only the “how,” but also the “why” of coach behavior (Gilbert & Trudel, 2004;
225 Potrac, Brewer, Jones, Armour, & Hoff, 2000). Without this added perspective, the meaning and context
226 of observable events often remain occluded. Therefore, following the regular season, an interview with
227 each coach and a focus group interview with athletes from each team were scheduled. The purpose of the
228 interviews was to gain additional insight into the coaches’ use of autonomy-support based on participants’
229 beliefs and experiences. The coach interview followed a semi-structured format (Patton, 2002) in which
230 pre-arranged questions and prompts were used as to guide the interview, but the researchers allowed
231 flexibility in focus and pacing. This format encouraged consistent use of the protocol when interviewing
232 each coach while also allowing a conversational flow to the interview, which can help to yield important
information the original questions might miss. Coaches were asked about their career and season goals (e.g., “What are your goals as a coach?”); their leadership and motivational styles (e.g., “How would you describe your motivational style as a coach?”); their priorities, behaviors and rationales concerning the provision of autonomy support to their athletes (“How important is it that your athletes are able to make their own decisions on the field?”); and their beliefs about when it is necessary to exercise more control versus autonomy support with their athletes (e.g., “When is it more important to take control as a coach versus giving your athletes autonomy?”).

The focus group interview included eight athletes from each team and was designed and moderated following established procedures (Kreuger & Casey, 2000). To reduce bias and encourage diverse viewpoints, interview participants were purposively selected to ensure representation of athletes who played different positions and who had different levels of experience on the team. As was done with the coach interviews, the researchers followed a semi-structured format. Interview moderating entailed explicating stating the purpose of the interview, ensuring all participants received an equal opportunity to respond to questions (e.g., instructing more active participants to defer to less active participants in response to questions, directing initial questions to individual participants), encouraging discussion and interaction between participants to probe deeper layers of perspective and meaning, and keeping the interview “on track.” Athletes were asked about their coaches’ leadership and motivational styles (e.g., “What list of words best captures your coach’s leadership style?”), their coaches’ use of each autonomy support behavior as conceptualized in the video observation system (e.g., “How supportive is Coach ____ of your input during practices or games?”), and their experiences and feelings related to the season and being part of the team (e.g., “What is it like being part of this team?”). All interviews for the study were video/audio recorded and transcribed verbatim for analysis.

**Data Analysis**

Frequencies and rates per minute of systematically observed autonomy-support behaviors were calculated for each behavior concept across coaches and the results were examined for trends. The interview transcripts were analyzed using an integrative inductive-deductive approach involving
techniques and procedures based in grounded theory (Côté, Salmela, Baria, & Russell, 1993; Saury & Durand, 1998) and modified analytic induction (Bogdan & Biklen, 1992). Overall, this approach included the identification of textual data, which confirmed/disconfirmed, expanded, or explained the SO data. The process began with one of the researchers (the third author) repeatedly reading each transcript line by line to identify excerpts from the text (usually participant responses consisting of several sentences) which the researcher felt were meaningful in relation to describing/explaining the coaches’ autonomy support. Meaningfulness, in the context of the analysis, encompassed both “top down” (deductive) and “bottom up” (inductive) perspectives of autonomy supportive coaching. The video observation system’s conceptual framework provided the top down perspective, such that the researcher viewed certain excerpts as meaningful because they related in some way to this pre-established framework. However, the researcher also searched for excerpts that represented alternative or expanded conceptions/interpretations of autonomy support not reflected in the video observation system in order to do justice to the full “emic” (i.e., insider) understanding of the coaches’ behaviors and decisions. When extracting excerpts, the researcher was careful to delineate text such that each excerpt represented only a single concept or idea. Additionally, he coded each excerpt to identify which coach the text described. These steps helped to facilitate the next stage in the analysis. In all, 179 excerpts were extracted.

After extracting all meaningful excerpts, the researcher compared the excerpts according to their conceptual basis and organized them into categories (Smith & Cushion, 2006). For instance, excerpts describing/explaining instances in which the coaches’ gave their athletes opportunities for decision-making were grouped together to form a category labeled, “Offers Choice.” Forming categories allowed the researcher to view the excerpts as larger and more inclusive meaning units as well as to identify similarities or differences within and across coaches in terms of each coach’s use of autonomy support. This stage in the analysis yielded six categories reflecting the autonomy support concepts from observation instrument (Offers Choice, Praises/Encourages, Gives Rationale, Solicits Input, Accepts/Confirms Unsolicited Input, and Prompts) and two additional concepts (Transfers Responsibility
and Individualization) based on coach/athlete descriptions of autonomy support that did not fit within the ICAAN framework.

Finally, the researcher examined the data in the categories to identify still broader consistencies and more marked departures between coaches (Smith & Cushion, 2006). This process involved taking a “birds eye view” of the categorized data and searching for strands of meaning spanning within and across the categories. Three overarching concepts were generated from this final stage in the analysis, which we believe represent the major themes in the coaches’ use of autonomy support. We labeled these concepts Ownership, Improvement and Balance. The principal author served as “peer debriefer” during the analysis of the interpretive interviews to ensure credibility and dependability of the findings. He periodically met with the third author during the analysis to monitor, and when necessary, redirect the procedure used to analyze the data as well as to corroborate the veracity of the emergent categories and themes. Corroboration was accomplished by cross checking excerpts with categories and themes to verify the organization and interpretation of the data. This process enabled triangulation of both researchers’ perspectives and increased the overall trustworthiness of the qualitative data analysis (Lincoln & Guba, 1985).

**Results**

**Observations**

The frequencies and rates per minute for each of the six autonomy-support behavior concepts are presented in Table 3 (for practices) and Table 4 (for games). Overall, there were minimal differences between more- and less-winning coaches’ autonomy support in both practices and games. The only trend was a slight tendency for less-winning coaches to deliver more praise, give more rationales, solicit more athlete input and accept/confirm more unsolicited input than more-winning coaches during games.

**Interviews**

Consistent with the video observation findings, participants’ perceptions indicated more- and less-winning coaches were mostly similar in their use of autonomy-support. The three major concepts generated from the interview analysis (Ownership, Improvement and Balance) yielded additional insight
into the ways in which the coaches supported athlete autonomy, illuminated off-the-field contexts where autonomy-supportive coaching manifested and revealed reasons why the coaches supported athlete autonomy. A description of each concept is provided below.

Ownership. Ownership emerged as the most pervasive concept in the analysis of the interview transcripts. Each coach expressed great interest in helping his athletes take ownership of the team. Solicitation of athlete input emerged as a particularly important coach behavior in this regard. While the team captains seemed to have more opportunity to express their feelings, the coaches from both categories showed interest in individual players’ knowledge regardless of their status on the team. For example, a less-winning coach’s athlete revealed that the coach wanted players to offer their insights: “[H]e listens mainly after games, but always asks the captains what we think about the game. And then he’ll ask anybody else who thinks they have anything to say to help fix our problems.” Similarly, an athlete from one of the other less-winning teams said,

As the captain he’s always asking my opinion on pretty much everything. When you assume the title of captain, you’re like a leader on the team. You’re like a medium between the coach and the team. After a game, he always asks me what we should do for practice.

In another example, a more-winning coach indicated he would ask for specific input about what was working well and what needed improvement when his team was having difficulties: “[I’ll say] ‘Give me a lineup. Who plays where?’ And they’ll write it out, and give it to me. I’ll look at it. Sometimes they’ve got great ideas. And I’ll give them credit when I take [their ideas].”

Coaches from both categories also helped the athletes take ownership by offering choices. An athlete of one of the more-winning coaches said, “[H]e always lets us choose what we want to wear for the game, like what uniforms we want to wear. I mean just small things like that for everybody.” An athlete on one of the less-winning teams felt his coach trusted his on-the-field decisions: “[H]e really wants me to go back…but he understands that I know how the flow of the game’s going. I probably have a better idea of when to go back and when not to.” The less-winning coach himself indicated offering players choices is fundamental in the game of soccer because it is a “thinking game:”
The teams that play a game like soccer the best think ahead three or four steps and know what they want to do with the ball before they even get the ball. As a coach you can’t stand on the field that’s a hundred and twenty yards long by seventy yards wide and scream every single solitary decision to be made. So it is immensely important that they are able to make their own decisions. And not just in-game decisions but [when] a bad tackle happens in the corner away from the ball, I need—not necessarily a captain—but somebody to get up and get their rear end over there and help that kid up and calm him down so he’s not jumping up in someone’s face and overreacting. Just decisions in general about how to act on the pitch and how to play the game. I need them to be able to make [decisions] themselves, for sure.

This coach also discussed allowing his team to choose the “punishment structure” for the season, indicating it was “set up by a committee of students. I don’t set it up; it’s set up by a community of players.”

A form of autonomy-support not represented in the video observation system – *transferring responsibility* – emerged as another way for the coaches to help their athletes take ownership, although it seemed that the more winning coaches might have had more success with this strategy than the less winning coaches. For example, while discussing the importance of good communication for team leaders, a more-winning coach said:

[W]e had a senior captain this year [who] did a fantastic job for us. I would tell him to send out a message to the kids, remind them what we’re wearing to school for the game, or what we’re wearing after the game, and what time to be here and there. He started over the past two years [and] would add little messages in there to all the kids reminding them to get focused, and they got better and better as [he] kind of matured into that role.

Another more-winning coach discussed the importance of athletes taking initiative to assess their performance:

I try to always let them talk a little bit because they’re the ones on the field. It’s a player’s sport, so they’ve got to be the ones that initiate some things, [to say] “Hey guys, this is what we were
doing great. This is what we weren’t doing.” Always try to give them a couple minutes to get

together.

But a less-winning coach mentioned two athletes who could not assume leadership roles:

“Unluckily for me, I turned it over to the seniors sometimes, and they just didn’t have it in them. They
didn’t have the maturity to do it.” At times, transfer of responsibility also was used in conjunction with
solicitation of input, as evidenced in a statement from one of the more-winning coaches:

This year I did things with some of the leaders on the team. We had a couple behavior issues with
a couple kids, and I talked to [the leaders]. I said, “What are you guys going to do about this?”
“How are you going to handle this? This is what I’m thinking, but I’m open to other discussions.”
And we tweaked and worked together to get a plan for this one kid and we came up with a
behavior contract that they helped me write, and they met with the kid, I met with him, met his
parents, he signed off on it and it was a amazing. Got a lot better. His inclusion in the team was
better, and I guess the kid realized it’s not just Coach saying this, it’s the players, and they want
to help me fix this, they care.

Improvement. All coaches expressed great interest in player and team improvement. For
instance, one of the athletes on a more-winning team said, “He’ll keep you after practice, let you know
what he’s thinking. Throughout the whole practice he’s always telling you little things to get you better.”
One way coaches tried to help players improve was through individualization, which, like transferring
responsibility, emerged as a new autonomy-support behavior not captured with the video observation
system. For instance, all coaches mentioned holding end-of-season conferences with each athlete to
address performance and improvement. Additionally, the least-winning coach, who worked in a
community that did not seem to value soccer and had many players with little soccer playing experience,
provided another example of individualizing to help his players improve:
Practices at some point turned into one-on-one training, or one-on-three training, whoever
showed up. [I would say,] “Can I help you on this part of your game? What do you want to
learn?” [Or they would say,] “Coach I need help with this,” [to which I would reply], “All right,
here I am.” I told the kids—[as] a servant leader—“I’m here.” “I’m here if one of you shows up, we’re going to play soccer.” I never got eleven. I don’t think I’ve had eleven out there ever.

Another less-winning coach also discussed the importance of individualization for athlete improvement:

I want [the athlete] to know that I’m encouraging him to improve while he’s out there being a part of this team because I want him to improve, whether his role one night is the smallest role or whether his role one night is an eighty minute role. Every day at practice, every interaction I want him to know that I’m focused on him just as much as I’m focused on any other player.

A more-winning coach discussed individualizing through holding post-season conferences:

We’ll sit down with each player and have a conference with him. We generally start with the freshmen and work back towards our seniors. Basically what we do is say, “This is what we did this year. You improved here. You need to work on this.” And it gives them some things to work on in the off-season, gives them a little bit of feedback. “That helped us here. You need to work on this to help us next year.”

Prompting emerged as another way for the coaches to help athletes improve. For example, coaches used this autonomy-support behavior when trying to help athletes make better decisions on the field. A less-winning coach asked his athletes what they might do in various situations:

[The athletes] have to know the adjustments that they need to make. And you hammer that in their head with situational plays and practice. We’ll set up a practice and we’ll say, “All right, there’s five minutes left. You’re down a goal. What are you gonna do?” And we let them play it out, and then after that five minutes we say, “All right, this is what you did. What did you think?” And get their feedback.

Another less-winning coach prompted athletes to share why one decision might be best in a given situation: “[I ask] them, ‘Was that the best decision? Do you know the answer to that question?’ And encourage them to answer the question, not just to say yes. [I’ll ask] ‘Why was it the best decision? Tactically, tell me.’” Likewise, an athlete on a more-winning team said about his coach, “He’ll ask you,
‘Why did I pull you out?’ And he’ll wait for you to answer, and then he’ll be like, ‘All right, yeah, that’s it,’ or he’ll tell you why.

At times the coaches used prompts in conjunction with rationales to help athletes improve their performances. A less-winning coach said:

So when they do get beat, you can follow it up and say, “Why’d you get beat here?” If something happens you can pull the kid aside as they play flows and say, “You just got beat right there. Why? Why did that happen?” “Oh well, I dove in.” “Well, why did you dive in? [Then I tell him] there was no reason to. There was nobody that you had to do high pressure for. You’re not in the midfield, you dove in on the back line, which means if you get beat, you get scored on.

**Balance.** Though this concept was not as dominant as the first two, there was some evidence that all of the coaches strived to balance their treatment of players both as athletes on the field and as individuals off the field. By balancing appreciation of his athletes, the coach respects the players as multi-dimensional people; more than just cogs in the machine. Balance as a goal is captured in a statement one of the more-winning coaches made: “My number one goal is if I can build special relationships with my players that’s going to make it more like a family atmosphere.” A less-winning coach wanted the athletes to behave well on and off the field: “Within the parameters of coaching, as far as young men, I just want them to be respectful…whether it’s out in the community or in school or on the pitch.”

The coaches’ efforts to balance sport and life also were evident in statements the athletes made. An athlete of a more-winning coach said the following:

I was just in a bad, negative mood for like a month. I’m gonna be honest, I just wasn’t excited about playing, I guess. For a while there, [my coach] tried to just kind of let me figure it out, until eventually he talked to me one-on-one about it and it was a completely different side of him. It’s completely different than you’ll ever see him on the field, because it’s sympathetic in a way that you don’t see, because he was concerned about me as a person first. And that kind of surprised me. Well it didn’t surprise me, because I knew he always was, but you never see that side of him. It helped me.
Solicitation of input was identified in the analysis as an autonomy-support behavior the coaches would sometimes use to support the goal of balance. For example, an athlete on a more-winning team said:

[When something] becomes a consistent problem, or if it ever is something off the field, he approaches it in a different way. It’s not that straightforward, direct, “This is what you did wrong, fix it this way,” coaching. It’s almost like “Tell me what you think you’re doing wrong, let me figure out what you need to fix so we can get your problem fixed.”

Discussion

This study aimed to determine the extent and purposes of more- and less-winning coaches’ autonomy-support of soccer players. Based on research indicating autonomy-supportive coaching is positively related to athlete performance in competition (Gillet, et al., 2010a), and recognizing that successful soccer performance hinges on athletes’ ability to make autonomous decisions during game play, we hypothesized that VBS head coaches with relatively high career win percentages would provide more autonomy-support than VBS head coaches with relatively low career win percentages. However, our results lead us to suggest that overall, there was little difference between groups. Additionally, contrary to our hypothesis, the less-winning coaches tended to provide more autonomy-support in games than more winning coaches. These findings seem to support previous studies comparing more- and less-winning coaches on similar behavior concepts (questioning, praise, feedback and positive reinforcement (Claxton, 1988; Jones, et al., 1997). Furthermore, based on the interview findings, we suggest that both groups of coaches used autonomy-support in relation to the same three major goals of helping athletes take ownership as members of the team, improve as soccer players, and growing/succeeding on both sides of the balance between sport and life.

The different number of assistant coaches on each team might be one reason why few differences were observed in the coaches’ use of autonomy-support in this study. The more-winning coaches had more assistant coaches than the less-winning coaches and autonomy-supportive communication might have been “distributed” across coaches on more winning teams. The coach with the highest career win
percentage had seven assistant coaches, three of whom held an A License (the highest coaching license for high school soccer coaches in the United States). The total amount of the head coach’s communication and, subsequently autonomy-support, would likely be diminished in a case like this. Additionally, in a previous study using the Coaching Behavior Assessment System (CBAS; Smith, Smoll, & Hunt, 1977), assistant college basketball coaches were found to use more nurturing behaviors (e.g., reinforcement and encouragement) than head coaches, who focused more on high expectancy athletes and mistakes (Solomon, Striegel, Eliot, Heon, Maas, & Wadya, 1996). Future research should assess autonomy-support of both head and assistant coaches to determine how autonomy-support is distributed between coaches and disseminated to athletes.

Another reason for the lack of between-group differences might be that certain qualitative aspects of autonomy-support could play a bigger role in player performance than the quantity of autonomy-support. The interview findings lead us to believe that although both groups of coaches attempted to transfer responsibility to their athletes, the more winning coaches might have had greater success in this endeavor than the less successful coaches. The way coaches construct autonomy-support should be considered in future research comparing more and less winning coaches. Differences between groups might be more clearly delineated by examining the confluence of different autonomy-support behaviors (e.g., praising an athlete and then explaining why the athlete’s action was commendable), the timing of coaches’ autonomy-support (e.g., providing more autonomy-support when athletes’ signal the need for it), the blend of autonomy-support with other types of coaching behaviors (e.g., having athletes demonstrate a play for the team and praising their performance), and the amount of structure surrounding coaches’ use of autonomy-support (e.g., offering choice within well established parameters, such as team rules, practice objectives and planned game strategies) (Reeve, 2006; Reeve, et al., 2004). Moreover, future studies should examine the accuracy of coaches’ autonomy-supportive instruction. Although this study was not designed to compare the more- and less-winning coaches in regard to this aspect, we noticed that the least-winning coach gave inaccurate information to his athletes on several occasions when providing rationales. This could lead athletes to make erroneous decisions during game play and not perform well.
There was a tendency for less-winning coaches to provide more autonomy-support in games than more-winning coaches for rationales, soliciting input, and accepting/confirming unsolicited input. Differences in player experience, team history, team budget and player attendance at practice might help to explain why less-winning coaches gave more rationales. Athletes on the less-winning teams tended to have less playing experience and the coaches may have therefore given more rationales to help players interpret game situations and make appropriate decisions. In contrast, the more-winning coaches might have given fewer rationales because their athletes already knew why certain decisions were more appropriate than others.

Team history and team budget were likely interrelated variables, which also could have influenced coaches’ use of rationales. Teams with bigger budgets had more opportunities to engage in team building outside of the regular season. For instance, the three more-winning coaches all indicated they took their players to numerous pre-season events, such as warm-up tournaments, social functions and retreats. These events might have helped the more-winning coaches to bond with players and get the players to “buy in” to their programs, such that the need to rationalize coach decision-making during games would be reduced. The least winning coach, who used the most rationales during games, had no operating budget and therefore likely had the least opportunity for building shared understanding and solidarity with players in the off-season. The use of a feeder program might also have been a factor in establishing team history. The least-winning coach was the only coach who did not have a junior varsity program at his school. Without such a program, it seems logical he would have had to explain team expectations, rules, strategies, and so forth during games more than coaches whose players would have been enculturated and socialized into the varsity program through earlier participation on the junior varsity team.

Another unique feature of the least winning team was the relatively low player attendance at videotaped practices, which might have been another reason the coach used more rationales during games. The coach might have felt he needed to take the opportunity to teach his players about soccer (e.g., provide explanations and justify what to do/not to do) during games since he did not have the same
access to his players as the other coaches did during practices. It is not clear why the players on the least
winning team were frequently absent from practice. One reason could be related to socio-economic status.
Players on the least-winning team attended a school where 98 percent of the student body received free or
reduced lunch. Other teams in this study played for schools whose students were comparatively more
affluent on average. If the players on the least winning team mirrored their school’s socio-economic
profile, it might have been difficult for them to make it to practice if they had competing priorities in their
lives, such as work, or if they lacked their own transportation to get home.

Differences in soliciting input and accepting/confirming unsolicited input may be related to
coaching experience. Less-winning coaches also were less experienced and may have solicited input more
because they less often knew what to do than the more-winning coaches. Moreover, less-winning coaches
may have accepted/confirmed unsolicited input more because they were less confident in their coaching
decisions than more-winning coaches and were more inclined to adopt athletes’ suggestions. Our finding
that less-winning coaches praised/encouraged at higher rates per minute than more-winning coaches
resonates with Claxton’s (1988) investigation of high school boys’ tennis coaches. Because they worked
with relatively inexperienced players, the less-winning VBS coaches might have held lower standards for
player performance than the more-winning coaches and therefore praised/encouraged players more
frequently.

While we cannot compare our results to other studies since this was the first study to document
the extent of coaches’ autonomy-support, it would seem the rates per minute of autonomy-support for the
doctors in our sample were quite low (other than for praise/encouragement). This finding is surprising
because player autonomy is essential to successful performance in soccer games, which would seem to
make coach autonomy-support an important feature of soccer coaches’ behavior. As the coaches
discussed in their interviews, soccer is a “players sport” where athletes frequently assume an autonomous
role with respect to on-the-field decision-making. Perhaps since the players were varsity athletes, they
were able in many cases to exercise their own volition with relative success and not need constant
intervention from their coaches. In such a case, autonomy-support might be more appropriately conceptualized as the extent to which coaches are silent during practices and/or games.

There is some indication from previous research that autonomy-supportive coaching may be more common at lower competition levels. In a systematic observation study of 128 coaches working with athletes aged 11-15 in Finland, Liukkonen, Laakso and Telama (1996) found that coaches’ use of responsive behavior (e.g., accepting suggestions, listening, discussion) decreased as the level of competition rose. Coaches’ verbal autonomy-support may be more prevalent at lower competition levels where athletes need more guidance in learning to take initiative and assume control of their development and performance. Interestingly, Liukkonen et al. (1996) also found that individual sports coaches used more responsive behavior than team sports coaches. Perhaps this is because in team sports, athlete autonomy must be balanced with inter-player unity and dependability. Thus, it appears sport context may, to a certain extent, dictate how much verbal autonomy-support coaches provide their athletes and, possibly, how much is needed for maximizing player/team performance.

As with all research, this study had several limitations. The small sample size does not allow for generalization to all VBS coaches, although it enabled us to make initial comparisons, draw out themes in the data and dig deeper into each team’s context than would otherwise be feasible with larger samples. This study did not examine autonomy-support in relation to other coaching behaviors that may play important roles in VBS athletes’ performances. Prediction studies with large samples using autonomy-support and other coaching behaviors as predictor variables, and athlete performance or season win percentage as the outcome variable, would help to determine the relative importance of autonomy-support in VBS with respect to a winning record. Additionally, as previously mentioned, qualitative aspects of autonomy-supportive VBS coaching need to be measured. Finally, future studies also might assess coaches’ use of controlling behaviors which might better differentiate more- and less-winning VBS coaches than autonomy-supportive behaviors. Within SDT, autonomy-support and control are positioned at opposite ends along a continuum of motivational style (Deci & Ryan, 1985). However, given only small to moderate negative correlations between psychometric measures of autonomy-support and
control, Bartholomew, Ntoumanis and Thøgersen (2010) suggest autonomy-support and control might actually not be exact opposites. Coaches might not differ in autonomy-support, but simultaneously differ in control. Therefore, it will be important for future research to examine coaches’ use of control, identify how they balance control with autonomy support and more clearly determine relationships between coaches’ motivational styles and athletes’ performances.

In conclusion, this was the first study to compare more- and less-winning VBS coaches’ autonomy-support of players. Based on the findings, the possibility exists that verbal autonomy-support is not a distinguishing characteristic of more-winning VBS coaches. More- and less-winning coaches valued and used such autonomy-support both on and off the field, although the video observation data lead us to suggest these behaviors were minimally employed during practices and games. The utility of autonomy-support in enhancing athlete/team performance might be better suited to some sport contexts more than others. In the case of VBS, extraneous variables (e.g., player experience, team budget) and coaching behaviors other than verbal autonomy-support during in-season practices and games may prove more valuable when the intended outcome is team performance in competition.


Potrac, P, Brewer, C., Jones, R., Armour, K., & Hoff, J. (2000). Toward an holistic understanding of the
coaching process. *Quest, 52*, 186-189.


Table 1  

Coaches’ Experience, Career Success Records, and Season Success Records

<table>
<thead>
<tr>
<th>VBS* Exper.</th>
<th>Career Wins</th>
<th>Career Losses</th>
<th>Career Win %</th>
<th>Season Wins</th>
<th>Season Losses</th>
<th>Season Win %</th>
</tr>
</thead>
<tbody>
<tr>
<td>More-Successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach 1</td>
<td>30</td>
<td>590</td>
<td>70</td>
<td>89</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>Coach 2</td>
<td>20</td>
<td>334</td>
<td>139</td>
<td>71</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>Coach 3</td>
<td>14</td>
<td>275</td>
<td>112</td>
<td>71</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Less-Successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach 4</td>
<td>1</td>
<td>12</td>
<td>13</td>
<td>48</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Coach 5</td>
<td>3</td>
<td>28</td>
<td>33</td>
<td>46</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Coach 6</td>
<td>3</td>
<td>5</td>
<td>31</td>
<td>14</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

*Note: VBS Exper.=Varsity Boys’ Soccer Coaching Experience
**Table 2: Video Observation System Behavior Concepts, Definitions and Examples**

<table>
<thead>
<tr>
<th>Behavior Concept</th>
<th>Definition and Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Offers Choice</td>
<td>Gives athletes the opportunity to choose (e.g., “One of you move up” or “You can keep the ball or pass it”).</td>
</tr>
<tr>
<td>2 Praises/Encourages</td>
<td>Expresses satisfaction with something a player or the team did (e.g., a single utterance, such as “Great job!” or a string of utterances, such as “Come on! Keep it going! “Keep it up!”).</td>
</tr>
<tr>
<td>3 Gives Rationale</td>
<td>Explains why something is important (e.g., “This rule helps to ensure everyone’s safety”).</td>
</tr>
<tr>
<td>4 Solicits Input</td>
<td>Requesting information from a player or the team that the coach doesn’t already have, other than information concerning choice (e.g., soliciting perspectives, suggestions, aspirations, knowledge, feelings or inquiries).</td>
</tr>
<tr>
<td>5 Accepts/Confirms</td>
<td>Accepts or confirms athletes’ input that the coach did not solicit (e.g., saying “Good idea” to an athlete’s suggestion when the suggestion is framed as a statement or answering in the affirmative to an athlete’s suggestion framed as a question, such as “I’ll be starting again tonight, right?”).</td>
</tr>
<tr>
<td>Unsolicited Input</td>
<td></td>
</tr>
<tr>
<td>6 Prompts</td>
<td>Asks questions or offers hints to help athlete(s) arrive at a best answer/response (e.g., the coach asks one or more questions that require the athlete(s) to discover an answer or offers a hint to help the athlete(s) arrive at an answer).</td>
</tr>
</tbody>
</table>
Table 3

Frequencies and Rates Per Minute for Autonomy-Support during Practices

<table>
<thead>
<tr>
<th></th>
<th>Total Practice Mins.</th>
<th>OC F/RPM</th>
<th>PE F/RPM</th>
<th>GR F/RPM</th>
<th>SI F/RPM</th>
<th>AI F/RPM</th>
<th>P F/RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>More-Successful</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach 1</td>
<td>572</td>
<td>14/.02</td>
<td>403/.70</td>
<td>94/.16</td>
<td>107/.19</td>
<td>22/.04</td>
<td>40/.07</td>
</tr>
<tr>
<td>Coach 3</td>
<td>570</td>
<td>8/.01</td>
<td>304/.53</td>
<td>158/.28</td>
<td>100/.18</td>
<td>32/.06</td>
<td>18/.03</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1846</td>
<td>54/.03</td>
<td>1134/.61</td>
<td>367/.20</td>
<td>357/.19</td>
<td>137/.07</td>
<td>105/.06</td>
</tr>
<tr>
<td><strong>Less-Successful</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach 6</td>
<td>484</td>
<td>12/.02</td>
<td>372/.77</td>
<td>131/.27</td>
<td>64/.13</td>
<td>9/.02</td>
<td>17/.04</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1527</td>
<td>41/.03</td>
<td>1075/.70</td>
<td>370/.24</td>
<td>649/.43</td>
<td>59/.04</td>
<td>139/.09</td>
</tr>
</tbody>
</table>

Note: F=Frequency; RPM=Rate Per Minute; OC=Offers Choice; PE=Praise/Encouragement; GR=Gives Rationale; SI=Solicits Input; AI=Accepts/Confirms Unsolicited Input; P=Prompts
Table 4

Frequencies and Rates Per Minute for Autonomy-Support during Games

<table>
<thead>
<tr>
<th></th>
<th>Total Game Mins.</th>
<th>OC F/RPM</th>
<th>PE F/RPM</th>
<th>GR F/RPM</th>
<th>SI F/RPM</th>
<th>AI F/RPM</th>
<th>P F/RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>More-Successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach 1</td>
<td>361</td>
<td>16/.04</td>
<td>164/.45</td>
<td>124/.34</td>
<td>49/.14</td>
<td>33/.09</td>
<td>9/.02</td>
</tr>
<tr>
<td>Coach 3</td>
<td>264</td>
<td>5/.02</td>
<td>94/.36</td>
<td>16/.06</td>
<td>24/.09</td>
<td>48/.18</td>
<td>4/.02</td>
</tr>
<tr>
<td>Total</td>
<td>1014</td>
<td>27/.03</td>
<td>364/.36</td>
<td>206/.20</td>
<td>91/.09</td>
<td>110/.11</td>
<td>17/.02</td>
</tr>
<tr>
<td>Less-Successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coach 4</td>
<td>294</td>
<td>7/.02</td>
<td>105/.36</td>
<td>82/.28</td>
<td>69/.23</td>
<td>53/.18</td>
<td>9/.03</td>
</tr>
<tr>
<td>Coach 5</td>
<td>325</td>
<td>3/.01</td>
<td>181/.56</td>
<td>66/.20</td>
<td>31/.10</td>
<td>41/.13</td>
<td>6/.02</td>
</tr>
<tr>
<td>Coach 6</td>
<td>293</td>
<td>5/.02</td>
<td>239/.82</td>
<td>76/.26</td>
<td>38/.13</td>
<td>62/.21</td>
<td>9/.03</td>
</tr>
</tbody>
</table>

Note: F=Frequency; RPM=Rate Per Minute; OC=Offers Choice; PE=Praise/Encouragement; GR=Gives Rationale; SI=Solicits Input; AI=Accepts/Confirms Unsolicited Input; P=Prompts