

2015 National Coaching Conference
Location: West Virginia University - Morgantown, W.V.
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by: Mark D. Mann, Ph.D.
Texas Woman's University, Kinesiology Department



Competence, Autonomy, and Cohesiveness- Preparing Athletes to be Self Motivated Leaders

To create self-motivated athletes, coaches must cultivate the characteristics of competence, autonomy, and cohesiveness. These aims are best achieved using the insights offered by the Teaching Games for Understanding (TGfU) approach to coaching. The deployment of TGfU from the elite level down to the recreational level will be successful if coaches have a clear plan to implement TGfU techniques and methodologies. Strategies such as employing a large percentage of time to small sided games where decision making and tactically challenging situations are prevalent is critical for success. Follow up with the use of questioning techniques are also important to help the athlete feel a sense of competence on the court in his or her sport. From the basis of tactical competence, the athlete will have greater opportunity for autonomy on the court or in the field of play. Coaches, nevertheless, must have training in rethinking the benefits that athlete autonomy can bring to their own coaching practice. Another aspect of cultivating self-motivated athletes involves the role of data collection that the coach can gather as part of their coaching practice. We intend to highlight the use of web-based technologies to facilitate and make easier the process of coach data collection. Coaches will be shown demonstrations of how easy it is to collect real time data on TGfU theory based games and game-like drills. The apps developed and presented in the lecture are able to run offline or online in a web browser on a laptop computer, tablet, or smartphone.

For a coach, I believe that the most important action research question is that of player motivation. Using the theory of self-determination as a foundation for understanding healthy motivation, and the motivational status of our athletes, we are able to pose important questions about where along the continuum of motivation (from least self determined to highly self determined) our athletes may be at any given time of the season. The intent of the presentation to be given at the National Coaching Conference is to demonstrate that technology can help the coach in the area of determining and improving player motivation. A website called: <http://www.wellnessoft.org/> has been created for the conference to demonstrate the technology used

to increase the motivational level of the athlete. A score called the Relative Autonomy Index (RAI) is a weighted score that is used to give the researcher/coach an overall summary of his or her athletes motivational level at any given point in time. The Sport Motivation Scale II (SMS-II) is a questionnaire that is a valid and reliable instrument that has been successfully deployed in the area of team sports to measure the Sport Motivation of Athletes at all levels of competition. The questions on the scale fall within the categories of Intrinsic Motivation, Extrinsic Motivation, and Amotivation. As previously mentioned, the RAI is a carefully crafted formula that summarizes scores on the SMS-II to determine the overall and specific levels of motivation for each athlete.

The literature on the subject of Sport Motivation discusses that the environment that the coach creates can play a significant role in the contextual motivation of the athlete. The coach that creates an environment where there is: 1) a sense of autonomy, 2) a sense of increased competence, and 3) a sense of cohesiveness is most likely to see improvement in SMS Scores for his or her athletes. In our research based presentation, will are exploring how coaching style and technique can help to create an environment for the athlete characterized by autonomy, competence, and connectedness.

Autonomy

The Coach that asks meaningful questions to their athletes and enriches critical thinking and decision making capacities among their athletes will be cultivating player autonomy. Autonomy is visible when players are making their own quality tactical and technical decisions on the court/field of play, or off the court as well. The autonomous athlete feels like their voice is heard. An app called TeamWall will be posted on the Wellnessoft Website, and will be demonstrated at the National Coaching Conference.

Competence

The coach who wants to emphasize team competence will be able to create drills, with input from their athletes, that are characterized by "lots of touches" and "game like" conditions. Instead of just going through the motions of "drills," athletes will gain confidence because they are playing in game like conditions and are becoming more familiar with the myriad of options

and situations that can occur in games in their sport. For a demonstration of the App that highlights coach organization and radiates confidence, go to BigTodo at <http://www.wellnessoft.org/bigtodo/> . BigTodo is designed to demonstrate coach organizational skills, as well as demonstrate the kinds of information that can help the team to feel that the coach is including them in key team decisions both on and off the field. Note: In a real world setting, BigTodo can be password protected for the sake of team privacy.

Cohesiveness

With regard to performance feedback using live sport data collection, the app that we have built for the purpose of assisting with team cohesiveness is called PasStat. When one thinks of PasStat, one should think about the concept of Specialized Player Focus. The process of Tracking a Statistic that isn't as readily kept in volleyball- First ball contact- Volleyball Passing Statistics- the level of team cohesiveness is likely to increase. The reason: keeping such a stat elevates the importance of first ball "ball control" for the team. PasStat keeps track of up to 6 passers at a time. Updates Individual and Team Averages in real time. Exports to CSV. PasStat increases team COHESIVENESS by highlighting appreciation for the ball control specialists on the team. What Stat Could you track to help your team be more cohesive?PasStat has been successfully used in the sport of volleyball. Because most sport statistics record "on/with the ball" activities, in order to motivate athletes away/off the ball, recording statistics which keep track of the "unsung heroes" or "unheralded skills " of a sport, can be highly motivational for those individuals, and for the team as a whole.

The idea that came to me from my own research questions to document and classify data from my interest in the value of "ball control" in the serve receive game in volleyball (a typically unheralded statistic), gave birth to the program that I called PasStat. The history of the program is one of a slow, methodical, and steady growth from an offline standalone spreadsheet (with about 25 sheets) to an online web application with helpful features, and lots of room for growth. PasStat began as a server side web app that used SQL to store and query form data on a remote server, and return results to the end user (coach). As such, PasStat has been an official "APP" at the Firefox Marketplace since Mid-2014. However, it became evident since PasStat's deployment that a different kind of approach was needed. In a nutshell, there were too many coaches out there who did not have a reliable internet connection from their gymnasiums to be

able to use PasStat with confidence. Thus, my own technology research led me to the idea of building PasStat as an offline app. What this required was for all data to be stored on the local Computer, Phone, or Tablet, and not require online connectivity to work. For me (for all of us) the timing was excellent. HTML5 Local Storage and the datascript programming interface were coming of age. This made the creation of Offline Web Apps a real possibility for “novice” programmers, and educators like myself. That is not to say that there is not a learning curve to all of this, but, this presentation is designed to help bridge that gap. PasStat is also online at: <http://www.wellnessoft.org/pass15/index.html> . PasStat works on or offline, and saves all data on local storage so that the data is persistent from one viewing to the next, and the user can close the web browser and reopen it and find that the data from previous sessions is still there.

Cost of Web Applications:

For the online components of PasStat, I made it a goal to use free or nearly free components on the development side, and also, try to maintain a low point of entry in terms of cost for end users. For these reasons, I have developed the PasStat App as a web app that can be used on many lower cost smart phones, the Google Chromebook, and for the FirefoxOS and the Firefox Browser. FirefoxOS, for example, has a strong commitment to developing low cost smart phones with a target price of \$25 to \$50 per unit.

Why Use Technology in Coaching: A Practical Case: Winning.

Beyond the noble goal of increasing motivation, improving the organization and creativity of practices, technology embedded in tools such as PasStat, BigTodo, and TeamWall, also serve a practical function. In my opinion, technology that can be used to help a coach look at questions that are on the cutting edge of tactical and technical decision making helps the coach know how much time and energy he or she should dedicate to particular phases of the game. Live data collection using PasStat gave me several real time advantages in terms of observing and reacting to first ball tactical trends (by our team, or the opponent) in the game of volleyball. Knowing who the other team was serving to in certain rotations, and being able to know specifically how "our" team was performing in each situation, was a key to helping our team to gain an edge on the first ball in competitions, and thus, have a better chance to win.

Summary

In summary, web based app technology such as PasStat, BigTodo, and the TeamWall can help coaches help their players be more highly motivated in practice and in games. Whether it is by highlighting unrecognized contributions (PasStat), making known the intent to involve players in real team decision making (BigTodo), or creating a place where voices can be heard (TeamWall), this presentation aims to motivate coaches into thinking about ways to improve their own athletes motivation towards the games that they play, and the people with whom, and for whom, they play. Please feel free to visit <http://www.wellnessoft.org/> and try the apps for yourself.

Hello Mark Mann,

Acceptance Letter

We are pleased to inform you that the following proposal has been accepted for the 2015 National Coaching Conference <<http://www.shapeamerica.org/events/coachingconf/>> in Morgantown, WV. Please be sure to notify your co-authors of this acceptance.

Reference Number: 176

Title: Competence, Autonomy, and Cohesiveness- Preparing Athletes to be Self Motivated Leaders

Format: 45 Minute Lecture

Due to limited time slots, this session type and/or length may differ from what was requested on the original submission. Please note the length of time allocated and make any necessary adjustments to the presentation. The specific date, time, and location of your session will be posted to the NCC website by no later than Friday, March 13, 2015. New for 2015, we are excited to announce that Fit Information Technologies (FIT) will be publishing an extended electronic conference preceding. Lead authors will be sent details on submitting their articles for publication.