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Exploratory and Confirmatory Factor Analysis of Self-efficacy among Student-Athletes

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Abstract The study developed an instrument that measures four factors of self-efficacy among student-athletes which were based on Bandura's sources of self-efficacy theory. The four factors are: Performance accomplishments, modeling, verbal persuasion, and emotional arousal. The survey questionnaire was validated and distributed to 157 student athletes (*N*= 157). Out of 157 respondents, 87 were males and 70 were females whose ages range from 16 to 21 years old. The respondents were all from one private tertiary institution in Metro Manila. The instrument was tested using Exploratory Factory Analysis (EFA) and the reliability of items, Cronbach's Alpha was also established with an index of .88 that shows good reliability. Out of 66 items, 31 remained significant and stable in the four factors of self-efficacy with a consistency value Cronbach's Alpha of .82. Given the results for the acceptable items in EFA, it was tested using a Confirmatory Factor Analysis (CFA). The goodness of fit based on the RMS standardized residual (RMS=0.070) showed less error having a value closer to .01. The Noncentrality fit indices values shows good fit for self-efficacy with four factor (Steiger-Lind RMSEA = 0.60, Population Gamma Index= 0.910, Adjusted Population Gamma Index= 0.896).

Keywords: *Self-efficacy, student-athletes*

Introduction

Student-athletes in a university face different challenges not experienced by the ordinary college students. Aside from doing their assignments, projects, attending their classes and other extra-curricular activities in and out of school as well as socialization, student-athletes need time to practice well and become more competitive in their sport. These challenges develop efficacious characteristics to help them handle demands in their environment. Self-efficacy is a belief of one's ability and capacity to accomplish or deal with challenges in life. This is the reason why the researcher decided to construct a test in self-efficacy among student-athletes and evaluate the sources of self-efficacy in sports.

Self-efficacy is a very important aspect in dealing with different challenges in life. This would be a good instrument for counselors who handle student-athletes. The results of the test would also help the counselors help the student-athletes succeed in college and in their respective sports. In addition, it can be a basis for developing programs and modules for the student-athletes.

Bandura (1986, 1977) formulated a clear and useful conceptual model of self-efficacy that brought together the concepts of confidence and expectations. The theory of

self-efficacy is the most extensively used theory investigating self-confidence as a sport and motor performance settings (Weinberg & Gould, 1999, 1995). Bandura's (2001, 1997, 1977) self-efficacy theory developed within the social cognitive framework theory where individuals are viewed as proactive agents in the regulation of their cognition, motivation, actions, and emotions rather than as passive reactors to their environment (Feltz, Short, & Sullivan, 2008). In order for self- efficacy to develop, the individual must believe in control and perform intentionally. The power and will to start a course of action is the key feature of personal activity. If a person believes in control and the power to produce specific results, he will be motivated to try to make things happen (Cox, 2002). Bandura (1995) also described self-efficacy as *"the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations."* In other words, self-efficacy is a person's belief in his or her ability to succeed in a particular situation. Bandura (1994) described these beliefs as determinants of how people think, behave, and feel.

In the study of Chu and Tingson (2009) self- efficacy plays an important role in the success and the performance of an athlete. Self-efficacy is commonly viewed as a situation specific variation of self-confidence and has repeatedly been found to be positively related to sporting performance (Moritz, Feltz, Fahrbach, & Mack, 2000). Magno and Lajom (2008) reported that individuals have a sense of self-confidence regarding performance of specific tasks or self-efficacy for learning. Self-efficacy can be influenced by factors such as student abilities, prior experiences and attitude towards learning, as well as by instructional and social factors (Bandura, 1986, 1977; Chu 2011; Cintura, Okol, & Ong, 2001; Jinks & Morgan; 1999; Narciss 2004; Schunk & Cox, 1986).

Self-efficacy influences behaviors including behavioral choice, performance, efforts despite setbacks or recent failures, strategy choice, goal choice, and goal commitment. Research has shown that self-efficacy is a significant predictor of athletic performance; athletes with high level of self-efficacy were found to perform better than those athletes who demonstrated lower levels of self-efficacy prior to competition. These findings were explained by the fact that athletes high in self-efficacy found the competitive situations less threatening and displayed less anxiety than their opponents who were lower in self-efficacy. (Mills, Munroe, & Hall 2000-2001).

According to Vargas-Tonsing, Warners, and Felts (2003) many researches supported Bandura's theory that individual perceptions of self-efficacy can impact a subsequent outcome or performance which is influenced by its four sources: performance accomplishments, vicarious experience (modeling), verbal persuasion and emotional arousal (Bandura, 1977).

Ayiku's (2005) study described student-athletes who have a very different college experience from their non-athlete counterparts (Watt & Moore III, 1993). In addition to attending classes, doing homework, socializing with peers and faculty members, student-athletes must also practice and learn game playbooks while training and performing in their respective athletic endeavors. Athletes may face many challenges to succeed as intercollegiate athletes and as students at institutions of higher learning (Carodine, Almond, & Gratto, 2001; Etzel, Ferrante, & Pinkney, 1996; Ferrante & Etzel, 1991; Howard-Hamilton & Sina, 2001). Athletic or sports self- efficacy refers to the athlete's belief that he or she will be able to proficiently acquire skills of their position(s) necessary to successfully perform at the peak of their athletic performance. It is also concerned with an athlete's belief in his or her ability to achieve personal and team goals which may include everything

from making good snap decisions, to successfully performing learned skills under pressure. (Ayiku, 2005)

The present study further analyzed the factors of self-efficacy among student-athletes using the Exploratory Factor Analysis, after getting the result and most significant and acceptable factors, it was extracted in the Confirmatory Factory Analysis.

Performance Accomplishments

Performance accomplishments (particularly clear success or failure) provide the most dependable basis for self-efficacy judgments because they are based on one's mastery experiences. If experiences are generally successful, they will raise the level of self-efficacy. However, repeated failures will result in expectations of lower efficacy. For example, if a field goal kicker has kicked the winning field goal in several games as time was running out, he will have a high degree of self-efficacy that he can do it again. Similarly, an athlete rehabilitating from a wrist injury will persist in exercise after seeing steady improvement in her range of motion and wrist strength. Research into diving and gymnastics shows that performance accomplishments increase self-efficacy, which in turn increases subsequent adherence (McAuley, 1985) as well as exercise adherence (McAuley, 1993, 1992;). (Weinberg & Gould 1995, 1999 p. 294).

Bandura (1997, 1986, 1982) said that athletes must experience success in order for self-efficacy to develop. With difficult tasks, this is an unrealistic expectation, so the coach or teacher must ensure success by initially reducing the difficulty of task. The teacher must find a way for beginners to find success, or they will come to believe that they cannot succeed, and quit trying. The difficulty of the task can be increased as the simpler tasks are mastered (Cox, 2002 pp. 19-20).

Modeling

Physical educators, exercise leaders, athletic trainers, and coaches all often use vicarious experiences also known as demonstration or modeling, to help students learn new skills. This can be a particularly important source of self-efficacy information for performers lacking experience with the task at hand, relying on others to judge their own capabilities. For example, seeing a team member complete a difficult move on the uneven parallel bars can reduce anxiety and help convince other gymnasts that they too can accomplish this move. Bandura (1974, 1965) and McCullagh, Weiss, & Ross (1989), modeling can be best understood through a four-stage process: attention, retention, motor reproduction, and motivation. In order to learn through watching, careful attention must first be given to the model. Our ability to attend depends on respect for the person observed, interest in the capability, and how well can see and hear. The best teachers and coaches do not overload you with information, expect you to focus your attention on all the specific elements of the skill, or show the skill only one quick time. Rather they focus on a few key points, demonstrate several times, and let you know exactly what to look for (Weinberg & Gould, 1999, 1995 pp. 294-295).

Bandura (1997, 1986, 1982) said that in learning new skills the learner needs a template or model to copy. The instructor, a skilled teammate, or a film or video of a skilled performer can provide this. The component of Bandura's theory is the concept of participatory modeling. In participatory modeling, the learner first observes a model

perform a task. Then the model or instructor assists the subject in successfully performing the tasks (Cox, 2002 pp. 19-20).

Verbal Persuasion

Coaches, teachers, and peers often use persuasive techniques to influence behavior. An example would be a baseball coach telling a player, "I know you're a good hitter, so just hang in there and take your swings. The base hits will eventually come." Similarly, an exercise leader might tell an exercise participants to "hang in there and don't get discouraged, even if you have to miss a couple of days." This type of encouragement is important to participants and can be helpful in improving self-efficacy. When a psychological barrier is present, coaches and instructors sometimes even resort to deception to persuade performers that they can perform certain skills (Weinberg & Gould, 1999, 1995 p. 296).

Bandura (1997, 1986, 1982) found that helpful verbal statements which suggest that the athlete is competent and can succeed are most desirable. Negative comments should always be avoided. Coaching tips can be given in such a way that they do not convey negativism (Cox, 2002 pp. 19-20).

Emotional Arousal

Although physiological cues are important components of emotions, emotional experiences are not simply the products of physiological arousal. Thus, emotions or moods can be an additional source of information about self-efficacy. For example: an injured athlete who is feeling depressed and anxious about his rehabilitation would probably have lowered feelings of self-efficacy. Conversely, an athlete who feels energized and positive would probably have enhanced feelings of self-efficacy (Weinberg & Gould, 1999, 1995 p. 298).

Bandura (1997, 1986, 1982) argued that proper attention is important in helping the athlete to master a particular skill and develop a feeling of efficacy (Cox, 2002 pp.19-20).

The present study constructed a measure of self-efficacy among student-athletes patterned from Bandura's four sources of self-efficacy; performance accomplishment, modeling, verbal persuasion and emotional arousal (Weinberg & Gould, 1995 pp. 294-298). It was tested using exploratory factor analysis (EFA) to get the most significant and acceptable items and further tested through confirmatory factor analysis (CFA).

Method

Item Writing

Items for the Self-Efficacy Inventory (SEI) were constructed based on the sources of Bandura's principal sources of self-efficacy (Weinberg & Gould 1999). The items were classified according to performance accomplishments, modeling, verbal persuasion, and emotional arousal. The scaling technique used was a four-point verbal frequency scale. Each interval in the scale is coded with numerical value where (4= strongly agree; 3= agree; 2= disagree and 1= strongly disagree). There were 100 items judged by experts as to

whether it was accepted, needs revisions, or rejected. Out of 100 items a total of 66 items remained and used in the study. The items were arranged by its category and the respondents answered by encircling the number corresponding to their answer.

Participants

A total of 157 student-athletes from one private tertiary institution in Metro Manila participated in the study representing by various courses and different year level. Out of 157, or 87% were male and 70 or *45%* were female whose ages ranged from 16-21 years old with a mean age range of *18*.

The participants were also a combination of rookie, junior, and senior players of various sports such as football, badminton, volleyball, track and field, tennis, softball, fencing, basketball, table tennis, taekwondo, swimming, baseball, judo and chess. *19.10%* are engaged in football, 12 or *7.64%* in badminton, 14 or 8.91% in volleyball, 1 or *0.63%* in track and field, 2 or *1.27%* in tennis, 9 or *5.73%* in softball, 10 or *6.36 %* in fencing, 18 or *11.46 %* in basketball, 10 or *6.36%* in table tennis, 10 or *6.36%* in taekwondo, 10 or *6.36%* in swimming, 3 or *1.91%* in baseball, 20 or *12.73%* in judo and 8 or *5.09%* in chess.

Procedure

A written permission to conduct a survey on self-efficacy among student-athletes was sought from the director of tertiary level for student athletes covered in this study. It was given to the director with a brief description of the study by the researcher. Notice of permission was given by the director to the different coaches to administer the said test.

Data Analysis

The survey questionnaire tool for Self-efficacy was constructed and validated first using the Exploratory Factor Analysis (EFA). This procedure was meant to further explore the factors on self-efficacy among student-athletes. The reliability of items in Self-Efficacy Inventory (SEI) was determined using Cronbach's Alpha with an index of .88 which shows good reliability. After the EFA, factor structure was tested using the Confirmatory Factor Analysis (CFA). The CFA approach used was Structural Equations Modeling (SEM) with a maximum likelihood of the variance. Goodness of fit indices was used to test the model for both non-centrality interval estimation and single sample goodness fit indices.

The univariate statistics such as mean, standard deviation, skewness and kurtosis were reported to determine the variability of the measures.

Results

Exploratory Factor Analysis

Exploratory Factor Analysis was first used to explore the factor structure of self-efficacy. The Principal Component Analysis procedure extracted four factors (the highest eigenvalues were 11.16 and lowest eigenvalues were 2.94). Using the varimax raw rotation, out of 66 items, 31 were significant, considered acceptable items, and highly loaded in factor marked loading of .50. The total mean score of all 157 respondents along with the

31 items was *M*= 226.74, *SD*= 16.38, skewness= -0.14. The distribution is said to be left skewed, the tail is longer and it has a few low values and kurtosis= 0.039. The consistency of the self-efficacy using Cronbach's alpha was high (.88) which explains the reliability of the items. As a result, a total of 31 items remained and the factors are labeled as: emotional arousal, verbal persuasion, modeling, and performance accomplishments which were based on Bandura's sources of self-efficacy (Weinberg & Gould, 1995).

Table 1
Accepted Items with their Factor Loadings

Item Number	Factor 1	Factor 2	Factor 3	Factor 4
54	0.552			
49	0.563			
52	0.631			
53	0.671			
50	0.679			
51	0.698			
48	0.752			
37		0.607		
39		0.720		
40		0.734		
34		0.753		
35		0.754		
36		0.761		
38		0.776		
33		0.780		
28			0.500	
30			0.511	
32			0.518	
25			0.531	
21			0.533	
23			0.551	
22			0.574	
46			0.568	
17			0.579	
18			0.619	
31			0.634	
20			0.646	
64				0.556
43				0.561
9				0.569
62				0.580

Factor 1: Emotional Arousal. Out of 19 items, seven items were retained and identified as acceptable items; 10 items were removed, while 2 items loaded to the other proposed factors. The factor loading range for this factor from 0.552 to 0.752.

Factor 2: Verbal Persuasion. Out of 15 items, 8 items were retained and identified as acceptable items; 5 items were removed whereas 2 items loaded to the other proposed factors. The factor loading range from 0.607 to 0.780.

Factor 3: Modeling. Out of 16 items, there were 12 items were retained and identified as an acceptable items and 1 item came from the other proposed factors item. The factor loading range from 0.556 to 0.580.

Factor 4: Performance Accomplishment. There were 4 items identified as acceptable items, the factor loading range from 0.556 to 0. 580. Out of the 16 items for this factor, only 1 item identified was acceptable and the 3 items came from the other proposed factors item.

Table 1 shows the accepted items with their factor loadings. The factor means obtained using the sample (n=157) are shown in Table 2. The confidence interval of the means was estimated to determine its accuracy.

Table 2
Means and Standard Deviation for the Factors of Self-Efficacy among student-athletes (N=157)

	N	M	Confidence -95%	Confidence +95%	SD	Skewness	Kurtosis
Emotional Arousal	157	22.86	22.35	23.38	3.25	-0.47	0.66
Verbal Persuasion	157	28.84	28.39	29.28	2.82	-1.07	1.93
Modeling	157	42.197	41.52	42.88	4.33	-0.63	-0.26
Performance Accomplishment	157	11.62	11.22	12.02	2.54	-0.59	-0.12

The Cronbach's Alpha values of the four factors were .84, .78, .84 and .65 and the overall consistency of the 31 items was .819.

The correlation matrix using Pearson's *r* showed that the factors of self-efficacy have a significant relationship over $p<.05$. Emotional arousal, verbal persuasion, and modeling are significantly correlated to each other however; performance accomplishment did not correlate to any of the three factors.

Table 3
Correlation Matrix of Self-Efficacy among Student-Athletes

Factors	(1)	(2)	(3)	(4)
(1) Emotional Arousal	---			
(2) Verbal Persuasion	0.17**	---		
(3) Modeling	0.26**	0.48**	---	
(4) Performance Accomplishment	-0.09	-0.01	-0.05	---

**p <.05

Confirmatory Factor Analysis

Given the results for the acceptable items in EFA for the four factors of the self-efficacy among student-athletes, it was tested using a confirmatory factor analysis. The goodness of fit based on the RMS standardized residual (RMS=0.070) shows less error having a value closer to .01. The Noncentrality fit indices values shows good fit for self-efficacy four factor (Steiger-Lind RMSEA Index= 0.60, Population Gamma Index= 0.910, Adjusted Population Gamma Index= 0.896).

Discussion

In the study, four factors of self-efficacy namely: performance accomplishments, modeling, verbal persuasion and emotional arousal were tested among student athletes. The constructed and validated items were first extracted in Exploratory Factor Analysis (EFA) to determine the significant and acceptable items per factors. The EFA factor loading shows high eigenvalues and the number of items was maximized for each factor using the varimax rotation. The total of 31 items retained in EFA were tested using Confirmatory Factor Analysis (CFA). Emotional arousal falls to factor 1, verbal persuasion for factor 2, modeling for factor 3 and performance accomplishment for factor 4. Upon testing the intercorrelations, on the four factors extracted for self-efficacy, three factors showed strong relationships, emotional arousal, verbal persuasion and modeling. However, the performance accomplishment had no significant relationship with the other three factors. This may be in relation with their game exposures wherein some athletes play locally, some internationally, some already engaged in both local and international games and some are not yet engaged in the game though they are already part of the team. Results can be supported by the respondents' profile in relation to their game exposures and experiences. Since the participants of the study were composed of a combination of rookies, and junior and senior players, their mastery experiences may serve as strong evidence as to why it has no significant relationship with the other three factors. Performance accomplishment is part of one's mastery which postulates that if experiences are generally successful, they will raise the level of self-efficacy. However, repeated failures

will result in expectations of lower efficacy (Weinberg & Gould, 1999, 1995 p. 294). In other words, performance accomplishment is in relation with the previous accomplishment of an athlete that needs to be enhanced. Performing a task successfully for athletes may strengthen their sense of self-efficacy. However, failing to effectively deal with those tasks or challenges in their game can undermine and weaken self-efficacy. They should be reminded of personal mastery experiences whether it was successful or not to reinforce the past accomplishment to be able to have a powerful effect on self-efficacy.

Thus, correlated factors such as emotional arousal, verbal persuasion and modeling were identified as significant for student-athletes. Emotional arousal can strengthen self-efficacy by eliciting a situation that could be considered threatening, or that otherwise requires a response from the individual. This may provoke them to respond more strongly than if they did not feel that the situation required a response and can promote self-efficacy and self-esteem if the situation is handled correctly (Bandura, 1994). Athletes' moods, emotional and physical states or reactions, their level of stress or pressure can all influence how they feel about their ability in performing their task. If an athlete feels extremely nervous about his skills and capabilities of what is expected of him, his game may develop a low level of self-efficacy. It is important to note that the emotional arousal of an athlete may make or break a game. However, Bandura also note, "it is not the sheer intensity of emotional and physical reactions that is important but rather how they are perceived and interpreted" (1994, p. 117). By learning how to minimize stress or pressure and lift up mood when facing difficult or challenging tasks, people can improve their sense of self-efficacy.

Verbal persuasion, when coupled with action on the part of the person with low self-esteem or worth, can be a powerful tool in raising self-efficacy (Bandura, 2003, 1977). It is important to note however, that it is more difficult for students to retain self-efficacy bolstered by social persuasion and somewhat easy to cause individuals to doubt themselves and their ability (Bandura, 1994). Verbal persuasion pertains to positive and negative feedbacks that athletes encounter. Getting verbal encouragement from others specifically from their coaches, teammates, family or significant others may help the athletes overcome self-doubt. This may result to them focusing on giving their best effort in their games. This could also influence the athletes to increase their belief that they have the skills and capabilities to succeed in their sport.

Lastly, Ayiku (2005) argued that modeling allows an individual to learn and develop self-efficacy through living an experience vicariously through another (Bandura, 1994). It allows the person to imagine or visualize him or herself in someone's situation. Observing helps a person to like him or herself achieving their goals and be successful in their field. It can also bolster an individual's perspective in accomplishing the same task. Modeling can help others learn essential life lessons and may help those developing self-efficacy in acquiring coping skills to help them complete tasks in the future (Bandura, 1994). One of the important sources of self-efficacy in modeling is when an athlete witnesses other co-athletes successfully completing or performing in a game. According to Bandura, "seeing people similar to oneself succeed by sustained effort raises observers' beliefs that they too possess the capabilities master comparable activities to succeed" (1994, p. 124).

Implications of the Study

The implications of assessing student-athletes self-efficacy are essential in terms of the four sources used in the study such as performance accomplishments, modeling, verbal persuasion and emotional arousal. It is important to know that these sources play a major role on how student-athletes perceive and how they perform in response to situations, tasks or challenges in their respective sports. Increasing self-efficacy builds positive perceptions of self, which builds an overall self-confidence and creating positive outlook on what is expected of them in performing their sports.

Findings suggest that emotional arousal, verbal persuasion, and modeling have a significant relationship that clearly demonstrates the overall significance of the essence of increased self-efficacy, though performance accomplishment did not correlate with the other three sources. It is important to note for the people who work with the student-athletes in the university such as coaches, managers, sports psychologist and university counselors that athletes should always be reminded of personal mastery experiences whether it was successful or not to reinforce the past accomplishment to be able to have a powerful effect on self-efficacy. Likewise, helping the student-athletes succeed in college and in their respective sports. Results can be a basis in developing programs and modules for the student-athletes.

Recommendations

It is recommended for future studies to administer the instrument to a larger sample size. Since the study focused only in one private tertiary institution with a combination of rookies, junior and senior players, further study may give more emphasis either for rookie, junior or senior players alone to see its norm and determine its validity in terms of years of engagement in the sports they are into. Further study can also get respondents from the different universities with different sports. With this method, items per factors may increase or may be identified and used as a basis in developing self-efficacy instrument for student-athletes. Whether performance accomplishment did not really correlate or has no significant relationships with the other three factors in the study may also be investigated.

References

Ayiku, T. Q. (2005). The relationships among college self-efficacy, academic self-efficacy and athletic self-efficacy for African American male football players. Unpublished masters thesis, Graduate School of the University of Maryland, College Park.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior 4* (pp. 71-81). San Diego, Academic Press.

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist, 44,* (9), 1175-1184.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37,* 122-147.

Cherry, K. (n.d.) *What is Self-Efficacy?* [on-line site] Retrieved from http://psychology.about.com/od/theoriesofpersonality/a/self_efficacy htm.

Chu R. D., & Tingzon C.J. (2009). The relationship of coaching competency on the athlete's self-efficacy and hope. *The International Journal of Research and Review, 1*, 84-121.

Cox, R. (2002). *Sport psychology: Concepts and applications* (5th ed.). McGraw-Hill Companies, Inc.

Jones, M. V., Mace, R. D., Bray, S. R., MacRae, A. W., & Stockbrida, C. (2002). The impact of motivational imagery on the emotional state and self-efficacy levels of novice climbers. *Journal of Sport Behavior, 21,* 57-73.

Judge, T. A., Jackson, C. L., Shaw, J. C, Scott, B. A., & Rich, B. L. (2007). Self-efficacy and work-related performance: The integral role of individual differences. *Journal of Applied Psychology, 92*(1), 107–127.

Magno, C., & Lajom, J. (2008). Self-regulation, self-efficacy, metacognition, and achievement goals in high school and college adolescents. *Philippine Journal of Psychology, 41,* 1-23.

Mills, K. D., Munroe, K. J., & Hall, C. R. (2000-2001). The relationship between imagery and self-efficacy in competitive athletes. *Imagination, Cognition and Personality, 20* (1), 33-39.

Nicholls, A. R., Polman, R. C. J., Levy, A. R., & Borkoles, E (2010). The mediating role of coping: A cross-sectional analysis of the relationship between coping self-efficacy and coping effectiveness among athletes. *International Journal of Stress Management, 17*(3), 181–192.

Smith, S. A., Kass, S. J., Rotunda, R. J., & Schneider, S. K. (2006). If at first you don't succeed: Effects of failure on general and task-specific self-efficacy and performance. *North American Journal of Psychology*, *8*(1), 171-182.

Vargas-Tonsing, T.M., Warners, A.L., & Feltz, D.L. (2003). The predictability of coaching efficacy on team efficacy and player efficacy in volleyball. *Journal of Sport Behavior*, 24, 396-407.

Weinberg R. S., & Gould, D. (1999). *Foundations of Sport and Exercise Psychology* (2nd ed.). Champaign, IL: Human Kinetics.

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