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## **EFFECT OF ATTENTIONAL-FOCUS OF FEEDBACK AND GOAL SETTING ON LEARNING OF BASKETBALL SET SHOT**

### **INTRODUCTION**

A motivational tool that coaches believe improves performance of athletes is performance feedback (Smith, 1993). A number of studies have shown the effectiveness of motor skill learning can be enhanced considerably if the learner is given at least some control over the practice conditions (Wulf, 2007). One consensus in the motor behavior literature is that some amount of KR is necessary for the learning of a new motor response (Schmidt & Lee, 1999; Rosenbaum, 1991). The case recently investigated about the augmented feedback is the role of kind of feedback attention (Wulf et al., 2002). In a number of studies conducted in the past few years, the effectiveness of instructions in motor skill learning has been found to depend largely on the focus of attention they induce (Wulf et al., 2000, 2007 a). The benefits of adopting an external focus are not only seen relative to internal focus conditions, but also in comparison to control conditions without specific focus instructions (Wulf et al., 2003, 2009; Landers et al., 2005; Marchant et al., 2006). Some researchers believed that providing KR during the acquisition of a skill (external feedback) had more influence than the subject's inherent information itself, (McNevin et al., 1994; Wulf, 2010). This suggests that an external focus enhances performance and learning, presumably because individuals are inclined to adopt an internal focus even when they are not explicitly instructed to do so. But how this information will attract the persons' attention to the optimum use of information and appropriate feedback depends on the type of its emphasis on self- movement (the internal) or the result of motion (the external) (Schmidt & Wrisberg, 2000).

Frequency of the external and internal feedback are another matter that is felt a need to be done. The majority of KR studies have primarily focused on the relative frequency with which KR is given to the learner, but some studies showed the high frequency of feedback provides better results (Kohl and Guadagnoli, 1996).

Another factor affecting the performance and learning athletic skills, is goal setting. Goal setting alone has been used as a motivational approach to enhance performance in industrial/organizational settings and has also been shown to be an effective motivator for improving performance in the sport setting. Goal setting is necessary to maintain or strengthen or increase motivation and evaluating research findings about goal setting, has been shown its positive effects on enhancing athletic performance skills such as basketball, tennis, bowling and ..... (Schmidt & Lee, 1999; Wrisberg & Schmidt, 2004; Shu-Hwa, 2004), but some studies have shown that different conditions of goal settings give different effects on the performance of athletic and motor skills (Frail & Rodgers, 1997; Lane & Streeter, 2003; Eleston & K. Gennis, 2004; Correa and Periera , 2006).

Sport theorists and researchers have suggested combining KR with goal setting to enhance athletic performance and skills of various sports such as tennis, bowling, basketball, sit up, grip strength and other physical activities (Trittenwein, 1998; Fischman & Oxendine, 1993; Smith, 1993; Ugrinowitsch & Dantas, 2002; Shu-Hwa, 2004) and Schmidt has considered goal setting and feedback integration are much important in learning skills in sports, and emphasizing that combining of these two states can be contributed to the coaches and physical education teachers to promote more reveal the level of athletic skills.

In order to complete the previous findings we decided to examine the influence of combined types (internal or external) and feedback frequency (50% or 100%), with goal setting (coach setting and self- setting) on learning of basketball set shot in university male basketball beginners to find whether combining of these two techniques would be effective on improving beginners performance of sports skills or which method can be used in students education and Which amount of influence of the practices is better in sport skills.

## **METHODS**

120 male students (age 18-30 years), with no knowledge of basketball shooting and not aware of the specific purpose of the study were assigned randomly to one of eight experimental groups (n=15) based on their pre-test scores of 10 shooting. The task involved was the throwing ball toward basket from penalty line in basketball. The goal of the movement was to score the results of throwing under eight conditions. During ten consecutive sessions of practice, all participants received the same initial instructions regarding the basket and wrist, but no feedback during the acquisition, retention and transfer test. After a day of rest, retention test; after a week a transfer test consisting of 10 trials with 10 seconds rest between each trial under eight conditions: 1) %50 Internal feedback with coach setting, 2) %100 Internal feedback with coach

setting, 3) %50 External feedback with coach setting, 4) %100 External feedback with coach setting, 5) %50 Internal feedback with self- setting 6) %100 Internal feedback with self- setting, 7) %50 External feedback with self-setting, 8) %100 External feedback with self- setting.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 16. The criterion for significance was set using an alpha level of  $p \leq 0.05$ . Data was analyzed by variance of  $2 \times 2 \times 2$  combined design. To compare the pre-test, acquisition, retention and transfer of variance with repeated measurements, Bonferroni test was used in case of significant differences between groups.

**Table 1.** *Effect of Attentional-focus of Feedback and Goal Setting on acquisition test*

Sources	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	429.21*	8	53.65	27.38	.000	.66
Intercept	3618.29	1	3618.29	1846.99	.000	.94
Pre-test	4.68	1	4.68	2.39	.12	.02
Frequency	.008	1	.008	.004	.95	.000
Feedback	320.32	1	320.32	163.51	.000	.59
Goal setting	66.31	1	66.31	33.84	.000	.23
Frequency * Feedback	13.33	1	13.33	6.8	.01	.05
Frequency * Goal setting	.03	1	.03	.01	.90	.000
Feedback * Goal setting	11.57	1	11.57	5.91	.01	.05
Frequency * Feedback* Goal setting	1.41	1	1.41	.72	.39*	.00
Error	217.45	111	1.95			
Total	16060	120				
Corrected Total	646.66	119				

a. R Squared= .66 (Adjusted R Squared= .63)

As shown in table 1,  $p=.39 \leq p=.05$ , so there is not significant difference among type of feedback, frequency of feedback and goal setting in all experimental groups during the acquisition test.

As shown in table 3,  $p=.76 \geq p=.05$ , so there is not a significant difference among type of feedback, frequency of feedback and goal setting in all experimental groups during the retention test.

**Table 2.** Effect of Attentional-focus of Feedback and Goal Setting on retention test

Sources	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	392.37	8	49.04	31.59	.00	.69
Intercept	2945.95	1	2945.95	1897.96	.00	.94
Pre-test	6.91	1	6.91	4.45	.03	.03
Frequency	.63	1	.63	.4	.52	.00
Feedback	.256.71	1	256.71	165.39	.00	.59
Goal setting	97.03	1	97.03	62.51	.00	.36
Frequency * Feedback	.00	1	.00	.00	1	.00
Frequency * Goal setting	.6	1	.60	1	.53	.00
Feedback * Goal setting	22.65	1	22.65	.38	.00	.11
Frequency * Feedback* Goal setting	.14	1	.14	14.59	.76*	.00
Error	172.29	111	1.55	.09		
Total	13378	120				
Corrected Total	564.66	119				

a. R Squared= .69 (Adjusted R Squared= .67)

**Table 3.** Effect of Attentional-focus of feedback and Goal Setting on Transfer Test

Sources	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	375.80*	8	46.97	59.48	.00	.81
Intercept	2245.09	1	2245.09	2842.92	.00	.96
Pre-test	.475	1	.475	.60	.44	.00
Frequency	1.132	1	1.13	1.43	.234	.01
Feedback	248.86	1	248.86	315.13	.00	.74
Goal setting	86.83	1	86.83	109.96	.00	.49
Frequency * Feedback	4.80	1	4.8	6.07	.01	.05
Frequency * Goal setting	1.32	1	1.32	1.67	.19	.01
Feedback * Goal setting	13.69	1	13.69	17.34	.00	.13
Frequency * Feedback* Goal setting	6.88	1	6.88	8.72	.004	.07
Error	87.65	111	.79			
Total	9686	120	46.97			
Corrected Total	463.46	119	2245.09			

a. R Squared= .81 (Adjusted R Squared= .79)

As shown in table 3,  $p=.004 \leq p \leq .05$ , so there is a significant difference among type of feedback, frequency of feedback and goal setting in all experimental groups during the transfer test.

*Table 4. Between group Differences in Transfer Test by Bonferroni*

Groups	Groups	Means differences	Std. Error	Sig.	%95 Confidence Interval	
					Lower Bound	Upper Bound
2	1	-.86	.32	.24	-1.99	.17
3		-4.46*	.32	.00	-5.50	-3.43
4		-3.60	.32	.00	-4.63	-2.56
5		.04	.32	1	-.63	1.43
6		.86	.32	.24	-.17	1.9
7		-1.8*	.32	.00	-2.38	-.76
8		-1.46*	.32	.00	-2.5	-.43
2		1	.86	.32	.24	-.17
3	-3.60*		.32	.00	-4.63	-2.56
4	-2.73*		.32	.00	-3.77	-1.69
5	1.26*		.32	.00	.23	2.3
6	1.73*		.32	.00	.69	2.77
7	-.93		.32	.13	-1.97	.1
8	-.60		.32	1	-1.63	.43
3	1		4.46*	.32	.00	3.43
2		3.60*	.32	.00	2.56	4.63
4		.86*	.32	.24	-.17	1.9
5		4.86*	.32	.00	3.83	5.9
6		5.33*	.32	.00	4.29	6.37
7		2.66*	.32	.00	1.63	3.7
8		3.00*	.32	.00	1.96	4.03
4		1	3.60*	.32	.00	2.56
2	2.73*		.32	.00	1.69	3.77
3	-.86		.32	.24	-1.9	.17
5	4*		.32	.00	2.96	5.03
6	4.46*		.32	.00	3.43	5.5
7	1.8*		.32	.00	.76	2.83
8	2.13*		.32	.00	1.09	3.17
5	1		-.4	.32	1.00	43/1-
2		-1.26*	.32	.00	0/2-	-.23
3		-4.86*	.32	.00	90/5-	-3.83
4		-4*	.32	.00	03/5-	-2.96
6		.46	.32	1.00	57/0-	1.5
7		-2.2*	.32	1.00	23/3-	-1.16
8		-1.86*	.32	.00	90/2-	-.83

6	1	.86	.32	.24	-1.9	.17
2		-1.73*	.32	.00	-2.77	-.69
3		-5.33*	.32	.00	-6.37	-4.29
4		-4.46*	.32	.00	-5.5	-3.43
5		-.46	.32	.00	-1.5	.57
7		-2.66*	.32	1.00	-3.7	-1.63
8		-2.33*	.32	.00	-3.37	-1.29
7	1	1.8	.32	.00	.76	2.83
2		.93	.32	.13	-.10	1.97
3		-2.66*	.32	.00	-3.70	-1.63
4		-1.80*	.32	.00	-2.83	-.76
5		2.20*	.32	.00	1.16	3.23
6		2.66*	.32	.00	1.63	3.70
8		.33	.32	1.00	-.70	1.37
8	1	1.46*	.32	.00	.43	2.5
2		.6	.32	1.00	-.43	1.63
3		-3*	.32	.00	-4.03	-1.96
4		-2.13*	.32	.00	-3.17	-1.09
5		1.86*	.32	.00	.83	2.90
6		2.33*	.32	.00	1.29	3.37
7		-.33	.32	1.00	-1.37	.70

## RESULTS

The analysis revealed no significant difference among type of feedback, frequency of feedback and goal setting in all experimental groups during the aquisition ( $p=.39 \leq p=.05$ ), and retention test ( $p=.76 \geq p=.05$ ) (table 1 & 2). The analysis revealed significant difference among type of feedback, frequency of feedback and goal setting in all experimental groups during the transfer test, ( $p=.004 \leq p=.05$ ) (table 3). Table 4 presents the mean differences and standard deviations for all of the variables measured in the present study. The Transfer mean scores on each 8 experimental groups are shown in Table 4 by Bonferroni test. Some important results were revealed in this research as below:

- 1) There is a significant difference among %50 External feedback with coach setting than %50 Internal feedback with coach and self-setting, %50 External feedback with self-setting and %100 External and Internal feedback with self-setting in transfer test.
- 2) There is a significant difference among %100 External feedback with coach setting than %50 and %100 Internal feedback with coach and self- setting and %50 and %100 External feedback with self- setting.
- 3) There is a significant difference among %100 Internal feedback with coach setting than %50 and %100 Internal feedback with self- setting in transfer test.

- 4) There is a significant difference among %100 External feedback with self-setting than %50 Internal feedback with coach setting, %50 and %100 Internal feedback with self- setting in transfer test.

## DISCUSSION

The purpose of this investigation was to determine the effect of attentional-focus of feedback and goal setting on learning of basketball set shot. For that purpose, we selected feedback statements in eight experimental groups, the basketball free shot to compare the effects of frequency of internal- focus feedback that refer to the performer's body movements and external-focus feedback that refer to the basket combined with two different goal setting (coach and self-setting). The most important result of this investigation was, both the %50 and 100% KR frequency of external focus with coach setting had a significant difference in transfer test. More recent information processing perspectives counter the suggestion that 100% KR frequency will maximize learning effects. In fact, recent views suggest that to some extent, when a high KR frequency is provided to the learner, some KR statements serve to guide the upcoming responses. This view has been referred to as the „*guidance hypothesis*” (Salmoni et al., 1984; Schmidt, 1991). The guidance hypothesis implies that when participants receive a high KR frequency during acquisition, they fail to use additional memory processes, or seek additional information sources, that further contribute to memory development. In contrast, when participants are provided a lower KR frequency, this lower frequency encourages the engagement of additional memory processes during the no-KR trials. These additional memory processes, in turn, promote memory development. On the contrary, results from this research examining the influence of continuous concurrent feedback have not supported the guidance hypothesis, and it against the hypothesis if a high KR frequency is provided to the learner, motor learning is attenuated (Schmidt, 1991; Schmidt & Lee, 1999). This is especially true with participants who have had some experience with the criterion response, or under conditions in which the to-be-learned response is very simple (Guadagnoli et al., 1996) or with more complex tasks (Guadagnoli et al., 1996). For example, Lai and Shea (1999) compared a 100% KR frequency group to groups equated in their reduced frequency of KR, but differing in their KR schedules. The results showed that the reduced frequency groups did not differ from each other, but on the contrary, Wulf and at al. (2007) found subjects who received half the KR show greater stability in the results in the retention phase after learning.

On the other hand, when concentrating on the movements themselves, performers appear to actively intervene in the control processes, resulting in degraded performance and learning. The advantages of focusing on the outcome of one's movements might not only be important with respect to the instructions provided but

might also have implications for the feedback given to the learner. The predominant explanation for the attentional focus effects centers on the idea that an internal focus induces conscious control and constrains the motor system, whereas an external focus promotes automaticity in movement control „*constrained action hypothesis*” (Wulf et al., 2001). Support for this notion has been provided in previous studies (McNevin et al., 2003; G. Wulf et al. 2001). This assumption implies that an external focus leads to a more advanced stage of learning sooner – in which performance is not only more effective, but in which movement efficiency is enhanced as well (Wulf, 2007b). It is also interesting to note that although the emphasis is not on actual technique, players „do not need direct references to their body movements in order to acquire the correct technique” (Wulf et al., 2002). Prinz’s „*action effect hypothesis*” (1997) suggests that for actions to be effective, movements need to be planned in terms of their intended outcome and the attention focused on the intended outcome of the performance of a skill will be more effective than attention focused on one’s own movements. The results of this study supported those two hypothesis that an external focus was more effective than an internal focus in learning of basketball shooting. This finding appears to be parallel to several studies exploring the benefits of an external focus, including, the basketball free throw (Al-Abood et al., 2002), the standing soccer shot and volleyball serve (Wulf et al., 2002), the golf pitch shot (Wulf et al., 2002), putting (Poolton et al., 2006).

Another factor affecting in this research was the combination of goals and KR. As some studies show both can affect self-regulation of effort and persistence by informing the individual as to the discrepancy between the goal and the performance indicated by the feedback (Earley et al., 1991). Feedback can directly affect the choice of specific behaviors. This evaluative information is not present in goal setting without feedback. Therefore, both outcome and process feedback may add value in confirming present strategies. Goals affect performance by directing attention, mobilizing effort, increasing persistence, and motivating strategy development. Goal setting is most likely to improve task performance when the goals are specific and sufficiently challenging, the subjects have sufficient ability, feedback is provided to show progress in relation to the goal, the experimenter is supportive, and assigned goals are accepted by the individual (Lock, 1990).

There was improvement in learning of basketball shooting in all groups, but so much in External with coach settings were shown. As it was no any significant difference in acquisition and retention test, but a significant one in transfer test. This finding appears to be parallel to several studies exploring the benefits of combining KR with goal setting to enhance athletic performance (Fischman & Oxendine, 1993; Smith, 1993; Anderson et al., 1988;; Wolko et al., 1993).

**REFERENCES**

1. Al-Abood, S. A., Bennett, S. J., Hernandez, F. M., Ashford, D., & Davids, K. (2002). Effects of verbal instructions and image size on visual search strategies in basketball free throw shooting. *Journal of Sports Sciences, 20*, 271–278.
2. Adams, J. (1987). Historical review and appraisal of research on the learning retention, and transfer of human motor skills. *Psychological Bulletin, 101* (1), 41-74.
3. Anderson, D., Crowell, C., Doman, M., & Howard, G. (1988). Performance posting, goal setting, and activity-contingent praise as applied to a university hockey team. *Journal of Applied Psychology, 73*(1), 87-95.
4. Correa, C., U., Pereira, O. & Santos, S. (2006). Goal setting in acquisition of volleyball skill late in motor learning, *Learning, Perceptual and Motor Skills, 103* (1), 273-278.
5. Denny, G. V., (2010). Where to focus Attention when performing the Float Serve in volleyball, *Journal of coaching education, 3*, 1-13.
6. Earley, P. C. & Lituchry, T. R. (1991). Delineating goal and efficacy effects: A test of three models. *Journal of Applied Psychology, 76*, 81-98.
7. Elston, T. L., Ginis, K. A. (2004). The effect of self- set versus assigned goals on exercisers self- efficacy for an on familiar task. *Journal of Sport & Exercise Psychology, 26*: 210-215.
8. Fischman, M. & Oxendine, J. (1993). Motor skills learning for effective coaching and performance. *Applied Sport Psychology: Personal growth to peak performance. International of Journal Williams (Ed.), Applied Sport Psychology, 11-24*.
9. Guadagnoli M. A, Leis B., Van Gemmert A.W, Stelmach G.E. (2002), The relationship between knowledge of results and motor learning in Parkinsonian patients, *parkinsonism & related disorders, 9* (2): 89-95.
10. Hartman, J. M. (2002) Effect of Attentional Focus of Learning on the Basic cusp for fly fishing, *Journal of motor behavior, 200*, 95-123.
11. Kohl, R. M. & Guadagnoli, M. A. (1996). The scheduling of knowledge of results, *Journal of Motor Behavior, 28*, 233-240.
12. Landers, M. Wulf, G. Wallmann, H. & Guadagnoli, M. A. (2005). An external focus of attention attenuates balance impairment in Parkinson's disease. *Physiotherapy, 91*, 152-185.
13. Lane, A., Streeter, B. (2003). The effectiveness of goal-setting as a strategy to improve basketball shooting performance. *International Journal of Sport Psychology, 34* (2): 138-150.
14. Lock, E. A. & Latham, G. (1990). A theory of goal setting and task performance. *Journal of Sport Psychology, 7*, 205- 222.

15. Marchant, D., Greig, M., Scott, C., & Clough, P. (2006). Attentional focusing strategies influence muscle activity during isokinetic bicep curls. In Poster presented at the annual conference of the British Psychological Society. Cardiff, UK.
16. McNevin, N.H., Shea, C.H. and Wulf, G. (2003). Increasing the distance of an external focus of attention enhances learning, *Psychological Research*, 67, 22-29.
17. Poolton, J., Maxwell, J., Masters, R., & Raab, M. (2006). Benefits of an external focus of attention: Common coding or conscious processing? *Journal of Sports Sciences*, 24(1), 89-99.
18. Prinz, W. (1997). Perception and action planning. *European Journal Cognitive Psychology*, 9, 129-154.
19. Rossenbaum, D. A. (1991). Human motor control. Boston, MA: Academic Press, Inc.
20. Salmoni, A. W., Schmidt, R. A. & Walter, C. B. (1984). Knowledge of results and motor learning. *Psychological Bulletin*, 95, 355-386.
21. Schmidt, R. A. (1991). Frequent augmented feedback can degrade learning, *Evidence & interpretations*, 59-75.
22. Schmidt, R. A., Wrisberg, C. A. (2000). Motor learning and performance: A problem-based learning approach. (2nd ed.) Champaign, IL: Human Kinetics.
23. Singer, R. N., Lidor R, Cauraugh J. H. (1993), To Be Aware or not Aware? What to think about while learning and performing a motor skill, *The Sport Psychologist*, 7. 19-30.
24. Shu- Hwa, W. (2004). The effects of goal setting on female middle school students physical activity levels and motivation toward exercise, Dissertation for Ph.D.
25. Smith, R. (1993). A positive approach to enhancing sport performance. *Applied Sport Psychology*. 25-35.
26. Stephens, S. D. & Ludwig, T. D. (2005). Improving anesthesia nurse compliance with universal precautions using group goals and public feedback. *Journal Organ Behavior Management*. 25 (2), 37-70.
27. Trittenwein, O. (1998). The effects of knowledge of results compared to knowledge of results with goal setting intervention on selected tennis skills. Dissertation for Ph.d.
28. Ugrinowitsch, H., Dantas, L. E. (2002), Goal setting effects on basketball shot learning in males. *International Journal of sports sciences & coaching*. 24 (3), 455-467.

29. Wenschlag, R. E. (2006). The role of goal setting and performance feedback in achieving peak performance, Performance Solutions Vital Learning Associate in <http://findarticles.com/articles/mi>.
30. Winstein, C. & Schmidt, R. (1990). Reduced frequency of KR enhanced motor skill learning. *Journal of Experimental Psychology*, 16 (4), 677-691.
31. Wulf, G. (2007a). Attentional focus and motor learning: A review of 10 years of research. *E-Journal Bewegung und Training*, 1, 1–11. from [http://www.ejournal-but.de/doks/wulf\\_2007.pdf](http://www.ejournal-but.de/doks/wulf_2007.pdf).
32. Wulf, G., Höß, M., & Prinz, W. (1998). Instructions for motor learning: Differential effects of internal versus external focus of attention. *Journal of Motor Behavior*, 30, 169-179.
33. Wulf, G., & Dufek, J. S. (2009). Increased jump height with an external attentional focus is due to augmented force production. *Journal of Motor Behavior*, 41, 401-409.
34. Wulf, G., Landers, M., Lewthwaite, R., & Töllner, T. (2009). External focus instructions reduce postural instability in individuals with Parkinson disease. *Physical Therapy*, 89, 162-168.
35. Wulf, G., McConnel, N., Gärtner, M., & Schwarz, A. (2002). Feedback and attentional focus: Enhancing the learning of sport skills through external-focus feedback. *Journal of Motor Behavior*, 34, 171-182.
36. Wulf, G., & McNevin, N. H. (2003). Simply distracting learners is not enough: More evidence for the learning benefits of an external focus of attention. *European Journal of Sport Science*, 3, 1-13.
37. Wulf, G., McNevin, N. H., & Shea, C. H. (2001). The automaticity of complex motor skill learning as a function of attentional focus. *Quarterly Journal of Experimental Psychology*, 54A, 1143-1154.
38. Wulf, G. and Prinz, W. (2001) Directing Attention to movement effects enhances learning: A Review, *Psychonomic Bulletin and Review*, 8, 648-660.
39. Wulf, G., & Su, J. (2007). An external focus of attention enhances golf shot accuracy in beginners and experts. *Research Quarterly for Exercise and Sport*, 78, 384-389.
40. Wulf, G., Töllner, T. and Shea, C. H. (2007). Attentional focus effects as a function of task complexity, *Research Quarterly for Exercise and Sport*, 78, 257-264.
41. Wulf, G., Weigelt, M., Poulter, D. R., & McNevin, N. H. (2003). Attentional focus on supra-postural tasks affects balance learning. *Quarterly Journal of Experimental Psychology*, 56, 1191-1211.

**ABSTRACT**

The purpose of this study was to determine the effect of frequency of feedback (internal and external) with goal setting intervention (coach setting and self- setting) for university male basketball beginners participating on learning of basketball set shot. 120 right handed male students by average 18-30 years with no knowledge of basketball were chosen randomly and matched into eight experimental groups: %50 Internal feedback with coach setting, %100 Internal feedback with coach setting, %50 External feedback with coach setting, %100 External feedback with coach setting, %50 Internal feedback with self- setting, %100 Internal feedback with self- setting, %50 External feedback with self- setting, %100 External feedback with self- setting one, each shooting a total of 10 shot after the pretest, 10 sessions of practice an acquisition test, a day off a retention test and transfer test was conducted a week later for each group. Data was analyzed by variance of  $2 \times 2 \times 2$  combined design. To compare the pre-test, acquisition, retention and transfer of variance with repeated measurements, Bonferroni test was used in case of significant differences between groups. By analyzing the proposed hypotheses at the  $P \leq .05$  demonstrated significant differences between frequency of internal and external with goal setting ones. The eight practice conditions suggesting that frequency of feedback (internal and external) with goal setting intervention (coach and self- setting) do not have significantly effect on acquisition and retention of basketball set shot, but significantly effect on transfer test. In this particular study, external focus of attention along with coach setting was found to be more effective than an internal focus of attention with self -setting. Feedback and goal commitment were identified as the two necessary conditions for goals to affect performance. This finding appears to be parallel to several studies exploring the benefits combining of KR with goal setting to enhance athletic performance (Fischman & Oxendine, 1993; Smith, 1993; Anderson et al., 1988; Wolko et al., 1993). These results suggest that the performance in basketball set shot is enhanced by external focus attention with coach setting. The present findings add to the evidence that external focus of attention with goal setting improves sport skills learning.

**Key words:** *Absolute feedback, frequency feedback, extrinsic attention, intrinsic attention, Goal setting*