

Prediction of academic achievement based on the dimensions of motivational orientations and learning strategies

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Abstract: The purpose of this research was the study of predicting academic achievement based on the dimensions of motivational orientations and learning strategies. In the present study, statistical population included, all male students in the third year of high school in Hamadan, who were selected from the statistical population of 331 people by using the multi-stage cluster sampling method. The instruments were motivation orientations scale (Wallerend & etc, 1992) and learning strategies questionnaire (Winestein & Mayer, 1896). Academic achievement was measured by using the GPA in the first semester 2012-2013. Multiple regression analysis showed that, the strongest predictor for achievement is Amotivation variable. In addition, Elaboration Strategies also had the highly strength of prediction. The implication for the educational practitioners is obvious: motivational variables, especially intrinsic ones must be focused on. Teaching methods should be directed toward making, the subjects and learning strategies more interesting.

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1. Introduction

The variable of academic achievement, has been attracting more and more attention of education experts during the last three decades. Results of several studies have shown that, academic achievement is affected by both the structure of knowledge and situational and Environmental factors such as, motivational orientations and learning strategies (Bronstein & Maier, 2005, quoted Samadi, 2010).

The educational theories of motivation is a fundamental concept that has been applied to many different interpretations, such as student motivation, learning motivation and academic motivation. However, the experts have done some activity to distinguish these terms. Such as, defining, learning motivation as the sense of being meaningful, valuable instructional strategies for learning (Klassen, Ang, Chong, Krawchuk, Huan, Wong, and Yeo, 2010). Ames (1990) have determined the learning motivation, with long-term involvement and quality of learning and commitment to Learning process. Brown (2002) defines learning motivation as competence. He believes, perceived competence is learned through the public experience; but is more elicited, by modeling, contrasting expectations, and direct instruction or socialization by significant individuals.

In this study, academic motivation is defined based on Self- Determination Theory (Deci, Schwartz & Ryan, 2000 and 1985, quoted Samadi, 2010). In the Classification system belonged to Deci and Ryan

(1985), learners are placed in three categories in terms of motivational orientations, extrinsic motivational orientation, intrinsic motivational orientation and Without motivation (Amotivation).

Based on the theory of Deci and Ryan (1985, 2000), motivation derives from satisfying the organism needs and Spontaneous satisfaction, which provide activity. Intrinsic motivation improves the quality of the performance. Intrinsic motivation is motivated by trying to satisfy the needs, self-regulation, and is weakened, followed by the threat of punishment, evaluation and pressure. Even rewarding interesting tasks, especially if it is considered as controlling factor, reduce intrinsic motivation. When students have intrinsic motivation, that they perceived competence (self-determination) in themselves and determine their goals and regulating their behavior. Research has shown that, there is a strong correlation between intrinsic motivation, academic achievement and enjoyment of learning activities (Ryan and Deci, 2000).

Studies which have been done in the field of achievement-oriented individual characteristics, especially those who have the intrinsic motivation orientation suggest, that these individuals are spontaneous, in the context of learning. They set for themselves, realistic academic goals, use effective strategies to achieve their goals and to amend or modify used Strategies if necessary, and to try to optimize the use of available resources such as time, place, peers, parents, teachers and supplementary materials such as film, video, and computer and

always try to make environments, to create and to choose which increases learning (Pintrich, 1986, Meece, Blumenfeld, and Hoyle, 2001 and Gendron, Webster, Miller, Helm, & Hadwin, 2009).

In contrast to intrinsic motivation orientation there is extrinsic motivational orientations. In extrinsic orientation, the environmental consequences and other people play a role in determining and creating their behavior and decisions. Motivation derives from the incentives and consequences that are related to the observed behavior. Extrinsic People have given more attention to external events and external sources, such as social reward or punishment and so on than pleasure and personal satisfaction. Extrinsic motivation is a kind of environmental reasons to start or continue activities as well as a means to gain goal, instrument and behavior. Researches conducted in this context suggest that external rewards, somehow reduce a person's control of perception, self-determining (Linnenbrink, and Pintrich, 2002, Whitehead, 2003 and Wang 2004) Finally, in the Amotivation as extrinsic motivational orientation, People do not know their worth and determinant. They do not benefit from the stability of assignments. They are so low in perceptions of competence and control that they feel helpless in the situation; trying is a useless action for these individuals. They believe that their success or failure is a result of external factors and uncontrollable (Deci and Ryan, 1985, 2000, Zimmerman, 2004). Research done in this field have reported a negative correlation between Amotivation and academic achievement (Covington and Mueller, 2001).

Other variables, associated with academic achievement is learning strategies. Attention to learning strategies is the result of the evolution of learning theories and changes in the orientation of learning theories of behavioral theories to cognitive theories. Among the suggestive of cognitive theories in the field of learning is information processing theory. In this research, learning strategies have been defined based on the theory of Weinstein and Mayer, 1986. Learning strategies are defined as the voluntary and conscious actions that can be taken by learners to achieve learning goals, These strategies include: Rehearsal (repetition), Elaboration, Organization and Monitoring (Schunk, 2003).

Rehearsal strategy, is encoding information as semantic form in short-term memory, and transfer it to long-term memory that is effective in improving memory performance. Elaboration strategy is method of forming mental images, with the creation of additional clauses, in order to relating one or more subject in a learned content. Examples of this strategy are the phrase making, summarizing, taking note and

questioning. Organizing strategies, involve determining the main points or creating a hierarchy of phrase or grouping and organizing material, which has been learned from a list or part of the text. The organizing strategy consists of the main points or create a hierarchy of phrase. Monitoring strategy includes control of cognitive activities. This strategy allows the individual to be careful and continuously monitoring their cognitive processes and to identify problems in achieving the goal and to amend them. This strategy considers the learner abilities in the use of trio strategies (Rehearsal, Elaboration and Organization) (Weinstein and Mayer, 1986, Standage, and Treasure, 2002; Salovaara, 2005, Chatzisarantis, and Hagger, 2009).

One of the features of these strategies is, facilitating the learning process, memorizing and reminding and raising the level of arousal and increasing the level of cognitive engagement and ultimately improving academic performance and playing the most powerful influence on student learning (Pintrich, 1986, 2002). Moreover, it is effective in increasing communication ability of students and facilitating the creation of relationships between information. Studies conducted have shown learners, that have the ability to apply appropriate learning strategies and more diverse learning strategies are more successful in understanding and having deeper insight into learning skills (Butler and Winne, 1995; Fedderhold, 1997, Clouston, 1997; Grolnick, Farkas, Sohmer, Michaels and Valsiner, 2007).

Zimmerman (1992, quoted Wolters, 1998) reported that high school students, who have a higher intrinsic motivational orientation in the use of learning strategies are more successful and use varied strategies for dealing with situations in contrast, students who are from extrinsic motivational orientation, reported a slight learning strategies and revealed that they are not certain about how to approach scientific studies. Schunk and Zimmerman (1994, quoted Wolters, 1998) reported that learners having the intrinsic motivation orientation more likely have more adapted understanding, stronger motivational outcomes and have higher academic achievement than their Failed classmates in learning.

Since academic achievement is influenced by variables such as motivational orientations and learning strategies so studying of each of these variables has a special significance. Moreover, despite studies conducted in the field of motivational orientations, learning strategies and academic achievement, a study that has examined the relationship between these three variables has not conducted simultaneously. Therefore, the present

study examined the prediction of academic achievement based on the dimensions of motivational orientations and learning strategies.

2. Material and Methods

From the view point of goal the present study is an applied one and considering the kind of collecting data, it belongs to descriptive (non-experimental) studies conducted by using correlation method.

Statistical population, sample and sampling method: In the present study, statistical population included all male students in the third year of high school in Hamadan, who were selected from the statistical population of 331 people by using the multi-stage cluster sampling method.

Research Tools: Motivational Orientation Scale:

This scale is constructed based on the theory of self-determination Deci and Ryan (1985) by Vaaland, Pelletier, Blais, Brière, Sénécal and Vallières (1992). This questionnaire has been used in studies in Iran, including Bahrani (2005). This is a questionnaire with 28 questions, and each question has seven options which measure three dimensions, which included, intrinsic motivation, extrinsic motivation, and Amotivation. Items of this scale have been prepared on a Likert scale of seven items. Each item has a minimum score of 1 and a maximum of 7. Accordingly, it is in the range of scores for each component, in the range of 7 to 63.

Vallerand and colleagues, (1992) have reported a coefficient of reliability of the components of questionnaire using the Cronbach's alpha method, respectively in this way, intrinsic motivation, and Amotivation 0/83 and 0/86, and reliability coefficient of component of extrinsic motivation 0/62 (Cokley 2000). The researchers have reported the reliability by using test-retest method, for one month period, in a range between 0/71, 0/83 for components or subscales. Bahrani (2005) has reported the scale reliability, by using test-retest method, within two weeks, 0/73, and the coefficient alpha was calculated for the entire questionnaire: 0/88.

Bahrani has also calculated (2005) the validity of the scale by using method of factor analysis. He believed that, the factor analysis was able to reveal the three dimensions of motivation, with a value greater than one. In this research scale reliability was obtained by using Cronbach's alpha method, respectively for the three subscales intrinsic motivation, extrinsic motivation and Amotivation, 0/74, 0/76 and 0/66 and construct validity of the scale was confirmed through the factor analysis. The results of this factor analysis based on the method of principal components showed that the components of questionnaire is consistent with the theory. Therefore,

it was concluded that the questionnaire had a good construct validity.

Learning Strategies questionnaire: In this research the learning strategies questionnaire was used in order to investigate students' learning strategies, which are designed based on cognitive learning theory Weinstein and Mayer (1986). This questionnaire has been used in Iran, including the study Baseri (1996).

This questionnaire consists of 29 items and 5 Likert-type options that can be scaled in the range between zero to four and investigate learning strategies used by students in four dimensions that include, Rehearsal strategy, Elaboration strategy, Organizing strategy and Monitoring of learning strategy. Therefore, there is a minimum score of zero and a maximum score of 116 on the scale.

Baseri (1996) reported a coefficient of Cronbach alpha of the subscales of the questionnaire in the range of between 0/54 to 0/66, meaning that the obtained coefficients for the Rehearsal 0/66, Elaboration, 0/54, Organization, 0/58 and Monitoring, 0/57.

Ansari Jafari (1997) reported a coefficient of Cronbach Alpha of the subscales of the questionnaire in the range of between 0/48 to 0/60, meaning that the obtained coefficients for the Rehearsal 0/48, Elaboration, 0/74, Organization, 0/59 and Monitoring, 0/60.

This study was calculated by using Cronbach alpha method, reliability of the questionnaire which is obtained from the coefficient obtained in the range between 0/69 to 0/78, which is statistically satisfactory and confirmed, the validity of the questionnaire by using construct validity and the results of the factor analysis using principal components method with varimax rotation confirmed the four strategies derived from the theoretical.

Academic achievement: In the present research, indicator of academic achievement was GPA of male students in the first semester of the academic year 2012-2013.

Methods of data collection: This study was conducted to collect data on a sample group of students in class, as a group. Demographic data were collected, by filling out the form of the characteristics of the subjects and their average in the first semester of the academic year 2012-2013; with refer to the school office desired.

Statistical design: Dimensions of the relationship between learning motivation, learning strategies with academic achievement were investigated by Stepwise Regression Analysis.

3. Results

Also Regression Analysis Stepwise was used to become aware of the predictive strength of learning strategies including the rehearsal, elaboration, organization, monitoring and motivational orientations, such as: intrinsic motivation, extrinsic motivation and Amotivation, that has been reported results in following tables.

Regression analysis of academic achievement on learning strategies (rehearsal, elaboration, organization, and monitoring) and motivational orientation (extrinsic motivation, intrinsic motivation and Amotivation), shows that learning strategies and motivational orientations, predict students' academic achievement.

Table1: Stepwise Regression Analysis results of academic achievement upon Rehearsal strategies

ρ	R^2	R	β	Independent Variable
0/0001	0/0345	0/189	0/198	Rehearsal strategies

The first variable introduced into the regression equation, was Rehearsal strategies variable ($\rho \leq 0/0001$, and $t = 5/193$ and $\beta = 0/198$). This variable can be predicted Singly 0/0345percent of the variance in academic achievement of students scores, significantly ($\rho \leq 0/0001$ and $F = 18/52$ and $R^2 = 0/0345$).

Table2: Stepwise Regression Analysis results of academic achievement upon Elaboration strategies

ρ	R^2	R	β	Independent Variable
0/0001	0/198	0/445	0/393	Elaboration strategies

The second variable introduced into the analysis, is Elaboration strategies ($\rho \leq 0/0001$ and $t = 7/438$ and $\beta = 0/393$). Introducing this variable to the analysis, increases the determination coefficient of 0/087 percent. Elaboration and Rehearsal strategies variables determine the overall 19/8% of the variance in students' academic achievement, significantly ($\rho \leq 0/0001$ and $F = 30/63$ and $R^2 = 0/198$).

Table 3: Stepwise Regression Analysis results of academic achievement upon Elaboration strategies

ρ	R^2	R	β	Independent Variable
0/0001	0/284	0/533	0/360	organization strategies

The third variable introduced into the analysis, is organization strategies ($\rho \leq 0/0001$ and $t = 6/98$ and $\beta = 0/360$). Introducing this variable to the analysis, increases the determination coefficient of 0/089 percent. Elaboration, Rehearsal and organization strategies variables determine the overall 28/4% of the variance in students' academic achievement, significantly ($\rho \leq 0/0001$ and $F = 45/73$ and $R^2 = 0/284$).

Table 4: Stepwise Regression Analysis results of academic achievement upon Elaboration strategies

ρ	R^2	R	β	Independent Variable
0/0001	0/281	0/531	0/197	Monitoring strategies

The fourth variable introduced into the analysis, is Monitoring strategies ($\rho \leq 0/0001$ and $t = 4/66$ and $\beta = 0/197$). Introducing this variable to the analysis, increases the determination coefficient of 0/028 percent. Elaboration, Rehearsal, organization and Monitoring strategies variables determine the overall 28/1% of the variance in students' academic achievement, significantly ($\rho \leq 0/0001$ and $F = 29/81$ and $R^2 = 0/281$).

Table 5: Stepwise Regression Analysis results of academic achievement upon Extrinsic motivation orientation

ρ	R^2	R	β	Independent Variable
0/0001	0/217	0/466	0/069	Extrinsic motivation orientation

The fifth variable introduced into the analysis, is Extrinsic motivation orientation ($\rho \leq 0/109$, and $t = 1/993$ and $\beta = 0/069$). Introducing this variable to the analysis, increases the determination coefficient of 0/006 percent. Elaboration, Rehearsal, organization, Monitoring strategies and Extrinsic motivation orientation variables determine the overall 21/7% of

the variance in students' academic achievement, significantly ($p \leq 0/0001$ and $F= 21/65$ and $R^2 = 0/217$). The data obtained are indicative of the point that introducing these variables into the regression equation, increase the predictive strength the very negligible rate.

Table 6: Stepwise Regression Analysis results of academic achievement upon intrinsic motivation orientation

ρ	R^2	R	β	Independent Variable
0/0001	0/237	0/487	0/374	intrinsic motivation orientation

The sixth variable introduced into the analysis, is intrinsic motivation orientation ($p \leq 0/0001$ and $t = 5/49$ and $\beta = 0/374$). Introducing this variable to the analysis, increases the determination coefficient of 0/061percent. Elaboration, Rehearsal, organization, Monitoring strategies and Extrinsic and Intrinsic motivation orientation variables determine the overall 23/7% of the variance in students' academic achievement, significantly ($p \leq 0/0001$ and $F = 26/37$ and $R^2 = 0/237$).

Table 7: Stepwise Regression Analysis results of academic achievement upon Amotivation orientation

ρ	R^2	R	β	Independent Variable
0/0001	0/519	0/721	-0/497	Amotivation orientation

The seventh variable introduced into the analysis, is Amotivation orientation ($p \leq 0/0001$ and $t = -8/32$ and $\beta = -0/497$). Introducing this variable to the analysis, increases the determination coefficient of 0/095percent. Elaboration, Rehearsal, organization, Monitoring strategies and Extrinsic, Intrinsic and Amotivation, motivation orientation variables determine the overall 51/9% of the variance in students' academic achievement, significantly ($p \leq 0/0001$ and $F= 45/59$ and $R^2 = 0/519$).

4. Discussions

Results of this study showed that, there is a significant positive relationship between learning strategies and academic achievement of students. In other words, when students are equipped with learning strategies "specific tasks" such as Rehearsal, Elaboration and organization, as well as "management and supervision" strategies for learning

", such as monitoring, they can be better get involved in school activities, and achieve greater academic achievement. This finding is consistent with results of studies conducted in the field of the role of learning strategies in acquiring academic achievement (Pintrich, 1986, 2002; Buttler, Winne, 1995; Veenman, Van Hout-Wolters, and Afflerbach, 2006; Vansteenkiste, Lens and Deci, 2006, Ao Man- Chih, 2006; Bembenutty, 2008; Cetin and Akin, 2009). According to the researchers, the characteristics of learning strategies is increasing arousal and increasing cognitive engagement and, ultimately improving their academic performance.

Furthermore, the results of this study showed that, there was a significant positive relationship between intrinsic motivation orientations and academic achievement. Intrinsic motivational orientation or possession of intrinsic motivation is the guarantee to educational success. Therefore, students who are spontaneous and determine educational goals for themselves have greater academic achievement. This finding is consistent with findings of Wenzel and Wigfield (2009) that reminded, intrinsic motivation is an important characteristic that successful people possess in the academic background. It is noteworthy that the role of intrinsic motivation in academic achievement is expected. Because when the learners select and carry out their activities according to their own internal interests they will naturally focus more on their activities and will spent more resources to carry out those activities, compared to when they had to choose an activity or to perform the operation, according to the external causes. In addition, people who are of intrinsic motivation rely more on their own judgment. This matter will cause them to concentrate their attention on " Activity " and do not think about the quality and quantity of the reward they will receive and, as a result will have greater success.

Another finding of the study was a non-significant positive relationship, between extrinsic motivational orientation and academic achievement. The meaning of this finding is that although there is a positive relationship between extrinsic motivation and academic achievement, however since the rate is low, this relationship is not significant. In other words, Extrinsic motivational orientation is no guarantee for academic success, and this finding can lead the viewpoint of parents, educators and education system policy makers to staying away from external incentives in the field of education (teaching and learning). These findings are consistent with findings (Whitehead, 2003 and Wang, 2004, Winsler, Delion, Carlton and Genkis, 2004). The researcher, reported in their studies a significant negative relationship,

between extrinsic motivation and cognitive processes. Furthermore, based on the self-determination of Deci and Ryan (2000) any kind of extrinsic motivation that would hurt the feelings of competence and independence of the individual, may affect the individual's performance by reducing intrinsic motivation.

Another finding of this study is a strong and significant negative relationship between Amotivation and academic achievement. These results confirmed the role of motivational factors, particularly intrinsic motivation in the field of learning and academic achievement. This means that, Amotivation is such a obstacle that can threaten the academic achievement of students. The above mentioned finding is somehow in line with other research findings which indicate no significant relationship between extrinsic motivational orientation and academic achievement, which is consistent with research findings (Whitehead,2003 and Wang,2004,Grolnick, and Ryan,2007).

To investigate the effect of combination and to determine the contribution of each of the components of learning strategies and motivational orientation to predicting academic achievement, the Stepwise Regression Analysis were used in. This analysis showed that the strongest predictor of academic achievement is a motivational orientations. Among the components of motivational orientations, the share of "Amotivation" is more than the share of intrinsic motivation and subsequently placed in extrinsic motivation orientation. In other words, learners that are not motivated to learn and not enjoy of being involved in academic activities, have less academic achievement. These results are consistent with findings Covington and Mueller (2001) Whitehead, (2003) and Wang (2004). This finding is a result that threatens the educational system policy in the field of achieving to its main objectives.

Learning strategies were the of second grade in terms of predictive power. Among learning strategies, Elaboration strategy had a higher predictive power. In other words the learners who are creating relationships between new concepts with previous concepts in the learning process and processing information in a deeper level, will have a higher academic achievement. Elaboration strategy, is a strategy that can process information at a deep level. Depth Elaboration (Meaningful the information) is the best way to remember. However the Elaboration strategy has a higher degree of difficulty and complexity compared to other strategies. Therefore, the Elaboration is a more developed skill in comparison with other task-specific strategies (cognitive strategies). When people discover the

technology of memory, it may be more effective than other strategies (Linnenbrink and Pintrich, 2000; Brown, 2002). It seems that the reason that, Elaboration strategy, has gained more predictive strength in this research is related to the nature of the educational system and the style of evaluating the students learning which is largely dependent on the "Text".

Accordingly, it is recommended that, educational system put the promotion of learners' motivation as its policy priorities and to deal with lack of learners motivation, need to do researches to find coping,suitable,polyhedral strategies that is focused on the various elements of curriculum and modern teaching methods. Several research findings, reveal this point, which providing "collaborative learning opportunities", "moderating the competitive atmosphere and evaluating system in schools ", "reducing the control of students" and " providing flexibility in performing assignments." can lead to reducing of students lack of motivation, and enhancing learners' control over situations or " being self-determination " and perceived competence and ultimately enhancing their intrinsic motivation. Because researches have shown that orientation of " being self-determination" in comparison with the orientation of " Controller ", enhance more the level of intrinsic motivation and strengthen beliefs related to mental competence and increasing amount of self esteem(Deci and Ryan, 1981, 2000; Levy-Tossman and Avi Assor,2006; Baumeister and Vohs,2007; Dignath and langfled,2008;Wenzel and Wigfield, 2009). In addition, educational interventions to improve students' performance in the field of learning and ultimately academic achievement, should focus primarily on the "Elaboration" strategy. Change in teaching methods, which leads to improved learning strategies, is a more reliable way for improving the learning strategies. As Veenman et al (2009) emphasize, learners lack of learning strategies cause them to learn facts and concepts of different fields of the curriculum in separate and unrelated pieces to each other and to their real life, in such a way that,when an item or piece of concepts or topics is forgotten, there is not a strategy to rebuild it.

Similarly, another recommendations of the study, is investigating the relationship between the dimensions of motivational orientations and learning strategies with academic achievement and study the effect of hierarchical motivational orientations and components of learning strategies on academic achievement. It is worth noting that the evidence obtained from this type of researches, will help the educational system policymakers, in a fundamental change, in the education and training system.

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References

1. Ansarie-jafari, R.(1997). Investigation of the relationship between learning strategies and creativity of students, MS Thesis, Faculty of Education and Psychology, Tehran University.
2. Ao Man- Chih, (2006). The effect of the use of self-regulation learning strategies on college student's performance and satisfaction in physical education, A thesis submitted in partial fulfillment of the requirements of degree doctor of education.
3. Bahrani, M, (2005).The Study of high school students' academic motivation, and factors associated with them. Journal Social Science and Humanities, Shiraz University, 45, 114-104.
4. Baseri, A.(1996).A comparative study of learning strategies and causality prediction of outstanding and ordinary students, MA Thesis, Tehran University, Faculty of Education and Psychology.
5. Baumeister, R. F., & Vohs, K. D. (2007). Self-regulation, ego depletion, and motivation. *Social and Personality Psychology Compass*, 1, 1-14.
6. Bembentuy, Hefer,(2008). Self-Regulation of Learning and Academic Delay of Gratification: Gender and Ethic Difference among College Students, *Journal of Advanced Academics*, v18 n4p586-616.
7. Brown, H. D. (2002). *Strategies for success: A practical guide to learning English*. White Plains, NY: Longman.
8. Brunstein, J.C.& Mayer, G.W.(2005).Implicit and self-attributed motives to achieve: Two Separate but interacting needs .*Journal of personality and social psychology*, 89,205-222.
9. Buttler, D & Winne, P.(1995).Feedback and self-regulate learning : A theoretical synthesis: Review of *Educational Research*, 62,245-281.
10. Cetin,B&Akin,A.(2009). an investigation of the relationship between achievement goal orientations and the use of stress coping strategies with canonical correlation. (<http://www.insanbilmleri.com/en>).
11. Chatzisarantis, N. L. D., & Hagger, M. S. (2009). Effects of an intervention based on self-determination theory on self-reported leisure-time physical activity participation. *Psychology & Health*, 24(1), 29-48.
12. Cloustton, M (1997) .Language Learning Strategies : an Interview for L2 teachers .On Internet, PP.1-12.
13. Cokley, K.O. (2000). Examining the validity of the academic motivation scale by comparing scale construction to self-determination theory. *Psychological Reports*, 86, 560-564.
14. Covington, M. & Mueller, K.J. (2001). Intrinsic versus extrinsic motivation: an approach/avoidance reformulation. *Educational Psychology Review*, 13, 157-176.
15. Deci, E.L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
16. Deci, E.L., & Ryan, R.M. (2000). The "what" and "why" of goal pursuits: human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227-268.
17. Dignath,C.,Buetter,G., & langfledt,H.P.(2008). How can primary School student learn self regulated learning strategies programmes.*Educational Research Review*,3,1-29.
18. Fedderhold, K .(1997)" Using Diaries to develop language learning strategies " On internet.pp1-15".
19. Gendron, A., Webster, E., Miller, M., Helm, S., & Hadwin, A. (2009) A longitudinal analysis of task specific goals, goal efficacy, and goal attainment as indicators of selfregulated learning. Paper presentation at the annual conference of the Canadian Society f or the Study of Education, Ottawa, Canada.
20. Grolnick, W. S.; Farkas, M. S.; Sohmer, R.; Michaels, S. & Valsiner, J. (2007). Facilitating motivation in young adolescents: Effects of an after-school program. *Journal of Applied Developmental Psychology*. 28, 332-344.
21. Grolnick, W.S.& Ryan, R.M.(2007). Autonomy in children's Learning: An experimental and individual differences investigation .*Journal of perdonality and social psychology*, vol 52, No.5,891-898.
22. Klassen, R.M., Ang, R.P., Chong, W.H., Krawchuk, L.L., Huan, V.S., Wong, I.Y.F., & Yeo, L.S. (2010). Academic procrastination in two settings: Motivation correlates, behavioral patterns, and negative impact of procrastination in Canada and Singapore. *Appl ied Psychology: An International Review*, 59(3), 361-379.
23. Levy-Tossman, I. & Avi Assor, A.K. (2006). Academic goal orientations, multiple goal prowlers, and f riendship intimacy among early adolescents, *Contemporary Educational Psychology*. URL:<http://www.elsevier.com/locate/cedpsych>. (1/16/2007)
24. Linnenbrink, E. A., & Pintrich, P. R. (2000). Multiple pathways to learning and achievement: The role of goal orientation in fostering adaptive motivation, affect, and cognition. In C. Sansone & J. M.
25. Linnenbrink, E. A., & Pintrich, P. R. (2002). Achievement goal theory and affect: An asymmetrical bidirectional model. *Educational Psychologist*, 37(2), 69-78.
26. Meece, J. L., Blumenfeld, P. C., & Hoyle, R. H. (2001). Students' goal orientation and cognitive engagement in classroom activities. *Journal of Educational Psychology*, 80, 514- 523.

27. Pintrich, P.R.(1986) .Motivational and learning strategies interactions with achievement. *Developmental Review*, 6, 25-56.
28. Pintrich, P. R. (2002). The role of metacognitive knowledge in learning, teaching, and assessing. *Theory Into Practice*, 41, 219-225.
29. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68 – 78.
30. Salovaara, H. (2005). Achievement goals and cognitive learning strategies in dynamic contexts of learning. Unpublished doctoral dissertation, University of Oulu, Finland.
31. Samadi,M.(2010) Investigating the relationship between the dimensions of motivational orientations, learning strategies, and determining the contribution of these variables in explaining academic achievement .*Journal of Research Institute of Education Studies*.
32. Schunk, D. H. (2003) Goals and progress feedback: Effects on self-efficacy and writing achievement. *Contemporary Educational Psychology*, 18(3), 337-354.
33. 34. Standage, M., & Treasure, D. C. (2002). Relationship among achievement goal orientations and multidimensional situational motivation in physical education. *British Journal of Educational Psychology*, 72, 87-103.
34. Vallerand, R.J., Pelletier, L.G., Blais, M.R, Brière, N.M., Senécal, C., & Vallières, E.F. (1992). The academic motivation scale: a measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52, 1003-1017.
35. Vansteenkiste, M.; Lens, W. & Deci, E. L. (2006). Intrinsic Versus Extrinsic Goal Contents in Self-Determination Theory: Another Look at the Quality of Academic Motivation. *Educational Psychologist*, 41(1), 19–31.
36. Veenman, M. V., Van Hout-Wolters, B. H., & Afflerbach, P. (2006). Metacognition and learning: Conceptual and methodological considerations. *Metacognition and Learning*, 1, 3–14.
37. Wang, J .H.Y & Guthrie, J.T.(2004). Modeling the effects of intrinsic motivation, extrinsic motivation, Amount of reading and past reading achievement on text comprehension between U.S.& Chinese students. *Reading Research Quarterly*, 39-, 162-168.
38. Weinstein, G, E. Mayer, R, E (1986) ."The teaching of learning strategies " In wittrock, M .C.(Ed).*Handbook of Research on Teaching*, CPP.315-327.New York MacMillan.
39. Wenzel, K. R., & Wigfield, A. (Eds.). (2009). *Handbook of motivation at school*. New York, NY: Routledge, Taylor & Francis Group.
40. Whitehead, J,M,(2003) .Masculinity motivation and academic success: A paradox. *Teacher development*, Vol 7, 287-310.
41. Winsler, A., Delion, J., Carlton. M., Genkis. T.K.(2004), Components of self- regulation in the preschool years. Development stability, and relationship the classroom behavior. Paper present at the biennial meeting of the society for research in the children development. *Educational psychology*. Washington D.C. spring. Vol2.
42. Wolters, C.(1998).Self-regulated learning and college, student regulation of motivation .*Journal of Educational Psychology*, 2, 224-235.
43. Zimmerman, B. J. (2004). Sociocultural Influences and Students' Development of Academic Self-Regulation: A Social Cognitive Perspective. In D. M. McInerney & S. Van Etten (Eds.), *Research on sociocultural influences on motivation and learning: Big theories revisited* (pp. 139-164). Vol. 4. Greenwich, CT: Information Age Press.

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