Learner autonomy, self regulation and metacognition

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Abstract

Different theories try to explain why some students are more successful than the others. Phenomenologists (Mc Combs, 1989) study self concepts of the students and find such students prone to achieve more. Attributional Theorists (Dweck, 1986; Weiner, 2005) focus on personal outcome such as effort or ability. Metacognitive theorists (Pressley, 2000; Schunk, Pintrich & Meece, 2007) examine students' self regulated learning strategies whereas Constructivists (Maxim, 2009; Paris & Byrnes, 1989) believe supportive environments are important to be successful. In this study, the metacognitive theory will be given more importance and the purpose of the article is to find the correlation between self regulation, metacognition and autonomy.

Keywords: learner autonomy, self regulation, metacognition.

Introduction

Different theories try to explain why some students are more successful than the others. Phenomenologists (McCombs, 1989) study self concepts of the students and find such students prone to achieve more. Attributional Theorists (Dweck, 1986; Weiner, 2005) focus on personal outcome such as effort or ability. Metacognitive theorists (Pressley, 2000; Schunk, Pintrich & Meece, 2007) examine students' self regulated learning strategies whereas Constructivists (Maxim, 2009; Paris & Byrnes, 1989) believe supportive

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environments are important to be successful. In this study, the metacognitive theory will be given more importance.

Self regulation refers to the degree individuals are metacognitively, motivationally and behaviorally active participants in their own learning process (Zimmerman, 1986). It is believed that the major cause of failure is the lack of self regulation. Underachievers are more impulsive, have lower academic goals, are less accurate in assessing their abilities, are more self critical and less efficacious about their performance and tend to give up easily than achievers (Borkowski & Thorpe, 1994). These students are more anxious, have a lower self esteem, have a higher need for approval, and are more easily influenced by extrinsic factors. On the other hand, self regulators are immediately identified in the classroom according to such criteria:

- they are self starters
- they are confident, strategic and resourceful
- they are self-reactive to task performance outcomes.

In this field, two different types of studies are held: this is either identifying self –regulated students and learning about their personal attributes or teaching the strategies that are believed to enhance self regulation and testing them.

According to the studies (Maxim, 2009; Zimmerman& Martinez-Pons,1988), students who use self regulated strategies and prove to be autonomous learners are more likely to volunteer for special projects, they are intrinsically self motivated, they rely on a planned learning and use more goal setting, planning, organizing, memorizing and self-monitoring strategies whereas the second type of studies are concerned with teaching the strategy training especially metacognitive components, providing feedback to increase efficacy.

Motivation and Learner Autonomy

Learning involves the active process of involving and high levels of effort, concentration and persistence. Meece (1994: 25) states that there are two types of achievement goals:

- learning oriented /task oriented: These learners seek to improve their level of competence. Feelings of pride, success are derived.

- performance oriented /ego oriented: Individuals who pursue ego oriented goals try to demonstrate high ability or gain favourable judgments of abilities. These individuals are likely to view their abilities as stable traits that can be judged in relation to others.

Achievement goals affect students' task persistence and problem solving efforts. Self regulated learning is the control over students' thinking, affect and behaviour. Such students are more likely to choose challenging

tasks. Performance oriented children prefer short term strategies and poor recall of information in the long run (Benware & Deci, 1984).

On the other hand, Borkowski and Thorpe (1994:45) deal with underachievers and the relation between self regulation and motivation proposing that an understanding of underachievement can be found in the failure to integrate self regulation and affect and is attributable to insensitivities, unresponsiveness placed by parents on children. Krouse and Krouse (1981) believe that there are three underlying reasons for underachievement:

- skill deficit
- personality dysfunction (impulsiveness, fear of failure, high need for approval)
- deficiencies in self-control.

They hold that it is the inadequate integration of self regulation with strong motivational beliefs about the power and importance of self efficacy. Those who know how to integrate cognitive, metacognitive, and motivational components are good at self regulation.

Table 1. Features of Self Regulation

Features of Self Regulated Learners	Achievers	Underachievers
Know a large number of learning strategies	+	---
Know how, when and where to use learning strategies	+	---
Select, monitor strategies wisely	+	---
Adhere to an incremental view regarding the growth of mind	+	---
Believe in effort	+	---
Are intrinsically motivated, task oriented	+	---
Have concrete, multiple images of themselves	+	---
Know a lot about many topics	+	---
Have a history of being supported by parents, schools and society.	+	---
Do not fear failure	+	---

This table which is based upon Borkowski and Thorpe's article (1994: 45–74) maintain that individuals who have high efficacy beliefs appear to have motivational patterns and self regulatory capacities.

Self-efficacy and Self Regulation

Self efficacy refers to personal beliefs about one's capabilities to learn or perform skills. Schunk (1994: 75) maintains that self regulation depends upon students feeling efficacious about performing well. He makes use of Bandura's social cognitive model of self regulation:
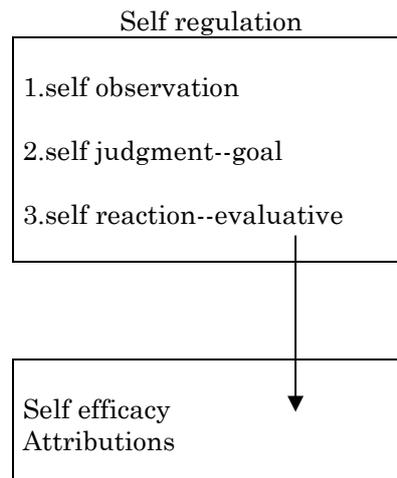
Self regulation

1.self observation

2.self judgment--goal

3.self reaction--evaluative

Self efficacy
Attributions

Figure 1. The Relation between Self regulation and Self efficacy

In this figure self observation is deliberate attention to aspects of one's behaviour. Learners cannot regulate their actions until they know what they do; self judgment refers to comparing present performance with one's goal. The belief that one is making progress enhances self efficacy. The third component in self regulation, self reaction is about evaluations one has about himself. Those with self regulatory processes have high self efficacy for accomplishing a task, participate more readily, work harder, and persist longer when they encounter difficulties.

Self Regulated Learning / Autonomous Learning

Self regulated learners are closely related to good thinkers who show the following four main characteristics (Brown & Pressley, 1994:158):
  • good thinkers use cognitive strategies
  • good thinkers employ metacognitive strategies. They monitor their progress closely.
  • good thinkers have other knowledge (on the other topics)
  • good thinkers possess motivational beliefs.

In another study held by Wyatt, Pressly, el Dinary, Stein, Evans and Brown in 1993 (Schunk& Zimmerman, 1994) the self regulated readers have other merits such as they are good at

  • anticipating and predicting information

- looking for information relevant to their goals
- jumping forward to look for particular information
- jumping back to look for particular information
- rapidly move back and forth in texts
- backtrack
- attend to tables and figures and some other details
- construct paraphrases/explanations
- summarize effectively.

Such readers successfully make use of cognitive and metacognitive strategies and they are always engaged in self regulated learning as well, knowing what to do, how to do, when to do. These learners plan very well and know how, when and where to use the strategies. If students have not developed such habits and strategies, the best way is to train them regarding the use of the metacognitive strategies and establish an intrinsic motivation in them. For that purpose teachers should explain and model effective cognitive and metacognitive strategies and help students monitor their progress.

A semi-structured interview is given to students studying at the the third year in a Teacher Training department to see what they think of self regulation,whether they use metacognitive strategies that are essential for autonomous learning and what they expect teachers to accomplish in the class.

Method

Aim and Research Questions

The aim of the study is to tackle the relation between self regulation, autonomy and metacognition and to discover whether there is a correlation between these three concepts.

Participants

The set of participants were 82 junior level students from the English teacher training program at a university in Turkey. Their ages ranged from 20-22. The subjects were informed verbally that their participation in the study was completely voluntary and would not influence their grades in the courses.

Instruments

The interview was designed with the help of the other methodology teachers and researches done by Chan (2001) and its split half reliability is found to be .92.

Procedure

All students (18 boys and 64 girls) were asked to respond honestly to the semi-structured interview which was about learner's thoughts on self regulation and how consciously they used metacognitive skills. All

interviews were transcribed verbatim as soon as possible after each interview and written texts were created. Creswell's (2002) strategy for the coding process was implemented in the present study. Codes were given for the segments of information.

Results

The first question, which was related to what students thought of teachers' roles, was presented in Table 2. Students took the first, third and fourth options indicating that they wished to see their teachers acting as a resource, a model and a helper. Half of students preferred to see teachers who were very knowledgeable and who set a model for them.

Table 2. Teacher roles according to students

Teachers' roles	n	%
A resource	58	26.3
An advisor	42	19.0
A hepler	60	27.2
A model	50	22.7
An authority	10	4.5
Total	220	100

Question 2 sought to establish the subjects' predisposition to the notion what teachers' expected actions were. 32.7 % ticked 'motivating students', which denotes that students need some encouraging from teachers to accomplish their aims. They wished to see teachers correcting their mistakes (25.8 %) and explaining the things to them (25 %). This result might seem to be paradoxical in the way that students both need to be corrected by their teachers but at the same time they wish it to be done in an encouraging manner and they need to be motivated well, which shows they do not trust themselves. In a way, this response is again indicative of what would seem to be a totally negative predisposition to this particular concept of autonomy. Table 2 ostensibly seems to indicate a totally negative predisposition to this component of autonomy

Table 3. Teacher's expected actions

Actions	n	%
Lecture	32	13.7
Explain	58	25
Help students pass the class	4	1.7
Motivate students	76	32.7
Follow the book	2	0.8
Correct students' mistakes	60	25.8
Total	232	100

The third question asked whether students thought teachers should help them learn independently or not and the interesting answer was their desire to be independent learners. Most of them, 79.4% ticked 'yes'. It sounds odd that on one hand, they are in constant need to be motivated, encouraged and stimulated by teachers; on the other hand, they wish to be autonomous learners.

Table 4. The teacher should help students learn independently

Answers	n	%
Yes	62	79.4
No	16	20.5
Total	78	100

The fourth item converged with the third item and students (87.8%) indicated their teachers should help them become responsible learners. They thought it was teacher's job to teach them responsibility and being independent learners. There was a positive disposition towards their wish to be responsible. This implies that they do not think they have the sense of responsibility.

Table 5. The teacher should help students to become responsible

Answers	n	%
Yes	72	87.8
No	10	12.19
Total	82	100

Table 6 questions whether students thought knowledge was transmitted by teachers or not. More than half (52.6 %) refute the old notion that teachers should impart knowledge.

Table 6. Knowledge is transmitted by the teacher

Answers	n	%
Yes	36	47.36
No	40	52.63
Total	76	100

Table 7 corroborates Table 6. Students thought they should discover knowledge, which implied some positivity towards autonomy. 82% of the participants showed unflinching desire to be independent learners.

Table 7. Learners should discover knowledge

Answers	n	%
Yes	68	82.92
No	14	17.07
Total	82	100

Table 8 showed whether students liked it better when the teacher lectured, students shared the responsibility or the teacher let students teach. Most students loved it when they had a share in the class design.

Table 8. Students' expectations from their teachers

Students like it when	n	%
the teacher lectures	30	17.6
the teacher corrects their mistakes	50	29.4
the teacher lets students teach	22	12.9
the teacher shares the responsibility with the class	68	40
the teacher does nothing	0	0
Total	170	100

Table 9 indicated students' preferences in working alone (39.6 %) and cooperating with another friend (39.6 %) had the same rating.

Table 9. Students' preference regarding group or individual work

Preferences	n	%
working alone	42	39.6
working in pairs	42	39.6
working with the class	22	20.7
Total	106	100

Table 10 highlighted the students' beliefs on who should do the assessment; most preferred it to be teachers or accept the peer assessment when it was done with the supervision of the teachers.

Table 10. Assessment

Preferences	n	%
teachers	78	50
students	4	2.56
both teachers and students	74	47.43
none	0	0
Total	156	100

The last item was related to the readiness of students when it came to autonomous learning. They said they could help with the lesson plans and this was the area where they felt most ready but regarding the syllabus and assessment, they remained reluctant.

Table 11. Readiness in autonomous learning

Readiness	n	%
Designing the syllabus	6	3.2
Choosing the course materials	48	26
Selecting the activities	32	17.3
Designing the lesson plans and implementing them	76	41.3
Assessing	22	11.9
Total	184	100

Table 12 tried to see whether students were aware of the metacognitive strategies or not. They were asked to write whether they were aware of their own strengths and weaknesses in reading and list down what they would do consciously if they were given a text to study, to mention whether they make plans and if they do how they plans and whether they monitor their study or not. Students are aware of the strategies but making plans and monitoring seems to be not so popular with them.

Table 12. Metacognitive strategies

Metacognitive strategies	n (82 students)	%
Highlighting	34	41.4
Underlining	42	51.2
Circling	45	54.8
Imaging	25	30.4
Visualizing	35	42.6
Rereading	50	60.9
Semantic mapping	41	50
Paraphrasing	35	42.6
Outlining	25	30.4
Self questioning	15	18.2
Thinking aloud	12	14.6
Monitoring progress	14	17
Making adaptations or changes if necessary	20	24.3
Defining goals	18	21.9

Discussions

The results show that students do not feel ready for the autonomous learning and they still believe the teaching activity should be designed and they should be evaluated by the teacher but they show enthusiasm to learning to undertake more responsibility and rejecting the idea that

61

knowledge should be transmitted by the teacher, however, they do not like to cooperate and collaborate with their classmates. It can be said that low autonomy is closely related to the low self regulation habits. Students who expect most from teachers in syllabus design and class activities prefer to be working individually with the guidance of teachers. Self-regulated learners feel autonomous. This does not mean they are self-sufficient and isolated from others. On the contrary, they feel comfortable working with others (Newman, 2002: 134) but the results show the Turkish students are not fully autonomous learners. When it comes to the metacognitive strategies, half of them use the cognitive strategies but the second aspect of the metacognition, planning and monitoring (18% and 17% respectively) are not employed by students who show not self regulatory habits. Students with the low self regulation and the low autonomous inclination employ less metacognitive strategies (Ertmer & Newby, 1996) In order to accelarate this process, teachers should help students in many ways: First, students can benefit from analyses and discussions of strategies for learning. Students might discuss how to use pictures as clues to text meaning, whereas college students might discuss alternative ways to take notes, but they are both metacognitive discussions about regulating learning. Teachers need to be able to describe appropriate strategies - what they are, how they operate, and when they should be applied - and be able to lead discussions so that students can explore their understanding about how they learn. Second, teachers can design open-ended instructional activities and scaffold assistance for student inquiry. Less emphasis should be placed on workbook exercises and routine tasks and more emphases should be placed on working together to guide students to more effective approaches to learning. Third, teachers can minimize objective tests (e.g., multiple-choice tests, true-false tests), competitive test scores, and public comparisons of performance which detract from students' sense of efficacy and mastery. Projects, portfolios, and performance assessments can motivate students, provide opportunities for self regulated learning, and enhance creative expression. Linking self-assessment with external standards may help students regulate their actions to desired outcomes. Fourthly, teachers should make students cognizant of the benefits of self regulated learning. More work is needed, however, on how best to implement and evaluate teacher training strategies for facilitating autonomous learning. The pursuit of this research direction can help put into practice—via effective teachers and teaching practices— what is known about skill, will, and socio-emotional support factors that foster positive student affect and promote motivation for lifelong autonomous learning.

Limitations of the study

Though the results are based on 82 teacher trainees at a large western state university, they need to be treated with caution. If the other groups are taken as participants within the same university or from the other

universities and these students have high grades, the results might be different and this needs to be searched.

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References

Bandura, A. (1986). *Social Foundations of Thought and Action*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1991). Social Cognitive Theory of Self Regulation. *Organizational Human Behavior and Human Decision Processes, 50*, 248–287.

Benware, C. & Deci, E. (1984) Quality of Learning with an Active versus Passive Motivational Sets. *American Educational Research Journal, 21*, 755–765.

Borkowski, J. & Thorpe, P. (1994). *Life Span Perspective on Underachievment in Self Regulation of Learning and Performance*. In Dale Schunk and Barry Zimmerman (Eds.). NJ: Lawrence Erlbaum Associates.

Brown, A. L. (1987). Metacognition, executive control, self-regulation, and other more mysterious mechanisms. In F. E. Weinert & R. H. Kluwe (Eds.), Metacognition, motivation, and understanding (pp. 65–116). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Chan, V. (2001) Learning Autonomously: The Learners' Perspectives. *Journal of Further and Higher Education, 25*(3), 285–297.

Cresswell, J. W. (2002) Handbook of Research Design and Social Measurement: NY: Sage.

Dweck, C. S. (1986). Motivational Processes Affecting Learning. *The AmericanPsychologist, 41*, 1040 – 1048.

Ertmer, P. A. & Newby, T. J. (1996). The expert learner: strategic, self-regulated, and reflective. *Instructional Science 24*, 1–24.

Krouse, J. H. & Krouse, H. J. (1981) Toward a Multimodal Theory of Academic Underachievement. *Educational Psychologist, 16*, 151–164.

Maxim, G. (2009) *Dynamic Social Studies for Constructivist Classrooms*. NJ: Prentice Hall.

McCombs, B. (1989). *Self-regulated learning and academic achievement: A phenomenological view*. New York: Springer-Verlag.

Meece, J. (1994) The Role of Motivation in Self Regulated Learning in Self Regulation Of Learning and Performance. In Dale Schunk and Barry Zimmerman. NJ: Lawrence Erlbaum Associates.

Newman, R. (2002) How Self regulated Learners Cope with Academic Difficulty. *Theory into Practice, 41*(2), 132–138.

Paris, S. G. & Byrnes, J. P. (1989). The constructivist approach to self-regulation and learning in the classroom. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement: Theory, research and practice* (pp. 169–200). New York: Springer-Verlag.

Pressley, M. (2000). *What should comprehension instruction be the instruction of?* In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), Handbook of Reading Research Vol III. Mahwah NJ: Erlbaum.

Schunk, D. & Zimmerman, B. (1994). Self Regulation of Learning and Performance. NJ: Lawrence Erlbaum Associates.

Schunk, D., Pintrich, P. & Meece, J. (2007). *Motivation in Education: Theory, Research, and Applications*. NY: Prentice Hall.

Weiner, B. (2005). *Social Motivation, Justice, and The Moral Emotions: An Attributional Approach*. London: Routledge.

Zimmerman, B.J. (1986) Development of Self Regulated Learning. *Contemporary Educational Psychology, 16*, 307–313.

Zimmerman, B.J. & Martinez –Pons, M. (1988). Construct Validation of a Strategy Model of Student Self Regulated Learning. *Journal of Educational Psychology,73*, 485–493.