Electronic Journal of Research in Educational Psychology
ejrep
25 Años 1993 | 2018 UNIVERSIDAD DE ALMERÍA
Ilustre Colegio Oficial de Psicología DE ANDALUCÍA ORIENTAL

Self-Regulated Learning Strategies of Active Procrastinating Pre-University Students

Jeyavel Sundaramoorthy

Department of Psychology, Central University of Karnataka, Kalaburagi.

India

Correspondence: Dr.Jeyavel Sundaramoorthy, Assistant Professor, Dept of Psychology, Central University of Karnataka, Kalaburagi-585367. INDIA. E-mail: jeyavel05@gmail.com

© University of Almería and Ilustre Colegio Oficial de la Psicología de Andalucía Orirental (Spain)

Abstract

Introduction. A common impediment to any student's academic achievement and well being is the phenomenon of procrastination. Procrastination has typically been defined as a trait or behavioural disposition to postpone or delay performing a task or making decision. It is voluntary yet irrational delay of an intended course of action and frequently results in unsatisfactory, performance and emotional upset. Whereas, active procrastination is one's intentional decision to procrastinate in order to cope and focus attention on other tasks at hand and to experience performance pressure.

Method. This study attempted to explore pre-University college (PUC) students' active procrastination in relation to their self-regulated learning. 120 PUC students were selected from four different schools of Gulbarga town in Karnataka state of India through multistage random sampling. With the demographic details of students, they were administered Active procrastination scale and Self-regulated learning measure.

Results. Students of Educated parents and boys have higher active procrastination. Urban and rural students do not differ in their active procrastination. Goal setting & planning, seeking information, keeping records and rehearsing & memorizing strategies are significantly related to active procrastination

Discussion and Conclusion. Urban students have higher organizing & transforming, rehearsing& memorizing and seeking social assistance SRL strategies. Students who engage in more than one hobby have better goal setting & planning, information seeking & total SRL. Active procrastination has significant relation with goal setting & planning, seeking information, keeping records, rehearsing & memorizing SRL strategies.

Keywords: *Active Procrastination, self-regulated learning, goal setting, self-evaluation*

Resumen

Introducción. Un impedimento común para el logro académico y el bienestar de cualquier estudiante es el fenómeno de la postergación. La dilación por lo general se ha definido como un rasgo o una disposición de comportamiento para posponer o retrasar la realización de una tarea o la toma de una decisión. Es un retraso involuntario pero irracional de un curso de acción intencionado y frecuentemente resulta en insatisfacción, rendimiento y malestar emocional. Mientras que, la procrastinación activa es la decisión intencional de posponer las cosas para poder enfrentar y concentrar la atención en otras tareas y experimentar la presión del rendimiento.

Método. Este estudio intentó explorar la predisposición activa de los estudiantes preuniversitarios (PUC) en relación con su aprendizaje autorregulado. Un total de 120 estudiantes de la PUC fueron seleccionados de cuatro escuelas diferentes de la ciudad de Gulbarga en el estado de Karnataka, India, a través de un muestreo aleatorio de múltiples etapas. Con los detalles demográficos de los estudiantes, se les administró la escala de Pro-crastination activa y la medida de aprendizaje autorregulado.

Resultados. Los estudiantes de padres y niños educados tienen mayor procrastinación activa. Los estudiantes urbanos y rurales no difieren en su procrastinación activa. La fijación de objetivos y la planificación, la búsqueda de información, el mantenimiento de registros y las estrategias para ensayar y memorizar están significativamente relacionados con la procrastinación activa

Discusión y conclusión. Los estudiantes urbanos tienen una mayor organización y transformación, ensayos y memorización, y la búsqueda de estrategias de SRL de asistencia social. Los estudiantes que participan en más de un pasatiempo tienen una mejor configuración de objetivos y planificación, búsqueda de información y SRL total. La procrastinación activa tiene una relación significativa con la fijación de objetivos y la planificación, la búsqueda de información, el mantenimiento de registros, el ensayo y la memorización de estrategias de SRL.

Palabras clave: Procrastinación activa, aprendizaje autorregulado, establecimiento de metas, autoevaluación

Introduction

Due the advancements in science and technology, the educational system is becoming more complex day by day. In this competitive world students are experiencing more pressure than the previous generations. These days, Success or failure in academic area is very important for every student. Students have to concentrate on class work, homework, tuitions, extracurricular activities, projects, assignments, exam preparation and etc. When students focus their attention continuously on academic tasks, they succeed academically. A common impediment of academic achievement and well being of students is the phenomenon of procrastination (Chu & Choi, 2005).

Procrastination

Procrastination has typically been defined as a trait or behavioural disposition to postpone or delay performing a task or making decision (Kachgal et al., 2001). It is voluntary yet irrational delay of an intended course of action (Steel, 2007) and frequently results in unsatisfactory, performance and emotional upset (Chu & Choi, 2005; Ferrari O' Calleghan & New Begin, 2005). The procrastination of university students results in incomplete assignments, cramming test & social anxiety, use of self-handicapping strategies, fear of failure & underachievement and can result in damaging mental health outcome such as depression and anxiety (Dewitte & Schouwenburg, 2002; Ferrari & Scher, 2000; Lee, 2005). Many researchers have explored that undergraduates' academic procrastination was a sort of anti-motivation that had been conceptualized with failure of self-regulation, and is associated with low levels academic self-efficacy & self-esteem and with high level of stress and illness (Ferrari et.al. 2005; Howell, Watson, Powel & Buro, 2006; Wolter, 2007).

Among all the variables that have been investigated in relation to academic procrastination, self related constructs such as self-regulation, self-efficacy and self-esteem have received the most attention. It can be understood using self-regulation models; where in procrastinating behaviors reflect a self-regulation deficit and low confidence in achievement (Steel, 2007; Wolter, 2003). Ferrari (2001) found that chronic procrastinators failed to regulate performance skills effectively, and were more likely to perform poorly under pressure. Chu & Choi (2005) have proposed that high self-efficacy leads students, to initiate tasks and

persists on tasks in the face of challenges; whereas low self-efficacy may lead to procrastinating behaviour. Finally, researchers have proposed that procrastination is linked to self-esteem, some individual may avoid task initiation or completion due to feeling of academic or global low self-worth (Ferrari, 1994; Steel, 2007). Definitions of procrastination have also been delineated as adaptive or maladaptive, functional or dysfunctional, pessimistic or optimistic and active or passive (Schraw et.al, 2007).

Active Procrastination

Lay (1987, 1988) has identified and distinguished between optimistic and pessimistic procrastinators. Unlike pessimistic procrastinators, optimistic procrastinators did not suffer from anxiety or low self-efficacy as a result of their procrastination. Klassen et al., (2008) investigated self-efficacy for Self-regulated learning, procrastination & performance and found that undergraduates who were negatively affected by procrastination differed significantly from those who are less affected, reporting lower GPA, lower predicted grades, lower actual course grades and lower self-efficacy for self-regulation. Chu & Choi (2005) have identified two different types of procrastinators; passive & active procrastinators. Passive procrastinators are described as the traditional type, who, cognitively do not intend on procrastinating but end up doing so and experiencing negative outcomes such as high anxiety and low performance. Alternatively active procrastinators report a performance pressure and make deliberate decision to procrastinate in order to cope and focus attention on other tasks at hand. Although active procrastinators engage in procrastination, they are likely to experience satisfactory outcome of their procrastination, similar to non-procrastinators. The authors also explored that, active procrastination was positively related to emotional stability & extraversion. Active procrastinators also have better time management skills, more adaptive stress coping strategies, higher self-efficacy, better emotional regulation, better performance and are characteristically more conscientious than passive procrastinators. These interventions are supported by Schraw et al's (2007) grounded theory which found that adaptive procrastinators reported the use of planning & organizational skills such as goal setting, early task preparation, controlling their work environment, and identifying an optimal time to work in order to achieve or sustain a state of flow. They also reported the use of adaptive coping mechanisms such as protective self-talk, cognitive reframing and physical exercise in order to maintain positive attitude & reduce stress.

Self-Regulated Learning

Pintrich (2000) defines self-regulated learning (SRL) as "an active, constructive process by which the learner sets goals, monitor his learning and control his or her motivation, behaviour and cognition". According to Wirth & Leutner (2008), it is a learner's competence to autonomously plan, execute, and evaluate learning processes, which involves continuous decisions on cognitive, motivational, and behavioural aspects of the cyclic process of learning. DeWall, Baumister & Vohs (2008) stated that self-regulated learning refered to a person's ability to change his or her own behaviour related to learning. As Zimmerman (1998) pointed out academic self-regulation is not a mental ability, such as intelligence, or an academic skill, such as reading, proficiency, rather a self-directed process through which learners transform their mental abilities into an academic skill. Self-regulated learning theories seek to explain why, despite the apparent capacity to learn in terms of advantages in mental ability, socio-economic status and quality of education, some learns fail to achieve academically (Zimmerman, 2001). Schunk and Zimmerman (2003) have claimed that self-regulated learning changes across life span.

Self-regulated learning is of great importance for academic achievement (Zimmerman & Schunk, 2001). Students' ability to regulate their cognition, their motivation is known to have an important impact on the quality of their learning and their level of achievement (Wolter, 2011). SRL can foster deep and meaningful learning as well as significant gains in student achievement. Many intervention studies reveal that trainings on self-regulated learning enhance students' academic performance (Dignath & Buttner, 2008; Fuchs et al. 2003; Jeyavel & Kadhiravan, 2015). Further, Self-regulated learning is viewed as combination of skill and will. Learning strategies of the learner is the skill component and motivation of the learner is the will component.

Review of Literature

Procrastination is one of the important construct which have been researched for the past two decades. Many researchers have established an inverse relationship between procrastination and self-efficacy (Choi & Moran, 2009; Steel, 2007 & Wolters, 2003). Self-esteem & academic self-efficacy are related to procrastination and self-efficacy for SRL appears to be most predictive of procrastination tendencies (Klassen et al., 2008, 2010; Tan et al., 2008). Although the majority of research has focused procrastination as related to self-regulation failure, research has also found procrastination to increase as one become more

self-regulated (Ferrari, 1991). Moran's (2009) findings indicated that active procrastinators have better time management skills, more adaptive stress-coping strategies, higher self-efficacy, better emotion regulation, better performance than passive procrastinators. Research on adaptive form of procrastination provides an opportunity to better understand the nature of procrastination by providing a more accurate means of investigation. Further investigation is needed to exam the qualitative difference in adaptive procrastinator's self-regulated learning in different context, to have more clarity in the construct of academic procrastination, and its adaptive functioning in the academic context.

Objectives

The main objectives of this study are

1. Comparing the adolescents' active procrastination and self-regulated learning with demographic variables.
2. Exploring the relationship between active procrastination and self-regulated learning.

Hypotheses

The following Hypotheses have been framed in order to reach the objective.

1. Adolescents differ in their Active procrastination and SRL on the basis of their gender, parental education and parental income.
2. There is no significant relationship between student's Active procrastination, and SRL.

Method

Participants

This study adapted survey method. 120 Pre-University College students were selected from four different schools of Gulbarga town in Karnataka state of India through multistage random sampling. Participants were studying English Medium Pre-University college, second year with mean age of 18.3yrs, ranging from 17-19.

Instruments

Active Procrastination Scale by Choi & Moran (2009). It is a 16-item scale that assesses four dimensions of active procrastination: outcome satisfaction (4 items; α=0.83), preference for pressure (4 items; α=0.82), intentional decision (4 items; α=0.70), and ability to

meet deadlines (4 items; α=0.70). All constructs were measured using multi-item indexes with a response format of a 7-point likert-type scale, with anchors ranging from not at all true to very true. Higher scores on the scale indicate active procrastination, whereas lower scores indicate passive procrastination. The instrument has been validated through exploratory factor analysis, confirmatory factor analysis, measurement of internal consistency, a nomological network, and measurement of incremental validity (Choi & Moran, 2009). The instrument has exhibited an acceptable reliability coefficient of 0.80.

Self-Regulated Learning Measure (Kadhiravan,1999). 40 items tool with statements which reflect student's study practices, and expressed to give their option from very often, often, sometimes, rarely and never. The split-half reliability of the tool is 0.806 and the test retest reliability is 0.794. The validity of the test is found to be 0.897. The face validity, content validity and predictive validity are also established for this tool.

Procedure

Participants of this sudy were belonging to Gulbarga District, one of the backward district of Hyderabad-Karnataka region. Four schools were randomly selected by the researcher and requested for permission from authorities for the conduction of the study. After assuring permission, researcher met the participants in their class, which was selected again with random choice. Participants have been explained about the study, and informed consent was taken. They have also been assured for the confidentiality of the data. With personal data sheet, they were administered the above mentioned tools. Participants took around 25minutes to complete the entire task. They have been were thanked for their participation.

Datal Analysis

After scoring, only 112 data were taken for analysis because of incompleteness of the data. 't'-test, product moment correlation was used for analyzing the data.

Results

Results of this study are presented from table 1 to table 6. Table 1 shows active procrastination of students on the basis of Gender, Locality & Parental Education. Table 2 shows self-regulated learning of students with respect to their gender. Table 3 shows self-regulated learning of students on the basis of their locality. Table 4 shows self-regulated learning of

students with respect to their parental education. Table 5 shows self-regulated learning of students with respect to their hobbies. Table 6 shows correlational analysis of self-regulated learning with active procrastination.

Table 1. Active procrastination of students on the basis of Gender, Locality & Parental Education

Variable		Mean	SD	't'-value
Active Procrastination	Male (64)	50.50	10.44	2.804*
	Female (48)	44.83	10.76	
	Rural (42)	48.50	11.02	0.904^{NS}
	Urban (72)	47.36	10.79	
	Illiterates (43)	46.43	11.43	2.649*
	Literates (69)	52.35	8.05	

NS- not significant *- significant at 0.05 level

Table 2 *Self-regulated Learning of students with respect to their Gender*

S. No.	SRL strategies	Male N=64		Female N=48		't'-value
		Mean	SD	Mean	SD	
1	Self-evaluation	8.23	2.61	9.52	2.575	**2.608***
2	Organizing & transforming	7.37	3.489	6.43	2.923	1.549 ^{NS}
3	Goal setting & Planning	7.13	3.06	7.83	3.533	1.098 ^{NS}
4	Seeking Information	7.81	2.274	8.08	3.389	0.477 ^{NS}
5	Keeping Records	7.84	2.929	7.71	3.865	0.195 ^{NS}
6	Environmental Structuring	7.84	3.377	7.96	3.516	0.182 ^{NS}
7	Self-consequences	7.38	2.938	8.46	2.736	**2.003***
8	Rehearsing & memorizing	6.53	2.567	7.59	2.633	**2.131***
9	Seeking social assistance	7.23	2.404	7.67	3.616	0.731 ^{NS}
10	Review of records	9.20	3.533	9.00	3.236	0.311 ^{NS}

11	Total SRL	76.56	15.308	80.25	20.923	1.032 NS

NS- not significant *- significant at 0.05 level

Table 3 *Self-Regulated Learning of students on the basis of their Locality*

S. No.	SRL strategies	Rural		Urban		't'-value
		Mean	SD	Mean	SD	
1	Self-evaluation	8.96	2.522	8.40	2.687	1.092 NS
2	Organizing & transforming	6.21	3.546	8.14	2.280	**3.504***
3	Goal setting & Planning	7.73	2.939	7.19	3.801	0.790 NS
4	Seeking Information	8.09	2.848	7.67	2.720	0.777 NS
5	Keeping Records	8.39	3.247	7.02	3.456	**2.077***
6	Environmental Structuring	7.97	3.506	7.76	3.319	0.317 NS
7	Self-consequences	8.10	3.018	7.40	2.642	1.286 NS
8	Rehearsing & memorizing	6.53	2.744	7.55	2.244	**2.138***
9	Seeking social assistance	6.64	3.116	7.85	2.659	**2.184***
10	Review of records	9.41	3.685	8.62	2.938	1.250 NS
11	Total SRL	78.03	17.660	77.6	10.795	0.160 NS

NS- not significant *- significant at 0.05 level

Table 4 *Self-Regulated Learning of Students with respect to their Parental Education*

S. No.	SRL strategies	Literate parents		Illiterate Parents		't'-value
		Mean	SD	Mean	SD	
1	Self-evaluation	8.40	2.700	8.97	2.509	1.147 NS
2	Organizing & transforming	8.28	2.269	6.10	2.911	**3.623***
3	Goal setting & Planning	8.35	3.690	7.01	2.913	**2.125***
4	Seeking Information	8.58	3.507	7.52	2.172	**1.976***
5	Keeping Records	8.07	3.481	7.61	3.273	0.708 NS
6	Environmental Structuring	8.05	3.394	7.80	3.462	0.374 NS
7	Self-consequences	7.44	2.363	8.09	3.166	1.230 NS
8	Rehearsing & memorizing	7.23	2.487	6.71	2.674	1.033 NS
9	Seeking social assistance	6.93	2.613	7.81	3.150	1.534 NS
10	Review of records	7.86	2.973	9.90	3.486	**3.179***
11	Total SRL	79.19	19.924	77.52	16.607	0.458 NS

NS- not significant *- significant at 0.05 level

Table: 5 *Self-regulated learning of students with respect to their hobbies*

S. No.	SRL strategies	One hobby		More than one hobby		't'-value
		Mean	SD	Mean	SD	
1	Self-evaluation	8.68	2.819	8.94	1.879	0.468 NS
2	Organizing & transforming	6.69	3.113	7.58	3.585	1.296 NS
3	Goal setting & Planning	7.02	3.033	8.84	3.588	**2.689***
4	Seeking Information	7.31	2.831	9.55	1.947	**4.048***
5	Keeping Records	7.47	3.351	8.61	3.242	1.631 NS
6	Environmental Structuring	7.77	3.377	8.23	3.575	0.635 NS
7	Self-consequences	7.86	2.974	7.77	2.704	0.147 NS
8	Rehearsing & memorizing	6.73	2.398	7.39	3.073	1.200 NS
9	Seeking social assistance	7.48	2.698	7.45	3.650	0.047 NS
10	Review of records	8.84	3.726	9.84	2.410	1.384 NS
11	Total SRL	75.85	17.775	84.19	16.99	**2.249***

NS- not significant *- significant at 0.05 level

Table 6. *Correlation analysis: Self-regulated learning Vs Active procrastination*

S. No.	Variable	Active Procrastination
1	Self-evaluation	0.128
2	Organizing & transforming	0.116
3	Goal setting & Planning	0.161*
4	Seeking Information	0.158*
5	Keeping Records	0.161*
6	Env. Structuring	0.086
7	Self-consequences	-0.093
8	Rehearsing & memorizing	0.182*
9	Seeking social assistance	-0.092
10	Review of records	0.33
11	Total SRL	0.155*

*- significant at 0.05 level

Discussion and Conclusions

Students of Literate Parents & Boys are higher in engaging active procrastination than their counter parts. In present times, boys are given more freedom than girls which leads them to engage many other activities than academics. This may facilitate their active procrastination tendency over girls. Educated parents could ensure better monitoring of their kids academic engagement than the illiterate parents. Students do not differ in their active procrastination with respect to locality. Locality has no difference in active procrastination. Table 2 displays gender wise comparison of self-regulated learning. Girl students are better in self-evaluation, self-consequences and rehearsal & memorization strategies of SRL. Studies by Hardeep (2006), Tara Motha (2005), Wolters (1999), Niemivirta (1997), Pokay & Blumenfeld (1990), Jeyavel & Kadhiravan, (2013); (2014) have supported this result. Generally girls are having better verbal skills than boys. This might help them in rehearsing & memorizing their

learning tasks better than boys. But, there is no gender difference in total SRL, which indicates both male & female students have overall average SRL skills.

Locality wise comparison of SRL strategies have been given in Table 3. Urban students have better organization & transforming, rehearsing & memorizing & seeking social assistance strategies. Enhanced facilities in urban area facilitate students to have better access to opportunities that develop and sharpen their academic skills. Due to lack of facilities, rural students are limitized to their own test paper, & exam papers for the feedback about their improvement (Jeyavel & Kadhiravan, 2015). Both urban and rural students do not differ in overall SRL, as they are competing one another for better prospects.

Educated parents have the academic experience to help their children when they get stuck over. They have better outlook about education & provide feedback about the importance of doing well in studies and its impact on one's future (Jeyavel & Kadhiravan, 2010). As they have succeeded in education, they also act like a model for their children to follow. From table 4, it is implied that students of literate parents have better organization & transforming, goal setting & planning and seeking information SRL strategies. Illiterate parents' lack of education might provide less opportunity for understanding their children's educational difficulty and may display a wrong model for them to follow. Illiterate parents can easily compare their kid's performance based on their previous exam results. Their emphasis of reviewing their kid's progress has influenced their kid's better utilization of that SRL strategy.

Table 5 shows Student's SRL with respect to their hobbies. Students were asked to list out their hobbies. Those who have more than one hobby, differ significantly in goal setting & planning, seeking information SRL strategy & Total SRL. Non-compulsive act of participating originates from self-interest and self-involvement. When student have two or three hobbies, they may use their time in a planned manner, and keep regulating their action that will help them to reach their determined goals. It indirectly indicates the personal involvement of the students on the activities related to studies. If students are encouraged to have more hobbies, that may help them to attempt the same strategy to their academics also.

Table 6 shows the correlation analysis of Self-regulated learning and active procrastination. Goal setting & planning, seeking information, keeping records, rehearsing & memorizing and Total SRL are the strategies which are significantly related positively to Active

procrastination. When students are much clear about their long term as well as short term goals, and willing to put effort for the benefit of theirselves, they do purposeful procrastination, and enjoy the kick of completing the task in last moment. They also engage in information seeking, keep records of their performance as well as rehearsing & memorizing. These results also support the work of Choi & Moran (2009) and Schraw, et al. (2007) that procrastination is likely to have a positive impact on academic functioning when students report more self-regulation of their learning. Positive correlation of goal setting & planning strategy with active procrastination signifies that they also set their goals as to complete the task like non-procrastinator and plan in such a way that would be attained in the last minute with time pressure.

This study has attempted to explore PUC students' active procrastination in relation to self-regulated learning. From the results it is concluded that, even though procrastination is viewed as negative, active procrastination has positive effect on self-regulated individuals. Boys and students of literate parents have higher active procrastination. Girls are better in goal setting & planning, rehearsing& memorizing and self-consequences SRL strategies. Urban students have better organizing & transforming, rehearsing& memorizing and seeking social assistance SRL strategies. Students who engage in more than one hobby, have better goal setting & planning, information seeking & total SRL. Active procrastination has significant relation with goal setting & planning, seeking information, keeping records, rehearsing & memorizing SRL strategies.

On the basis of this study, it could be implied that activities focusing on enhancing self regulatory skills will benifit them to be prepared to face the college education. The role of puposive procrastination could be encouraged in all school students so that they could become better performer in their academics. The results of this study could be understood in the light of its limitations. This study has included pre university students who are at the juncture of school and college where they are neither fully external driven nor internal driven. It may take few more years to get these self-regualtory skills to fully establish. The samples of this study were drawn from english médium students studying in this región, which may not be generalized to all other students who are in studying in their native language or other languages. Further studies could attempt on other student population to confirm the results of this current study. Researchers could also address the impact of other situational variables like type of the curricullam, teaching methods, teacher's self-regulation on students self reguated learning.

References

Choi, J. N., & Moran, S.V. (2009). Why not procrastinate? Development and validation of a new active procrastination scale. *Journal of Social Psychology,* 149, 195-211. DOI: 10.3200/SOCP.149.2.195-212.

Chu, A.H.C., & Choi, J.N. (2005). Rethinking procrastination: Positive effects of "active" procrastination behaviour on attitudes and performance. *Journal of Social Psychology*, 145,245–264. DOI: 10.3200/SOCP.145.3.245-264.

DeWall, C.N., Baumeister, R.F., & Vohs, K.D. (2008). Satiated with belongingness? Effects of acceptance, rejection, and task framing on self-regulatory performance. *Journal of Personality and Social Psychology, 95*, 1367-1382. DOI:10.1037/a0012632.

Dewitte, S., & Schouwenburg, H.C. (2002). Procrastination, temptations, and incentives: The struggle between the present and the future in procrastinators and the punctual. *European Journal of Personality,* 16, 469–489. DOI: org/10.1002/per.461.

Dignath, C., Buettner, G., Langfeldt, H. (2008). How can primary school students learn self-regulated learning strategies most effectively? A meta-analysis on self-regulation training programmes. *Educational Psychology Review,* 3, 101 – 129. DOI: 10.1016/j.edurev.2008.02.003.

Ferrari, J.R. (1994). Dysfunctional procrastination and its relationship with self-esteem, interpersonal dependency, and self-defeating behaviours. *Personality and Individual Differences,* 17, 673–679. DOI.org/10.1016/0191-8869(94)90140-6.

Ferrari, J.R. (2001). Procrastination as self-regulation failure of performance: Effects of cognitive load, self-awareness, and time limits on 'working best under pressure'. *European Journal of Personality*, 15, 391–406. DOI.org/10.1002/per.413

Ferrari, J.R., O'Callaghan, J., & Newbegin, I. (2005). Prevalence of procrastination in the United States, United Kingdom, and Australia: Arousal and avoidance delays among adults. *North American Journal of Psychology,* 7, 1–6.

Ferrrari, J.R., & Scher, S.J. (2000). Toward an understanding of academic and non-academic tasks procrastinated by students: The use of daily logs. *Psychology in the Schools*, 37, 359–366.

Fuchs, L. S., Fuchs, D., Prentice, K., Bruch, M., Hamlett, C. L., Owen, R., & Schroeter, K. (2003). Enhancing third-grade students' mathematical problem solving with self-

regulated learning strategies. *Journal of Educational Psychology,* 95, 306-315. DOI: 10.1037/0022-0663.95.2.306.

Hadwin, A.F. (2008). Self-regulated learning. In T.L. Good (Ed.), *21 st century education: A reference handbook* (pp. 175-183). Thousand Oaks, CA: Sage Publications.

Howell, A.J., Watson, D.C., Powell, R.A., & Buro, K. (2006). Academic procrastination: The pattern and correlates of behavioural postponement. *Personality and Individual Differences*, 40, 1519–1530. DOI.org/10.1016/j.paid.2005.11.023.

Jeyavel, S. & Kadhiravan, S. (2013). "The Predictive role of family environment and goal orientation on students' Self-Regulated Learning". *International Journal of Psychology and Education,* 1 (3), 104-112.

Jeyavel, S. & Kadhiravan, S. (2014). "Impact of Family Environment on Adolescents' Goal Orientation". *International Journal of Management and Social Science Review,* 1 (2), 204-208.

Jeyavel, S. & Kadhiravan, S. (2015). "Enhancing Self-regulated learning among adolescents". *International Journal of Scientific Research.* 4 (6), 452-455.

Jeyavel, S. (2013). "College Students' Test Anxiety and Self-regulation". *Periyar University Journal of Psychology*, Vol.1, 74-77.

Kachgal, M. M., Hansen, L. S., & Nutter, K. J. (2001). Academic procrastination prevention/intervention: Strategies and recommendations. Journal of Developmental Education, 25, 14-24.

Kadhiravan, S. (1999). *Effectiveness of computer assisted instruction in relation to students' use of self-regulated learning strategies*. Unpublished Ph.D. Dissertation, Bharathiar University, Coimbatore.

Klassen, R. M., Krawchuk, L. L., & Rajani, S. (2008). Academic procrastination of undergraduates: Low self-efficacy to self-regulate predicts higher levels of procrastination. *Contemporary Educational Psychology*, 33, 915-931. DOI: 10.1016/j.cedpsych.2007.07.001.

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, behavioural patterns, and negative impact of procrastination in Canada and Singapore. *Applied Psychology: An International Review,* 59(3), 361-379. DOI.org/10.1111/j.1464-0597.2009.00394.x.

Lay, C.H., & Schouwenburg, H.C. (1993). Trait procrastination, time management, and academic behaviour. *Journal of Social Behaviour and Personality*, 8, 647–662.

Lay, C. H. (1987). A modal profile analysis of procrastinators: A search for types* 1. *Personality and Individual Differences*, 8(5), 705-714. DOI.org/10.1016/0191-8869(87)90069-9.

Lay, C. H. (1988). 'The relation of procrastination and optimism to judgements of time to complete an essay and anticipation of setbacks', *Journal of Social Behaviour and Personality*, 3: 201–214.

Lee, E. (2005). The relationship of motivation and flow experience to academic procrastination in university students. *Journal of Genetic Psychology*, 166, 5–14. DOI:10.3200/GNTP.166.1.5-15

Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P.R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation*, (pp. 451- 502). San Diego, CA: Academic Press.

Pintrich, P. R., & Garcia, T. (1991). Student goal orientation and self-regulation in the college classroom. In: Maehr, M., and Pintrich, P. R. (eds.), *Advances in Motivation and Achievement,* (vol. 7), JAI Press, Greenwich, CT.

Pintrich, P. R., D. A. F. Smith, T. Garcia, and W. J. McKeachie. (1993). Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational and Psychological Measurement*, 53, 801-813.

Schraw, G., Wadkins, T., & Olafson, L. (2007). Doing the things we do: A grounded theory of procrastination. *Journal of Educational Psychology*, 99, 12–25. DOI.org/10.1037/0022-0663.99.1.12.

Schunk,D.H. & Zimmerman, B.J. (2003). Self regulation and learning. *Handbook of Psychology,* 7, 59-78.

Steel P (2007). The nature of procrastination: A Meta-Analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, 133(1): 65-94.

Tan, C. X., Ang, R. P., Klassen, R. M., Yeo, L. S., Wong, I. Y. F., Huan, V. S., et al. (2008). Correlates of academic procrastination and students' grade goals. *Current Psychology,* 27(2), 135-144.

Van Eerde, W. (2003). A meta-analytically derived nomological network of procrastination. *Personality and Individual Differences*, 30, 149–158.

Wolters, C.A. (2003). Understanding procrastination from a self-regulated learning perspective. *Journal of Educational Psychology*, 95, 179–187. DOI.org/10.1037/0022-0663.95.1.179

Wolters, C.A. (2011). Regulation of Motivation: Contextual and social aspects. *Teachers college records.* 113(2), 265-283.

Writh, J., & Leutner, D., (2008). Self-regulated learning as a competence: Implications of theoretical models for assessment methods. *Zeithschrift fur Psychologie,* 216, 102-110.

Zimmerman, B. J., & Schunk, D. H. (2001). Self-regulated learning and academic achievement: Theoretical perspectives. Mahwah, NJ: Erlbaum.

Zimmerman, B. J. (1998). Developing self-fulfilling cycles of academic regulation: An analysis of exemplary instructional models. In D. H. Schunk & B. J. Zimmerman (Eds.), Self-regulated learning: From teaching to self-reflective practice (pp. 1–19). New York: Guilford Press.