

PSYCHO-TECHNOLOGICAL
APPROACHES IN HEUTAGOGY

Dr A. S. Arul Lawrence Dr M. Manivannan

Editors

PRINCIPAL

ST. XAVIER'S COLLEGE OF EDUCATION
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For orders and more information
TAMIL NADU OPEN UNIVERSITY
577, Anna Salai, Saidapet, Chennai – 600015, Tamil Nadu, India
E-mail: arullawrence@gmail.com; URL: www.tnou.ac.in

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Contents

S. No.	Title and Author(s)	Pages
1.	Digital learning, innovative learning strategies for modern pedagogy, self-directed learning Vijaya Bhanu Kote, Philip Ecclesfield, & Nigel Ecclesfield	2-6
2.	Heutagogy - Every child's dream Vijaya Bhanu Kote, Philip Ecclesfield, & Nigel Ecclesfield	7-14
3.	Relevance of metacognition in heutagogy Diane Joseph, R., & Manikandan, K.	15-16
4.	Digital education tools for teachers and learners Prakash, N., & Barathi, C.	17-20
5.	Phygital approach to education Sumathi, D., & Angelin Devakumari, J.	21-22
6.	Digital learning in higher education Saravanan, D. P.	23-24
7.	Innovative teaching strategies Sumathi, D., & Shyla Gnanam Ebenezer, J.	25-27
.	A strategy for regulating the immersive learning environment in the classroom to revolutionize the learning process Usha Nandhini, R., & Senthamizh Pavai, R.	28-33
	An analysis on remote learning in prevailing times and future Dhiraj Barola, Bosco, K., Manjula, A., & Sudhakaran, M. V.	34-39
0.	Incite of self directed learning among young minds of today Neethi Perumal, M., Sivakumar, G., & Lenin, I.	40-41
l.	Interactive modern teaching method in education Sunitha, S., & Catherin Jayanthy, A.	42-43
2.	Mindfulness activities in recent educational technology Tamil Selvan, P., & Kalaiyarasan, G.	44-46
	Phygital learning, the next big revolution in education for the future Dhiraj Barola, Bosco, K., Manjula, A., & Sudhakaran, M. V.	47-51
•	Problem-based learning: a nuance in innovative pedagogy Shirley Moral, C., & Saradha, S.	52-54
	Digital technology in today's classroom instruction Samidass, S., Rajkumar, R., Poongothai, R., & Kowsalya, S.	55-57
	Virtual reality and augmented reality effective usage in school education Dhilip, S., Preethi, V., Dominic Rajaseelan, P., & Arul Lawrence, A. S.	58-60
	Augmented reality in education: Transforming the learning experience of learners Seema Yadav	61-64
1	Variance of self directed learning: Tracking pathways to success prepared	65-68

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Variance of self-directed learning: Tracking pathways to success prepared

Balasubramanian, R.

Research Scholar, Tamilnadu Open University, Chennai

Manivannan, M.

Professor and Director, School of Education, Tamilnadu Open University, Chennai

Introduction

Self-directed refers to the self-directive process through which learners convert their mental abilities into task related skills (Zimmerman, 2001). Students explore themselves through play and apparently raise continuous questions during the vibrant period. They learn from their peer and influential adult to lead a healthy life-style from their surroundings and environment in which they live. Primary experiences may have sound effects on the progress of the students. Their physical and emotional abilities may persuade their intellectual development in many fields. The brain develops based on the quality and quantity of the stimuli it gets. Everyday practice strengthens their nerve in their brain. The practices of behavior and emotional response set in the initial period may become very difficult to change in later years, even though the brain continues to develop and mature in various fields. This chapter focuses on self-directed learning among students.

Three Pillars of Engagement for Self-directed learning

Academic, intellectual and socio-emotional are the three pillars of engagement for self-directed learning. All these are the enriching elements to develop ample of opportunities to the students. In educational institutions, it is observed that students involve themselves in academic, intellectual and social-emotional that is supported during students learning. The following three pillars of engagement are essential for self-directed learning.

1) Academic engagement: Academic engagement is needed for students to engage in their academic work. It is explained as a hard work committed by students to all the academic activities. It is achievable only if the students are actively interact with their peer groups and teachers. It is also possible if they are involved in all the academic activities with adopting to educational conditions and environments. Academic disengagement may result toward unfavourable results such as poor performance of academic achievement, failure and dropout.

2) Intellectual engagement: Intellectual engagement is about rising the inquisitiveness and impudence to approach with concepts, ideas and issues which results to explore, investigate, problem-solving and inquire over a fixed period of time. Students learn better when they are actively involved in work that is enthusiastic, personally relevant, appropriately challenging and while receiving regular feedback on their progress. It also develop students' critical and creative thinking, teamwork, negotiation, decision-making, synthesis and problem solving skills.

3) Socio-emotional engagement: Social and emotional engagement is a primary part of education and human development. It is the process through students applies their knowledge, skills, and attitudes to develop healthy identities manage emotions and achieve personal and collective goals, feel and show sympathy for their peer groups, create and maintain supportive relationships and make responsible and caring decisions (Archambault et al., 2009). Social and emotional engagement enhances educational fairness and fineness through school-family-community partnerships to establish learning environments and experiences that attribute collaborative relationships. It supports various forms of bias and empowers students in every aspect of their life (Fredricks et al., 2004).

Three Components of Self direction Learning

There are three components of self-directed learning. They are as follows:

1) Cognition Component: Cognition component includes skills and habits that are needed to memorise, encode, think critically and recall information.

2) Metacognition Component: Metacognition component skill enable the learners to understand and monitor their cognitive processes. It is closely related to learning processes and academic achievement as it includes awareness of individual's own thinking processes and ability to control his/her own cognitive system.

3) Motivation Component: Motivation component indicates the selection of one's learning path.

Students who have been praised for discovering independent ways of thinking, are more likely to

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be self-directed learners. The method and the approach of motivating will differ from one student to another student.

Features of Self-directed Learning

Self-directed learning is an integrated learning process which includes a compact of positive behaviors that influence student's learning. These processes are planned and modified to support the recreation of personal achievements and learning skills. Self-directed learning is not a mental ability, but a self-directive process in which students transfer their mental abilities into academic skills. It refers to self-generated thoughts, feelings and behaviors that are intended to reach their goals. Self-directed learning is essential because it is the development of everlasting learning skills.

Self-directed learning is supported by meta-cognition, purposeful actions like planning, monitoring, and evaluating personal progress which leads to learn. Self-directed learning ensures autonomy and control. Specifically, self-directed learners are aware of their academic strengths and engage in their academic tasks. Students hold confident about intelligence and attribute their successes or failures within their control. Self-direction in learning can create long-lasting learning. The features of self-directed learning are as follows:

- Students' efforts and planning for learning.
- Can recognize and deal with their own educational needs without being in a formal education system.
- Students' experiences are revealed to meet a part of their educational needs by searching knowledge from various sources.
- Self-directed learners could apply their creativity to learn better and could increase their learning by getting multiple learning skills, including note-taking skills in the classroom and during their study.
- Promote their efforts to learn better.

Process of Self-directed Learning

The social learning psychologists perceive the structure of self-directed learning processes in three cyclical phases. They are: forethought phase, performance phase, and the self-reflection phase.

- 1) Forethought phase: Forethought phase refers to processes and beliefs that begins before an attempt to learn. Self-motivation and task analysis are the two major part of this processes. Self-motivation includes students' beliefs about learning, such as self-efficacy about having personal potential and consequences of learning whereas task analysis includes strategic planning and goal setting.
- 2) Performance phase: Performance phase processes are classified into two major classes such as self-control and self-observation. Self-control refers to the use of specific methods or strategies which are chosen during the forethought phase. It includes the use of imagery, self-instruction, and attention focusing and task strategies. Besides, self-monitoring is a hidden form of self-observation which refers to one's cognitive tracking of personal functioning.
- 3) Self-reflection phase: Self-reflection phase includes two major classes such as self-judgment and self-reaction. These are the two forms of self-judgment. Self-evaluation refers to comparisons of self-observed performances against some standard and self-reflection which refers to beliefs about the cause of one's errors or successes.

Application of Self-directed Learning

There are many applications that can be practically applied for self-directed learning process. Literacy instruction, cognitive engagement and self-assessment are three main areas of self-directed learning to direct its activities in classrooms situation. While instructing, teachers can teach the important areas by using various methods such as open-ended tasks and problem-solving methods. All these are student-centered and inquiry based. This strategy would allow them toward autonomous. However, students are expected to realize the importance of utilizing them in order to experience academic performance.

Role of Teacher in motivating Self-directed Learning

Teacher's role in promoting self-directed learning among students in the classroom can be illustrated in many aspects. On the one hand, teachers need to train students to be strategic learners to make aware of their potential strategies, attribute success to good strategies, select and monitor suitable strategies. Teachers shall provide students with instruction in managing and incorporating their goals to reach positive effects and outcomes in their performance. In addition, teachers role in classroom are as follows:

- Initiating Task analysis: Task analysis can be implemented by dividing the complex skill or
 activity into smaller units and teach the succession of each step. It may be useful for a wide and
 large range of their abilities.
- 2. Monitoring: Monitoring takes place during written practice, when the purpose is to spot out the errors and encourage self-correction. Guided practice activities, specifically are monitored for accuracy, whereas less guided group-work activities are monitored for task achievement.
- 3. Self-Assessment: Self-assessment fosters planning and assesses what skills the learner has and what skills are essential. Teachers have to allow students to internalize standards of learning so they can regulate their own learning.
- 4. Wrapper Activity: Wrapper-activity is an activity-based pre-existing learning or assessment task. This activity can be given as homework a assignment. It consists of self-assessment questions to complete before completing homework and after completion. It is a follow-up activity. This will enhance the learners to plan and prepare their own conclusions about the learning process.
- 5. Initiating the student to Think Aloud: Think Aloud involves thought process in solving a problem. In Questioning, students may follow new material and develop questions about the material. As students think out loud with teachers and with one another, they slowly internalize the conversations and it becomes their inner speech, the means by which they monitor their own behaviors and problem-solving processes (Tinzmann et al. 1990).
- 6. Students' use of learning strategies: Use of different learning strategies can inspire the students in the classroom practice such as visualization, cooperative learning, inquiry-based instruction, differentiation and teaching using technology in the classroom. It is based on the beliefs that different strategies are essential for learning, and that overcome obstacles in an effective way. Students who are not self-directed learners may involve in day-dreaming, delay in completing their assignments or sometimes forget to complete their assignments. Those who do practice self-regulation ask questions, take notes, allocate their time effectively, and use the resources available to them. (Schunk, 2001).
- 7. Providing positive feedback: Teachers can motivate students through positive feedback. Students often adopt their teacher's evaluations of their work as their own, which means that teachers can highly influence student's persistence in engaging with a task or giving up. Besides, developing a habit of knowing the mistakes as an opportunity to learn is also important. Generally discussing areas of improvement will pave way for growth, and an addition of positive feedback. Teachers can differentiate their level of weakness and strengths of their students in a particular task.
- 8. Creating a conducive environment: Teachers can make sure that the study environment is conducive. While discussing an important part of learning, self-direction becomes much more challenging in a noisy environment. This is particularly important that students should not be distracted so that they would be paved toward critical thinking skills. Teachers can further support by open-ended and complex tasks that give them the opportunities to prepare the way to control their distractions and maintain focus towards their goal. It can help them to develop better learning habits and strengthen their study skills (Wolters, 2011).
- 9. Guide students to track their progress: Students can self-monitor by tracking themselves to become aware of their strengths and weaknesses of their own knowledge through practice, recall according to the nature of their aim. Some students may try to improve their time management skills. These students would benefit from maintaining a record of how to spend their time and then referring it with their tasks.

Conclusion

To conclude self-directed learning has a deep effect on students to become self-directed learners. The most important thing is that it needs to explore the relevant strategies training in a supportive learning environment. It is the duty of the teachers to find a better method to achieve an educational goal and promote students to be self-directed learners. In short, teachers, as the strategies trainers and environment constructors, play an important role in this process. Establishing new habits, teachers can work meticulously to guide and support learners to become successful and independent learners.

References

- Ameliasari Tauresia Kesuma, (2021). Analysis of Self-Regulated Learning Skills in Senior High School Students: A Phenomenological Study. TEM Journal. Volume 10, Issue 3, Pages 1285-1293, ISSN 2217-8309, DOI: 10.18421/TEM103-35.
- Archambault, I. P., Janosz, M. P., Morizot, J. P., & Pagani, L. P. (2009). Adolescent Behavioral, Affective, and Cognitive Engagement in School: Relationship to Dropout. The Journal of School Health, 79(9), 408. http://dx.doi.org/10.1111/j.1746-1561.2009.00428.x

- Boekaerts, M. (1999). Self-regulated learning: Where we are today. International Journal of Educational Research, 31(6), 445-457 Google Scholar
- Charlotte Dignath-van Ewijk, (2105). Fostering Self-Regulated Learning Among Students by Means of an Electronic Learning Diary: A Training Experiment. Journal of Cognitive Education and Psychology 14(1) DOI:10.1891/1945-8959.14.1.77
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. Review of Educational Research, 74(1), 59-109. http://dx.doi.org/10.3102/00346543074001059
- Lapan, R.T., Kardash, C.M., & Turner, S. (2002). Empowering students to become self-regulated learners. *Professional School Counseling*, 5(4), 257-265.
- Liliya Mansurovna Sirazieva, (2017). Self-Regulated Learning in Higher Education Revista Publicando, 4 No 13. (1). 2017, 691-699. ISSN 1390-9304.
- Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. Frontiers in Psychology, 8, 422.
- Schunk, D. & Zimmerman, B. (2007). Influencing children's self-efficacy and selfregulation of reading and writing through modeling. Reading & Writing Quarterly, 23(1), 7-25.
- Winne, P. H., & Perry, N. E. (2000). Measuring self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), Handbook of self-regulation (pp. 531–566). Academic Press. https://doi.org/10.1016/B978-012109890-2/50045-7
- Wolters, C.A. (2011). Regulation of motivation: Contextual and social aspects. Teachers College Record, 113(2), 265-283.
- Yot-Domínguez, C., Marcelo, C. (2017). University students' self-regulated learning using digital technologies. Int J Educ Technol High Educ 14, 38 https://doi.org/10.1186/s41239-017-0076-8
- Zimmerman, B.J. & Schunk, D.H. (Ed.), Self-Regulated Learning and Academic Achievement: Theoretical Perspectives (pp. 1-65). https://askinglot.com/what-are-the-three-components-of-self-regulation