Relationship Between Self-directed Learning and Academic Achievement: A Review

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Abstract

Factors outside of traditional classroom instructions play a vital role in the academic well-being and success of students. Self-directed learning has risen in popularity for its emphasis on students taking responsibility for their own learning process and developing abilities such as goal setting, self-regulation, and intrinsic motivation. This study will focus on reviewing the relationship between self-directed learning and academic achievements. Understanding the intricate relationship between self-directed learning and academic achievements becomes crucial to building comprehensive educational strategies. The provision of guidance, resources, and technology during SDL endeavors will also contribute significantly to students' triumphs. Emotional intelligence positively influences SDL readiness, and SDL readiness, in turn, correlates with academic self-efficacy and motivation. Effective development of SDL skills can enhance academic performance, particularly when combined with emotional intelligence interventions. Additionally, SDL sessions have been found to be effective in various educational contexts, promoting active learning, critical thinking, and improved reasoning skills. The findings highlight the importance of fostering SDL skills for improved academic outcomes and suggest strategies for implementing SDL in different educational contexts.

Keywords: Self- Directed Learning, Academic Achievement, Motivation, Self- Efficacy, Higher Education, Emotional Intelligence

Introduction

Academic achievement is a fundamental pursuit in education, representing personal growth and future success. To enhance students' academic performance, various educational frameworks have emerged, including Self-Directed Learning (SDL). SDL is a learner-centered method that empowers individuals to take control of their learning process, fostering autonomy and lifelong learning skills. SDL places learners at the forefront of their educational journey, emphasizing their autonomy, motivation, and goal-setting. Unlike traditional classrooms, where teachers play a dominant role, SDL encourages active participation and self-determination. By assuming responsibility for their learning, students cultivate skills such as critical thinking and problem-solving, that are essential for academic success.

Academic achievement, in the context of SDL, extends beyond grades and test scores. It encompasses holistic growth and the development of transferable skills that prepare students for diverse academic and real-world environments. Through SDL, learners acquire self-discipline, time management, and self-evaluation skills, which contribute not only to academic excellence but also to personal and professional achievements. SDL allows for personalized learning experiences tailored to individual strengths, interests, and preferred learning styles. This customization fosters deep engagement with the subject matter and enhances intrinsic motivation. By pursuing topics aligned with their passions and aspirations, students cultivate a love for learning, transforming education from an obligation into a lifelong pursuit.

SDL is a learner-centered approach that empowers individuals to take charge of their learning, promoting academic achievement and lifelong learning skills. By fostering autonomy, motivation, and the development of transferable skills, SDL nurtures holistic growth and ignites a passion for learning. As education evolves, embracing innovative strategies like SDL holds great promise in unlocking students' full potential and shaping a generation of academic achievers. Resistance can be anticipated whenever a change is introduced. Merely relying on regulatory norms may not suffice to effectively implement the change. It becomes essential to provide faculty training to address any concerns they may have regarding relinquishing control or adopting an unfamiliar approach. There may also be students who have become accustomed to traditional, teacher-directed methods and may exhibit reluctance towards transitioning to a self-directed learning approach. This could potentially indicate a flaw within our education system that necessitates rectification. One possible solution is to structure the curriculum in a manner that progressively empowers learners to assume responsibility for their own learning over time.Bookfield (1995) set forth the following process of Self-Directed Learning:
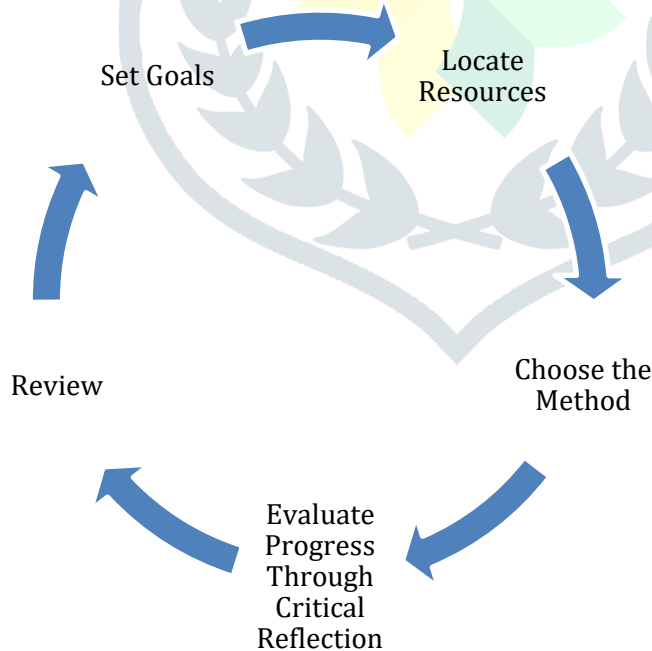

Figure 1 Process of Self-Directed Learning *(Source: Bookfield, 1995)*

SDL has a beneficial relationship with factors like the "internal locus of control", "motivation", "performance", "self-efficacy", and "support". Implementing SDL projects can enhance students' willingness

to involve in SDL, improve their confidence along with their abilities, and ultimately pave way forbetter academic performance. It is crucial for educators to efficiently incorporate SDL practices into their teaching methods and provide support and resources to students. Coaching may be necessary to help students navigate their own learning paths, and consideration should be given to students' levels of locus of control. It is evident that students benefit from support and guidance during SDL projects, and the availability of technology, literature, mentorship, and other information sources can greatly contribute to their success. SDL promotes lifelong learning skills and should be integrated into educational settings to empower students and enhance their academic achievements (Boyer *et al.,* 2013).

There is a substantial distinction in SDL between online distance learning and conventional university students, with the former demonstrating higher SDL levels. This suggests that the mode of education delivery influences students' ability to involveSDL. Also a strong and encouragingassociation between SDL and academic achievement exists, particularly among online distance learning students, and this highlights the importance of fostering SDL skills for improved academic outcomes. It is recommended that integration of SDL needs to be implemented as a teaching strategy, emphasizing the need for training programs and curricula that equip teachers with the tools to enhance the teaching-learning process. It also advocates for the introduction of SDL strategies to students at the onset of their academic sessions, empowering them to self-regulate their studies effectively. Implementing SDL frameworks in conventional classrooms to facilitate SDL practices within traditional educational settings (Khalid *et al.,* 2020).

With the help of SDL, learners takeresponsibility of their own learning, identifying gaps in knowledge, setting goals, and utilizing resources to acquire new skills. The National Medical Commission's curriculum lacks clarity on SDL, leaving it open to interpretation. Anshu *et al.* (2022) explored the concept of SDL, dispel misconceptions, and proposed strategies for integrating SDL into medical education using approaches that can effectively foster SDL. Both teachers and institutions play a role in promoting SDL, which is crucial for cultivating lifelong learning among medical graduates. SDL is not merely a teaching method but a mindset that can be cultivated. Personal and environmental factors are key to identifying and addressing knowledge gaps, and teachers should create opportunities for students to develop this habit. Limiting SDL to specific sessions or knowledge-based tasks is a mistake; instead, the educational environment should offer flexibility in methodologies to support SDL goals.

Literature Review

Self-directed learning (SDL) has gained popularity in adult education, and Avdal (2013) examined its relationship with student achievement. A sample consisting of 220 nursing students from DokuzEyül University in Turkey was used, and a noteworthyaffirmativerelationship between SDL scores and students' academic success was found. This highlights the importance of students' SDL abilities in determining their performance levels. It emphasizes the need to enhance SDL skills through targeted lesson planning to

strengthen students' SDL capabilities during the educational process. The research further demonstrates a moderate and significant positive association between the average SDL score and academic achievement. These results emphasize the significance of fostering SDL to improve students' academic performance. By recognizing the impact of SDL on student success, educators can focus on developing strategies that promote and support self-directed learning. It is important to integrate SDL into educational practices, enabling students to take ownership of their learning and enhancing their academic outcomes.

There is a need for increased attention to SDL readiness among medical students, as the decline in SDL readiness scores throughout the training years suggests potential gaps in SDL skills. This shows the significance of integrating learning activities that promote SDL within the medical curriculum. Cultural factors and the design of the curriculum can either facilitate or hinder students' ability to participate in SDL. Therefore, educational institutions should consider adapt themselves to better support SDL and create an environment conducive to independent learning. By providing faculty members with the necessary training and resources, institutions can foster a culture that values and promotes self-directed learning. It is important to have continuous monitoring of SDL readiness in medical education. Ongoing research and assessment of SDL skills among medical students, even in postgraduate education, can provide valuable insights into the effectiveness of educational interventions and the long-term impact of SDL on healthcare professionals' lifelong learning capabilities. There is a need for a comprehensive approach to SDL that considers not only individual student readiness but also the broader educational context in which SDL occurs (Premkumar *et al.,* 2018).

SDL readiness plays a fundamental role in expanding and augmenting learning in higher education. Saeid and Eslaminejad (2016) attempted to analyse the association between SDL, academic self-efficiency, and "achievement motivation" among students with the help of questionnaires on the same. There exists a positive correlation among SDL readiness and "academic self-efficacy" and "motivation". Notably, the teaching of these skills showed a consequential influece on the "academic self-efficacy" of health-related students but not literature and humanities students. A self-directed learner demonstrates independence, responsibility, and a problem-solving mindset, viewing challenges as opportunities for growth. They possess self-control, curiosity, confidence, and innovative thinking, utilizing effective study skills and time management. Study skills, on the other hand, greatly contribute to achievement motivation, as they are essential for academic success and learning reinforcement. Students who lack effective learning strategies may experience stress and negative outcomes, while those equipped with appropriate skills can overcome educational and academic difficulties. Motivation for achievement plays a pivotal role in students' willingness to strive for learning goals.

Self-directed learning is a crucial personality trait that is interconnected with various other traits. This aligns with the existing theoretical knowledge on learner self-direction. Cazan and Schiopca (2014) underscore how valuable it is to use the "self-rating scale of self-directed learning" (SRSSDL) to identify and address students' specific learning needs, thereby promoting their academic adaptation. Future research endeavors should

encompass additional aspects such as achievement motivation, independence, and self-efficacy, going beyond the conventional Big Five model to explore a broader spectrum of personality traits. To gain a comprehensive understanding, it is essential to further analyse the consistency of the correlation between behavior and learner self-direction over the course of time, shedding light on the causal direction of this association.

To ensure equal access to university education, pre-university programs aim to support academically disadvantaged students. However, despite efforts, a significant number of students still struggle and fail these courses. While the impact of psychological and emotional elements on academic performance is acknowledged, the specific mechanisms through which these factors influence science studentsin education below university and their academic performance remain unclear. Okwuduba *et al.* (2021) investigated the correlationbetween"EI", "SDL", and "academic performance"of the same group pf students. Through a correlational study, we assessed the interpersonal and intrapersonal aspects of "EI", "SDL", and "academic performance" in a group of 443 Nigerian students. It was found aftertaking into consideration the gender and age, perceived Interpersonal and Intrapersonal EI had a positive influence on academic performance, while the impact of SDL varied at different stages of the model. It suggests that interventions focusing on emotional intelligence could be beneficial in improving academic outcomes for struggling students. Implementing programs that enhance self-directed learning strategies would contribute to their academic improvement. Notably,it is also revealed that emotional intelligence can mediate the influence of SDL, indicating that higher emotional intelligence can compensate for the lack of self-regulation.

SDL is a valuable teaching approach in adult education, promoting lifelong learning and better educational outcomes. Bhat *et al.* (2016) organised a study at the Pondicherry Institute of Medical Sciences, and SDL sessions were implemented for third-semester students studying microbiology. They compared the effectiveness of SDL sessions with didactic lectures by analyzing pre- and post-test scores and gathering student feedback. It was found that SDL sessions had a positive impact on learning, with students reporting increased interest, a better understanding of the topics, and improved reasoning skills. SDL strategies foster active learning, stimulate critical thinking, and enhance cognitive skills among learners. Students actively engaged in activities that required independent exploration, group discussions, and problem-solving, resulting in a deeper understanding of the subject matter. SDL activities encouraged students to thoroughly study the topics, summarize information, and develop long-term memory recall, which was more effective than passive listening during traditional lectures. They highlighted the importance of incorporating learner-centered approaches like SDL in medical education, as it cultivate self-motivated reading habits, encourage independent thinking, and prepare students for the challenges of medical practice.

In India, the introduction of a new medical education curriculum has brought about the adoption of SDL as an active instructing and learning approach. Bhandari *et al.* (2020) assessed the SDL abilities of first-year medical students and gathering their perspectives on the prerequisites, promotion strategies, and expectations from teachers regarding SDL and the students' demonstrated competence in most SDL skills but identified areas for improvement, such as time management, interpersonal communication, and accessing appropriate learning resources. They emphasized the importance of being focused, motivated, stress-free, and possessing time management skills for successful SDL implementation. Students suggested that organizing regular events

encouraging active student participation and evaluating SDL could enhance their engagement. They expected teachers to fulfill multiple roles as facilitators, mentors, and evaluators. To effectively implement SDL, facilitators need to identify specific areas where students need moresupervision, while students need to actively screentheir progress on their own and take steps toward self-improvement.

Chou and Chen (2008) investigated the liaison between "SDL"and "academic achievement" in web-based education environments using the analysis of six empirical studies reveals divergent results regarding the influence of SDL on academic success. While theoretical evidence supports a link amidSDL and "academic achievement", the quantitative studies in web-based environments do not consistently show a positive relationship. There are factors that can influence the results, such as the reliability of academic performance measures, students' learning styles, distribution timing of SDL assessments, quality of virtual learning materials, demographics of the sample subjects, educational background of learners, prior knowledge, measurement methods of self-directed learning, and sample size and these needs to be taken into consideration as well. Further research is needed to explore these factors. Further,it is said that personality factors do not significantly impact academic success in web-based courses, emphasizing the need to identify other critical factors affecting learners' performance. As e-learning continues to expand globally, it is crucial for researchers and instructors to discover effective instructional strategies that enhance self-directed learning and address the factors influencing successful online learning. Eventually, this will lead to reduced costs and improved learning outcomes in the long run.

SDL is a crucial objective in higher education, emphasizing the students'capability to take responsibility and accountability of their own "learning process". Emotional intelligence (EI), involving the recognition and regulation of one's emotions as well as understanding and managing emotions in others, plays a crucial role in facilitating SDL. Numerous studies have shown that EI significantly influences SDL, with higher levels of EI correlating with more self-directed behaviors in learning. Furthermore, SDL is associated with positive outcomes in academic performance, including higher grade point averages (GPAs), as well as a range of common learning aftermaths encompassing "social", "cognitive", and "self-growth" aspects. Learners who demonstrate a developed level of "self-directedness"have higher tendancy to achieve greater success in both academic and personal development, fostering a satisfying overall campus experience. Recognizing and managing one's own emotions, reflecting on emotional experiences, and engaging in fruitful intellectual exchanges with peers and instructors are instrumental in SDL. SDL is anappreciated goal in higher education, and emotional intelligence plays a vital role in its facilitation, contributing to improved academic performance, broad-based learning outcomes, and overall student satisfaction (Zhoc et al., 2018).

Technology use in higher education has been a subject of debate regarding its impact on academic performance and student engagement. There are both positive and negative outcomes associated with students' interaction with technology. Involvement of students and SDL have also attracted considerable attention due to their perceived connection to itsaccomplishment in making better academic influences. Rashid & Asghar (2016) found a direct favorable association between the use of technology and engagement and SDL of students. Technology does not exert any direct influence on academic performance while there exist intricate relationships between technological influence, commitment, SDL, and academic performance.

Deyo *et al.* (2011) found that a substantial proportion of the participants of their study demonstrated a high readiness for self-directed learning, as evidenced by scores above 150 on the SDLRS. These students exhibited certain learning behaviors, such as completing assignments in advance, engaging in study groups, and expressing career plans beyond community pharmacy. Pharmacy students, irrespective of their readiness levels, are capable of self-learning foundational knowledge when provided with specific instructions. There is no significant association between "academic performance" and SDL readiness as shownwith the help of SDLRS. This suggests that readiness SDLis not an important prerequisite for acquiring basic knowledge, as long as the learners are provided with explicit directions on "what to study". It remains unclear if a greater"readiness" for SDL is essential for a complicated learning tasks or for identifying one's own learning needs. SDLRS plays an important role in predicting the relation between "readiness" for SDL and the development of SDL habits. Still, the usefulness of the SDLRS in predicting the link between readiness and academic performance is uncertain. It suggests that integrating self-directed learning activities into courses, curriculum, and adult education programs is feasible, even without all learners possessing a large amount of "readiness" for SDL.

SDL as a concept holds significant importance for older students as it empowers and inspires efficient perusal education along with managing work, domestic, and various other responsibilities. Through the identification of eleven indicators of SDL, Khiat (2015) revealed that the students' perceived competence in these areas directly or indirectly influenced their academic achievement. This prompted the case university to develop new initiatives, including a learning needs diagnostic tool, a student learning handbook, an online course, and a workshop on examination preparation, to support students in their self-directed learning journey. These resources were designed to provide aid to students in assessing their positives and negatives in SDL, provide guidance and tips for improvement, and enhance their SDL strategies.

Problem-solving ability is a critical skill in the nursing profession, requiring nurses to make swift and accurate decisions in complex healthcare scenarios. Self-directed learning (SDL) plays a pivotal role in fostering independent thinking, motivation, and knowledge acquisition among nursing students. There is a substantialuninterrupted effect of SDL on "problem-solving ability". Strategies targeting academic self-efficacy should be developed to enhance problem-solving ability, and the incorporation of SDL into the nursing programscan be emphasized to guarantee its continuity beyond graduation. By harnessing the power of SDL and addressing related factors, nursing education can nurture competent professionals capable of effectively navigating and resolving complex healthcare challenges (Hwang & Oh, 2021).

Conclusion

The utilization of SDL strategies can enhance students' willingness to embrace self-directed learning, bolster their confidence and competencies, and consequently yield improved academic results. The incorporation of SDL into instructional methodologies, along with the provision of support and resources, is imperative for educators aiming to foster self-directed learners. The mode of educational delivery, such as online distance learning, can influence students' levels of SDL engagement and academic accomplishments. Implementing

SDL in medical education and pre-university programs holds the potential to cultivate self-motivated learners, elevate academic outcomes, and bridge gaps in SDL proficiencies.

SDL offers individuals a learner-centric approach, empowering them to take charge of their learning journey and cultivating autonomy, motivation, and lifelong learning abilities. It transcends the confines of grades and exams, fostering comprehensive growth and the acquisition of adaptable skills crucial for academic and personal accomplishments. SDL facilitates customized learning experiences that align with individual strengths, interests, and preferred learning styles, facilitating profound engagement and intrinsic motivation. Integrating SDL into educational settings and equipping teachers with suitable training programs are paramount to effectively implementing this approach. Nevertheless, apprehension and resistance may arise during the transition to SDL, underscoring the necessity for curriculum restructuring and a gradual empowerment of learners. Future research should explore the correlation between SDL, academic self-efficacy, motivation, and the effectiveness of SDL interventions across diverse contexts, with the ultimate aim of enhancing students' learning experiences and academic achievements.

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