Empowering and Engaging Adult Learners: Strategies to Facilitate Self-Directed Learning in Adult Education

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Abstract

Empowering and engaging adult learners in self-directed learning is paramount in adult education settings. Self-directed learning is a process where individuals take control of their learning journey, setting goals, choosing resources, and evaluating their progress. Facilitating this approach requires educators to employ various strategies tailored to the needs and characteristics of adult learners. One effective strategy is to cultivate a supportive learning environment that fosters autonomy and encourages learners to take ownership of their learning. This can be achieved by providing opportunities for choice and flexibility in learning activities and resources. For instance, allowing learners to select topics of interest or offering multiple pathways to achieve learning objectives empowers them to pursue knowledge aligned with their goals and preferences. Another essential aspect is equipping learners with the necessary skills and resources to become self-directed learners. Educators can facilitate this process by teaching metacognitive strategies, such as goal setting, time management, and self-assessment. Additionally, providing access to a diverse range of learning materials, including online resources, books, and multimedia, enables learners to explore different perspectives and deepen their understanding independently. Fostering a collaborative learning community can enhance self-directed learning among adult learners. The main focus of this study is to examine empowering and engaging adult learning concerning strategies to facilitate self-directed learning in adult education. In addition, the study also focuses on increasing understanding among adult learners about the importance and benefits of self-directed learning in adult education and it also inspires intrinsic motivation and self-efficacy, encouraging proactive engagement in the learning process. In addition, it also establishes a supportive learning community that encourages collaboration, resource-sharing, and mutual support among adult learners. Lastly, it enables adult learners to establish and utilize self-assessment mechanisms for tracking progress and adjusting learning strategies for continuous improvement.

Keywords: Adult Learners, Adult Education, education, adult, Self-Directed Learning, learning

1. Introduction
Adult education and self-directed learning
Learning at one's own pace and via formal education are two aspects of lifelong learning that are closely related and essential to success in any field. A wide variety of activities, including but not limited to attending workshops, seminars, or conferences, obtaining certifications, diplomas, or degrees, and participating in informal learning experiences, are all part of what is often known as adult education. On

the other side, self-directed learning stresses that students should be proactive and accountable for their learning by doing things like creating learning objectives, cataloging available materials, and assessing their performance (Loeng, 2020). The practice of self-directed learning is fundamental to the field of adult education. It gives people the ability to shape their educational path according to their interests, requirements, and preferred methods of learning. People who engage in self-directed learning can study at their own speed, delve deeply into subjects that are important to them, and avoid the rigid schedules and curriculum that characterize many conventional educational programs. Students are more likely to persevere through difficulties when they are given a feeling of personal investment in the process via this method (Kruszelnicki, 2020). Online learning platforms and digital technology have greatly increased the number of options for self-directed learning and adult education (Chukwuedo 2021).

This research must examine what motivates adult learners to learn independently. People must understand adult learners' motivations, obstacles, and learning styles to develop effective therapies. Individuals may select self-directed learning based on their schooling, hobbies, future objectives, and other duties. More precisely, this field seeks to identify effective teaching methods and self-learning tools for adults (Morris, 2021). People must examine how instructors, mentors, and classmates might effectively assist adult students' self-directed learning via teaching, criticism, and relevant resources. Individualized lesson plans, competency-based assessments, and group projects may empower adult students to manage their education and employment. This research has major implications for adult education pedagogy and practice (Roberson 2021). Finding successful self-directed learning methods may help educators and instructional designers enhance adult learning experiences. This research may help design courses, resources, and assessment systems that emphasize adults' interests, strengths, and learning styles. Adult learners' empowerment and self-directed learning must be studied to enhance educational justice and lifelong learning.

Objectives

- Promote awareness: Increase understanding among adult learners about the importance and benefits of self-directed learning in adult education.
- Develop skills: Equip adult learners with practical strategies to plan, execute, and assess their learning, fostering a sense of autonomy.
- Cultivate motivation: Inspire intrinsic motivation and self-efficacy, encouraging proactive engagement in the learning process.
- Enhance collaboration: Establish a supportive learning community that encourages collaboration, resource-sharing, and mutual support among adult learners.
- Provide tools: Offer participants practical tools and resources to facilitate effective self-directed learning, empowering them to take control of their educational journey.
- Implement assessment: Enable adult learners to establish and utilize self-assessment mechanisms for tracking progress and adjusting learning strategies for continuous improvement.

2. Literature Review

2.1 Concept of Adult Education

According to Burns, (2020), adult education takes place as adults over 18 seek out formal and informal learning options outside the classroom. It addresses working adults' academic, social, and occupational needs with a wide variety of programs. These include community college or university courses, a high school diploma equivalent, continuing education programs, seminars or workshops, or self-study. Adult

education must address adult learners' needs. Different objectives, duties, and life experiences impact adults' learning trajectories than those of children and teens in regular schools. To allow adult learners to study at their convenience, adult education courses are accessible, accommodative, and accommodating of their different interests, backgrounds, and learning styles. Merriam, (2020) stated that adult education initiatives are essential for lifelong learning. An individual's dedication to education, professional and personal development, and social involvement is called "lifelong learning". Adult education enables lifelong learning by giving individuals opportunities to study, adapt to new technology and societal changes, and advance personally and professionally. Adult education boosts economic mobility and workforce growth.

According to Zhu, (2020) different experiences, responsibilities, and objectives shape adult learners' motivations and qualities. People must understand these elements to assist adult learners succeed and build effective courses. Adult students are frequently independent and proactive in their education. Adult learners have greater flexibility to choose their own educational path, study time, and teaching materials and methods than school-aged students. By exercising independence, they demonstrate maturity, life experience, and a desire to learn on their own. Adults have a wealth of life experience and knowledge to rely on when studying. Kim, (2021) analyzed that many returning students bring a wealth of knowledge, skills, and experiences from their careers, lives, and informal learning. Building on their knowledge, adult learners may create new understandings, establish connections, and apply concepts in real life. Appreciating adult learners' expertise and experience boosts their engagement and promotes a learner-centered approach to education. Many folks who pursue higher education are motivated and have a defined goal. Adults may seek higher education to advance their jobs, improve their lives, learn new skills, make new friends, or overcome prior challenges. Understanding these factors is essential to creating adult learning programs that meet their needs.

2.2 Self-Directed Learning Theories

According to Uys, (2021), influential self-directed learning concepts may help students understand their objectives, techniques, and outcomes. Malcolm Knowles' Andragogy, published in the 1970s, is a prominent theory in this discipline. Adults need a different learning style than children owing to their unique needs, according to andragogy. According to Knowles' andragogy, adult learning must be self-directed and capitalize on the learner's knowledge and experiences, be relevant to their life experiences and objectives, and be autonomous. Andragogy says autonomy, competence, and self-esteem motivate adults to learn. Ngozwana, (2020) stated that they are most interested when classes solve real-world issues and relate to their jobs. Additionally, adults' vast knowledge and experiences should be recognized and integrated into their learning. Another important self-directed learning theory is the Self-Determination Theory (SDT) by Edward Deci and Richard Ryan. SDT states that humans need relatedness, competence, and autonomy. Ahammad, (2023); Purwati, (2020) stated that stated that when these prerequisites are met, individuals are more intrinsically motivated to learn. According to the Self-Determination Theory, children need choice, initiative, and control over their learning experiences to develop autonomy. It also emphasizes the importance of competence—the belief that one can achieve goals and tasks—in motivating learning.

According to Govindaraju, (2021), adult education prioritizes active, immersive, and collaborative learning via constructivist self-directed learning. Peer discussions, problem-solving, and hands-on activities help people learn. Group projects, case studies, and real-world applications help people learn by doing, reflecting, and building on existing knowledge. By using relevant inquiry-based learning activities, teachers may help students learn more and apply it in real life. Social Cognitive Theory has affected adult

education by emphasizing role models, social support, and student confidence. Adult education courses frequently provide mentors, successful peers, and role models to educate students on how to study independently. Paradiso-Testa, (2022) pointed out that teachers may also encourage students to develop a welcoming learning community where they may collaborate on projects, share experiences, and give and take criticism. By building self-efficacy and belonging, educators help students overcome obstacles, continue in their studies, and achieve their goals.

du Toit-Brits, (2020) stated that though Constructivism, Social Cognitive Theory, Andragogy, and Self-Determination Theory have affected adult education, they have also been criticized and controversial. Malcolm Knowles questions Andragogy's applicability in many cultures and circumstances. Andragogy's opponents say it promotes Western individualism and ignores cultural variations in learning methods, attitudes, and behaviors. Some academics believe Andragogy principles should be modified or supplemented with culturally appropriate methods for adult learners of all backgrounds. Critics say Edward Deci and Richard Ryan's Self-Determination Theory emphasizes autonomy and intrinsic drive too much to explain human action. Some feel that extrinsic motivators like rewards and incentives may influence conduct as well as intrinsic motivators, particularly in academic settings. These authors argue that adult learning requires a more complex perspective of motivation owing to the complex interplay of internal and external influences.

2.3 Empowerment in Adult Education

According to Carr, (2020), the literature on empowerment in adult education emphasizes education's role in empowering individuals and communities. Empowerment, a life-changing process, may help adults make independent decisions, defend their rights, and participate more in society. Empowerment-focused adult education courses aim to equip students to become autonomous thinkers and doers who can solve today's complex social, economic, and political problems. The literature on empowerment in adult education emphasizes a complete approach that considers social, cultural, and environmental factors affecting learners' empowering experiences and possibilities. According to Annuar, (2021) empowerment and self-directed learning share goals and concepts in adult education. Both theories aim to inspire individuals to actively participate in their education and improve as people and professionals via learning. Empowering students allows them to pick their own goals, tactics, and resources for self-directed learning. Empowered learners have the self-awareness, competence, and self-confidence to evaluate their learning needs, set personal objectives, and choose educational experiences that match their values, interests, and life goals. Self-directed learning initiatives empower students to take charge of their education, which makes them more engaged. Hutasuhut, (2021) pointed out that empowering kids to study independently requires providing them with the resources, support, and opportunities to succeed. Learning communities, mentorship, information, and technology let students explore new interests, improve skills, and overcome obstacles. Encourage kids to actively seek out and utilize these resources to improve self-regulation, problem-solving, and lifelong learning abilities.

Boyadjieva, (2021) analyzed that adult learners require autonomy and an intrinsic desire to manage their education, set objectives, and succeed in class. Learners are motivated to actively pursue learning activities because autonomy permits them to make choices, control, and take responsibility. Dağgöl, (2020) stated that teachers who inspire students with critical criticism, positive reinforcement, and appreciation of their accomplishments may build a classroom that promotes competence and independence. Autonomy is essential for adult learners because it lets them tailor their education to their needs, interests, and objectives. Students with learning autonomy may pick their timetables, resources, and techniques. That

implies people may select their themes, speed, techniques, and resources.

2.4 Engagement Strategies in Adult Education

According to Martin, (2022), successful engagement techniques for learners include methods, tactics, and interventions that promote active engagement, motivation, and retention in adult education. Use these strategies to create inclusive, dynamic, and learner-centered learning environments to satisfy adult learners' diverse needs, interests, and preferences. Research emphasizes the importance of pedagogies that prioritize students' needs, interests, and experiences. Abou-Khalil, (2021) stated that learner-centered techniques emphasize problem-solving, cooperation, and inquiry at the adult level. Problem-based, inquiry-based, and project-based learning stimulate critical thinking, creativity, and self-directed learning in adults. Adult learners are involved in practical, meaningful tasks and activities. These strategies motivate and engage students by making them the center of the classroom and giving them a stake in what they learn. Multimedia and technology make adult education more accessible and interesting. Another effective engagement strategy highlighted in the study is experiential and hands-on learning that links theory to practice. Through internships, field trips, role-playing, and simulations, adult learners are more engaged and motivated to apply theoretical class knowledge to real-world problems. These exercises build competence and confidence in adult learners by encouraging active participation, critical thinking, and subject knowledge. Experiential learning helps instructors bridge the gap between theory and practice for adult students.

According to Ferrer, (2022) engaging adult learners requires technology, interactive methods, and experiential learning. These technologies satisfy adult learners' diverse learning styles, interests, and needs by creating dynamic, engaging, and immersive learning environments. To motivate and retain adult learners, these strategies employ technology and hands-on activities to promote critical thinking, meaningful learning, and active participation. Technology helps adult learners engage by providing digital resources, online learning platforms, and multimedia content that is accessible and interactive. Gamified learning platforms, VR, and simulations encourage learners' curiosity, creativity, and problem-solving. Chiu, (2022) stated that These technologies enable adult learners to explore complex concepts, mimic real-life events, and engage in experiential learning in a safe environment. Technology-based adult education courses enable instructors to meet students' interests and preferences better, increasing engagement and retention. Interactive methods including problem-based learning, collaborative learning, and peer education also engage adult learners. Kim, (2020) analyzed that collaboration via group discussions, debates, and project-based tasks allows adult learners to work together and express their opinions. Peer education improves conceptual understanding and course retention by encouraging student conversation, questioning, and idea sharing. Problem-based learning involves applying what students learn to real-world circumstances via case studies and other contexts. According to Liu, (2022); and Sun, (2023) when encouraged to ask questions, participate in class discussions, and feel involved in the topic, students are more engaged in their learning.

2.5 Barriers to Self-Directed Learning in Adult Education

Morris, (2021) stated that adults face multiple barriers to self-directed learning, making it harder for them to set goals and actively engage in their education. Adult learners' desire, self-confidence, and resource availability are affected by individual, contextual, and systemic factors. Time restrictions from other obligations are common. Adult learners may not have time or energy for self-directed learning due to work, family, and community responsibilities. Adult learners frequently struggle to study due to the stress of combining various commitments. Thus, adult learners may struggle to engage in self-directed learning

owing to life constraints. Lack of self-confidence is another issue. If an adult learner has had bad school experiences or don't trust in their academic talents, they may question their ability to achieve alone. Lin, (2023) analyzed that low self-esteem or self-doubt may prevent adult learners from actively seeking self-directed learning opportunities. When they lack self-confidence, adult learners may struggle to take initiative, find resources, and set goals. Adult learners may have trouble finding guidance and resources. Adult learners may have trouble getting the educational resources, equipment, and materials they need for self-directed learning. Financial constraints may restrict adult learners from taking courses, seminars, or training programs, making self-directed learning more difficult. Adult students may also lack learning groups, mentors, and networks for self-directed learning. Institutional restrictions in businesses and schools may also hinder self-directed learning for adults.

According to Khatibi, (2021), the difficulties adult learners have in self-directed learning may impact empowerment and engagement strategies. These obstacles make it tougher for students to take initiative, set goals, and engage in their education. Time restrictions and other responsibilities make it hard for adult learners to completely commit to their education, reducing empowerment and engagement efforts. Due to difficulty determining priorities, overwhelmed adult learners may struggle to engage in self-directed learning and meet their goals. This may make students less involved in their education, which decreases their drive, delays their progress, and makes studying less enjoyable. Empowerment and engagement strategies may also be hindered by low confidence and self-efficacy, which may lower learners' self-directed learning confidence. Coy, (2021) analyzed that self-doubt and fear of failure may prevent adults from taking risks, aiming high, or actively seeking new learning opportunities because they lack drive, tenacity, and resilience, they may be less committed to their studies and less able to overcome hurdles. Engagement and empowerment strategies that don't address confidence and self-efficacy may fail adult learners' self-directed learning endeavors. Due to limits in these areas, adult learners may have trouble acquiring the resources, tools, and assistance needed for self-directed learning. Imperiale, (2021) analyzed that this may hinder empowerment and involvement. Adult learners without educational resources, technology, or support networks can feel alone and discouraged. If empowerment and engagement approaches fail to overcome resource and support challenges, adult learners may not get the scaffolding and support they need to succeed in self-directed learning. Systemic barriers in educational institutions and organizations may inhibit empowerment and participation efforts. These restrictions impede adult learners' autonomy, choice, and learning participation. When institutional policies, procedures, and practices don't assist adult learners, they may feel powerless, marginalized, or excluded. This hinders access, participation, and success in self-directed learning initiatives, which may diminish engagement and empowerment strategies.

2.6 Summary and Gaps in the Literature

More research may be needed on the study's methodology and the contextual factors that affect empowerment and engagement methods in adult education. Adult learners vary in education, income, culture, and life experience. People must understand how contextual factors affect empowerment and engagement strategies to design effective adult learner interventions. Empowerment and engagement strategies may encourage self-directed learning depending on age, gender, ethnicity, and language proficiency. Future research may examine these issues and the studies may also miss the target when describing how digital literacy and technology might assist adult learners learn independently.

3. Methodology

A mixed-methods research approach is used in this study to look into the ideas and techniques for giving adult learners the power and motivation to do self-directed learning in adult education. The mixed-methods approach lets researchers combine data from three different sources: quantitative, qualitative, and real-world. An organized questionnaire is sent to a broad group of adult learners as part of the quantitative part of the study. The questionnaire has 35 questions that are broken up into sections that ask about demographics, educational background, previous experience with adult education, how people feel about self-directed learning, intrinsic motivation, collaborative learning, using resources and technology, and how they evaluate themselves. There are closed-ended questions, Likert scores, and multiple-choice choices on the form. These are used to collect numeric data on the traits, opinions, and behaviors of subjects that are linked to self-directed learning in adult education. A test study will be done with a small group of adult learners to make sure the assessment is true and reliable. Based on their feedback, any changes that need to be made will be made. The finished poll will then be sent virtually to a bigger group of people through adult education-related websites and social media groups. People will not have to fill out the poll, and those who do will be promised their privacy and secrecy to encourage honest answers. People who take part in the study will also be told that they can quit at any time without any effects.

For the qualitative part of the study, semi-structured conversations will be done with some of the people who answered the form. The talks will go into more detail about the experiences, thoughts, and goals of the subjects when it comes to self-directed learning in adult education. To make sure that the interview group is diverse, a method called "purposeful sampling" will be used, which looks at things like age, gender, school background, and previous experience with self-directed learning. With the participants' permission, the talks will be recorded on tape and then typed up word-for-word for theme analysis. The qualitative data from the interviews will be put through thematic analysis to find themes, patterns, and trends. The steps in the research process include getting to know the data, organizing the records, looking for repeating themes, and figuring out what the results mean. Together with the numeric results, the qualitative data will be triangulated to give a full picture of the research topic. This will make the study more valid and reliable. During the whole study process, ethics will be the most important thing to think about, and steps will be taken to make sure that participants' rights are respected and that data is kept safe. The study will follow the ethical rules set by the appropriate institutional review boards and ethical panels. Also, attempts will be made to reduce study bias by being reflective and open about how data is collected and analyzed. Overall, the mixed-methods research design used in this study will allow a more in-depth look at how to empower and engage adult learners in self-directed learning within the context of adult education. This will provide information that can be used to improve educational policies, practices, and interventions that aim to improve the outcomes and experiences of adult learners.

4. Results

Demographic information:

Frequencies of gender

Gender	Counts	% of Total	Cumulative %
a. Male	18	34.6 %	34.6 %

Frequencies of gender

Gender	Counts	% of Total	Cumulative %
b. Female	34	65.4 %	100.0 %

The participant demographics reveal a diverse and representative sample, with a total of 52 respondents. In terms of gender distribution, 34.6% identify as male, while the majority, constituting 65.4%, identify as female.
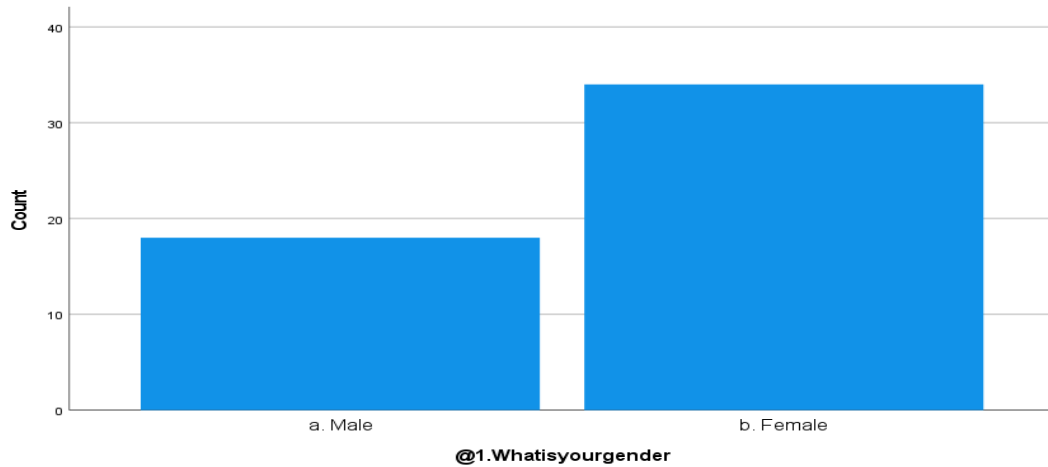
Frequencies of Age

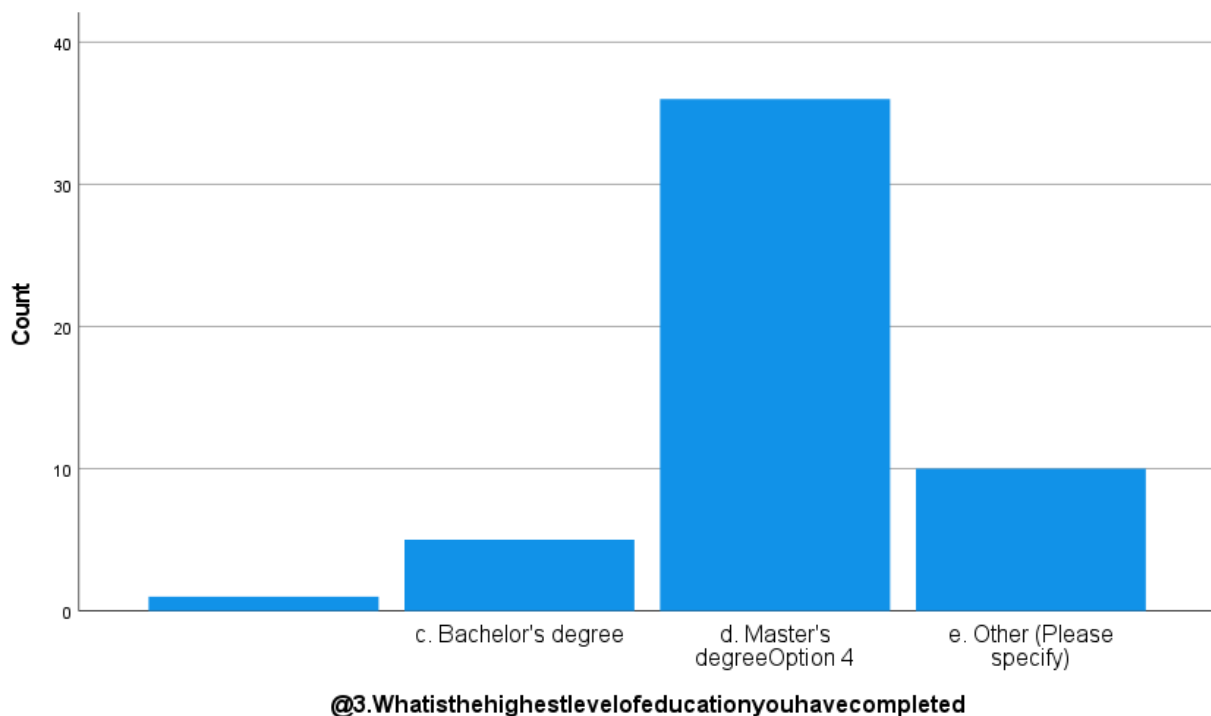| Age	Counts	% of Total	Cumulative %
a. Under 30 years	7	13.5 %	13.5 %
b. 31-40 years	16	30.8 %	44.2 %
c. 41-50 years	20	38.5 %	82.7 %
d. 51-60 years	7	13.5 %	96.2 %
e. Above 60 years	2	3.8 %	100.0 %
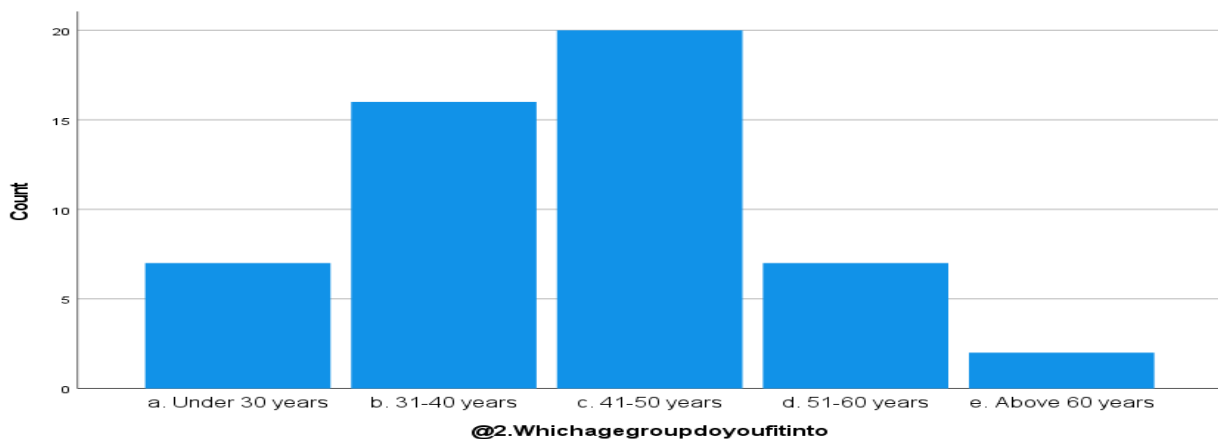
The age distribution among the participants illustrates a diverse range, with respondents falling into different life stages. The largest cohort, comprising 38.5%, falls within the 41-50 years age range, indicating a substantial representation of mid-career individuals. Those aged 31-40 years constitute 30.8%, showcasing another significant segment of participants in their prime working years. Additionally, participants under 30 years make up 13.5%, demonstrating engagement from younger individuals. The age brackets of 51-60 years and above 60 years contribute 13.5% and 3.8%, respectively, highlighting a balanced distribution across various age groups. This diverse age representation enriches the study by incorporating perspectives from individuals at different career stages and life experiences.

Highest Education

| Highest level of education you have completed?	Counts	% of Total	Cumulative %
c. Bachelor's degree	5	9.8 %	9.8 %
d. Master's degree	36	70.6 %	80.4 %
e. Other (Please specify)	10	19.6 %	100.0 %

The educational background of the participants reflects a diverse range of academic achievements. The majority, comprising 70.6%, hold a Master's degree, indicating a high level of educational attainment among the respondents. Additionally, 9.8% have completed a Bachelor's degree, representing a group with undergraduate education. A notable 19.6% fall under the category of 'Other' education, suggesting a variety of educational backgrounds beyond the typical Bachelor's or Master's degrees. This diversity in educational qualifications enhances the study's comprehensiveness, as it incorporates insights from individuals with varying academic foundations and expertise.

@3.Whatisthehighestlevelofeducationyouhavecompleted

Frequencies of your current occupation

What is your current occupation?	Counts	% of Total	Cumulative %
a. Full-time employment	41	78.8 %	78.8 %
b. Part-time employment	1	1.9 %	80.8 %
c. Self-employed	4	7.7 %	88.5 %
f. Retired	1	1.9 %	90.4 %
g. Other (Please specify)	5	9.6 %	100.0 %

Regarding participants' current occupations, the data presents a diverse distribution across various employment statuses. The majority, constituting 78.8%, are engaged in full-time employment, indicating a significant presence of working professionals in the study. Additionally, 7.7% identify as self-employed, highlighting a segment of entrepreneurs or individuals with independent professional pursuits. Part-time employment is reported by 1.9% of participants, while 1.9% are retired, showcasing a spectrum of career stages among respondents. The 'Other' category, specified by 9.6% of participants, introduces further occupational diversity, suggesting a range of unique professional roles within the sample. This varied occupational representation enriches the study by incorporating perspectives from individuals in different employment scenarios.

@4.Whatisyourcurrentoccupation
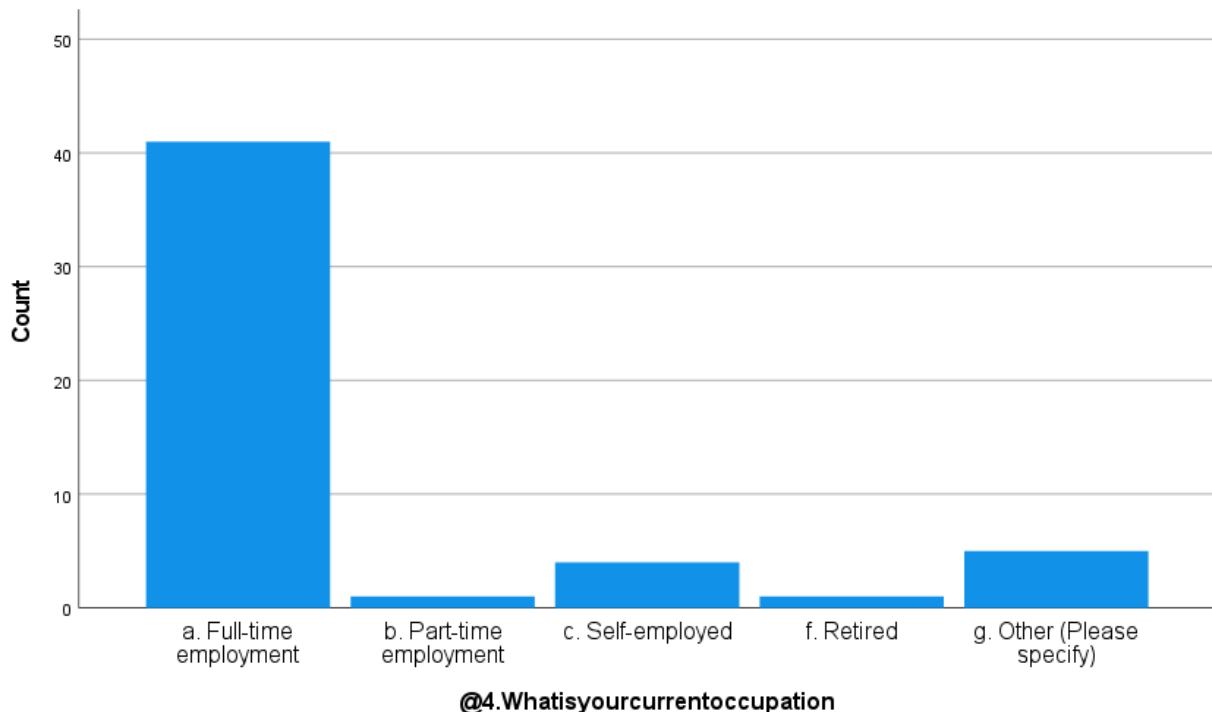
Frequencies of marital status

What is your marital status?	Counts	% of Total	Cumulative %
a. Single	8	15.7 %	15.7 %
b. Married	36	70.6 %	86.3 %
c. Divorced or separated	6	11.8 %	98.0 %
d. Widowed	1	2.0 %	100.0 %

Participants' marital status reveals a diverse representation within the study cohort. The majority, comprising 70.6% of respondents, identify as married, indicating that a significant portion of the sample is currently in a marital union. Additionally, 15.7% report being single, showcasing a notable proportion of participants who are unmarried. The study also includes individuals who are divorced or separated, constituting 11.8% of the sample, suggesting a range of experiences in romantic relationships. A smaller percentage, 2.0%, indicates widowed status, reflecting a segment of the population who have experienced the loss of a spouse.

Analysis

1. Promote awareness:

Evaluate responses to questions 6, 9, and 11 to gauge the current awareness level of participants regarding adult education and self-directed learning. Identify demographic groups with lower awareness and tailor awareness campaigns accordingly. Design informational materials emphasizing the importance and benefits of self-directed learning, referencing statistics from questions 2, 8, and 14.

Frequencies of Which age group do you fit into?

Which age group do you fit into?	Counts	% of Total	Cumulative %
a. Under 30 years	7	13.5 %	13.5 %
b. 31-40 years	16	30.8 %	44.2 %
c. 41-50 years	20	38.5 %	82.7 %
d. 51-60 years	7	13.5 %	96.2 %
e. Above 60 years	2	3.8 %	100.0 %

The table presents data on the distribution of respondents across different age groups. The age groups and corresponding frequencies are as follows: under 30 years (n = 7, 13.5%), 31-40 years (n = 16, 30.8%), 41-50 years (n = 20, 38.5%), 51-60 years (n = 7, 13.5%), and above 60 years (n = 2, 3.8%). The cumulative percentages indicate the proportion of respondents up to each age group, with the final cumulative percentage reaching 100.0%.

Frequencies of Have you taken any courses or participated in any adult education programmes before?

Have you taken any courses or participated in any adult education programmes before?	Counts	% of Total	Cumulative %
a. Yes	45	86.5 %	86.5 %
b. No	7	13.5 %	100.0 %

The table displays responses to the inquiry regarding previous participation in courses or adult education programs. The data indicates that 45 respondents (86.5%) answered affirmatively ('Yes'), while 7 respondents (13.5%) reported not having taken any courses or participated in adult education programs ('No'). The cumulative percentages show the distribution of responses, with 86.5% of respondents acknowledging participation in such programs.

Among the respondents, 86.5% acknowledged previous participation in adult education, and the subsequent analysis delves into the specific motivations behind their involvement. The most common motivation was to enhance professional careers (86.5%), followed by a desire to learn new skills or acquire new knowledge (92.2%). Additionally, social motivations, such as meeting new people or socializing, played a role for 41.2% of participants. Fulfilling personal desires and boosting general well-being were cited by 43.1% and 52.9% of respondents, respectively.

Frequencies of When it comes to adult education, which of these options most accurately portrays self-directed learning?

When it comes to adult education, which of these options most accurately portrays self-directed learning?	Counts	% of Total	Cumulative %
a. Adults study independently without guidance	11	21.6 %	21.6 %
b. Adults take control of their learning process	34	66.7 %	88.2 %
c. Adult-specific learning for adults above a certain age	3	5.9 %	94.1 %
d. Informal learning outside formal education institutions	3	5.9 %	100.0 %

In exploring the concept of self-directed learning within the realm of adult education, respondents were asked to select the option that best represented this approach. The results indicated diverse perspectives, with 66.7% of participants asserting that self-directed learning involves adults taking control of their own learning processes. Additionally, 21.6% identified self-directed learning as adults studying independently without guidance. A smaller portion, 5.9%, associated self-directed learning with adult-specific education for individuals above a certain age, while another 5.9% linked it to informal learning outside formal education institutions. These findings highlight the varied interpretations of self-directed learning within the surveyed group, contributing to a nuanced understanding of how adults perceive and engage in self-directed educational pursuits.

The responses to the query regarding potential advantages of self-directed learning for adult learners showcase a nuanced understanding of the benefits associated with this educational approach. The majority

of respondents, constituting 31.4%, acknowledged a comprehensive set of advantages, endorsing the idea that self-directed learning empowers individuals with more control over their educational journey. This encompassed improved problem-solving and critical thinking skills, heightened learning desire and engagement, the ability to progress at a self-determined pace, cultivation of lifelong learning habits and skills, efficient time and task management, and heightened motivation leading to active learning.

Further analysis reveals additional perspectives, with 2.0% of participants highlighting specific combinations of these advantages. For instance, 2.0% emphasized the trio of more control over learning, better problem-solving, and critical thinking, and increased learning desire and engagement. Another 2.0% underscored the quartet of more control over learning, better problem-solving and critical thinking, lifelong learning habits and skills, and enhanced motivation and active learning.

Notably, a substantial 66.7% of respondents specifically recognized more control over learning as a pivotal advantage, signifying a consensus on the significance of autonomy in adult education. This suggests that self-directed learning is perceived as a means to facilitate personal agency and ownership over one's educational pursuits.

In conclusion, the detailed breakdown of responses highlights the multifaceted nature of perceived advantages associated with self-directed learning among adult learners. The emphasis on autonomy and control underscores the potential of this approach to cater to individual learning preferences and foster a range of skills and habits conducive to lifelong learning.

Frequencies of How significantly do you think self-directed learning may help you achieve your career and personal objectives?

How significantly do you think self-directed learning may help you achieve your career and personal objectives?	Counts	% of Total	Cumulative %
a. Significantly	37	72.5 %	72.5 %
b. Moderately	11	21.6 %	94.1 %
c. Neutral	3	5.9 %	100.0 %

The majority of respondents, comprising 72.5%, express a belief that self-directed learning would significantly contribute to the attainment of their career and personal objectives. An additional 21.6% hold a moderate view on the impact of self-directed learning, suggesting a substantial overall positive outlook. A smaller proportion, 5.9%, remains neutral on the perceived significance of self-directed learning for achieving their goals. The cumulative percentages provide an overview of the distribution of these perspectives, culminating at 100.0%. This data reflects a generally optimistic stance regarding the potential benefits of self-directed learning in aligning with respondents' career and personal aspirations.

2. Develop skills:

Analyze responses to questions 10, 28, and 33 to understand the current level of participants' skills in self-directed learning.

Frequencies of To what extent do you possess confidence in your capacity to independently guide your own learning?

To what extent do you possess confidence in your capacity to independently guide your own learning?	Counts	% of Total	Cumulative %
b. Partially confident	1	2.0 %	2.0 %
c. Confident	23	45.1 %	47.1 %
d. Highly confident	22	43.1 %	90.2 %
e. Exceedingly confident	5	9.8 %	100.0 %

The majority of respondents, constituting 45.1%, express confidence in their capacity to independently guide their own learning. A significant 43.1% report feeling highly confident in this regard, suggesting a considerable level of assurance. An additional 9.8% indicate an exceedingly high level of confidence. Only a small proportion, 2.0%, report being partially confident. The cumulative percentages provide an overall view of the distribution of confidence levels, reaching 100.0%. This data suggests a generally positive self-assessment among respondents regarding their ability to take charge of their own learning experiences.

Frequencies of To what extent are you proficient at recognizing and employing appropriate tools and resources to enhance your self-directed learning process?

To what extent are you proficient at recognizing and employing appropriate tools and resources to enhance your self-directed learning process?	Counts	% of Total	Cumulative %
a. Extremely proficient	12	23.5 %	23.5 %
b. Moderately proficient	36	70.6 %	94.1 %
c. Neutral	3	5.9 %	100.0 %

A significant portion of respondents, constituting 70.6%, consider themselves moderately proficient in recognizing and employing suitable tools and resources to enhance their self-directed learning. Another 23.5% express an extremely high level of proficiency in this regard. A smaller proportion, 5.9%, remains neutral on their proficiency level. The cumulative percentages provide an overview of the distribution of self-assessed proficiency, reaching 100.0%. This data suggests a generally positive evaluation among respondents regarding their ability to effectively leverage tools and resources to support their self-directed learning endeavors.

Frequencies of How confident are you in finding and using reliable self-assessment tools that accurately represent your learning progress?

How confident are you in finding and using reliable self-assessment tools that accurately represent your learning progress?	Counts	% of Total	Cumulative %
a. Very confident	12	23.5 %	23.5 %
b. Moderately confident	35	68.6 %	92.2 %
c. Neutral	4	7.8 %	100.0 %

A substantial portion of respondents, comprising 68.6%, express moderate confidence in their ability to find and use reliable self-assessment tools for accurate representation of their learning progress. Another 23.5% report being very confident in this regard, indicating a significant level of assurance. A smaller proportion, 7.8%, remains neutral on their confidence level. The cumulative percentages provide an overall view of the distribution of confidence levels, reaching 100.0%. This data suggests a generally positive self-assessment among respondents regarding their confidence in utilizing self-assessment tools effectively to gauge their learning progress accurately.

3. Cultivate motivation:

Examine responses to questions 16, 17, and 20 to assess the intrinsic motivation levels of participants. Design motivational workshops highlighting the benefits outlined in question 11 and linking them to personal and professional growth. Implement strategies to address motivational challenges identified in question 15.

Frequencies of How does intrinsic motivation affect your self-directed learning?

How does intrinsic motivation affect your self-directed learning?	Counts	% of Total	Cumulative %
a. It greatly enhances my self-directed learning.	33	64.7 %	64.7 %
b. It moderately affects my self-directed learning commitment.	14	27.5 %	92.2 %
c. It does not affect my self-directed learning.	3	5.9 %	98.0 %
e. My self-directed learning engagement drops significantly.	1	2.0 %	100.0 %

The majority of respondents, constituting 64.7%, indicated that intrinsic motivation greatly enhances their self-directed learning. A significant proportion, 27.5%, reported a moderate impact on their self-directed learning commitment. A smaller percentage, 5.9%, noted that intrinsic motivation does not affect their self-directed learning. Only 2.0% mentioned that their self-directed learning engagement drops significantly due to intrinsic motivation. The cumulative percentages provide an overall distribution of responses, reaching 100.0%. This data offers insights into how respondents perceive the influence of intrinsic motivation on their self-directed learning experiences.

Frequencies of How do you rate your level of intrinsic motivation to participate in self-directed learning?

How do you rate your level of intrinsic motivation to participate in self-directed learning?	Counts	% of Total	Cumulative %
b. Slightly motivated	4	7.8 %	7.8 %
c. Moderately motivated	11	21.6 %	29.4 %
d. Highly motivated	30	58.8 %	88.2 %
e. Intensely motivated	6	11.8 %	100.0 %

The majority of respondents, comprising 58.8%, rated themselves as highly motivated to participate in self-directed learning. An additional 21.6% considered themselves moderately motivated. A smaller percentage, 11.8%, expressed an intense level of motivation, while 7.8% reported being slightly motivated. The cumulative percentages provide an overall distribution of responses, reaching 100.0%. This data offers insights into the varying degrees of intrinsic motivation among respondents in the context of their engagement with self-directed learning.

Participants were asked to choose from a list of strategies, and the frequencies and percentages of each combination are presented.

1. Setting Challenging Goals: Approximately 6.0% of respondents emphasized the effectiveness of setting challenging yet achievable goals in enhancing their intrinsic motivation and self-efficacy for self-directed learning.
2. Making the Topic Personal: Around 2.0% of respondents noted that making the learning topic personal is a strategy that positively impacts their motivation and self-efficacy.
3. Celebrating Little Wins: This strategy, combined with others, was chosen by 4.0% of respondents, highlighting the importance of recognizing and celebrating small achievements in their self-directed learning journey.
4. Asking Educated People for Advice (Option 4): About 10.0% of respondents found seeking advice from knowledgeable individuals to be a valuable strategy for boosting their motivation and self-efficacy.
5. Self-Talk and Encouragement (Option 5): This strategy, chosen by 6.0% of respondents, involves positive self-talk and self-encouragement as a means to enhance intrinsic motivation and self-efficacy.

Respondents selected various combinations of the mentioned strategies, showcasing the diverse approaches individuals take to cultivate motivation and self-efficacy. Combinations involving setting goals, making topics personal, and seeking advice were prominent.

The data highlights the multifaceted nature of strategies employed by individuals engaged in self-directed learning. These insights are valuable for understanding the nuanced preferences and practices that contribute to enhancing motivation and self-efficacy in the context of independent learning endeavors.

The advantages of self-directed learning for adult learners reveals a comprehensive perspective on the perceived benefits of this educational approach. A notable finding is that 31.4% of respondents believe self-directed learning provides them with more control over their learning process, reflecting a desire for autonomy. Additionally, 5.9% emphasize the positive impact on problem-solving and critical thinking skills, indicating a recognition of the cognitive benefits associated with self-directed learning. Another

noteworthy aspect is the acknowledgment by 2.0% of respondents that self-directed learning contributes to increased learning desire and engagement. Moreover, respondents value the flexibility of self-paced learning (3.9%) and recognize the cultivation of lifelong learning habits and skills (2.0%). The data also suggests that self-directed learning positively influences time and task management skills (2.0%) and enhances motivation and active learning (2.0%). Overall, the findings highlight the diverse advantages that adult learners attribute to self-directed learning, encompassing personal control, skill development, and motivational factors.

Frequencies of 15. To what extent are you inclined to investigate resources and opportunities to enhance your self-directed learning abilities?

15. To what extent are you inclined to investigate resources and opportunities to enhance your self-directed learning abilities?	Counts	% of Total	Cumulative %
a. Very inclined	32	64.0 %	64.0 %
b. Moderately inclined	16	32.0 %	96.0 %
c. Neutral	2	4.0 %	100.0 %

The table presents data on the extent to which respondents are inclined to investigate resources and opportunities to enhance their self-directed learning abilities. The findings are as follows:

- **Very Inclined:** The majority of respondents, constituting 64.0%, express a high inclination to explore resources and opportunities for improving their self-directed learning abilities. This suggests a proactive approach and a keen interest in seeking avenues for self-improvement.
- **Moderately Inclined:** Approximately 32.0% of respondents indicate a moderate inclination towards investigating resources and opportunities. This group demonstrates a somewhat proactive stance, showing an interest in enhancing their self-directed learning skills but not as extensively as the "very inclined" group.
- ***Neutral:** A small percentage, 4.0% of respondents, express a neutral stance. This group may not strongly lean towards actively seeking resources and opportunities for self-directed learning improvement, reflecting a more passive or ambivalent attitude.

Overall, the data suggests a range of inclinations among respondents, with a significant portion being highly inclined to explore and invest in resources and opportunities to enhance their self-directed learning abilities.

4. Enhance collaboration:

Evaluate responses to questions 21, 22, and 25 to understand the current collaboration and resource sharing practices among participants. Develop initiatives to foster a collaborative learning community, such as creating discussion forums (question 29) and promoting peer mentorship programs (question 24).Identify barriers to collaboration and address them in targeted interventions.

Frequencies of How important do you think teamwork and resource sharing are for adult education learning?

How important do you think teamwork and resource sharing are for adult education learning?	Counts	% of Total	Cumulative %
a. Extremely important	29	58.0 %	58.0 %
b. Moderately important	12	24.0 %	82.0 %
c. Neutral	8	16.0 %	98.0 %
e. Not important at all	1	2.0 %	100.0 %

In this survey, respondents' perceptions of the importance of teamwork and resource sharing in adult education learning were examined. The results indicate that a majority of participants (58.0%) deem teamwork and resource sharing as extremely important, highlighting a strong belief in the value of collaborative efforts for enhancing the adult learning experience. Additionally, 24.0% of respondents consider these aspects moderately important, while 16.0% express a neutral stance. Only a small percentage (2.0%) believes that teamwork and resource sharing are not important at all.

Frequencies of How often do you actively look for chances to work together with other adult learners?

How often do you actively look for chances to work together with other adult learners?	Counts	% of Total	Cumulative %
a. Very often	17	33.3 %	33.3 %
b. Often	19	37.3 %	70.6 %
c. Neutral	13	25.5 %	96.1 %
d. Rarely	1	2.0 %	98.0 %
e. Never	1	2.0 %	100.0 %

The survey explored the frequency with which respondents actively seek opportunities to collaborate with other adult learners. The findings indicate that a significant portion of participants engage in collaborative efforts, with 33.3% reporting that they actively look for chances to work together with other adult learners very often. Additionally, 37.3% of respondents do so often, demonstrating a consistent interest in collaborative learning experiences. A minority of participants (2.0%) rarely or never actively seek such opportunities. A notable percentage (25.5%) adopts a neutral stance regarding their frequency of seeking collaborative chances.

Frequencies of To what extent are you willing to share your own expertise and resources in a collaborative learning setting?

To what extent are you willing to share your own expertise and resources in a collaborative learning setting?	Counts	% of Total	Cumulative %
a. Very willing	32	64.0 %	64.0 %
b. Moderately willing	15	30.0 %	94.0 %
c. Neutral	3	6.0 %	100.0 %

The survey examined participants' willingness to share their expertise and resources in a collaborative learning setting. The majority of respondents, constituting 64.0%, expressed a high level of willingness, indicating that they are very willing to share their own expertise and resources in such contexts. An additional 30.0% reported being moderately willing, further contributing to the overall positive disposition towards collaborative sharing. A small percentage, 6.0%, adopted a neutral stance, suggesting a segment of respondents with a more reserved position on sharing expertise and resources in collaborative learning settings.

The survey investigated participants' perspectives on the cooperative endeavors that yield the most advantages for adult learners. Respondents were asked to select multiple options from a list of possibilities. The results indicate a diverse range of preferences among participants. The most commonly selected option was "Multi-perspective problem-solving seminars and projects" (4.0%), followed by "Peer review and support" (10.0%). A combination of these options with "Studying together and sharing ideas" garnered 8.0% of responses, while the addition of "Online forums for students to ask questions and socialize" and "Student mentorship programmes" received 22.0% and 46.0%, respectively. Other combinations of cooperative endeavors were also chosen by participants, contributing to a cumulative understanding of the multifaceted nature of preferred collaborative learning methods among adult learners.

The survey aimed to gauge participants' familiarity with various self-directed learning platforms and tools online. Respondents were given the option to select multiple tools from a provided list. The results indicate diverse levels of familiarity among participants. The most recognized tool was "Learning Management Systems (LMS) for course access and progress management," with 12.0% of respondents indicating familiarity. Combining this with other tools, such as "Coursera and Udemy offer varied learning tools" and "Google Calendar or Trello for learning task organization," garnered varying percentages. Notably, "Social learning platforms and forums for resource sharing and networking" received the highest recognition at 44.0%. The findings suggest that while certain tools are well-known, there is a range of familiarity among participants, highlighting the need for personalized approaches to technology integration in self-directed learning.

5. Provide tools:

Assess familiarity with self-directed learning tools and platforms (question 29) to identify gaps in knowledge. Develop tutorials and training sessions focusing on commonly used tools (question 30) and resources for self-directed learning. Ensure accessibility and ease of use based on participants' reported proficiency (question 28).

Frequencies of To what extent are you proficient at recognizing and employing appropriate tools and resources to enhance your self-directed learning process?

To what extent are you proficient at recognizing and employing appropriate tools and resources to enhance your self-directed learning process?	Counts	% of Total	Cumulative %
a. Extremely proficient	12	23.5 %	23.5 %
b. Moderately proficient	36	70.6 %	94.1 %
c. Neutral	3	5.9 %	100.0 %

The survey aimed to assess participants' proficiency in recognizing and utilizing tools and resources to enhance their self-directed learning process. Responses were categorized into three levels of proficiency. The majority of participants reported being moderately proficient, constituting 70.6% of the total responses. Another substantial portion of respondents, 23.5%, claimed to be extremely proficient in recognizing and employing appropriate tools for self-directed learning. On the other hand, a small percentage, 5.9%, expressed a neutral stance, indicating neither proficiency nor deficiency in utilizing such tools. These findings suggest that a significant proportion of the surveyed individuals feel confident in their ability to leverage tools for self-directed learning, emphasizing the importance of technological competence in fostering effective autonomous learning practices. Also, results indicate diverse levels of familiarity among participants. The most recognized tool was "Learning Management Systems (LMS) for course access and progress management," with 12.0% of respondents indicating familiarity. Combining this with other tools, such as "Coursera and Udemy offer varied learning tools" and "Google Calendar or Trello for learning task organization," garnered varying percentages. Notably, "Social learning platforms and forums for resource sharing and networking" received the highest recognition at 44.0%. The findings suggest that while certain tools are well-known, there is a range of familiarity among participants, highlighting the need for personalized approaches to technology integration in self-directed learning.

6. Implement assessment:

Examine responses to questions 31, 32, and 34 to understand participants' current practices in self-assessment. Develop workshops on effective self-evaluation techniques, integrating insights from question 33. Implement a system for participants to track their progress, utilizing goalsetting mechanisms (question 30) and self-assessment tools.

Frequencies of To what extent are you confident in consistently assessing your own learning progress throughout an adult education programme?

To what extent are you confident in consistently assessing your own learning progress throughout an adult education programme?	Counts	% of Total	Cumulative %
a. Very comfortable	26	52.0 %	52.0 %
b. Moderately comfortable	21	42.0 %	94.0 %

Frequencies of To what extent are you confident in consistently assessing your own learning progress throughout an adult education programme?

To what extent are you confident in consistently assessing your own learning progress throughout an adult education programme?	Counts	% of Total	Cumulative %
c. Neutral	2	4.0 %	98.0 %
d. Less comfortable	1	2.0 %	100.0 %

Participants' confidence in consistently assessing their own learning progress throughout an adult education program was examined in this survey. Results indicated that a majority of respondents, comprising 52.0%, reported feeling very comfortable in self-assessment. Additionally, 42.0% expressed being moderately comfortable with evaluating their learning progress independently. A small percentage, 4.0%, maintained a neutral stance, neither leaning towards nor against confidence in self-assessment. Furthermore, only 2.0% reported feeling less comfortable in assessing their own learning progress. These findings underscore the importance of cultivating a sense of confidence and comfort among adult learners in self-assessment practices within the context of an educational program.

The data provides insights into participants' perspectives on the advantages of self-directed learning for adult learners. The data is organized around different combinations of potential advantages, and each combination is associated with a count, percentage of the total, and cumulative percentage. The most frequently selected advantages include "More control over their learning," "Better problem-solving and critical thinking," and "Increased learning desire and engagement." These advantages collectively represent 31.4% of the responses, with other combinations contributing to the cumulative percentage. The table demonstrates a variety of perceived benefits associated with self-directed learning, offering a nuanced understanding of adult learners' preferences and priorities in educational settings. These findings can be valuable for educators, curriculum designers, and policymakers aiming to enhance adult education programs and support self-directed learning initiatives.

Frequencies of How frequently do you modify your learning tactics in response to your self-assessment results?

How frequently do you modify your learning tactics in response to your self-assessment results?	Counts	% of Total	Cumulative %
a. Very frequently	15	29.4 %	29.4 %
b. Occasionally	30	58.8 %	88.2 %
c. Neutral	4	7.8 %	96.1 %
d. Rarely	2	3.9 %	100.0 %

The table outlines the frequencies of responses to the question regarding how frequently participants modify their learning tactics in response to self-assessment results. The data is presented in terms of counts, percentages of the total, and cumulative percentages.

The majority of respondents indicated that they modify their learning tactics, with 29.4% selecting "Very frequently" and 58.8% choosing "Occasionally." A smaller proportion, 7.8%, expressed a "Neutral" stance on the frequency of modifying learning tactics. Only 3.9% reported doing so "Rarely." The cumulative percentages highlight the increasing trend in responses, reaching 100% as participants move through the different frequency categories. This information suggests a general willingness among participants to adapt their learning strategies based on self-assessment, emphasizing the dynamic and flexible nature of their approach to learning.

To focus on frequencies of gender it was found with a total of 52 responses 34.6 percent of people who identify as male do so, while 65.4% of people who identify as female do so. To examine frequencies of age it was found that the biggest group, with 38.5% of the total, is made up of people aged 41 to 50, which shows that a lot of them are in the middle of their careers. 30.8% of individuals are between the ages of 31 and 40, which is another large group of people in their best working years. Also, 13.5% of members are under 30 years old, which shows that younger people are interested. The age groups of 51 to 60 years and over 60 years each give 13.5% and 3.8%, respectively, showing that the contributions are evenly spread across the different age groups. To focus on education it was found that 76% percent of the interviewees have a Master's degree, which shows that they have a good level of schooling. Moreover, 9.8% have earned a Bachelor's degree, which makes up the group with college schooling. A big 19.6% have "Other" education, which means they have a range of educational skills besides the usual Bachelor's or Master's degrees. To focus on current occupation it was found that the vast majority, or 78.8%, are working full-time, which shows that there are a lot of working people in the study. Also, 7.7% say they are self-employed, which shows that there is a group of businesses and people who work for themselves. 1.9% of participants say they are working part-time, and 1.9% say they are retired, showing that responders are at a wide range of job stages. The "Other" group, which was chosen by 9.6% of individuals, adds to the variety of jobs in the sample by indicating a wide range of different career roles.

To focus on martial status it was found that it was found that 76% percent of those who answered say they are married, which means that a big chunk of the group is currently married. Also, 15.7% say they are single, which is a large percentage of people who answered the survey who are not married. People who are divorced or split make up 11.8% of the group in the study, which shows that people have had a variety of situations in relationships. To focus on whether have respondents taken any courses or participated in any adult education programs before it was found that 86% percent said they had been to adult education before, and the next part of the study looks into why they went to school. The main reason given was to improve working jobs (86.5%), followed by the desire to learn new skills or information (92.2%). Also, social reasons like getting to know new people or having fun played a part for 41.2% of participants. 43.1% and 52.9% of respondents said it was to satisfy personal wants and improve general well-being. To analyze which options most accurately portray self-directed learning it was found that 66.7% of participants asserted that self-directed learning involves adults taking control of their learning processes. More research shows more points of view, and 2.0% of the people who took part pointed out specific combos of these benefits. For example, 2.0% stressed the importance of having more control over learning, better problem-solving, and critical thought, as well as a greater desire and interest in learning.

To focus on whether self-directed learning may help a person achieve one's career and personal objectives it was found that 72.5% say they think that self-directed learning would help them reach their personal and professional goals in a big way. Another 21.6% have a middling opinion about the effects of self-directed learning, which shows that a lot of people are generally optimistic. 5.9% of people are still not

sure how important they think self-directed learning is for reaching their goals. To focus on to what extent people possess confidence in one's capacity to independently guide one's learning it was found that a large 43.1% say they are very sure in this area, which shows a high level of confidence. A very high amount of faith is shown by an extra 9.8%. A very small percentage, 2.0%, say they are only partly sure. To examine to what extent are proficient at recognizing and employing appropriate tools and resources to enhance one's self-directed learning process it was found that about 70% of people say they are somewhat good at finding and using the right tools and materials to help them learn on their own. Another 23.5% say they are very good at this.

To examine how confident are a person in finding and using reliable self-assessment tools that accurately represent one's learning progress it was found that 68.6% say they are somewhat confident in their ability to find and use correct self-assessment tools to show how well they are learning. Another 23.5% say they are very sure about this, which is a pretty high amount of confidence. To examine to what extent are inclined to investigate resources and opportunities to enhance one's self-directed learning abilities it was found that a lot of the people who participated work together; in fact, 33.3% said they actively look for ways to work together with other adult learners very often. Additionally, 37.3% of those who answered do so regularly, showing a steady interest in learning together. A small group of people (2.0%) rarely or never look for these kinds of chances. To focus on what extent a person is willing to share one's expertise and resources in a collaborative learning setting it was found that most of the people who answered 64% said they were very happy to share their knowledge and skills in these situations. To examine how frequently people modify one's learning tactics in response to one's self-assessment results it was found that 58.8% chose "Occasionally" and 29.4% chose "Very often." A smaller group, 7.8%, said they were "neutral" about how often learning strategies should be changed. Only 3.9% said they did it "Rarely." The total figures show that the number of answers is going up, hitting 100% as people move through the frequency groups.

5. Discussion

The results have far-reaching consequences for educational policy, practice, and research, as well as for adult education and self-directed learning in general. The primary contribution of this research might be to our understanding of the efficacy of different approaches to encouraging and supporting adult students' capacity for self-directed learning. Adult education programs may be better tailored to meet the requirements of a wide range of learners if people have a better grasp of the methods that are most effective with this demographic. Successful adult self-directed learning may be driven by intrinsic desire and self-efficacy, which the research may also show. This understanding may be used by educators and legislators to create a nurturing learning environment that boosts students' self-confidence and intrinsic drive, allowing them to study more independently. Collaborative learning and sharing of resources may also be highlighted as valuable in adult education settings by the results. Boosting adult learners' engagement, feeling of belonging, and learning outcomes may be achieved by highlighting possibilities for peer collaboration, mentoring, and community-building. The importance of using digital resources and technology to help adult learners learn on their own time may also be highlighted by the research. To better meet the requirements of adult learners, digital literacy efforts and online learning environments may be informed by insights regarding learners' familiarity and skill with using online platforms and technologies. The results may also not apply to a broader population of adult learners since the study's sample was small. The effects of self-directed learning interventions on the academic and occupational outcomes of adult

learners over the long term could be the subject of future longitudinal studies. To have a better understanding of how to teach in a way that is sensitive to other cultures, comparative studies should look at how different countries adults see and engage in self-directed learning. In addition, qualitative studies might investigate the impact of institutional support systems on adult learners' self-directed learning practices as well as the socio-cultural elements that affect their participation in self-directed learning. Educators, legislators, and researchers can further improve our understanding of self-directed learning in adult education contexts by tackling these limitations and advancing future research agendas. This will empower adult learners to take ownership of their learning journey and achieve their personal and educational goals.

6. Conclusion

The study shows that adult learners are more motivated, autonomous, and happy when they can actively engage in educational activities and take care of their learning. The study may have also revealed that learner-centered pedagogies, technology, and experiential learning empower and engage adult learners. These findings emphasize the need for learner-centered methods and supportive learning settings that empower individuals to participate in their education, which has crucial implications for policymakers, stakeholders, and practitioners in adult education. The study's recommendations may help practitioners create and implement effective interventions to engage adult learners and promote self-directed learning. Teachers may employ internships, simulations, and project-based assignments to provide students with real-world experience that integrates theory and practice and promotes active engagement. Lawmakers must also finance empowerment and involvement-focused adult education courses. Policymakers must provide adult education institutions with the resources to develop and implement learner-centered programming. Legislators should support digital literacy training, flexible class scheduling, and acknowledging prior learning to better serve adult students.

References

1. Abou-Khalil, V., Helou, S., Khalifé, E., Chen, M. A., Majumdar, R., & Ogata, H. (2021). Emergency online learning in low-resource settings: Effective student engagement strategies. Education Sciences, 11(1), 24.
2. Ahammad, F. (2023). SELF-DIRECTED LEARNING: A CORE CONCEPT IN ADULT EDUCATION. The Online Journal of Distance Education and e-Learning, 11(3).
3. Annuar, N., Sabri, M. D., Mutalib, H. A., Rahman, N. L. A., Mutalib, S. K. M. S. A., Daud, D., & Johan, M. R. M. (2021). Empowering self-directed learning through technology, organization and personal support in open and distance learning: A conceptual review. Turk. J. Physiother. Rehabil, 32, 23303-23313.
4. Boyadjieva, P., & Ilieva-Trichkova, P. (2021). Adult education as empowerment. Springer International Publishing.
5. Burns, R. (2020). Adult Learner at Work: The challenges of lifelong education in the new millennium. Routledge.
6. Carr, A., Balasubramanian, K., Atieno, R., & Onyango, J. (2020). Lifelong learning to empowerment: beyond formal education. In Expanding Horizons in Open and Distance Learning (pp. 69-86). Routledge.

7. Chiu, T. K. (2022). Applying the self-determination theory (SDT) to explain student engagement in online learning during the COVID-19 pandemic. Journal of Research on Technology in Education, 54(sup1), S14-S30.

8. Chukwuedo, S. O., Mbagwu, F. O., & Ogbuanya, T. C. (2021). Motivating academic engagement and lifelong learning among vocational and adult education students via self-direction in learning. Learning and Motivation, 74, 101729.

9. Coy, D., Malekpour, S., Saeri, A. K., & Dargaville, R. (2021). Rethinking community empowerment in the energy transformation: A critical review of the definitions, drivers, and outcomes. Energy Research & Social Science, 72, 101871.

10. Dağğöl, G. D. (2020). Perceived academic motivation and learner empowerment levels of EFL students in the Turkish context. Participatory Educational Research, 7(3), 21-37.

11. du Toit-Brits, C. (2020). Unleashing the power of self-directed learning: Criteria for structuring self-directed learning within the learning environments of higher education institutions. Africa Education Review, 17(2), 20-32.

12. Ferrer, J., Ringer, A., Saville, K., A Parris, M., & Kashi, K. (2022). Students' motivation and engagement in higher education: The importance of attitude to online learning. Higher Education, 83(2), 317-338.

13. Govindaraju, V. (2021). Review on Adult Learning Theory and Approach. Multicultural Education, 7(12).

14. Hutasuhut, I., Ahmad Zaidi Adruce, S., & Jonathan, V. (2021). How a learning organization cultivates self-directed learning. Journal of Workplace Learning, 33(5), 334-347.

15. Imperiale, A. J., & Vanclay, F. (2021). Conceptualizing community resilience and the social dimensions of risk to overcome barriers to disaster risk reduction and sustainable development. Sustainable Development, 29(5), 891-905.

16. Khatibi, F. S., Dedekorkut-Howes, A., Howes, M., & Torabi, E. (2021). Can public awareness, knowledge, and engagement improve climate change adaptation policies? Discover Sustainability, 2, 1-24.

17. Kim, B., Yoo, M., & Yang, W. (2020). Online engagement among restaurant customers: The importance of enhancing flow for social media users. Journal of hospitality & tourism research, 44(2), 252-277.

18. Kim, D., Jung, E., Yoon, M., Chang, Y., Park, S., Kim, D., & Demir, F. (2021). Exploring the structural relationships between course design factors, learner commitment, self-directed learning, and intentions for further learning in a self-paced MOOC. Computers & Education, 166, 104171.

19. Kruszelnicki, W. (2020). Self-directedness and the question of autonomy: From counterfeit education to critical and transformative adult learning. Studies in Philosophy and Education, 39(2), 187-203.

20. Lin, X. (2023). Exploring the Role of ChatGPT as a Facilitator for Motivating Self-Directed Learning Among Adult Learners. Adult Learning, 10451595231184928..

21. Liu, H. L., Wang, T. H., Lin, H. C. K., Lai, C. F., & Huang, Y. M. (2022). The influence of affective feedback adaptive learning system on learning engagement and self-directed learning. Frontiers in Psychology, 13, 858411.

22. Loeng, S. (2020). Self-directed learning: A core concept in adult education. Education Research International, 2020, 1-12.

23. Martin, F., & Borup, J. (2022). Online learner engagement: Conceptual definitions, research themes, and supportive practices. Educational Psychologist, 57(3), 162-177.

24. Merriam, S. B., & Baumgartner, L. M. (2020). Learning in adulthood: A comprehensive guide. John Wiley & Sons.

25. Morris, T. H., & Rohs, M. (2021). Digitization bolstering self-directed learning for information literate adults–A systematic review. Computers and Education Open, 2, 100048.

26. Ngozwana, N. (2020). The application of adult learning theory (andragogy) by adult educators and adult learners in the context of Eswatini. Uneswa Journal of Education (UJOE).

27. Paradiso-Testa, M. (2022). A Reflective Essay of a Conceptual Model for Self-Directed Learning for the Adult Learner. In Self-Directed Learning and the Academic Evolution From Pedagogy to Andragogy (pp. 163-172). IGI Global.

28. Purwati, D., Mardhiah, A., Nurhasanah, E., & Ramli, R. (2022). The six characteristics of andragogy and future research directions in EFL: a literature review. Elsya: Journal of English Language Studies, 4(1), 86-95.

29. Roberson Jr, D. N. D. N., Zach, S., Choresh, N., & Rosenthal, I. (2021). Self-directed learning: A longstanding tool for uncertain times. Creative Education, 12(5), 1011-1026.

30. Sun, W., Hong, J. C., Dong, Y., Huang, Y., & Fu, Q. (2023). Self-directed learning predicts online learning engagement in higher education mediated by the perceived value of knowing learning goals. The Asia-Pacific Education Researcher, 32(3), 307-316.

31. Uys, W. F. (2021). An integrative review of fourteen self-directed learning models. Journal for New Generation Sciences, 19(2), 48-66.

32. Zhu, M., Bonk, C. J., & Doo, M. Y. (2020). Self-directed learning in MOOCs: Exploring the relationships among motivation, self-monitoring, and self-management. Educational Technology Research and Development, 68, 2073-2093.