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Comparing factors influencing enrollment and learning preferences among prospective and current open and distance learners (ODL)

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Abstract

Purpose – This study explores the factors influencing enrollment and learning preferences of current and prospective open and distance learning (ODL) students in Malaysia. Understanding these factors is essential for addressing challenges related to enrollment and retention in ODL.

Design/methodology/approach – A convergent parallel mixed-methods design was employed, integrating qualitative and quantitative data. Semi-structured interviews identified factors influencing ODL enrollment, while a survey using a student preference profile assessed learner preferences. Integrating these methods provided a comprehensive understanding of both perspectives.

Findings – Qualitative findings revealed that time constraints and limited access to human support services are significant factors influencing ODL enrollment. Quantitative results showed that both current and prospective students share similar learning preferences, including a desire for peer and instructor collaboration, flexible learning schedules and an emphasis on deep learning.

Research limitations/implications – The study focuses on ODL students in Malaysia, which may limit generalizability to other educational contexts. Further research is needed to explore these factors across diverse ODL settings.

Practical implications – Based on these findings, the study recommends that ODL providers enhance student engagement by strengthening instructor interaction, fostering peer collaboration and promoting learner autonomy and independence.

Originality/value – This study offers a novel contribution by examining both prospective and current ODL students, addressing a gap in previous research, which has primarily focused on current students. The findings provide actionable strategies for ODL institutions to improve retention and success rates.

Keywords Open and distance learning (ODL), Enrollment factors, Learning preferences, Prospective students, Current students

Paper type Research article

Introduction

Pursuing an open and distance learning (ODL) education program can be intimidating to some. This mode of education hinges on technologies and the Internet due to physical separation between instructors and learners (Ananga and Biney, 2017). The post-pandemic education sector has embraced digital tools, enabling learners to access open resources and communicate

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with instructors, peers and staff anytime, anywhere. These correspond to the concept of ODL defined by Radovan (2019), which is the commitment to removing barriers to education, ensuring accessibility regardless of geographical location, socioeconomic status or prior educational background. A key principle of ODL is openness, reflected in flexible admission policies, self-paced learning and the use of open educational resources (OER), fostering a more inclusive and personalized learning experience (Khvilon and Patru, 2018). Flexibility is another important feature, referring to various delivery systems, learning resources and activities made available to learners, especially in the Malaysian ODL context (MQA, 2019). However, unstable Internet, unreliable learning tools and limited digital skills have widened the gap in technology access and online learning for both learners and institutions (Otto and Raturi, 2024). The use of technology in ODL seems to be a double-edged sword.

Besides technological challenges, factors such as limited interaction with peers and instructors (Kara *et al.*, 2019; Kyei-Blankson *et al.*, 2016) and time-related issues, including assignment deadlines and work–life balance struggles (Brown *et al.*, 2015; Dumais *et al.*, 2013), have been identified in the literature as barriers to learners' success in online learning. Geographical, psychological and communication distances, corresponding to the transactional distance theory are challenges of ODL (Moore, 2013), which may cause student disengagement and withdrawal (Otto and Raturi, 2024). Given that different learners may be influenced by numerous factors, this study explores the reasons why prospective and current Malaysian learners hesitate to enroll in ODL courses. It is important to focus on prospective students because congruence between the student and the program plays a crucial role in determining academic success in higher education (Soppe *et al.*, 2019).

Concurrently, learner preferences in preparing or taking up ODL courses are identified in this study. Focusing on how students want to learn is crucial, rather than solely on the course content, reasons or tools used for learning, which are equally, if not more, significant deciding factors (Koper, 2015). Similarly, Raturi (2022) emphasizes the importance of listening to learners to fully understand their attitudes and perceptions, ensuring that the learning environment aligns with their preferences. Understanding adult learners' preferences enables instructors and institutions to tailor teaching strategies that enhance enrollment, improve retention and support successful program completion (Gardner *et al.*, 2022). As learners' preferences may vary due to factors such as age, field of study, occupational commitments and technology skills to maneuver different learning platforms, this study would like to distinguish learners' learning preference profile among Malaysian students. While studies have examined current learners' preferences, research on prospective students' preferences remains limited. For instance, Maijo (2021) explored learners' perceptions and preferences regarding ODL, focusing on those who have already enrolled in such programs. Similarly, Pingol (2022) investigated study habits and learning practices among students engaged in ODL during the COVID-19 pandemic. However, there is a noticeable gap in the literature concerning the preferences of prospective students – those considering but have not yet enrolled in ODL courses. Only one study from the Netherlands examining the preference profiles of ODL students was identified in the literature (Koper, 2015). This indicates a need for research focusing on the factors influencing the enrollment decisions of potential ODL learners.

At this juncture, it is important to introduce the demographics of Malaysian ODL learners. They are made up of adults who mostly have a full-time job and family commitments. Unlike traditional students, adult learners are aware of why and what they need to learn (Knowles, 1996) and prefer to have their experiences reflected on their educational process (Lindeman, 1926). Adult learners benefit from ODL's flexibility, which enables them to balance education with personal life while applying their experiences. However, they often have low self-efficacy when it comes to using technology and that they may also feel isolated in their online learning processes (Kara *et al.*, 2019). Most adult learners have work commitments and family responsibilities (Cross, 1981 as cited in Teoh *et al.*, 2013), coupled with the uncertainties that they may face in a new learning environment, completing their studies can be an uphill battle.

Identifying Malaysian adult learners' motivations and preferences in ODL helps providers take appropriate actions to boost enrollment and retention. The present study sets out to address the following research questions:

(1) What factors hinder prospective and current Malaysian adult learners from enrolling in ODL courses?

(2) How different or similar are the learning preference profiles of prospective and current Malaysian ODL learners?

Factors influencing ODL enrollment

A review of recent literature indicates time, academic requirements for enrollment, interaction, technology and self-motivation are factors that ODL learners face in online learning environments (Brown *et al.*, 2015; Cheon *et al.*, 2021; Muilenburg and Berge, 2005; Otto and Raturi, 2024; Waterhouse *et al.*, 2020). Each of the factors will be elaborated in the following paragraphs. As most teaching and learning activities of ODL courses in Malaysia are conducted online (MQA, 2019), past studies investigating factors involved in any online learning environment are taken into consideration.

The most frequently discussed aspect in ODL is the time factor. Adult learners, who are not full-time students, find it difficult to devote adequate time to the online experience (Gardner *et al.*, 2022). Studies reveal several time-related obstacles that adult learners normally face: (1) managing jobs and household duties (Dumais *et al.*, 2013; Muilenberg and Berg, 2005), (2) preparing for the course and assignments (Ajmal and Ahmad, 2019; Brown *et al.*, 2015), (3) understanding the course outline and course materials (Otto and Raturi, 2024; Muilenberg and Berg, 2005) and (4) navigating the learning portal (Cheon *et al.*, 2021). These are reasons, which may negatively affect their learning. Cho and Cho (2017) claim that learners who could not manage their time when undertaking online courses have a higher cessation rate.

Coupled with the time factor, comprehending the course contents and completing learning tasks or assignments can be challenging too. Learner–content interaction can impact online students' learning, indicating a strong relationship with self-efficacy for learning and course satisfaction (Cho and Cho, 2017). This means having difficulty in comprehending the course content may cause low learning satisfaction and deter learners from completing their ODL courses. Online learners claim that the assignment questions are too hard and that they need substantial information, guidance and time to get them done (Brown *et al.*, 2015; Dumais *et al.*, 2013; Otto and Raturi, 2024). Also, they find it difficult to coordinate virtual group-based assignments (Cheon *et al.*, 2021; Dumais *et al.*, 2013). Dixson (2015) who investigated adult learners' experience after their first class discovered that students' anxiety level is high once they received their assignment even among students who have completed online courses before. This suggests that online learners may struggle to accomplish the tasks assigned and fulfill the requirements of online courses all by themselves.

While interactions with content, instructors and peers (Moore, 2013) (i.e. the essence of the community of inquiry framework) have been acknowledged to have positive implications on online learners (Kyei-Blankson *et al.*, 2016), their absence is considered a negative factor in ODL enrollment. It is evident in past research that stated a lack of feedback and interaction with the instructors can be profoundly detrimental to ODL learners. Limited interaction and feedback from instructors can cause online learners to feel isolated and disengaged in their learning (Otto and Raturi, 2024). It has also been constantly emphasized that instructors give immediate and constructive feedback in a learning environment where little or no face-to-face contact is provided (Dixson, 2015; Muilenberg and Berg, 2005) to ensure meaningful and successful learning (Kyei-Blankson *et al.*, 2016; Zuhairi *et al.*, 2020). Nevertheless,

student-to-student interaction is not significant especially among adult learners who are presumed to be self-motivated (Moore, 2013) and it does not affect online learners' course satisfaction (Cho and Cho, 2017; Kyei-Blankson *et al.*, 2016).

Technological issues also pose as factors hindering ODL enrollment which has been extensively discussed. Two out of eight factors highlighted by Muilenburg and Berg (2005) include technology, however they are not as significant as social interactions and administrative/instructor issues. Western literature often reports the low tendency of older adult learners to enroll in online courses (Gardner *et al.*, 2022), which is due to their unfamiliarity in navigating technological tools to communicate with their peers and instructors (Dumais *et al.*, 2013). Accessibility to technology seems to be a bigger problem in developing countries. Ajmal and Ahmad (2019) mention that Pakistani distance learners are anxious when they need to use modern technologies to do a presentation. Online learners in the Solomon Islands need to deal with expensive computers, limited access and Internet connectivity and majority are digitally illiterate (Otto and Raturi, 2024). Many Malaysian adult learners are found to be under-skilled in using computers and the Internet (Khairuddin *et al.*, 2020), implying a potentially unpleasant learning experience. In short, without adequate technological skills, online learners in developing countries may not be able to access course information, correspond with their instructors and peers and fulfill the course requirements, potentially leading to course withdrawal.

Besides the pedagogical and technological issues discussed above, the lack of motivation is another factor that may cause ODL learners to discontinue their studies. Adult online learners often struggle to balance full-time work, family responsibilities and course assignments, making them especially prone to stress (Dumais *et al.*, 2013). Elevated levels of stress can decrease motivation to learn, as proven by Waterhouse *et al.* (2020). Also, the nature of ODL process, i.e. limited to no face-to-face interaction (Markova *et al.*, 2017; Otto and Raturi, 2024) and heavy reliance on technology (Adedoyin and Soykan, 2020) seems to complicate the learning process for adult learners (Khairuddin *et al.*, 2020). It is possible that ODL learners may experience a range of negative emotions, from anxiousness, frustration, loneliness, to demotivation because of the online learning environment. These feelings which stem from the learners' life experiences and expectations may cause them to underperform in their studies (Ajmal and Ahmad, 2019).

ODL student learning preferences

In seeking to define Malaysian ODL learner preferences, we adopted Koper's (2015) variables from the that focus on the changeable aspect of the teaching and learning process. Koper (2015) posits five categories of learning preferences: (1) collaboration with peers and teachers (vs. self-study); (2) fixed schedule (vs. flexible time); (3) practical orientation (vs. theoretical orientation); (4) proactive teacher (vs. reactive teacher); (5) deep learning (vs. superficial learning).

While Koper's (2015) variables are rarely used to explore how ODL students prefer to learn, they encompass three aspects influencing transactional distance and learner satisfaction: interaction, autonomy and course structure, which underpin the transactional distance theory. We also included interactions with content, instructors and peers in the research instrument. These are in-line with Raturi (2022) who adopted the distance education learning environment survey focusing on instructor support, learner interaction and collaboration, personal relevance, authentic learning, learner autonomy and active learning as specified by Moore's transactional distance theory and community of inquiry framework to find out learner preferences. Because Raturi (2022) investigated current undergraduate and postgraduate learners' preferences while Koper (2015) examined prospective, enrolled and current students, the variables suggested by the latter are considered in this study. Like Koper (2015), this study aims to investigate which aspects of ODL programs prospective students find attractive and whether their preferences align with or differ from current students.

Methods

Study design

This study employs a convergent parallel mixed-method design, combining semi-structured interviews for qualitative data and an online questionnaire for quantitative data. Integrating both approaches provides a comprehensive understanding of factors influencing ODL enrollment and learning preferences (Creswell and Creswell, 2017). The process is outlined in Figure 1.

Participants

We recruited twelve respondents through convenience sampling for the qualitative study. Six of them are *current students*, enrolled into their term as "active" learners in an open university and another six are *prospective students* identified through an ODL institution's marketing database (refer Table 1). The prospective student respondents are individuals who have contacted the institution's marketing department to enquire about distance learning programs offered by the institution. We conducted interviews online to accommodate the busy schedules of interviewees who are dispersed across the country and to reduce logistical expenses.

The quantitative study included a total of 113 participants, of which 62 (54.9%) are current students and 51 (45.1%) are prospective students. Table 2 outlines the socio-demographic characteristics of the participants for the quantitative phase of the study. Participants range in age from 18 to 45 years, with the majority being prospective students (82.3%) and current students (91.9%). Among them, 43.1% of prospective students hold a master's qualification, while 62.9% of current students hold a bachelor's degree. Additionally, participants are primarily from the business field or interested in taking business related courses (prospective = 45.1%; current = 38.7%).

Study inclusion and exclusion criteria

The study inclusion criteria were: (1) being 18 years and above, (2) *current students* must be enrolled in their current term and have an active status and (3) *prospective students* must not have enrolled in any ODL institutions. We excluded those who did not fulfill the inclusion criteria and those reluctant to provide their written informed consent and/or declined to participate in the study.

Data collection

Firstly, we used a semi-structured questionnaire in the qualitative phase to explore factors influencing students' enrollment in an ODL institution. Before the interviews, we collected socio-demographic information, including age, education and program details – specifically

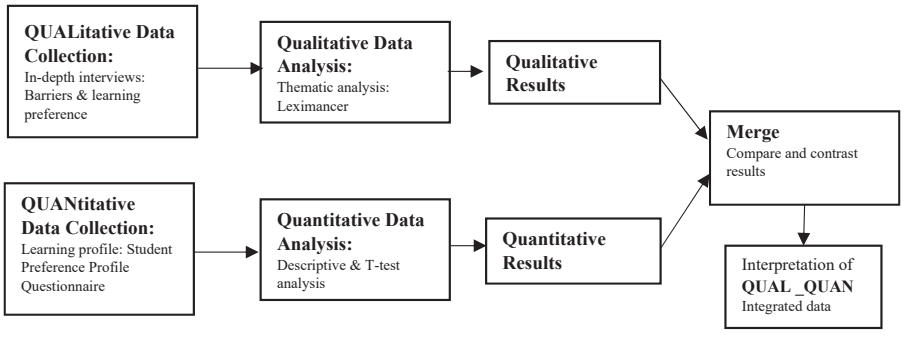

Figure 1. Convergent parallel mixed methods design of the study. Source(s): Figure by authors

Table 1. Sociodemographic variables of prospective and current students (Qualitative phase)

Participants	Study programme	Education Level	Study year/term	Age
Current students				
Swan	Education	Bachelors	Year 2 (Term 1)	36
Fifi	Business	Bachelors	Year 1 (Term 3)	31
Gracey	Education	Masters	Year 2 (Term 1)	34
Mathy	Psychology	Masters	Year 1 (Term 2)	37
Sharm	English Language Studies	Bachelors	Year 3 (Term 3)	33
Fairus	English Language Studies	Bachelors	Year 2 (Term 3)	47
Prospective students				
Theng	Business	Bachelors		52
Steph	Engineering	Masters		33
Mel	Education	Bachelors		40
CeCe	Education	PhD		65
Steve	Business	Masters		48
Siew	Psychology	Bachelors		34

Source(s): Table by authors

Table 2. Sociodemographic variables of prospective and current students (Quantitative phase)

	Prospective ($N = 51$) $N = (\%)$		Current ($N = 62$) $N = (\%)$	
Gender				
Male	23	45.1	15	24.2
Female	28	54.9	47	75.8
Age				
18–30 years old	22	43.1	32	51.6
31–45 years old	20	39.2	25	40.3
46–60 years old	5	9.8	5	8.1
61–75 years old	4	9.8	0	0
Education				
Diploma	3	5.9	7	11.3
Bachelors	18	35.3	39	62.9
Masters	22	43.1	16	25.8
PhD	8	15.7	0	0
Field of Study				
Engineering	6	11.8	6	9.7
Business	23	45.1	24	38.7
Psychology	8	15.7	13	21.0
English Language Studies	1	2.0	12	19.4
Computing	5	9.8	0	0
Automotive and Mechatronics	2	3.9	3	4.8
Education	6	11.8	4	6.5

Source(s): Table by authors

the current semester and program for active students and the intended program for prospective students. The interview questions were adapted from Muilenburg and Berge's (2005) framework on student barriers to online learning, which includes time, infrastructure/support services, motivation, prerequisite skills, technical issues and social factors.

Questions addressing factors influencing ODL enrollment include gathering participant perspectives on various aspects of their learning experience, such as student learning time (e.g. "Do you feel that the student learning time in online learning is sufficient to provide you with the knowledge and skills necessary to complete the course?"), infrastructure (e.g. "Do you think the learning infrastructures provided are able to support your learning?"), human support services (e.g. "What kind of human support services do you receive in your institution?"), technical support (e.g. "Do you think your institution has the sufficient technical support (software/hardware) to assist you in completing your course?"), motivation (e.g. "What are the possible factors that may affect your motivation during your course of studies in an open distance learning institution?") and prerequisite skills (e.g. "Do you believe that you need to have mastered some prerequisite skills before enrolling in ODL courses?").

Secondly, for the quantitative phase, we employed the Dutch version of the validated Student Preference Profile Questionnaire (Koper, 2015), which was translated into English to examine Malaysian students' learning preference profiles. A panel of experts comprising two? academic staff who have more than ten years of experience in ODL setting and are well-versed in the English language reviewed the translated questionnaire to assess its content validity. They ensured that the questions were appropriate, comprehensive and accurately reflected the constructs being measured. The questionnaire consists of Likert items (five-point scale, ranging from strongly agree to strongly disagree) structured with prompts starting with "I like it when . . . ". It has five domains addressing students' needs for ODL learning, including: (1) collaboration with teachers and peers; (2) pacing and tempo; (3) practical versus theoretical orientation; (4) proactive versus reactive teacher and (5) deep versus superficial learning. Examples of items within each domain include: for collaboration ("I like to regularly collaborate with fellow students on assignments"), pacing ("I like to have sufficient flexibility so that I can occasionally allocate more or fewer hours to my studies"), practical orientation ("I appreciate it when I see the practical relevance of the learning materials and activities in the course content"), proactive teacher engagement ("I appreciate it when teachers get to know me and I get to know them") and deep learning ("I enjoy exploring a topic further through extra activities, even if they are not necessary for the exam").

The Cronbach's alpha value for the current scale was 0.879, indicating strong reliability. Additionally, the scale demonstrated both convergent and divergent validity, with correlation scores between items within the domains exceeding 0.50 and 0.60, all showing statistically significant values.

Ethics

This study was approved by the Research Ethics Board Wawasan Open University (REB-WOU#: NI-S (A)/AA/CrG-1/23). All the respondents provided their written informed consent. All participants gave their written informed consent. Participants were assured of data confidentiality and no personally identifiable information was collected. Only participants who were interviewed received incentives for their participation in this study.

Data analysis

During the qualitative data analysis, the 70 pages of interview transcripts were uploaded to Leximancer. The software's two-stage process for interpreting and visually representing the data, semantic extraction and relational extraction (Smith and Humphreys, 2006), was then conducted. In the initial semantic extraction stage, the data were analyzed to identify concepts, which are defined as "collections of words that generally co-occur throughout the text" (Lemon and Hayes, 2020). Leximancer differentiates between two types of concepts: word-like (common words) and name-like (proper nouns). By analyzing the frequency of word occurrence and co-occurrence, the software identified grounded concepts from the data. For each concept, a thesaurus was generated, including words and phrases strongly associated with the concept based on co-occurrence statistics, thereby adding semantic meaning. This process

resulted in the identification of both explicit (directly stated) and implicit (implied but not directly stated) concepts (Harwood *et al.*, 2015).

The second stage of semantic extraction, known as relational extraction, involved coding the text using semantic classifiers (concepts). Various numbers, such as the count of concepts, their co-occurrences and the relative frequency of these co-occurrences, were calculated and made available by the software. We used these frequency counts to identify themes by linking related concepts. Themes were named based on the most significant concept in terms of its semantic importance and/or its connections with other concepts, rather than simply based on their frequency of appearance (Harwood *et al.*, 2015). A theme size of 60% was selected, as it results in better-defined themes (Lemon and Hayes, 2020). Lastly, a concept map was generated to visually represent the themes, their underlying concepts and the relationships between them.

The quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS) version 27. Descriptive statistics were computed to describe the samples socio-demographic characteristics. We used an independent *t*-test to examine the differences between the learning profiles of current and prospective students. The statistical significance for the study was set at $p < 0.05$.

Results

Qualitative findings: factors influencing enrollment in ODL

The initial extraction phase using Leximancer identified 55 word-like concepts and eight themes. These word-like concepts consisted of frequently mentioned terms from participant interviews, such as *time*, *feel*, *assignment* and *work*. Following this, the preliminary list of concepts was refined before the second extraction stage by removing concepts irrelevant to the research questions and merging those with overlapping meanings (e.g. *take* and *depend* were combined under the term *support*). However, during this process, removing certain concepts caused a notable change in the themes within the conceptual model, indicating the importance of those terms, so they were reintroduced. This decision was critical to our approach when using Leximancer. In the second extraction phase, we identified 34 word-like concepts and determined the most prominent themes based on Leximancer's relational analysis. *Time*, *people*, *feel* and *group* were frequently mentioned by prospective students and *time*, *learning*, *subject* and *need* for current students. When the theme size is at 60%, the prominent themes build connections along with concepts of factors in enrolling into ODL courses as demonstrated the concept map (see Figures 2 and 3). The themes that emerged in this study are listed in Table 2.

In what follows, we discuss the key themes emerging from the interviews with current and prospective ODL students as shown in Table 3.

Learning time. As shown in Table 3, prospective and current students share similar concerns about the factors that influence their enrollment, persistence and re-enrollment in ODL courses. Findings show *completion time* and *human support services* as the most common factors between prospective and current students. Current students were primarily concerned with meeting assignment deadlines, whereas prospective students were more concerned about the total time required to complete the entire program.

> Available time to study and complete assignments, but even it is flexible, but online, students also have some stresses of learning, compared to face to face, the stresses are same when it comes to meeting an exam or assignment deadlines. (Swan, Current student)

> Motivating factor was the duration for me because most MBAs were doing it over a period of two years, and it required to go (for) physical classes. I was looking for something which is 100% online actually. So, the time needed as well as the physical aspects of it was a factor for me because I know I am not going to be able to travel too far. (Steve, Prospective student)

Human support services. Additionally, university administrative staff support was also recognized as crucial by prospective and current students. Current students like Cece stated

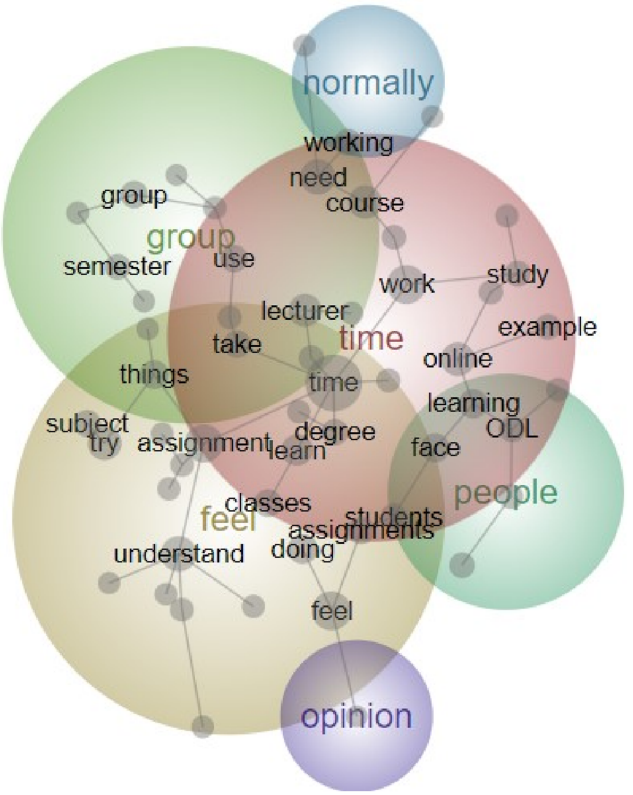

Figure 2. Concept map of themes for factors influencing enrolment in ODL courses among prospective students. Source(s): Figure by authors

that they have received sufficient support at the first point of enrollment, indicating satisfaction with the support given by lecturers and administration staff.

> I like lecturer support. So far, I got no problem because the first semester when we enroll, lecturer already open a group WhatsApp. And the admin staff also were helpful. (CeCe, Current student)

> This kind of human support is especially important. Additionally, the administrative support before I applied to join was crucial. An office staff member managed all my documents, provided valuable advice on what to do, and explained the timeline. (Steph, Prospective student)

Prospective students also cited concerns about group work, particularly challenges related to distance and effective collaboration on assignments.

> Doing assignments in groups could be a problem. Prefer if it is individual assignments. (Mel, Prospective student)

Learning and course materials. There were also concerns with understanding the course contents, the learning process and completing assignments for the *feel* theme that emerged from the analysis. Prospective students express concern about their ability to cope in classes.

> Learning experience and different learning styles require more attention in classes. (Siew, Prospective student)

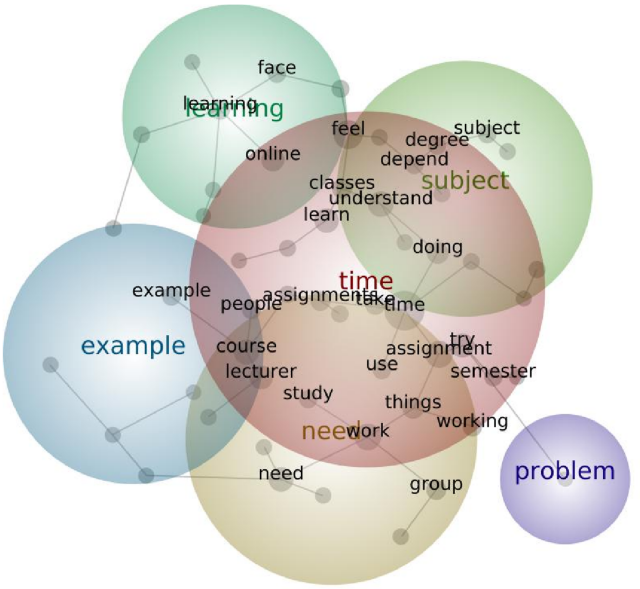

Figure 3. Concept map of themes for factors influencing enrolment in ODL courses among current students. Source(s): Figure by authors

Table 3. Themes and concepts of factors influencing ODL enrolment

Students	Theme	Concepts
Prospective	Completion Time	Work, Assignment, online learning
	Human Support Services (People)	Lecturer support, peer support, technical support
	Group	Assignments, peer, experience, semester
	Feel	understand, learn, doing, things, classes, assignments, subject, students
Current	Completion Time	duration, online course, working adult, travel, completion
	Human Support Services (Need)	Lecturer support, peer support, administrative support
	Subject	Classes, understand, depend, learn, doing
	Learning	understand, try, learn, doing, classes, assignments, subject

Source(s): Table by authors

Current students claimed *subject* and *learning* as factors hindering them to enroll in ODL courses. They felt that they needed more time to understand the material, which could be the reason for their hesitation to re-enroll if they had performed poorly in the subject during the previous semester. This is shown in Mathy's responses.

> Need sufficient time to gain the knowledge of the subject. If I do the online distance learning, I still get the C. So, I know that my understanding of the subject is very low. (Mathy, Current student)

The *learning* theme that emerged for current students reflected similar ideas to the theme of *feel* identified among prospective students. Both groups expressed that, despite the flexibility provided by ODL still, they remained concerned about meeting deadlines, as the stress of learning was comparable to that in conventional study modes.

> Because even it is flexible, but online students also have some stresses of learning, compared to the face to face, the stresses are same when it comes to deadlines to meet an exam or assignment. (Gracey, Current student)

Quantitative findings: learning preference profiles of prospective vs. current students

The Kolmogorov–Smirnov Test (K-S Test) was conducted to determine the assumption analysis with *p*-value set at $p < 0.001$. The results showed that data for collaboration, D (113) = 0.071, $p = 0.200$ and proactive teacher D (113) = 0.111, $p = 0.002$ were normally distributed. In contrast, pacing, D (113) = 0.119, $p < 0.001$, practical orientation D (113) = 0.133, $p < 0.001$ and deep learning D (113) = 0.133, $p < 0.001$ were not normally distributed. With two of the variables indicating normal distribution, the assumptions were considered met. The Levene's test of Homogeneity of Variances for independent samples *t*-test also indicated that the assumption was met, with all the *p*-values indicating $p > 0.05$ across all domains.

The independent samples *t*-test results revealed no significant differences between prospective and current students in their learning preference profiles: collaboration ($t(111) = -1.213$, $p = 0.228$), pacing ($t(111) = 0.697$, $p = 0.487$), practical orientation ($t(111) = 0.693$, $p = 0.490$), proactive teaching ($t(111) = -1.467$, $p = 0.145$) and deep learning ($t(111) = -0.126$, $p = 0.900$). Table 4 displays the mean and standard deviations between prospective and current students' learning preference. It is evident that both prospective and current students highly preferred collaboration, pacing and deep learning.

Discussion

ODL has seen significant growth in recent years, particularly with technology advancement, the increase in need for flexible learning options and with the expansion of education clientele to adult learners. However, sustaining student enrollment and retention in ODL programs remains challenging. Research has consistently highlighted reasons for student attrition (Brown *et al.*, 2015; Dumais *et al.*, 2013). Expanding on studies of ODL attrition (Brown *et al.*, 2015; Cho and Cho, 2017; Radovan, 2019; Simons *et al.*, 2020), this study examines factors influencing prospective and current students in Malaysia to enroll in ODL and their learning preferences. Identifying a program that fits the learners will lead to better outcomes (Soppe *et al.*, 2019). This study fills a research gap by examining both prospective and current ODL students, unlike previous studies focused mainly on the latter.

Findings of this study reveal that current and prospective students share similar concerns when or before enrolling in ODL courses, which are insufficient time to learn and understand course materials, as well as lack of human support. The latter coincides with previous studies (cf. Dixson, 2015; Gardner *et al.*, 2022; Kyei-Blankson *et al.*, 2016) which have also highlighted human support services as a significant concern. This is largely because ODL programs demand that students be independent learners while simultaneously managing

Table 4. Means and standard deviations for students preference profile

Factors	Prospects		Current	
	M	SD	M	SD
Collaboration (Peers and teachers)	29.73	5.55	28.54	4.76
Pacing (Flexible Time and Tempo)	18.31	3.65	18.71	2.34
Practical Orientation (Relevance)	11.96	2.71	12.26	1.84
Proactive Teacher (versus reactive)	14.70	3.11	13.94	2.47
Deep Learning (versus Superficial learning)	16.37	3.06	16.31	2.50

Source(s): Table by authors

personal lives and work commitments (Teoh *et al.*, 2013). Without dedicated support systems from academic staff, administrative staff, technical support and peers, many students struggle to succeed in such environments. Adult learners require motivation and engaging content to facilitate learning, especially after a demanding workday (Zainuddin *et al.*, 2023). Disengagement with course content can result in low learning satisfaction, potentially discouraging learners from completing their ODL courses. Human support services, including lecturer and peer support, are essential for sustaining motivation and helping independent learners complete their coursework and understand the course material (Simons *et al.*, 2020). Time management is also a crucial factor; current students often face challenges in meeting assignment deadlines, while prospective students may struggle with the overall duration of their studies. This is especially pertinent since ODL students are typically working adults with significant personal commitments. Time constraints are not a new factor discouraging enrollment in ODL institutions; they have long been recognized as a hindrance to students completing their studies (cf. Gardner *et al.*, 2022; Dumais *et al.*, 2013; Muilenberg and Berg, 2005)

Regarding student learning preference, this study found no difference between current and prospective students. Both types of students identify collaboration with peers and teachers, flexibility in learning time and deep learning as factors that can make them better ODL learners. Collaboration with peers and teachers is important in ODL environment as it affects the effectiveness of the teaching–learning experience (Van Den Berg, 2020). ODL students prefer frequent interactions to bridge the psychological and physical gap of ODL (Bozkurt and Aydın, 2021). This is evident in the qualitative findings too when respondents expressed their happiness when the administrative staff and lecturers respond to their enquiries. Peer collaboration in ODL environment is also preferred by students as it not only positively impacts learning outcomes but also helps students achieve social acceptance and adapt to the university culture (Yu *et al.*, 2010). Findings of this study show prospective and current students seem to understand that learning is more effective in groups than individually. To reiterate, student-to-student interaction is particularly important in fostering a successful ODL environment (Banna *et al.*, 2015). Additionally, learning occurs through communication with peers who share similar contexts and real-life experiences (Woo and Reeves, 2007).

Sheail (2018) suggests that the flexibility of accessing online learning activities makes ODL appealing for mature-age and part-time students, as it allows them to fit their studies around family and work commitments. This study confirms that ‘pacing’ is the preferred learning preference for most respondents. However, this preference must be treated with caution by ODL providers and the academic staff because flexibility may lead to less quality time spent engaging with learning resources. This could lead to surface-level learning, procrastination or inconsistent study habits, affecting the quality of their educational experience (Michinov *et al.*, 2011). Providing balance flexibility with structure, for example, by incorporating periodic check-ins, recommended study schedules or interactive activities that encourage consistent engagement. This helps students maximize flexible learning without compromising depth or effectiveness.

Deep learning according to Craik and Lockhart (1972), involves thorough cognitive processing of information, making it meaningful to the learner and resulting in stronger, longer-lasting memory traces. In educational settings, students who are psychologically or emotionally committed to mastering content over the long term are more likely to employ effortful strategies that lead to deeper levels of processing (Sugden *et al.*, 2021). Conversely, students who focus solely on meeting task requirements or achieving good grades are more likely to use shallow learning strategies, such as rote memorization (Fredricks *et al.*, 2004). The ODL students of the present study show preference for deep learning probably because they are mostly working adults and prefer gaining deep learning. They are often motivated by practical applications of their studies to their professional lives (Rothes *et al.*, 2017). This intrinsic motivation may drive them to connect current information with their existing knowledge, fostering a richer understanding of the material. Furthermore, working adults

typically possess a wealth of life experiences that they can draw upon, enhancing their ability to relate theoretical concepts to real-world situations, which is why deep learning is preferred by most respondents. Therefore, ODL students may engage in collaborative learning opportunities, seek out additional resources and participate in discussions that challenge their thinking, all of which contribute to a deeper learning experience. This learning preference highlights the importance of creating educational environments that support and encourage deep learning strategies, thereby equipping students with the skills and knowledge necessary for both academic success and professional advancement.

This study found that prospective and current ODL students share similar learning preferences and challenges, suggesting they are not distinctly different learner groups. Initially, the study hypothesized that their needs and motivations would differ due to varying exposure to ODL, i.e. current students adapting based on firsthand experience, while prospective students form expectations from external perceptions. Prior research (Kyei-Blankson *et al*., 2016; Teoh *et al*., 2013) suggested that enrollment decisions are influenced by factors like student support, time management and course engagement, which were expected to differ between groups. However, findings indicate that both groups exhibit similar preferences and challenges, likely due to shared characteristics as adult learners.

Study implications

Identifying ODL student's preference profiles can improve communication with prospective students and for recognizing potential conflicts between student preferences and the actual organizational processes, allowing for the reduction of these conflicts whenever possible (Koper, 2015). To build on the findings of the current study, future research could increase the sample size to gain a more comprehensive understanding of the factors faced by ODL students in enrollment. This includes comparison of gender in their perspectives which was not explored in the current study. Additionally, interviewing students who have dropped out of ODL programs may provide valuable insights into the specific challenges and factors that lead to their decision to leave. Comparing reasons provided by dropouts with current and prospective students may paint a clearer picture of the exact perceived challenges of adult learners in the distance learning environment. This approach could help ODL providers to identify targeted interventions to support student retention and success in ODL courses.

The present study suggests that ODL providers should organize targeted seminars, training sessions and programs aimed at empowering students to take control of their learning, fostering autonomy and encouraging independence. These initiatives should also strengthen relationships between students and academic staff, while enhancing student engagement through frequent instructor interactions and peer collaboration to bridge the psychological and physical gaps inherent in ODL. Furthermore, although flexibility in learning time is highly valued, it must be balanced with strategies that ensure meaningful engagement with course content. These insights provide a foundation for improving the overall ODL experience, helping institutions better meet the needs of their diverse student populations. We plan to share the findings of this study with the university marketing teams and academic colleagues to spark discussions on addressing student concerns, while stakeholders of ODL institutions could develop strategies to enhance student retention and success in online learning environments.

Conclusion

This study highlights the significant challenges faced by current and prospective Malaysian students in enrolling and succeeding in ODL courses, particularly in human support services and completion time. The findings underscore the critical need for dedicated support systems, including academic guidance, technical assistance and peer collaboration, to help students, especially adult learners, manage multiple responsibilities effectively. Furthermore, the study

reveals that both groups share similar learning preferences, with no statistically significant differences. This suggests that collaborative learning with peers and instructors, flexible study schedules and a focus on deep learning are universally valued. These findings reinforce the importance of designing ODL environments that prioritize student engagement, accessibility and personalized support. By addressing these factors, ODL providers can create a more inclusive, adaptable and student-centered learning experience, ultimately improving enrollment, retention and completion rates. Future research could further explore institutional strategies for enhancing student support services and the long-term impact of these interventions on learner success.

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