

# Block Mode Delivery in an Andragogic Environment: Challenges and Strategies

## Abstract

Block mode of delivery, a distinct form of accelerated/intensive course offering, has witnessed significant growth in recent years in higher education. However, despite the increase in popularity, academic enquiry into block mode delivery is scarce. Consequently, institutions, especially in the United Arab Emirates (UAE), have limited understanding on the key challenges as well as effective strategies associated with the design and delivery of courses in block mode format. This formed the motivation of this study where a comprehensive understanding on the challenges and strategies for improving block mode teaching is developed based on multiple interviews with academics involved in block mode delivery in the UAE. The study found ten key challenges (four institutional and six academic) impacting block mode delivery and nine strategies (four institutional and five academic) to minimize/eliminate these challenges. A one-to-one mapping framework between strategies and challenges is also provided that can be used by practitioners to prioritize strategies to address specific challenges. The findings are expected to provide academics, policymakers and institutions in the UAE higher education sector, and in general, key insights into the effective design, delivery, and management of courses in block mode. An investigation on block-mode teaching in the UAE higher education has not been previously attempted and constitutes the novelty of this work.

**Keywords:** Block mode learning, Accelerated learning, Higher education, Adult education, United Arab Emirates

## 1. Introduction

Universities worldwide are simultaneously facing both challenges and opportunities due to a variety of factors such as globalization, reduced government funding, increasing student mobility, change in student demographics, growth of technology, massification of education (Biggs and Tang, 2011), increasing competition among higher education institutions (HEIs) and emergence of virtual learning and online universities. As a result, Universities have been forced to rethink their mission in a bid to be more inclusive, and stay competitive by finding new forms of revenue in this increasingly “entrepreneurial” (Clark, 1998) higher education eco-system. One such way adopted by HEIs to become more inclusive, widen student participation and generate new revenues is to offer innovative program delivery modes such as the accelerated programs.

Accelerated programs are becoming increasingly popular due to the shift in student demographics seeking higher education (Davies, 2006). In accelerated mode, students take less time than conventional (often referred to as traditional) programs to attain university credits or degrees (Wlodkowski, 2003). Accelerated courses take several formats and there is no consensus in terms of the definitions used (Harvey et al., 2017), contact hours or overall duration of courses that fit into the category of accelerated courses. Universities have used terms such as ‘intensive/time-shortened/compressed/condensed/block

courses' (Davies, 2006), interchangeably to refer to accelerated courses. In this study, the focus is on a distinct form of accelerated course namely block-mode focusing on postgraduate adult learners.

In block mode delivery, instructional time consists of large blocks of several hours extending up to a full day (Burton and Nesbit, 2008) with the entire contact hours timetabled to be covered typically in a block of a few days or a week. A stand-out feature of block mode format is that the overall contact hours (seat time) is same as in regular mode. Students typically complete one course at a time (Gose, 1995; Grant, 2001) because of the reduced overall duration and reduced time gap between class meetings. For the purpose of this study, the following definition of block teaching has been used:

*“Very large chunks of teaching time, for example whole day sessions (Davies, 2006), where the entire course is scheduled over a duration of one week or shorter with the same number of contact hours as per the Carnegie<sup>1</sup> (Silva et al, 2015) hour definitions”.*

Recent years have witnessed significant increase in block mode delivery because of the likely benefits such as greater flexibility for working professionals (Burton and Nesbit, 2008). With more HEIs recognizing them as a legitimate program delivery mode, the question is no longer that of whether courses should be offered in block mode or not, but, instead is to find ways to improve the design and delivery of block mode. This is important because all forms of accelerated delivery format including block mode have been long criticized for lacking academic rigor and for prioritizing convenience over educational benefits (Wlodkowski, 2003). Some critics have even gone to the extent of calling these programs as “McEducation” and “Drive-Thru U” (Marques, 2012) to demarcate them as substandard offerings.

Although some amount of research has been published on different forms of accelerated course delivery, several researchers have opined the need for more research on accelerated format (Wlodkowski, 2003; Singh and Martin, 2004; Johnson and Rose, 2015). This is because there is lack of consensus in the limited studies that addressed accelerated courses. Further, only few studies (Dixon and O’Gorman, 2019; Johnson, 2009; Johnson and Rose, 2015; Lee and Horsfall, 2010) have examined accelerated courses from the perspective of academics/faculty members teaching in such programs. Academic enquiry into enhancing block mode delivery is even more limited despite its increasing popularity in recent years.

These reasons formed the motivation of this study, which seek to understand the pertinent challenges facing institutions and academics in the design and delivery of block mode and subsequently identify strategies to eliminate/minimize these challenges. The specific research questions of this study therefore are:

- 1) What are the key institutional challenges in the design and delivery of block mode courses?
- 2) What institutional level strategies can be adopted for effective design and delivery of block-mode courses?
- 3) What are the key academic challenges in the design and delivery of block mode courses?

---

<sup>1</sup> As per Silva et al (2015), Carnegie unit denotes the number of “contact hours” students spend in class per week in a given semester. A typical three-credit course, includes a total of 45 contact hours over a 15-week semester.

#### 4) What academic strategies can be adopted for effective design and delivery of block-mode courses?

This study is based in the UAE where block mode teaching is on the rise. UAE has a growing higher education (HE) sector with over 100 institutions that include federal government-owned, private HEIs accredited by the UAE Ministry of Education (MoE) and branch campuses of international universities licensed to operate in educational free zones of individual emirates (e.g., Dubai). UAE has the highest concentration of branch campuses of international universities with 31 such facilities operating in the country (C-BERT, 2017). The postgraduate student population of the UAE is comprised mostly of working adults and HEIs therefore are looking at ways of increasing accessibility to these students by delivering classes in the evening, weekends and in intensive/block modes. The increasing popularity of block mode is reflected in the fact that the UAE Commission for Academic Accreditation has stipulated rules for block mode delivery such as the maximum number of contact hours that can be delivered in a day and the requirement for institutions to have rigorous quality assurance mechanisms in place to guarantee that courses delivered in block mode has comparable academic standards and rigor as a similar course delivered in regular mode (CAA, 2019). Therefore, UAE provides an ideal setting to understand the challenges and strategies for successful design and delivery of block-mode courses. No previous study has looked at block mode courses in the UAE/region and hence this study is both novel and significant.

The rest of the paper is structured as follows. In the next section, studies in accelerated programs including those in block mode is reviewed. The methodology used in this study is detailed in the third section, followed by discussion of the findings in the fourth section. The final section includes the implications of the study along with limitations and directions for future research.

## 2. Literature Review

The review could only identify a few studies namely [Dixon and O’Gorman \(2019\)](#), Burton and Nesbit (2008) and Grant (2000) that have specifically looked at block mode format. The review was therefore extended to include studies on other forms of accelerated programs to get an understanding of the underlying challenges as well as strategies used to improve the effectiveness of accelerated programs. Table 1 shows the relevant studies in the literature. As seen in the table, synthesis of these studies was conducted to delineate the challenges and strategies. This provides an opportunity to relate the literature findings to the empirical findings of this study later so that commonalities and differences of block mode (in terms of challenges and strategies) with other types of accelerated programs can be understood. For instance, as seen in Table 1, some of the challenges and strategies identified are common across different accelerated programs such as lack of time for students to reflect (Grant, 2001; Burton & Nesbit, 2008); high workload and preparations required of lecturers (Vaughan & Carlson, 1992; Grant, 2001); and careful planning and alignment of assessments (Johnson, 2009; Lee & Horsfall, 2010). Similarly, several studies (Johnson, 2009; Hyun et al., 2006; Kasworm, 2003; Mishra & Nargundkar, 2014; Vaughan & Carlson, 1992) identified that accelerated courses did not enable the covering of the same amount of material as a course delivered in traditional format, resulting in sacrificing of academic rigor.

However, despite the commonalities, there is lack of consistency among the findings from different studies. For example, Burton and Nesbit’s (2008) study found accelerated mode to be less suitable for quantitative subjects such as Accounting and more suitable for management courses such as Human

Resource Management. On the contrary, Daniel (2000) concludes in her paper that quantitative courses requiring computational skills like Mathematics is suitable for delivery in accelerated format. While several studies pointed to the high workload of instructors (Vaughan & Carlson, 1992; Grant, 2001), the study by Dixon and O’Gorman (2019) noted that the condensed delivery schedule provided instructors with time to dedicate for other projects and commitments. This further justifies the need of this study to conduct an investigation specific to block mode courses.

**Table 1: Review of studies in accelerated mode of delivery**

Study	Country	Methodology	Target groups	Key Focus	Relevant Findings	
					Challenges	Strategies
Dixon and O’Gorman (2019)	UK	Qualitative online questionnaire	Academics	Impact of block teaching on lecturers delivering courses in block format	<ul style="list-style-type: none"> <li>• Feeling rushed due to the limited time available to plan and prepare courses</li> <li>• Impact of student absence due to the volume of content covered</li> <li>• Timing of assessment tasks</li> <li>• Inadequate time to absorb and reflect on the material taught</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver one subject at a time</li> <li>• Incorporate innovative modes of assessment in the course so that students are assessed within the module the assignment relates to</li> </ul>
Harvey et al. (2017)	Australia	Website audit and literature review		Understand good pedagogical and curriculum design practices for offering Science courses in intensive formats	<ul style="list-style-type: none"> <li>• Negative effect of student absences</li> <li>• Faculty workload</li> <li>• Scope and timing of assessment tasks</li> </ul>	<ul style="list-style-type: none"> <li>• conduct disciplinary and faculty-level evaluations to assess their capacity to offer courses in intensive format</li> <li>• Make resources available to prepare and train teachers for intensive delivery mode</li> </ul>
Kuiper et al. (2015)	Australia	Semi-structured interviews	Academics	Strategies employed by instructors for successful delivery of intensive mode courses	None identified	<ul style="list-style-type: none"> <li>• creating circumstances that “influence and compel” students to study and be engaged in class</li> <li>• coach students on time management strategies to help them plan their learning and assessments</li> <li>• Scaffolding student learning through assessments</li> <li>• Timing and sequencing of assessments</li> <li>• developing an effective communication strategy with students</li> </ul>

Study	Country	Methodology	Target groups	Key Focus	Relevant Findings	
					Challenges	Strategies
Kops (2014)	United States Canada	Semi-structured interviews	Academics	Best practices for teaching courses in compressed formats	<ul style="list-style-type: none"> <li>•Compromising on breadth and depth of content delivered</li> </ul>	<ul style="list-style-type: none"> <li>• Adjusting course content to remove superfluous content</li> <li>•Greater interactivity and more in-class group discussion</li> <li>•Reconfigure assignment schedule</li> <li>•Create more frequent shorter assignments</li> <li>•Plan and organize the entire course ahead of time</li> <li>•Coach students on time management</li> <li>•Get to know students</li> <li>•Instructors to be more available to students</li> </ul>
Mishra & Nargundkar (2014)	India	Quantitative study	Students	Student perception of effectiveness of intensive teaching vis-a-vis traditional teaching	<ul style="list-style-type: none"> <li>• Learning tends to suffer</li> <li>• Lack of flexibility</li> <li>• Lack of accuracy of assessment</li> <li>• Higher stress levels</li> </ul>	<i>None identified</i>
Lee & Horsfall (2010)	Australia	Survey and Semi-structured interviews	Academics Students	Experiences of undergraduate students and faculty members involved in 12 and 6-week accelerated courses	<ul style="list-style-type: none"> <li>• Student or faculty absences</li> <li>• Adapting and managing assessments including faster turnaround time for providing feedback.</li> <li>• Class scheduling</li> <li>• Short time gaps between classes</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of peer support</li> <li>• Limit the number of courses taken at a time.</li> <li>• Ensuring online availability of learning resources</li> <li>• Use of progressive formative in-class assessments</li> <li>• Careful planning of assignments</li> </ul>

Study	Country	Methodology	Target groups	Key Focus	Relevant Findings	
					Challenges	Strategies
Johnson (2009)	USA	Semi-structured interviews	Academics	Impact of shortened class time on learning and instruction in accelerated courses	<ul style="list-style-type: none"> <li>• Difficulty in adjusting delivery based on student characteristics</li> <li>• Reduced breadth of coverage</li> </ul>	<ul style="list-style-type: none"> <li>• Setting the course expectations clear to students</li> <li>• Creating a collaborative learning environment to motivate students</li> <li>• Design the course by aligning learning outcomes and assignments</li> </ul>
Burton & Nesbit (2008)	Australia	Survey	Students	Student experience in intensive courses	<ul style="list-style-type: none"> <li>• Students not preferring quantitative courses such as Accounting in block mode vis-à-vis qualitative courses</li> <li>• Lack of time for practice, absorption and reflection</li> </ul>	<ul style="list-style-type: none"> <li>• Delay offering quantitative courses early on in a program.</li> <li>• Offer mentoring to new students</li> </ul>
Hyun et al. (2006)	USA	Open ended Web-based survey	Academics	Comparison between time-compressed courses and regular courses	<ul style="list-style-type: none"> <li>• Difficult to cover the same amount of material as in a regular mode.</li> <li>• Limited time gap between each class meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Limit the number of courses that students can enrol at a time.</li> <li>• Use innovative pedagogic approaches and varied class activities to support student learning</li> </ul>
Kretovics et al. (2005)	USA	Web-based Survey	Academics	Faculty perceptions of delivering courses in block mode	<ul style="list-style-type: none"> <li>• Lack of training or mentoring to academic staff to teach in compressed semester format.</li> </ul>	<ul style="list-style-type: none"> <li>• Adopting innovative teaching and assessment methods to adapt to the compressed timeframe</li> </ul>
Kasworm (2003)		Qualitative study	Students	Learning experiences of adult students in an accelerated program	<ul style="list-style-type: none"> <li>• Fast pace</li> <li>• Lack of adaptability to suit individual career choices.</li> <li>• Lack of breadth and depth of knowledge</li> <li>• Selective learning</li> </ul>	<ul style="list-style-type: none"> <li>• Help students develop strategies, attitudes and beliefs to adjust to the demands and structure of the accelerated program.</li> <li>• Instructors to organize and present relevant information.</li> </ul>

Study	Country	Methodology	Target groups	Key Focus	Relevant Findings	
					Challenges	Strategies
Donaldson & Graham (2002)		Literature review		Suggest a set of guiding principles for practitioners delivering accelerated degree programs.	<i>None identified</i>	<ul style="list-style-type: none"> <li>•Design instructional strategies that builds on learners' prior knowledge</li> <li>•Eliminate unnecessary course content</li> <li>•Design a classroom environment that is conducive to learning</li> <li>•Provide readings prior to start of the course</li> </ul>
Grant (2000)	Canada	Survey	Students	Student perceptions of block mode	<ul style="list-style-type: none"> <li>•Requires more organization and focus</li> <li>•Lack of time to read and reflect</li> <li>• Amount of lecturer preparation</li> </ul>	<ul style="list-style-type: none"> <li>•Assignments for engaging students</li> </ul>
Vaughan & Carlson (1992)	USA	Survey	Faculty and students	Impact on teaching and learning for courses delivered in a condensed period	<ul style="list-style-type: none"> <li>• Faculty fatigue and workload</li> <li>• Lack of time for grading</li> <li>• Amount of material covered</li> </ul>	<ul style="list-style-type: none"> <li>•Include active modes of learning</li> </ul>



The other pertinent gaps in the literature is also evident from Table 1. For instance, as seen in table, there is lack of geographical coverage in the studies as most of the studies have been conducted in countries such as the USA, UK and Australia. This study to some extent address this gap in the literature as it is conducted in the UAE. The other major gap evident from the studies in Table 1 is the lack of application of educational/management theories. This lack of theoretical underpinning is a major concern as it limits the generalizability of the findings. This study, therefore, will make a modest attempt to underpin some of the findings with established theories.

### **3. Methodology**

In line with the exploratory nature of the research questions in this study, interviews were chosen as the method to answer the research questions. A semi-structured interview approach was preferred because the scope of the interviews revolved around exploring the factors in the following areas i) academic challenges; ii) institutional challenges; iii) academic strategies; and iv) institutional strategies. Therefore, it enable easy comparison of responses vis-a-vis the alternative unstructured interviews, which are susceptible to information overloading (Kvale, 2007). Also semi-structured interviews provided more flexibility to explore new aspects within the main ones than the typical structured interviews, where the researcher is most likely to read out the predetermined question and then record the responses on a standardised schedule, usually with pre-coded answers (Saunders et al., 2016). Studies by Kvale (2007) and Rabionet (2011) were used as a basis to establish the ethical guidelines and the interview protocol.

For data collection, a purposive sampling technique was used because in this study it was not possible to recruit any academic at random as the main criteria for selecting the interview participants were that they must have prior experience in teaching in block mode courses. A total of eight academics, mostly senior, was carefully selected for this study, including academics with administrative responsibility in overseeing block-mode programs in their current institution. The details of the interview participants are given in Table 2. All interviews were conducted face-to-face at the office of the respondents. Similar questions were posed to all interviewees as per the interview protocol. Each interview lasted approximately 45 to 60 minutes. All interviews were digitally recorded, and were later transcribed, reviewed and crosschecked with respondents to ensure accuracy.

Content analysis, the process of identifying, coding, and categorizing the primary patterns in the data (Patton, 1990), was then carried out. Berg (2004) highlights that in exploratory studies, content analysis is the most effective way of analyzing interview data. The study followed the two-stage approach suggested by Berg (2004, p.285-286) for content analysis. The first stage dealt with thorough review of single interview transcripts to first identify key themes and patterns and then develop into tables of systematic categories with the factors and variables from each interview. The factors were the pre-identified aspects in the research question, namely i) academic challenges; ii) institutional challenges; iii) academic strategies; and iv) institutional strategies in block-mode delivery. Then codes were assigned to individual aspects (variables) identified within these factors. For example, difficulty with topic coverage, identified as a challenge faced by academics was assigned a specific code within factor 1 (academic challenges). Similarly, intrinsic nature of certain subjects, an institutional challenge was assigned a specific code within factor 2 (institutional challenges). This process of coding allows linking units of data that refer to the same meaning. The second stage dealt with cross interview transcripts, and aimed at the integration of all the individual factors, variables and links from all interviews.

After finalizing the factors and variables, the next stage of analysis involved understanding the causal relationship between strategies and challenges. The intensive nature of the interviews conducted provided this opportunity to infer the cause and effect relationships between the factors. Bryman (2016) highlighted the rich ability of interviews in understanding causality. All meaningful relationship between factors, i.e., strategies to overcome challenges identified at the variable level was coded to form a one-to-one mapping framework between strategies and challenges.

**Table 2: Interview participant details**

Participant	Academic Rank	Administrative Responsibility	Experience in years	Experience in years in block mode
Participant A	Assistant Professor	-	15	3
Participant B	Professor	-	20	12
Participant C	Associate Professor	Program Director	22	2
Participant D	Associate Professor	-	39	6
Participant E	Assistant Professor	-	16	2
Participant F	Associate Professor	Dean	13	2
Participant G	Assistant Professor	-	1	1
Participant H	Senior Lecturer	-	10	2

## 4. Findings and Discussion

The findings of the study are arranged in such a way that challenges and strategies identified have been categorized into “institutional” and “academic” in line with the research questions in this study. The basis of classification of challenges as institutional and academic is that aspects which can be more efficiently dealt with at an institutional level (for e.g., setting a class size policy to optimize class sizes) are categorized as ‘institutional’ while those aspects which could possibly be resolved at an individual academic level have been categorized as ‘academic’. However, the study does acknowledge the fact that strict demarcation of challenges and strategies as ‘institutional’ or ‘academic’ is difficult as some of the challenges may be experienced both at an institutional level and academic level, and likewise, implementation of some of the strategies may require initiative from both sides. In addition, a useful one-to-one mapping framework between strategies and challenges is also provided, which will be useful for practitioners looking to prioritize strategies to address specific challenges associated with block-mode delivery. The various institutional challenges and academic challenges in block mode delivery and the strategies to alleviate those challenges have been discussed in the ensuing sections.

### 4.1. Block Mode Delivery – Institutional Challenges and Strategies

The study has identified four main institutional challenges and four strategies to overcome those challenges in line with Research Question 1 and 2 respectively. The challenges identified are provided in Table 3 and the strategies are provided in Table 4. The tick marks (✓) in the tables indicate whether the specific challenge and strategy has been mentioned by the respective participants (column headers A to H). The list of challenges in each category is also arranged based on the number of mentions, with the challenge that received the highest number of mentions being placed at the top.

## ***Institutional challenges***

The four key institutional challenges identified are provided in Table 3 below:

**Table 3: Institutional Challenges in block-mode delivery**

<b>Institutional Challenges</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
Intrinsic nature of certain subjects		✓	✓	✓	✓	✓	✓	✓
Large class size	✓	✓	✓	✓		✓		✓
Student lateness and absenteeism	✓	✓		✓			✓	✓
Addressing student feedback and concerns	✓		✓					

**Intrinsic nature of certain subjects/courses:** All but one interviewees identified this as a key challenge in block-mode teaching. According to the respondents, subjects/courses that require a lot of absorption, intensive feedback, and theoretical reflection may not be suitable for block teaching vis-à-vis regular mode. This includes quantitative courses such as Accounting, which require students to practice in order to understand the concepts; and advanced courses that requires prior knowledge/foundation. This opinion by interviewees also lead to the suggestion that courses have to be specifically designed minimizing the inherent time-related disadvantages associated with this mode.

Given that some of these courses are core/mandatory courses for popular masters' programs, for example, Operations Management and Accounting are core/mandatory courses in most MBA programs, institutions are challenged to offer these courses in these programs without compromising on their educational quality. Daniel (2000) and Davies (2006) have raised similar concerns about the unsuitability of certain courses to be delivered in an intensive format.

**Large class size:** Six of the respondents identified large class size as a key challenge to the successful delivery of block mode. They noted that it would be difficult to have effective in-class discussions and feedback (which is key in block mode) and provide individual attention to students if the class size is large. The concerns raised by the interviewees include:

*"Large classes won't work in block mode situation, because the level of interaction and detail required is much higher."*

Lee and Horsfall (2010) in their study of students and faculty who undertook accelerated 6-week courses, also concludes that large class sizes posed difficulties in providing timely and sufficient feedback. It may not be feasible or pragmatic especially for profit-oriented institutions, to reduce class size due to the associated resource implications.

**Student lateness and absenteeism:** Majority of interviewees identified student lateness and absenteeism as a challenge in block-mode delivery. Given the intensive nature of delivery, students find it extremely difficult to catch up if they miss a class. The concern can be summarized in the words of an interviewee:

*"It is one thing that is unfortunate, it is not only here, it is everywhere. Students cannot be late, because if they miss something or come late it is a challenge..."*

This view finds resonance in literature with Dixon and O’Gorman (2019) and Lee and Horsfall (2010) suggesting that both faculty and student absences will have significant detrimental impact due to the pace of the course delivery and the volume of content missed even from missing classes for a short amount of time. From an institutional perspective, stringent monitoring of attendance is resource intensive and also enforcing a stringent attendance policy is a challenge, especially given that most of these block mode students are working professionals.

**Addressing student feedback and concerns:** Though only two respondents identified this a concern, this could pose a challenge for institutions. Unlike a regular course where there is time to make some adjustments based on student feedback, institutions may not be able make changes such as changing instructors during the teaching period based on student feedback.

Previous studies in accelerated programs have also highlighted the need for regular monitoring of courses to ensure quality of instruction and achievement of learning outcomes (Wlodkowski and Kasworm, 2003).

### ***Institutional strategies***

The four key institutional strategies identified to address Research Question 2 are as follows:

**Table 4: Strategies for improving block mode delivery**

<b>Institutional Strategies</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Optimal class sizes	✓	✓	✓	✓		✓	✓
Student recruitment	✓	✓			✓	✓	✓
Creating social structures and opportunities for student interaction	✓		✓	✓			
Recruitment and allocation of instructors	✓	✓	✓				

**Optimal class sizes:** Majority of the participants stressed the need for maintaining smaller class sizes to enable effective discussion and in-class activities. This was not surprising given that one of the key challenges identified in this study is large class size. Respondents were of the opinion that small class size (ranging from 25 to 30) provide lecturers with the opportunity to use active learning strategies. The concern is embedded in the words of the following interviewees:

*“If you are trying to do a block-mode with 50 people, it is just not possible. 20 would be ideal. It has to be enough so that we can have a discussion..”*

*“..my opinion is in block-mode teaching the optimal size is no more than 25 so that you can break them into effective groups and lecturer can interact with each group as they interact with each other..”*

This finding is supported by Kops (2014) and Pritchard and MacKenzie (2011) who found that smaller class sizes helped instructors to better know students and employ a variety of in-class activities to support learning. Scott’s (2003) study also support this view that smaller classes consisting to 10 to 30 students was conducive for the level of interaction required in accelerated courses. The need for smaller class size can be explained using constructivist theory since a constructivist learning environment thrives by the quality and extent of in-class activities and discussions. Eison (2010) found that large class sizes negatively

impacted the implementation of active learning strategies which are key to promoting learning during lengthy lecture periods.

**Student recruitment:** Respondents interviewed highlighted the need for institutions to be very selective in recruiting student for block-mode programs. Respondents highlighted the importance of student attitude and motivation to undertake the program. [Karaksha et al. \(2013\)](#) also echoed the view that focused and motivated students were better suited to study courses delivered in intensive mode. Interviewees showed a clear preference for students that are independent and self-directing as evident in the words of the following interviewees:

*“Students have to be self-guided and more mature, they have to read the material ahead of time and they have to come to class prepared, they have to be completely committed...”*

*“It is very difficult to anticipate the ability of the student, the maturity of the students and the ability of the students to engage in self-directed activities.”*

From a theoretical standpoint, this can be explained using the assumptions of the Knowles Andragogy theory, namely, learner’s self-concept to become independent and self-directing, and readiness of the learner (Knowles, 1973). The theory holds that as adults mature they transition from being dependent personalities to self-directed individuals. The fast pace of the program means that students in these programs have to be self-guided learners, more active, and have to come to class prepared and complete assessment activities or pre-readings with minimal direction.

Institutions may employ a pre-admission test using instruments such as the Oddi Continuing Learning Inventory (OCLI) or the Self-Directed Learning Readiness Scale (SDLRS) (Merriam et al, 2007) to assess the readiness of students to be self-directed. Although the use of such an instrument may be contentious, the test may be useful to ensure recruited students are independent, motivated and self-directed and may lower absenteeism, which is critical in block mode.

The other important recruitment aspect highlighted by respondents is that institutions must consider not only the academic background of the student cohort but also make sure that the cohort is comprised of mature age students with work experience as instructors are reliant on the student knowledge and experience for effective in-class discussions. In the words of one of the interviewee:

*“Mature age students who have got the worldly experience are the probable target group for block mode. They bring richness to the class with family, work and worldly experience and that does help. You can deliver more and quickly, they tend to absorb lot quicker.”*

This view aligns with one of the assumptions of the Knowles Andragogy theory, namely, the learner’s experience, which states that adults bring in experience that they have accumulated over the years into the educational activity.

**Creating social structures and opportunities for student interaction:** Participants in the study stressed the importance of providing networking and socialising opportunities for students to improve the classroom climate and consequently the learning process. As quoted by one of the interviewees:

*“You have to organize social activities to get to know each other. Because you want these students to collaborate, so you have to create that social structure as well... In this way you create a culture and motivate because you will feel that you are in it together.”*

Past have also highlighted the need for social interaction, with both Donaldson and Graham (2002) and Ramsay (2011) stating that learning in an accelerated program is positively influenced by the extent of social interaction and the cohort cohesiveness. They also note that due to the intensive nature of the program, students will be more reliant on the internal social network of fellow students and instructors for support.

The constructivist view and Illeris's learning model provide an explanation for the need for student interaction to enrich the learning experience. According to constructivist view, knowledge is constructed through social processes and negotiations (Gerdler, 2009, pg.19). As noted by Christensen (2008), learning in a constructivist environment is enhanced by instructional strategies that create a social learning environment. The Illeris's learning model states that, any learning activity involves cognition, emotion and sociality. The sociality is the dimension of interaction such as cooperation and communication and how this social context shapes the learning of individuals (Merriam,2007, pg.97). In a block-mode learning environment, the social interaction with fellow students and the instructor plays a significant role as the learning is hugely reliant on collaborative and other active learning techniques within the classroom.

**Instructor recruitment and allocation:** Participants mentioned that institution should apply rigor in academic selection and allocation of courses as inexperienced lecturers may not be able to deliver in block mode. Teaching in this mode requires considerable skill on the part of the lecturers to implement teaching approaches and strategies that will ensure student attention for prolonged periods of time. Lecturers should also be capable of dealing with the physical challenges of delivering day-long lectures. They should be organized and plan out the entire delivery before the start of the course delivery. Interviewees opined that instructors should be provided with training and mentoring to deliver in this mode and that team-teaching may be used as a strategy. All the participants in the study pointed out physical exhaustion and making adjustments during delivery period as major challenges. In the words of one of the participant:

*“Block teaching requires a lot of expertise on the part of the lecturer; not everybody can teach them. You need very experienced professors to handle block- mode courses.”*

Donaldson (2002) stresses the need for providing training to faculty to adapt their teaching for accelerated programs. He further suggests recruiting practitioners with strong academic knowledge for delivering classes in intensive format.

## **4.2. Block Mode Delivery – Academic Challenges and Strategies**

The study in total identified 6 academic challenges and 5 strategies for the effective design and delivery of block mode delivery. Like the preceding section, tick marks (✓) in the tables indicate whether a specific challenge and strategy has been mentioned by the respective participants (column headers A to H).

### ***Academic Challenges***

The six key academic challenges to address Research Question 3 are provided in Table 5:

**Table 5: Academic Challenges in block-mode delivery**

Academic Challenges	A	B	C	D	E	F	G	H
Retaining student attention, focus and engagement	✓	✓	✓		✓	✓	✓	✓
Coverage of topics	✓		✓	✓		✓	✓	✓
Providing feedback	✓	✓	✓			✓	✓	
Instructor preparedness and flexibility	✓		✓	✓	✓	✓	✓	✓
Physically exhausting/demanding	✓	✓	✓		✓	✓		✓
Student absorption and reflection	✓	✓	✓			✓		✓

**Retaining student attention, focus and engagement:** Respondents noted that retaining student attention, focus and engagement for extended periods of time as a major challenge. The significance of this challenge in block-mode delivery is signified in the words of the following interviewee:

*“It is very demanding in terms of time and focus because students are required to keep attention for long periods of time”*

From a theoretical perspective, this echoes the physiological constraints of learning suggested by Bligh (1972), which states that student attention is typically for 15-20 minutes after which the learning drops drastically. However, in block format the entire contact hours is delivered in large chunks of teaching time. The student involvement theory (Astin, 1999), states that, student learning and achievement is directly related to the amount of student involvement (i.e., amount of physical and psychological energy invested) and engagement in the course. Therefore, academics are faced with the significant challenge of ensuring student attention and engagement for longer periods of time.

**Coverage of topics:** Respondents acknowledged that though the number of contact hours in the block-mode was the same as that of a regular format, it was not possible to get the same amount of material covered. According to them, tradeoff had to be made between depth and breadth of topics covered. This view is widely echoed in literature that breadth and depth are sacrificed in intensive mode leading to insufficient student learning (Hicks, 2014; Wlodkowski, 2003). The course delivery format (large chunks of lecture time) also meant that they had to compromise on theoretical coverage. For instance, if more theory was covered in class, the class would become one long didactic lecture and gaining student attention will be difficult. Also, the more time spent on active learning strategies such as discussions, in-class activities, formative assessments and ongoing feedback impacted the extent of material coverage. Eison (2010) in his study points out that the use of active learning strategies in class reduces content coverage. This inability to attain the same extent of coverage as in a traditional course suggests that the course learning outcomes and consequently the course content has to be specifically designed for a block course. The view by the participants suggests the need to approach course design in a pragmatic manner by reducing or eliminating “Muda”( Arnheiter and Maleyeff, 2005) or non-value adding contents from the course. In the words of one of the interviewee:

*“To cover the same amount of theoretical material you would have to have students sitting for long periods, you would need lecturers speaking for extended periods physically it is not possible. You could do it but at some point it will be diminishing returns”*

This finding echoes the concerns highlighted by previous studies in accelerated mode. For instance, Harvey et al. (2017) raised concern whether intensive mode provided sufficient depth of learning. Similarly, Shafer (as cited in Brookfield, 2003) criticised accelerated programs as sacrificing both breadth and depth. Davies (2006) indicated that the time constraints in intensive programs could lead to peripheral coverage of materials. In short, both literature and interview findings suggest that the pace of block mode may necessitate sacrificing of one or the other.

**Providing feedback:** Majority of respondents acknowledged that the fast pace of the block mode presented difficulties with providing effective feedback. According to the academics, by the time they grade the assignments, the course would have finished. In most cases, academics had to contend with giving generic feedback for formative assessments as there was no room for tailored feedback for individual students. This finding is consistent with the research of Lee and Horsfall (2010), who reported difficulty for faculty members in providing timely and sufficient feedback in accelerated format. This points to the need for faculty members to be creative in their assessment design and find innovative ways of providing feedback. Assessments should be designed in such a way that they are continuous, scaffold student learning and allows instructors to track student performance (Kuiper et al.,2015).

**Instructor preparedness and flexibility:** Several interviewed academics highlighted the extent of instructor preparedness required as a key challenge of block-mode. According to them, unlike regular mode where faculty preparation could be extended to the entire duration of say 13 to 15 weeks, in block-mode, instructors have to be prepared for the entire block before the start of the session. The nature of the block-mode makes it difficult to deviate from the way the session has been planned out. Hence, instructors do not have the flexibility to change/adapt their lecture delivery based on cohort responsiveness. This challenge can be summarized in the words of the following interviewees:

*"It is challenging I don't have the time to adjust. In regular delivery, you go there the first week, start your introduction, second week you have an idea about the class level, then the third week you have the time to adjust stuff based on things like they do that quite well..... so based on the cohort you can adjust every week".*

*"For an instructor, it is hard because the whole thing has to be ready. You can't just say, I will see how the cohort is, I will see what their professional background is, and then add this case instead of the other case. This alteration is not possible in this mode"*

**Kops (2014)** and Ramsay (2011) in his study covering intensive teaching stresses the need for lecturers to prepare and plan for course delivery as there is no scope for modifications once the course commences. This view is also supported by Johnson (2009) who points out the need for instructors to be strategic and better prepared in course design and delivery to overcome the disadvantage of compressed delivery format

**Physically exhausting/demanding:** The academic staff interviewed observed that there were physical challenges associated with delivering lectures for extended periods of time. This includes maintaining energy levels and voice, and patience required to deliver materials in day-long blocks. The words of the following respondent shows the severity of this challenge:



*“It requires a lot of mental and physical preparation. You should not be physically fatigued during the whole day. The professor needs to save their voice, prepare themselves and do it continuously for 4 days with concentration, you don’t have space for any help as opposed to regular mode”.*

The findings echo those in the literature which highlighted faculty fatigue as one of the challenges associated with intensive mode of delivery (Traub, 1997; Tracey et al, 1980; Ramsay, 2011)

**Student absorption and reflection:** Four interviewees highlighted that the nature of the block mode did not provide students with adequate time for absorption of materials and reflection. Respondents raised the concern that the shortened time gap between sessions may also hinder student’s ability to cover textbooks and engage in extra reading. The below quotes from participants throw light into the issue about reflection:

*“In block-mode you cannot burden the class even more since they don’t have the time to reflect between classes. So, you need to load the class delivery with activities to engage students and they learn more.... I try to get them to reflect in the class by asking questions”*

*“You cannot have good absorption, contemplative time, time for reflection to design a project and mull it over week after week.”*

This view finds support in literature with Traub (1997) (as cited in Davies, 2006) noting that the short duration of the course does not provide students with enough time for analysis and reflection. Burton and Nesbit (2008) also concurred with the view that accelerated courses do not provide students with the same amount of time as traditional courses for reflection. Hyun et al. (2006), raised the question of whether the short duration allows students to sufficiently engage with the materials.

To summarize, this section addressed the first two research questions of this study. Next, the study discusses the strategies identified from the interviews in line with research question 3 and 4 for improving block-mode teaching including those to overcome/minimize the challenges identified above. Where possible, an attempt has been made to establish theoretical linkages to the strategies identified in the following section.

### **Academic Strategies**

The five key academic strategies identified in response to Research Question 4 are as follows:

**Table 6: Academic Strategies for improving block mode delivery**

<b>Academic Strategies</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
Tailoring assessments and feedback	✓	✓	✓	✓	✓	✓	✓
Use active learning techniques	✓	✓	✓			✓	✓
Organization of content that is delivered	✓	✓	✓	✓		✓	
Design of the course			✓		✓	✓	
Provide materials to students prior to the start of the course		✓		✓	✓		

**Use active learning techniques:** Several respondents highlighted the importance of using active learning techniques such as experiential learning, presentations, debates and discussions for improving block-mode teaching. According to respondents this will help to retain/regain student focus and ensure in-class learning, which is key in block mode teaching. The use of active learning techniques may also provide opportunities for students to reflect on the materials learnt. For example, the quotes from the interviewees shed light on the importance of using active learning strategies:

*"... you need to load the class delivery with activities to engage the students and they learn more...use active learning, experiential learning strategies.."*

*"It is not a one-way exercise from the instructor to student. It is not a passive exercise. It is an interactive exercise and we encourage the students to participate in class discussions."*

Ramsay (2011) stresses the need for using teaching techniques that enhance student interaction and engagement in intensive courses. Further Scott and Conrad (as cited in Donaldson and Graham, 2002) found that instructors used a variety of teaching strategies to promote active learning and that they acted more as facilitators in these classes.

The relevance of using active learning techniques in class is espoused by the constructivist theory which states that teaching is not a matter of transmitting knowledge but of engaging students in active learning, building their knowledge in terms of what they already understand (Biggs and Tang, 2011, pg.22). Spigner-Littles and Anderson (1999) note that adults learn the most when their new learning is integrated with their existing knowledge and experience and in-class activities should provide learners with the opportunity to discuss their experience and engage in collaborative learning. The constructivist paradigm views classroom as a "community of discourse engaged in activity, reflection, and conversation" (Fosnot, 1989), where learners are engaged in discussing their ideas to the classroom community.

**Course design, Course organization and Assessment strategies:** The three key strategies identified by majority of the respondents are design of the course, organization of contents delivered and tailoring assessments and feedback.

According to respondents, courses must be specifically designed for block mode by focusing on the most relevant aspects, eliminating unwanted details, thereby optimising the course design. Other findings from this study such as the difficulty with the delivery of certain types of courses, lack of time for providing feedback, reduced content coverage, the need to include active learning techniques all indicate that a course designed for delivery in a regular semester may not be suitable for delivery in block format. The content, assessment tasks and expected learning outcomes cannot be same as that of a regular version of the course. The course design should consider the prior knowledge and experience that adult learners bring into the program. The participants in the study echoed this view as seen from the quote below:

*"..The first thing, make sure the course is designed for block mode. You cannot just take a course designed for regular mode and deliver it in block mode"*

Davies (2006) stress the need for instructors to be strategic in course design taking into account the inherent advantages and disadvantages of accelerated format.

Another strategy suggested by participants for the successful delivery of block courses is the need for instructors to be organised. The instructor must be prepared and plan out the entire course delivery ahead ensuring alignment between the course content delivered and the intended learning outcomes. Also,

taking into account the short attention span of students, class delivery should alternate between lecture mode and activity mode interspersing the lecture with activities, tests, discussions, presentations, role plays, case studies and breaks. This is in line with the suggestions of Bligh (1972), who highlighted the need for a short rest or change in activity to restore/retain student performance. The need for the instructor to be organised is evidenced by participant comments:

*“Academics have to prepare the course material, be very selective about the readings and discuss only materials that are relevant...”*

*“You really need to be very enthusiastic, very energetic, got to be extremely well organised and prepared. They are the key to block mode teaching.”*

This finding is in line with literature with Kasworm (2003) reporting that students in accelerated programs expected lecturers to be organized and present relevant information. Daniel’s (2000) view also supports this finding stating that faculty members have to be well organized, and distribute syllabus prior to the start of the session.

Respondents suggested that assessments in block format must be designed taking into account the condensed delivery period, shortened time gap between each session and must provide opportunities for ongoing feedback during the session. Assessments are used as an active learning tool to retain student attention and engagement. For example, one of the interview participants noted that he includes a short in-class assessment or debate after every 50 minutes to regain student attention. Interview participants have pointed out the need for including a variety of in-class activities, divide larger assessments into smaller assignments that build on. Participants also recommended giving additional time outside of the block for completing larger piece of assessment that require higher order thinking. The participant comments provided below reflect their view on tailoring assessments and feedback for the block-mode:

*“I use assessment as a method to get feedback from students, to gauge their understanding of the topic and then to grab their attention because this is what captures their attention..”*

*“The main difference is that there is no time to give feedback to students. That’s why in my teaching I try to incorporate in-class work activities as much as possible. I go around and give feedback”*

The view on assessment is supported in accelerated program literature with Scott (2003) reporting that students preferred short, meaningful in-class assessments to reinforce their learning. Several researchers (Kops (2014); Scott (2003); Horsfall and Lee (2009)) pointed out that assessments may be broken down to smaller progressive ones to support student learning. Evidence from literature suggests that assessment tasks have to be customised to suit the mode of delivery.

All of the strategies discussed above can be explained using the principles of constructive alignment (Biggs and Tang, 2007) which closely anchors on constructivist theory. The different challenges identified from the study clearly point to the fact that courses have to be specifically designed for this mode with specific learning outcomes, course content, and assessment activities. Therefore, practitioners involved in developing courses for block format may consider constructive alignment which stipulates the need for aligning intended learning outcomes, teaching and assessment tasks, as a basis for course design. According to constructive alignment principles, the curriculum design begins with the intended learning outcomes which states the activity that the student does and the topic that is covered. In a constructively aligned curriculum, the intended learning outcomes state upfront what the course is intended to achieve;

a feature that will satisfy adult learner's need to know why they need to learn something before they undertake a learning activity. In a fast-paced format, it is important that outcomes, learning and assessments are aligned as there is minimal margin of error in this mode.

**Provide materials to students prior to start of class:** Participants in the study pointed to the need for providing students with syllabi and course materials prior to the class. Another view expressed by participants is to give preparatory class for courses that are deemed difficult. Participants also emphasized providing students with additional resources including print and online library resources, to support their learning. It was also suggested that providing an online learning platform as a forum for communication will strengthen the interaction with peers and instructors. Participant observations provided below resonates their view regarding the above strategies:

*"I expect the students to have the notes beforehand, read them before the classes and expect to do some sort of preparation before the lecture starts.."*

*"I think with block mode your Learning Management System and library must be very good. These are the additional resources that you need. "*

This view illuminates the findings of Donaldson and Graham (2002), who noted that the provision of readings prior to the start of the course will help in alleviating some of the issues of reduced in-class time.

Providing readings ahead of the class will help to get the students involved and will support their learning as the amount of student learning is directly proportional to their involvement (Astin, 1984, pg. 518). This need for additional resources can be explained using the concept of scaffolding which is the systematic approach of supporting the student learning (Reigeluth, 1999) through providing scaffolding elements. Scaffolding the student learning through providing preparatory classes and/or reading materials will help in reducing challenges associated with the intrinsic nature of certain subjects.

However, implementation of most of the identified strategies is reliant on the availability of resources. This can be explained through the lens of resource theory of pedagogy, which states that adequate resources such as physical, human and fiscal resources should be available for student learning and development to occur (Astin, 1984, pg.520). This view is supported by Kasworm (2003) who states that accelerated programs can only succeed if there are adequate resources available. The implication of this theory is that institutions should ensure they have sufficient resources at their disposal prior to launching block programs. For example, maintaining optimal class sizes is dependent on the availability of physical infrastructure and human resources. Implementation of active learning techniques such as group discussions and providing in-class feedback can be effectively implemented when the class size is smaller.

### **4.3. Mapping Framework Challenges and Strategies**

While the strategies identified above could overcome one or more of the challenges identified in this study, it is important to map how each strategy addresses the specific challenges. Table 7 below provides a one-to-one mapping for challenges and strategies identified. This mapping has been provided as a useful tool for practitioners to prioritize the implementation of strategies in line with their goals and the key challenges identified. For example, by implementing the strategy of lecturers being well prepared and organized helps to reduce/eliminate a number of challenges such as the intrinsic nature of certain subjects, difficulty with coverage of topics and the difficulty with providing feedback to students.

**Table 7: One to one mapping framework between challenges and strategies**

	Institutional Challenges				Academic Challenges					
	Intrinsic nature of certain subjects	Student lateness and absenteeism	Student feedback and concerns	Large class size	Retaining student attention, focus and engagement	Providing feedback	Instructor preparedness and flexibility	Physically exhausting/demanding	Coverage of topics	Student absorption and reflection
<b><i>Institutional</i></b>										
Optimal class sizes		X	X	X		X		X	X	
Student recruitment		X								X
Creating social structures and opportunities for student interaction		X			X					
Careful recruitment and allocation of instructors	X		X				X	X		
<b><i>Academic</i></b>										
Tailoring assessments and feedback	X				X	X			X	X
Use active learning techniques	X	X			X					
Organization of content that is delivered	X				X	X			X	
Design of the course	X				X				X	X
Provide materials to students prior to the start of the course	X				X				X	X

## 5. Conclusion and Implications

This study contributes to the first wave of empirical investigation into the pertinent challenges and strategies for successful design and delivery of block mode courses in the UAE and in the region. The findings of this study are useful for academics, policymakers and institutions in the UAE higher education sector and elsewhere who are offering or looking to offer courses in block-mode. Some of the identified challenges and strategies may also be applicable for other types of accelerated courses. Some of the underlying theories used in the study are expected to enhance the generalizability of the findings.

One of the limitations of this study is that the findings is based on only eight interviews with academics involved in block mode teaching in the UAE. The other limitation is that the study has looked at the challenges and strategies from the perspective of academic staff teaching in block-mode. Future researchers could look at the challenges and strategies from the perspective of other stakeholders such as students and administrators. Also, future studies could look at the applicability of the findings in other contexts to enhance the generalizability of the findings.

## References

- Arnheiter, E.D. and Maleyeff, J., 2005. The integration of lean management and Six Sigma. *The TQM magazine*, 17(1), pp.5-18.
- Astin, A.W., 1984. Student involvement: A developmental theory for higher education. *Journal of college student personnel*, 25(4), pp.297-308.
- Berg BL (2004) *Qualitative Research Methods for the Social Sciences*, 5th edn, Allyn and Bacon, Boston, MA.
- Biggs, J.B., Tang, Catherine So-kum & Society for Research into Higher Education, 2011. *Teaching for quality learning at university [electronic resource] : what the student does* 4th ed., Maidenhead: McGraw-Hill/Society for Research into Higher Education/Open University Press.
- Bligh, D.A. (1972) *What's the Use of Lectures?* Harmondsworth: Penguin.
- Bryman, A. (2016). *Social research methods*. 5<sup>th</sup> Edition, Oxford university press, New York.
- Burton, S. and Nesbit, P.L., 2008. Block or traditional? An analysis of student choice of teaching format. *Journal of Management & Organization*, 14(1), pp.4-19.
- Christensen, T.K., 2008. The role of theory in instructional design: Some views of an ID practitioner. *Performance Improvement*, 47(4), pp.25-32.
- Clark, B.R., 1998. *Creating entrepreneurial universities: organizational pathways of transformation. Issues in Higher Education*. Elsevier Science Regional Sales, 665 Avenue of the Americas, New York, NY 10010.
- Commission for Academic Accreditation. (2019). Standards for Institutional Licensure and Program Accreditation . Available: <https://www.caa.ae/caa/DesktopDefault.aspx?tabindex=6&tabid=13>. Last accessed 10th Jan 2020.
- Cross-Border Education Research Team, 2017. C-BERT Branch Campus Listing. [Data originally collected by Kevin Kinser and Jason E. Lane]. Available: <http://cbert.org/branchcampuses.php>. Albany, NY: Author.
- Daniel, E.L., 2000. A review of time-shortened courses across disciplines. *College Student Journal*, 34(2).
- Davies, W.M., 2006. Intensive teaching formats: A review. *Issues in Educational Research*, 16(1), pp.1-20.
- Dixon, L. and O’Gorman, V., 2019. ‘Block teaching’—exploring lecturers’ perceptions of intensive modes of delivery in the context of undergraduate education. *Journal of Further and Higher Education*, pp.1-13.
- Donaldson, J.F. and Graham, S.W., 2002. Accelerated degree programs: Design and policy implications. *The Journal of Continuing Higher Education*, 50(2), pp.2-13.
- Eison, J., 2010. Using active learning instructional strategies to create excitement and enhance learning. *Jurnal Pendidikantentang Strategi Pembelajaran Aktif (Active Learning) Books*, 2(1), pp.1-10.

Fosnot, C.T., 1989. Enquiring teachers. *Enquiring Learners: A Constructivist Approach for Teaching*, New York: Teachers College, Columbia University.

Gose, B., 1995. One-course-at-a-time 'block plan' re-examined by college that adopted it 25 years ago. *The Chronicle of Higher Education*, 41(47), A28.

Grant, D.B., 2001. Using Block Courses for Teaching Logistics. *International Journal of Physical Distribution & Logistics Management*, 31(7/8), pp.574-585.

Gredler, M.E., 2005. *Learning and instruction : theory into practice* 5th ed., Upper Saddle River, N.J.: Pearson/Merrill Prentice Hall.

Harvey, M., Power, M. and Wilson, M., 2017. A review of intensive mode of delivery and science subjects in Australian universities. *Journal of Biological Education*, pp.1-11.

Hicks, W.L., 2014. Pedagogy in the twenty-first century: An analysis of accelerated courses in criminal justice. *Journal of Criminal Justice Education*, 25(1), pp.69-83.

Johnson, C., 2009. Faculty Speak on the Impact of Time in Accelerated Courses. *The Journal of Continuing Higher Education*, 57(3), pp.149-158.

Johnson, C. and Rose, A.D., 2015. Professing reform while seeking acceptance: The dilemmas of teaching accelerated courses in higher education. *The Journal of Continuing Higher Education*, 63(1), pp.3-14.

Karaksha, A., Anoopkumar-Dukie, S., Grant, G., Davey, A.K., Nirthanan, S.N., Arora, D., Hope, D., Bernaitis, N., McFarland, A., Hall, S. and Haywood, A., 2013. Benefits of Intensive Mode Teaching To Improve Student Performance. In *2013 Conference 18th-20th November, Seville, Spain*. Available at: [http://www98.griffith.edu.au/dspace/bitstream/handle/10072/59795/90003\\_1.pdf](http://www98.griffith.edu.au/dspace/bitstream/handle/10072/59795/90003_1.pdf).

Kasworm, C.E., 2003. From the adult student's perspective: Accelerated degree programs. *New Directions for Adult and Continuing Education*, 2003(97), pp.17-28.

Kops, W.J., 2014. Teaching compressed-format courses: Teacher-based best practices. *Canadian Journal of University Continuing Education*, 40(1).

Knowles, M., 1973. The adult learner: a neglected species.

Kretovics, M.A., Crowe, A.R. and Hyun, E., 2005. A study of faculty perceptions of summer compressed course teaching. *Innovative Higher Education*, 30(1), pp.37-51.

Kuiper, A., Solomonides, I. and Hardy, L., 2015. Time on task in intensive modes of delivery. *Distance Education*, 36(2), pp.231-245.

Kvale, S. (2007). *Doing interviews*. Sage, Thousand Oaks, CA.

Lee, N. and Horsfall, B., 2010. Accelerated learning: A study of faculty and student experiences. *Innovative Higher Education*, 35(3), pp.191-202.

Marques, J., 2012. The dynamics of accelerated learning. *Business Education and Accreditation*, 4(1), pp.101-112

Merriam, S.B., Caffarella, R.S. and Baumgartner, L.M., 2012. *Learning in adulthood: A comprehensive guide*. John Wiley & Sons.

Mishra, S. and Nargundkar, R., 2015. An analysis of intensive mode pedagogy in management education in India. *International Journal of Educational Management*, 29(4), pp.408-419.

Patton, M.Q (1990) *Qualitative Evaluation and Research Methods*, 2nd edn, Sage Publications, Newbury Park, CA.

Pritchard, J. and MacKenzie, J., 2011. The variation in academics' experiences of teaching in an intense study centre compared with their traditional university settings. *Journal of Further and Higher Education*, 35(3), pp.339-353.

Rabionet, S. E., 2011. How I learned to design and conduct semi-structured interviews: An ongoing and continuous journey. *The Qualitative Report*, 16(2), 563.

Ramsay, I., 2011. Intensive teaching in law subjects. *The Law Teacher*, 45(1), pp.87-100.

Reigeluth, C.M. and Carr-Chellman, A., 1999. *Instructional-design theories and models (volume II). A new paradigm of instructional theory.*

Saunders, M. L., Thornhill, A. & Lewis, P., 2016. *Research methods for business students, 7<sup>th</sup> Edition.* Pearson, Italy.

Scott, P.A., 2003. Attributes of high-quality intensive courses. *New directions for adult and continuing education*, 2003(97), pp.29-38.

Silva, E., White, T. and Toch, T., 2015. The Carnegie Unit: A Century-Old Standard in a Changing Education Landscape. *Carnegie Foundation for the Advancement of Teaching.*

Singh, P. and Martin, L.R., 2004. Accelerated degree programs: Assessing student attitudes and intentions. *Journal of Education for Business*, 79(5), pp.299-305.

Spigner-Littles, Dorscine & Anderson, Chalon E., 1999. Constructivism: A Paradigm for Older Learners. *Educational Gerontology*, 25(3), pp.203–09.

Tracey, T.J., Sedlacek, W.E., & Patterson, A.M. (1980). Perceptions of summer school faculty at a large university. (ERIC Document Reproduction Service No. ED 208740).

Vaughan, C. and Carlson, C., 1992. Teaching and learning one-course-at-a-time. *Innovative Higher Education*, 16(4), pp.263-276.

Wlodkowski, R.J., 2003. Accelerated learning in colleges and universities. *New Directions for Adult and Continuing Education*, 2003(97), pp.5–16.