



Pedagogy or andragogy? Views of Indian postgraduate business students



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Received 9 July 2015; revised 23 June 2016; accepted 10 January 2018; available online 22 March 2018

KEYWORDS

Pedagogy;
Andragogy;
Teaching methods;
Student learning;
India

Abstract Graduates of Indian business schools are educated mostly in traditional pedagogical fashion. Against this backdrop, this paper examines Indian postgraduate business students' perceptions of pedagogy and andragogy. The dataset comprises responses of a sample of 313 Indian postgraduate business students. The results reveal that learners prefer andragogy, which can be met only by business education providers shifting to learner-centred teaching and curricula. The students' preference for andragogy reflects the changing needs of Indian employers. These findings have strategic implications for the development of student-centred teaching methods and curricula in the Indian higher education sector.

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Introduction

Business management education has witnessed tremendous growth globally over the last several decades (Hawawini, 2005). India is not an exception to these trends and the demand for business education has grown exponentially (Kumar & Dash, 2011; Mishra & Nargundkar, 2015) in India in recent times. A survey conducted by Dun and Bradstreet found that around 15% of the business schools in India were established before 1990, more than 53% were established between 1990 and 2000, and the remaining 32% were after 2000 (Noronha, 2011). The

high growth of B Schools post-1990 may be attributed to the opening of the Indian economy to the rest of the world (Ojha, 2005), which has resulted in increasing competition as well as revitalisation of the Indian economy, and rapid national economic growth. Many multinational corporations (MNCs) entered the Indian market in the pharmaceuticals, insurance, fast moving consumer goods (FMCG), banking, and engineering sectors, leading to substantial increase in demand for professionals with managerial skills. Furthermore, increasing competition in the private sector has created a need for organisations equipped with better-educated and better-trained business executives (Agarwal, 2007). These organisations face the challenge of surviving in a new business landscape characterised by increasing internal and external competition. Thus, the demand for formally educated and trained business executives has been soaring in India. In order to meet this escalating demand, there has been substantial growth in the business education sector. The number

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Peer-review under responsibility of Indian Institute of Management Bangalore.

<https://doi.org/10.1016/j.iimb.2018.01.008>

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of business schools in India increased by 90% between 2007 and 2011 to 2000 (Kumar & Dash, 2011). These educational institutions offer a variety of specialised business courses and programmes at both the undergraduate and the postgraduate levels. Alongside this development, there has been concern about the quality of the graduates produced by the business schools (Agarwal, 2007). In particular, the curricula and the methods of instruction followed in educating business graduates have been questioned by researchers (Pandey, 2012). Since both the private and the public sector need graduates who are equipped with practical problem-solving skills, the pressure to revamp business courses to meet this emerging need is mounting. In view of this, it is understandable that business educators and their institutions are searching for more appropriate methods of instruction to cater better to the emerging needs of learners. More generally, business schools have long been under pressure to use the most effective methods of instruction to yield the optimum learning outcome for business students (Beder & Darkenwald, 1982; Brookefield, 1984; Knowles, 1984). Instructors generally follow one of the two recognised teaching methods—pedagogy and andragogy. If the class contains students familiar with both methods, and if the students are sufficiently mature, the instructor may combine the methods. In many cases, instructors follow the teaching approach preferred by their institutions, and in so doing fail to consider their students' learning needs. In other cases, however, instructors adopt the teaching approach that fits the needs of their students in response to competition in the educational market.

For the purposes of this paper, we have adopted Knowles' (1984) definitions of pedagogy and andragogy. Knowles defined pedagogy as a teacher-led philosophy in which the educator assumes students to be dependent learners and emphasises content rather than problems. Following this approach, the teacher takes full control of students' learning in terms of setting assessment items, learning process, tests and exams, as well as overall performance evaluation. On the other hand, andragogy is defined as a learner-centred teaching philosophy assuming students are independent and sovereign learners who take the initiative in, control of, and responsibility for achieving their learning goals, and the teacher plays the role of a facilitator, emphasising the problems rather than the content.

Instructors tend to prefer pedagogical methodology when the learners' maturity level is low and their knowledge of the subject matter is negligible, whereas andragogical methodology is preferred for mature learners and in situations when learners are more familiar with the subject matter domain (Knowles, 1984). Research shows that the learning styles of students, along with factors such as course structure, instructor feedback, self-motivation, interaction, and instructor facilitation determine learning outcomes (Lizzio, Wilson, & Simons, 2002). Furthermore, learners' familiarity with the subject matter may influence their learning styles (Nadkarni, 2003). Accordingly, as outlined above, the adoption of a particular teaching approach should reflect the learning needs and preferred learning styles of students.

Prior research has addressed the issue of matching the appropriate instruction methodology to the learners' learning style, but research examining the suitability of andragogy and pedagogy as instruction methodologies in teaching business management courses in India is limited (Guillot, 2003; Monts, 2000; Noor, Harun, & Aris, 2012; Villa, 2013; Vodde, 2008).

Although a few research studies have been reported on instruction methodology in the last decade, the majority of them are confined either to andragogy or pedagogy. The few comparative attempts that have been made are either in a non-business management course or in a non-Indian context. For example, Villa (2013) evaluated the use of andragogy in a non-business management course (teaching social work) and found support for the use of andragogy and its principles in facilitating comprehension and application of the knowledge, values, ethics, and skills of social work practice in a non-Indian context (United Arab Emirates). Noor et al. (2012) investigated the pedagogical and/or andragogical orientation of undergraduate students pursuing a non-business management course (Introduction to Programming Language) in a non-Indian context and found that undergraduate students in Malaysia prefer a combination of pedagogical and andragogical orientation in their learning process. In seeking answers to the research question whether the use of andragogical instructional methodology in basic police training provides a more effective process for the training of police recruits than a traditional pedagogical, military model of training, Vodde (2008) concluded that an andragogical instructional methodology is more effective than a pedagogical methodology in a police training context. Monts (2000) studied the suitability of andragogy or pedagogy as instructional methodology for training police recruits in the US context. The study concluded that for adult learners like police officers, an andragogical instructional methodology is a more effective process of instruction than a traditional, pedagogical methodology. Guillot (2003) studied perceived instructional methodology in higher education in online courses at Southeastern Louisiana University, USA. The researcher found that instructional practices that facilitated student involvement and the creation of a learning community are preferred by learners in online courses. Further, in the Indian context, research on instruction methodology has focussed on specific methods like the inquiry training model (Pandey, Nanda, & Ranjan, 2016), problem-based learning (Pandya & Ghosh, 2008), and communicative language teaching (Christ & Makarani, 2009). The paucity of research on andragogy and pedagogy as instruction methodologies in teaching business management courses has prompted the empirical investigation undertaken in our study.

The current study aims to examine the available methodologies and identify the most preferred instruction methodology for management education as perceived by the learners, more specifically for courses offered as management education in business schools in India. Data were collected from participants in different management programmes of institutes of higher learning in India. The maturity level of the learners was ascertained to examine the dynamics of the preferred learning styles of participants.

Literature and conceptualisation

Business schools aim to equip future business managers with the skills that will enable graduates to provide effective leadership in the organisations employing them. Market forces provide business schools with an incentive to provide quality education using the most effective teaching methods and curricula suited to the emerging needs of students. The increasing globalisation of businesses places further pressure on

business schools to provide high-quality education (Kumar & Dash, 2011; Pandey, 2012). More specifically, business educators need to identify the activities and strategies that better engage the learners in acquiring advanced practical skills and knowledge (Brookefield, 1984). In a similar vein, Sassmannshausen and Gladbach (2013) found that novel methods of instruction were effective in better engaging learners. Wren, Buckley, and Michaelsen (1994) noted that "...business schools are expected to be 'professional' as their mission is primarily to prepare people to practice their skills in the real business world" (p. 141). Therefore, business schools should equip their students with knowledge and skills that have practical value in addition to theory so that students can apply their acquired knowledge and skills in business practices.

Research shows that different people learn in different ways; as such, learning styles vary between learners (Pashler, McDaniel, Rohrer, & Bjork, 2008). The type and range of activities that learners undertake to acquire information reflects their learning style (Beder & Darkenwald, 1982). These styles and activities are likely to depend on the maturity of the learners and the domain of instruction (Nadkarni, 2003). The basic premise of adult learning is that the better the fit between the learning style of learners and the instructional methodology of the instructor, the more favourable the learning outcomes (Beder & Darkenwald, 1982; Brookefield, 1984; Knowles, 1984). Therefore, according to this premise, a consistency is to be maintained between the learning styles of learners and both the curriculum and teaching approaches. Against this backdrop, the present study attempts to identify the components of learning activities related to learners' maturity and the instruction methodology.

Learners' maturity

Smith and Delahaye (1987) measured learners' maturity in terms of (a) their knowledge in the subject area, (b) their level of interest and need to acquire knowledge, (c) the degree to which learners are willing to accept the responsibility to learn, and (d) the degree of skill the learners possessed. Stuart and Holmes (1982) suggest that learners' maturity consists of their past learning experiences, expectations, attitudes to the forthcoming learning event, and prior knowledge. Nadkarni's (2003) observations confirmed the foregoing suggestions. On the basis of these findings, we identified learners' self-awareness, experience, learning motivation, orientation to learning, and the amount of domain knowledge as quantifiable and measurable characteristics of learners' maturity.

Self-awareness of the learner

Self-awareness of the learner refers to self-directed learning in which learners take the initiative, with or without the help of others, in identifying their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (Knowles, 1970). The self-awareness of learners can develop from their being passive recipients of knowledge to being self-directed and responsible in learning. The movement from dependency to self-directedness is what Lieb (1991) considered the result of "the normal maturing process of life".

Experience

Experience influences students' learning styles. As people mature, they accumulate a growing reservoir of experience which becomes a resource for learning. As Marienau (1999) observed, "a hallmark of an educated person is the capacity to reflect on and learn from experience such that the learning yields meaningful interpretations of life occurrences and informs future action" (p.137). Cassidy (2004) observed that learning styles tend to change with the increase in learning experience.

Motivation

Research shows that motivation to learn is a robust predictor of course outcomes. Motivation is influenced by both individual and situational characteristics (Colquitt, LePine, & Noe, 2000; Noe, 1986; Tannenbaum & Yukl, 1992). Learning motivation has been defined as the willingness to attend and learn material presented in a developmental programme (Noe, 1986). As a person matures, his or her readiness to learn becomes increasingly oriented to the developmental tasks of his or her social roles. Learners are ready to learn the things they need to know in order to cope effectively with their life situations. While studying the role of learners' characteristics and different types of motivation on students' learning, Lim and Kim (2003) explored five different types of motivation: course relevancy, course interest, affect/emotion, reinforcement, and self-efficacy. The authors concluded that motivation variables, as a whole (except course interest), seemed to significantly influence students' learning outcomes.

Orientation to learning

Learning preferences depend on the goal orientation of the learner. Goal orientation has been defined in different ways (e.g., as goals, traits and beliefs), has been conceptualised as having different configurations of distinct facets, and has been examined at varying levels of stability (i.e., situationally specific, domain-specific, and trait-specific) (De Shon & Gillespie, 2005). As a learner matures, his or her time perspective changes from a postponed application of learning to an immediate application. Accordingly, his or her orientation towards learning shifts from one of subject-centredness to one of problem-centredness. For example, adult learners know what they want before they enrol in a course, because they know where they want to go. They appreciate a course that is well-organised and which clearly delineates its goals; goals that are preferably congruent with their own (Lieb, 1991). They prefer learning that will help them perform tasks they confront in their life situations.

Domain knowledge

Learners' domain knowledge can act as a determinant of learning maturity. As Smith and Delahaye (1987) observed, learners' level of prior knowledge of the relevant subject area may influence learners' maturity level. The inherent characteristics of subjects, theoretical and applied, quantitative and qualitative, analytical and descriptive, may lead to differences

in teaching approach across different disciplines. Moreover, the dynamics of teaching and learning methods may lead to improved learning outcomes (Nadkarni, 2003). Marketing educators, for example, also place considerably more emphasis on active (Wright, Bitner, & Zeithaml, 1994) and experiential learning activities (Gremler, Hoffman, Keaveney, & Wright, 2000; Kennedy, Lawton, & Walke, 2001; Smith & Van Doren, 2004).

Instruction methodology

Knowles (1984) identified two contrasting instructional styles in adult education: *andragogical* and *pedagogical*. Pedagogy involves adults leading or accompanying children, while andragogy is characterised by adult learners leading the learning (Bale & Dudney, 2000). Pedagogical styles involve teacher-driven and directed methods, whereas andragogical methods are more learner-centred or self-directed (Nadkarni, 2003). Knowles (1984) compares the assumptions of pedagogy and andragogy as follows:

1. Children are dependent learners and adults are mature individuals and self-directed learners. Adults have a need to “take charge” of their learning, and teachers should nurture this natural tendency.
2. Children are inexperienced individuals and as such they cannot bring anything to the learning process; adults, as they grow and mature, accumulate a wealth of experience that can be a rich resource for learning.
3. Children are brought to school to learn whereas adults come to learn when they are compelled by the need to cope with a “life change” or to satisfy some other real-life circumstance.
4. Younger learners see learning as a matter of accumulating subject matter content that will be used when they are older; adults view learning as a means to improve their competency level, and they want to apply new knowledge to practice.

In many countries, there is a growing conception of andragogy as the scholarly approach to the learning needs of adults (Reischmann, 2004). Knowles (1984) argued that andragogical methods are more appropriate for adult education. This is because adult learners are more often the initiators of their own learning experience; they exert more control over the learning processes and outcomes and therefore prefer more power and autonomy in their learning journey (Brim & Wheeler, 1966).

Development of hypotheses

Learner maturity and instruction methodology

The maturity level of learners is instrumental in choosing the right method of instruction for effective teaching of adults in a tertiary setting (Stuart & Holmes, 1982). Therefore, the learners’ maturity should be determined before deciding whether a pedagogical or an andragogical approach is to be adopted in teaching business management courses. The self-awareness of the learners determines which approach—

pedagogy or andragogy—is more effective for the learners. The pedagogical method assumes that learners prefer to play the role of passive recipients of knowledge. On the other hand, the andragogical method encourages and nurtures students to become more self-directed (Knowles, 1970). The objective of this approach is to encourage learners to take control of and responsibility for their own learning. In management education, researchers emphasise the suitability of andragogy and/or pedagogy for participants with a given level of self-directed learning. For example, Forrest and Peterson (2006) emphasised that andragogical assumptions regarding self-direction and self-awareness have deep roots in management education. Management teaching is based on the assumption that learners should have an active role in the classroom. Learners can contribute to the design of the syllabus and the development of course evaluation criteria. Management educators believe that the act of assessing themselves confidently and effectively may facilitate students’ awareness of their own strengths and shortcomings.

The experience level of the learner can also determine whether andragogy or pedagogy is the preferred instructional methodology in a given setting. The pedagogical method is more appropriate where learners have limited experience to facilitate their learning. In contrast, andragogy is more appropriate where learners have varied experiences that can assist in the active learning process (Knowles, 1970). While pedagogy concentrates on learning from experience as well as creating experiences (Forrest & Peterson, 2006), andragogical teachers rely on the learners’ experiences and knowledge to create an effective learning process (Forrest & Peterson, 2006). Teachers of graduate management courses would normally consider their learners as experienced, as they are graduates. Their experience should be used in class as a resource. Congruent with the andragogical philosophy, management educators recognise that students can use their experiences to enrich their educational process (Forrest & Peterson, 2006), enabling management teachers to provide students with practical scenarios so that they can use their experiences to find solutions to problems. Role-play, simulation, case analysis, and group discussions are methods that strengthen the learning process by using students’ experience. Instead of attempting to build something completely new, teachers make connections between the new information and what students already know (Sankowsky, 1998).

Thus, learners’ motivation or readiness to learn determines differences in outcomes between the two learning models. Students’ readiness to learn is manifested in their willingness to learn in a particular situation given their background and prior knowledge and experience as learners. Knowles (1970) referred to “teachable moments” as the crucial issue in teaching. Pedagogy assumes that learners tend to experience uniform teachable moments; therefore, standard curricula combined with external motivation are considered appropriate. According to Knowles, teachable moments for adults are not uniform. Andragogy implies that a curriculum must be flexible enough to capture teachable moments, with adjustments for changing needs (Knowles, 1970). Therefore, management education curricula must be flexible enough to capture teachable moments; for example, talking about crisis management with reference to the terrorist attacks of September 11, 2001 may heighten students’ interest (Forrest & Peterson, 2006). However, incorporating contemporary

Table 1 Distribution of sample respondents.

Type of university	Background of respondent in terms of experience	Gender: male (frequency and percentage)	Gender: female (frequency and percentage)	University-wise distribution of respondent (frequency and percentage)	Total no. of respondents (frequency and percentage)
Private	Experienced	16 (9%)	60 (33%)	184 (48%)	63 (20%)
	Non-experienced	18 (10%)	90 (49%)		73 (23%)
State	Experienced	91 (45%)	22 (11%)	203 (52%)	103 (33%)
	Non-experienced	19 (9%)	71 (34%)		74 (24%)
Total		144 (37.2%)	243 (62.8%)	387 (100%)	313 (80.9%)

issues into the curriculum will require rescheduling topics within classes. Management educators can easily incorporate such practices if students are keen to learn. In the pedagogical approach, it is difficult to incorporate new topics that are not part of a curriculum.

From the andragogical point of view, adults learn because they need to address issues in their lives. Thus, they enter the learning process from a performance-centred or problem-centred mindset. In a pedagogical approach, the learning orientation is subject to teacher-oriented problems (Forrest & Peterson, 2006) in which learners assume that chosen course topics will help them to acquire skills that will be relevant and useful for their future careers. Most management students are keen to use the knowledge they acquire in the workplace. Thus, most students' orientation to learning leans towards concepts and activities that enhance understanding of the workplace, its problems, and potential solutions (Forrest & Peterson, 2006). Learning about the workplace mandates that the teacher uses non-classroom occurrences to further the educational process (Bilimoria, 1998). Therefore, management teachers need to understand students' orientation to learning and apply practical tools and practices relevant to the corporate world in classroom teaching.

On the basis of the foregoing discussion, we propose the following hypotheses:

H1. There is a significant difference between management students' perception of andragogical and pedagogical teaching methods. This hypothesis leads to the following sub-hypotheses:

H1a: There is a significant difference between management students' perceptions of andragogy and pedagogy with respect to their level of self-awareness.

H1b: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods with respect to their experience level.

H1c: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods with respect to their motivation to learn.

H1d: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods with respect to their orientation to learning.

Methodology

We used a quantitative approach in collecting and analysing data for the present study. The data were collected using a

structured questionnaire. A total of 387 questionnaires were distributed randomly to selected students studying in business schools offering management programmes at the post-graduate level in two states in India: Gujarat and Rajasthan. After two follow-ups, 313 questionnaires were returned. The response rate was thus 81%. Details of the sample respondents are given in Table 1.

The survey instrument included 24 items for assessing students' preferred learning styles and five items for assessing students' learning outcomes. To measure preferred learning style, we used a survey instrument based on the student's orientation questionnaire (SOQ) used by Bale and Dudney (2000). The SOQ is a modification of an earlier questionnaire developed by Hadley (1975). Hadley's (1975) questionnaire contained 25 andragogical and 25 pedagogical items related to self-awareness, experience level, motivation to learn, and orientation to learning (Deveci, 2007). The modified SOQ used by Bale and Dudney (2000) has 41 statements, with 20 being andragogical and 21 being pedagogical. We used an adapted version of SOQ containing 24 statements of which 12 were andragogical and 12 were pedagogical (Table A1, see Appendix). Both andragogical and pedagogical items were further sub-divided across self-awareness, experience level, motivation to learn and orientation to learning (three statements each) (Table A2, see Appendix). The statements were scored on a five-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). Cronbach's alpha coefficient was computed to test the reliability of the data. The alpha coefficient was 0.76, which is acceptable as it is above the benchmark of 0.6.

Data analysis techniques

To analyse the data, paired sample t-tests were used on a standardised dataset, using SPSS version 19.0, to determine if there is any overall significant perceived difference between andragogy and pedagogy and also if there is a significant difference between students' perceptions of andragogy and pedagogy with respect to self-awareness, experience, motivation, and orientation to learning.

Results of hypothesis testing

The results of the paired sample t-test are presented in Table 2. This test was undertaken to investigate if there was any significant difference between andragogy and pedagogy

Table 2 Results of paired sample t-tests between learners' perceptions of pedagogy and andragogy as well as the four dimensions of andragogy versus pedagogy (N = 313).

Variables	Mean	t-value	Significance	
Pair 1	Andragogy Pedagogy	3.81 2.83	6.60	.000
Pair 2	Andragogy self-awareness Pedagogy self-awareness	3.86 3.12	5.59	.000
Pair 3	Andragogy experience Pedagogy experience	3.78 2.38	6.49	.000
Pair 4	Andragogy motivation Pedagogy motivation	3.82 2.88	4.58	.000
Pair 5	Andragogy orientation Pedagogy orientation	3.76 2.96	7.09	.000

Table 3 Outcomes of hypothesis testing.

Hypothesis	Support status	Comments
H1: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods.	Fully supported	Expected outcome
H1a: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods with respect to self-awareness of learners.	Fully supported	Expected outcome
H1b: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods with respect to their experience level.	Fully supported	Expected outcome.
H1c: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods with respect to their motivation to learn.	Fully supported	Expected outcome
H1d: There is a significant difference between management students' perception of andragogical and pedagogical teaching methods with respect to their orientation to learning.	Fully supported	Expected outcome

as the instruction methodology with respect to students' level of maturity in terms of their self-awareness, experience, motivation, and orientation to learning. The summary of the results is as follows:

- The learners' level of perception of andragogy as a methodology of instruction ($\bar{x} = 3.86$) is significantly higher than that of pedagogy ($\bar{x} = 3.12$) in respect to students' self-awareness ($t = 5.59$, $p < .01$).
- The learners' degree of perception of andragogy as a methodology of instruction ($\bar{x} = 3.78$) is significantly higher than that of pedagogy ($\bar{x} = 2.38$) in respect to their experience ($t = 6.49$, $p < .01$).
- The learners' level of perception of andragogy as a methodology of instruction ($\bar{x} = 3.82$) is significantly higher than that of pedagogy ($\bar{x} = 2.88$) in respect to learners' motivation (readiness) ($t = 4.58$, $p < .01$).
- The learners' degree of perception of andragogy as a methodology of instruction ($\bar{x} = 3.76$) is significantly higher than that of pedagogy ($\bar{x} = 2.96$) in respect of orientation to learning ($t = 7.09$, $p < .01$).

The results of the hypothesis testing presented in [Table 3](#) show that all hypotheses are fully supported. Support for all

hypotheses implies that andragogy as a learning methodology is preferred over pedagogy. This result suggests that learners at the postgraduate level in Indian business schools are generally in favour of the andragogical method of instruction. The findings also suggest that these learners are self-directed, bring practical experience and knowledge to educational activities leading to their learning, and are oriented to performance and problem-solving activities in terms of their learning. The findings also imply that the learners are motivated by internal factors such as drive for continuous learning.

Discussion and conclusion

This study presents a number of findings which provide insight into learners' mindsets and learning expectations, factors influencing their learning experience as well as the context and environment within which the providers of the learning, i.e., business schools in India, operate. The findings demonstrate that Indian postgraduate business students prefer andragogy over pedagogy as an instructional method. The results complement the concerns of academicians and researchers in India. For example, [Dayal \(2002\)](#) suggested that the teaching methods in Indian business schools have to shift to student-centred approaches from that of teachers feeding knowledge to students.

The preference for andragogy is deemed realistic as students believe that andragogy would be the more appropriate approach to address their learning needs as well as the needs of their potential employers. It would be relevant to mention here that the practice-based learning expectations of Indian postgraduate business students are not isolated. Rather, such expectations stem from the hard reality that learners must acquire the right skills in order to survive in the changing social and economic landscape characterised by competitive markets, higher economic growth rates and higher standards of living in modern India.

Further, the results of the study proved that students' positive attitude towards andragogy largely reflects their maturity level which may have been driven by such factors as their past practical experience, orientation, self-awareness, and motivation to learning. The results indicate that the maturity level of the students is relatively high for all the four learners' maturity dimensions, i.e., self-concept, experience, learning motivation, and orientation to learning. Pointed inferences of the findings are as follows:

- The results show that self-concept as a learners' maturity dimension is significantly higher amongst Indian business graduates. Thus, we can conclude that Indian business graduates are aware of their strengths and limitations and are guided by personally set goals and task-related strategies. They monitor their behaviour in terms of their goals and self-reflect on their increasing effectiveness. The finding may also be related to the fact that the students surveyed have chosen a career path where rigorous and competitive admission tests apply. Furthermore, the cost of pursuing a career in business management is very high, especially through the self-funded autonomous business education sector in India. Therefore, we surmise that Indian business graduates are more self-directed than other students, which is reflected in their higher expectations of the business programmes in which they enrol. Hence, andragogical methods such as case study, role playing, and so on, are more suitable for Indian business graduates.
- The results also establish that the learners' degree of perception of andragogy as a methodology of instruction is significantly higher than that of pedagogy in respect to their experience. The result is in consonance with previous research. For example, in studying the relevance of case study as an andragogical method in teaching accounting to business graduates, [Ballantine and Larres \(2004\)](#) found that experience may affect students' attitudes towards the use of case studies in class. The cited researchers commented that if students are to gain maximum benefit from the use of case studies, then it may be appropriate for accounting educators to take account of the students' practical experience and develop case-based programmes accordingly.
- The results show that learners' motivation as a learners' maturity dimension is significantly higher and hence Indian business graduates prefer andragogical methods. Considering the relationship between learners motivation and contemporary curriculum ([Knowles, 1970](#)), a high learners' motivation may reflect the preference of Indian business graduates for curriculum containing contemporary issues and topics. This requires the curriculum instructor to design a curriculum that is flexible enough to capture the teachable moments, and be attuned to changing needs ([Knowles, 1970](#)).
- High learning orientation also predicts andragogy as the preferable methodology for Indian business graduates. The higher level of learning orientation is understandable as they are influenced by internal factors such as a keen drive for learning rather than by external factors such as grades. It is likely that these students will demand quality teaching in order to achieve their learning objectives. The demand for practically oriented and applied learning from business schools can be satisfied by education and training through dynamic, practice-based curricula which can be applied effectively in the real world.

Overall, the above findings corroborate the principles of modern adult education which imply that self-directed experiential instructional methods are more appropriate for mature adult learners ([Brookefield, 1984](#); [Knowles, Holton, & Swanson, 2011](#); [Knowles, 1984](#)) because as the level of maturity of learners progresses, their learning preferences change from that of teacher-centred to problem-centred practical learning ([Heidt & Quazi, 2013](#)).

Finally, the above findings point to a possible paradigm shift towards a learner-centric philosophy which supports the fact that the nature of demand for postgraduate-level business education in modern India is changing significantly in terms of the curriculum, delivery mechanisms and the instructional methods of teaching.

On a philosophical level, the findings signal a clear shift in Indian higher education from the age-old teacher-centred pedagogical philosophy of teaching to a more andragogy-based philosophy. Pedagogy is deeply rooted in traditional Indian culture wherein the "guru" (teacher) is the centre of all learning activities. Learners are required to follow only the guru and his/her instructions, which may include staying in the guru's home and observing and practising the guru's own learning style in order to achieve learning goals in a passive way ([Behera, 2012](#); [Rajput, 2013](#)). Therefore, the findings of this research support the shift of teaching and learning emphasis from a teacher-centric to a learner-centric approach in the Indian higher education sector.

At an operational level, the findings suggest that the traditional teaching approach and curriculum need significant revamping. This is more relevant in the post-financial-crisis era, and a call for reviewing the effectiveness and relevance of business education in general, and MBA programmes in particular, has become necessary because managers educated and trained through such programmes have not been of much help in overcoming the financial crisis. Research has attributed this lack of ability to business schools' over-emphasis on the theoretical aspects of learning in their classrooms as well as in the curricula ([Bennis & O'Toole, 2005](#)). Business school instructors need to acknowledge that management education can be best delivered by enabling a deeper appreciation amongst their learners for a variety of real situations, rather than mere dissemination of information. Instructors can use practical application through videos, experiential exercises and group activities in which learners can share their experiences in groups in every class.

Furthermore, the teaching approach can use simulation and role-playing activities. Long and comprehensive case discussions can be used frequently with minimal intrusion from the instructor. The findings further encourage free communication through group activities such as class simulation and

role-playing, where the instructor adopts a laissez-faire approach. Research has shown that group activities, if properly managed, can spark creativity amongst learners (Boland, Burrell, & Quazi, 2008). Since postgraduate-level business students need to cultivate a group dynamic in their endeavour to enhance their practice-based learning, instructors need to direct their andragogy-based approaches towards group learning practices.

Newness of this research

We submit that our work of research has made a number of contributions to broadening existing knowledge about the changing attitudes of adult learners in the business management education sector in India. The findings of this study contest the tenability of the age-old wisdom that the traditional teacher-dominated pedagogical teaching and learning approach using content-based curricula which treat students as dependent and passive learners is the appropriate method of instruction in an Indian context. Students' preference for andragogy over pedagogy points to the emerging realities for future business managers in modern India. These emerging learning needs may be driven by Indian employers who prefer hiring those equipped with problem-based practical knowledge and those who are confident and independent in putting their acquired knowledge into practice in the real world. The findings of this research have important implications for business schools in modern India in terms of re-designing their teaching methods and curricula, reflecting the andragogy-based philosophy of creating independent and confident learners who can take the initiative and can control and take the responsibility for their own learning journey.

Implications

This work of research has strategic implications for Indian higher education providers, educational policy makers, international educational institutions intending to market their higher education offerings in modern India and foreign educational institutions already operating in India. Firstly, Indian educational institutions that still follow the conventional teacher-centred philosophy of teaching and use conventional curricula and instructional methods should note that it is now time for them to review their current course offerings and their associated teaching and delivery methods. The outcomes of the review would help them reorient their teaching approach and curriculum to the changing needs of the new generation of mature and experienced learners.

Moreover, we recommend a policy review by the government to examine current financial and other arrangements supporting postgraduate business education in India to determine the extent to which these arrangements constrain the ability of providers to develop curricula and teaching approaches which meet the educational needs of modern India. If significant impediments to adaptation are found, the review should also identify, if possible, alternative arrangements which would remove these constraints, preferably at no additional cost to the public purse.

In particular, regulatory and licensing arrangements may well impose constraints. For example, do educational

institutions have to submit curricula to external review? How easy is it to get approval or an andragogy-based course?

Foreign educational institutions planning to enter the Indian market (both through online and offline modes), as well as those currently operating in the Indian higher education market, should note that postgraduate business education seekers in India are no longer satisfied with traditional curricula and teaching styles based on pedagogy. Today, present and potential postgraduate-level learners in India prefer the andragogy-based approach because they believe that it treats students as mature learners and will provide them with the right education and training aimed at preparing them as independent and confident thinkers. This superior instructional approach will be perceived as instrumental in helping Indian postgraduate business students advance their professional careers. International education providers will need to offer a curriculum and teaching methods that suit the needs of the Indian postgraduate business educational market. International educational marketers should also consider that a sizeable population in India has generated sufficient wealth to be able to afford expensive postgraduate business education of a Western standard. Therefore, instead of following the traditional strategy of business education in India, international marketers will do well to explore the possibility of marketing education in India by establishing their own campuses or through partnership with Indian local educational institutions with a commitment to deliver andragogy-based instruction and curricula. Many Western educational institutions whose instructional methods and curricula are based on learner-centred philosophies would be at a competitive advantage if they were to enter the growing Indian postgraduate business education market.

Limits of the study and future research potential

Despite its contributions to knowledge, this study has some limitations. One limitation that could potentially affect the results of the study is the number of sample units, the sample size and the sample characteristics. The sample consists of four units from two Indian states and as such the findings may not be generalisable across all the business schools in India. Future research can be based on larger samples drawn from business schools across India to enhance the generalisability of the findings at the national level. Furthermore, the study can be extended to the international arena to broaden and deepen our understanding of the complexities associated with the selection of teaching methods across borders. Secondly, research in higher education has proven the increasing role of demographic variables such as age, gender or ethnicity on academic performance (Kaighobadi & Allen, 2008). Thus, future research on the role of demographic variables on different teaching methodologies may be conducted. Thirdly, the current study is confined to comparing the pedagogical and andragogical teaching methods preferred by Indian B School students. Future studies can be conducted on measuring their effectiveness in terms of learning outcome. Finally, in agreement with the recommendation of Borredon, Deffayet, Baker, and Kolb (2011), future research could also focus on studying the suitability of andragogy and pedagogical methods from a cross-cultural perspective.

Appendix

Table A1 Student orientation questionnaire and classification of questions.

Statements	Pedagogy/Andragogy	Assumption
1. I believe the instructor should take time to develop a friendly and cooperative atmosphere in the classroom.	A	3
2. I would prefer that the instructor's assignments focus on applications I am likely to encounter in my workplace.	A	4
3. I believe the instructor should take the time to explain why a topic is relevant to my future success.	A	4
4. I believe the instructor should encourage students to act upon their prior work experiences and relate those experiences to the course objectives.	A	2
5. I believe that my learning patterns may vary from others due to my past work experience.	A	2
6. I believe the instructor should allow me to actively participate in deciding what is to be learned and how it is to be done.	A	1
7. I believe the instructor should encourage me to create my own learning activities and material.	A	1
8. I believe the instructor should firmly direct learning.	P	1
9. I believe the instructor should follow a topical outline course plan.	P	1
10. I believe the instructor should assume that all class members have similar work experiences that do not apply to the course objectives.	P	2
11. I believe the instructor should help me learn what I decide will aid me in achieving my personal goals.	A	4
12. I believe the instructor should provide students with opportunities to develop warm relationships with him/her.	A	3
13. I believe the instructor's relationship with students should be impersonal.	P	3
14. I believe the instructor is responsible for finding ways to motivate me to learn what he/she wants me to learn.	P	3
15. I believe that I learn more useful information from my instructor's experiences than from my own.	P	2
16. I believe the instructor should know better than the students what is best for them.	P	1
17. I believe the instructor should help me to organise the content and sequence of learning activities.	A	1
18. I believe the instructor should use primarily transmittal learning techniques such as lecture, assigned reading and audio-visual presentations.	P	2
19. I believe the instructor should allow students to prepare tests.	A	3
20. I would prefer that the instructor focus on theory so that I can apply the knowledge to a broad range of problems.	P	4
21. I believe the instructor should use primarily experiential learning techniques such as cases, simulation exercises and field experience.	A	2
22. I believe the instructor should focus more on teaching me general subjects rather than on teaching me job-specific skills.	P	4
23. I believe the instructor should cover those subjects that he/she believes will be relevant to my future success, even if I don't understand why these subjects are important.	P	4
24. I believe the instructor should give examinations regularly.	P	3

Survey respondents are asked to rate their attitude towards each statement on the following scale: 1 = Almost Never; 2 = Seldom; 3 = Occasionally; 4 = Often; 5 = Almost Always

Assumption Categories: 1 = Self-awareness of the learner; 2 = Experience of the learner; 3 = Motivation to learn; 4 = Orientation to learning

Table A2 Hypotheses, dimensions and related items.

Hypotheses	Dimensions	Related items
H1	Andragogy Pedagogy	Item no. 6,7,17,4,5,21, 1,12,19, 2,3,11 Item no. 8,9,16, 10,15,18, 13,14,24, 20,22,23
H1a.	Andragogy self-awareness Pedagogy self-awareness	Item no. 6,7,17 Item no. 8,9,16
H1b.	Andragogy experience Pedagogy experience	Item no. 4,5,21 Item no.10,15,18
H1c.	Andragogy motivation Pedagogy motivation	Item no. 1,12,19 Item no. 13,14,24
H1d.	Andragogy orientation Pedagogy orientation	Item no. 2,3,11 Item no. 20,22,23

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