From pedagogy to andragogy: Assessing the impact of social entrepreneurship course syllabi on the Millennial learner

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Abstract:

Although course syllabi serve a variety of important roles in higher education contexts, they are largely overlooked in management education research. We propose that educators can influence the attitudes of learners toward their courses through the andragogical design of learner-centered syllabi, before they even meet with their students in class. We review social entrepreneurship syllabi from universities from around the world. Our findings demonstrate that, over time, there has been a move from instructor-oriented to more learner-centered teaching philosophies. Further, we demonstrate that educators can influence the attitudes of learners toward their courses before classes even begin. Implications for entrepreneurship education theory and practice are discussed.

Keywords: Entrepreneurship education | social entrepreneurship | syllabi | course outlines | satisfaction | inspiration | pedagogy | andragogy

Article:

Introduction

Prior studies of university-level entrepreneurship education (EE) have identified pedagogy as an important and unexplored moderator of the relationship between EE and its intended outcomes, including behaviors (Martin, McNally, & Kay, 2013; Piperopoulos & Dimov, 2015). Indeed, the use of different teaching philosophies and pedagogies is identified as at least partially responsible for the inconsistent results in impact studies on EE (Nabi, Liñán, Krueger, Fayolle, & Walmsley, 2017), prompting scholars to ask for evidence of what pedagogical methods work and how they impact students' behaviors. Syllabi create the first impressions for students as they provide a good reflection of the purposes of the course and the instructor's intentions of *what* and *how* they will teach certain topics in the course (Miller, Wesley, & Williams, 2012). Yet despite

the critical first impressions syllabi convey to students, to date they have almost been neglected in the EE literature. Furthermore, there is increasing concern that conventional syllabi reflect outdated, instructor-centered pedagogical perspectives, which do not align well with the learning habits of Millennial students (Fornaciari & Lund Dean, 2014).

To advance understanding of how syllabus design can contribute to the management education literature (and EE specifically), there are several opportunities to build on prior theory and research. First, an important question that has not been answered adequately is to what extent EE has moved beyond the philosophy of pedagogy toward a more learner-centered, andragogical teaching philosophy (Forest & Peterson, 2006) and, particularly, and to what extent this is reflected in the course syllabi, where first impressions and course attitudes are formed. Addressing this question is critical because pedagogy has been criticized for not addressing the needs of Millennial students (that is, those students born between 1981 and 1997), who today occupy our management classrooms (Fornaciari & Lund Dean, 2014) and take courses in entrepreneurship across campuses (Ferreira, Fayolle, Ratten, & Raposo, 2018; Welsh, 2014; Welsh & Tullar, 2014). A second promising research opportunity is to examine contingency factors that influence the relationship between an EE course syllabus and its purported outcomes. To date, we have not identified any research that has empirically or experimentally evaluated the effects of pedagogical and andragogical designed syllabi on students' initial inspiration, despite the popularity of these courses around the world (Lawrence, Phillips, & Tracey, 2012).

The word *pedagogy* specifically refers to teaching children ("pedagogy" stems from "pais" in Greek and translates as "children being led") and, thus, may not entirely encompass the needs of adults who occupy modern business school classes (Forest & Peterson, 2006). Pedagogy as a teaching philosophy is not learner centered, but instead emphasizes the subject matter to be learned and the central role of the instructor in the learning process who is the conveyer of information, and, therefore, possibly ignores what students bring to the learning experience (Knowles, 1977, 1980). We argue that this model might no longer meet the needs of Millennial entrepreneurship students in modern universities. Higher education is tasked to help prepare business students to cope with uncertainty and complexities in the business world, as well as to teach them how to engage in continuous learning throughout their careers. Educators' roles are, therefore, seen as supporting the students in developing self-authorship and autonomous learning (Burgess & Burgess, 1995; Kreber, 2010; Pittaway & Cope, 2007). This is at the heart of *andragogy*, the art and science of teaching adults ("and-" originates from the Greek word for "man"). This approach assumes that knowledge is created and constructed by every learner and that students learn better and are more motivated when they are enabled to discover concepts, and when learning is relevant to the learner's life (Rovai, 2004).

Students in an andragogical setting are encouraged to be more autonomous, to accept greater responsibility for their own actions and learning (for example, choose their own reading based on what competences they want to develop), and to learn to solve problems by examining difficult issues (Dehler, 2009; Forest & Peterson, 2006; Lewis & Dehler, 2000). Of course from our experiences in the classrooms, we also know that not all students (particularly, young undergraduate students aged 18–21) fully embrace an andragogical setting but, instead, prefer to be guided (at least to a certain extent) during their learning processes. Nevertheless, the very nature of entrepreneurship education, which is the focus of our article, usually requires that its

educators adopt a more action-oriented and experientially based learning, which replicates the uncertainties and uncontrollable circumstances an entrepreneur faces in the real business world (Piperopoulos & Dimov, 2015; Pittaway & Cope, 2007). As such, we argue that by adopting more andragogical than pedagogical teaching approaches, educators can embrace and nurture openness, tolerance, suspension of judgment, ambiguity and create a warm and trusting environment (Raelin, 2007).

Students, including the younger adults (aged 18–21) can, therefore, learn early in their higher education journey how to become partners in the educational process, be encouraged to step outside their assumptions and predispositions of guided learning, and work with their educators from the outset in designing the course syllabus. This suggests that, although andragogical activities such as agreeing on teaching strategies, working on problems that students conceptualize, and deciding on how to get assessed and evaluated can add ambiguity and uncertainty to students early on, the same activities will also create a deeper commitment to their learning (Pittaway & Cope, 2007) and prepare them emotionally for how to cope with the uncertainty and ambiguity in their (social) entrepreneurial endeavors.

Further, although not one of its primary goals, this study may be able to speak to the nature of student populations in terms of their attitudinal response to classroom materials; namely, course syllabi. The university student population has been identified as unique in terms of its nature (McNally & Irving, 2010). It has been traditionally categorized by scholars in one of two broad ways: as either service consumers, including customers (Lomas, 2007) and clients (Armstrong, 2003); or organizational members, including employees (Hoffman & Kretovics, 2004) and junior partners (Ferris, 2003). To date the empirical evidence has been scant about the "true nature" of student populations. However, regardless of their specific classification, we suspect that students' attitudes toward course syllabi will be informed with reference to their experience with other relevant EE course syllabi, which we maintain is a cognitive process that could readily be associated with either the service consumer, the organizational member, or a "hybrid" of both.

Although we could use any EE course to test our assumptions about course syllabi design, we preferred to focus on SE because: (a) it is one of the newest introduced concepts in business schools (Tracey & Phillips, 2007); (b) it is admittedly a challenging course to design and teach due to its dual mission (that is, the conflict between pursuing simultaneously a social welfare mission with commercial logic and success); (c) it has not yet reached academic maturity and legitimacy like its bigger sibling, entrepreneurship; and (d) the emotional inspiration element embedded in the andragogical teaching philosophy matches the passionate nature of entrepreneurship in general and SE in particular, which can be translated into stronger intentions toward SE (Souitaris, Zerbinati, & Al-Laham, 2007).

This article contributes to management education, and to EE theory and practice, in two ways. First, in the initial phase of our study (that is, Study 1), we provide evidence for and discuss how SE course syllabi have developed over a decade and to what extent entrepreneurship educators are adopting more andragogical teaching philosophies. Second, in the next phase of our study (that is, Study 2), we demonstrate how satisfaction and inspiration toward SE courses can be influenced by syllabi alone, before the occurrence of any delivery of the course content. We demonstrate, via experimental manipulation, that the documents, words, text, and even fonts

used in syllabi can engage and inspire Millennial students toward specific attitudes even prior to the entrepreneurship educator walking into their classrooms. Our Study 1 dataset is comprised of 153 SE syllabi from 13 counties and various universities across the world over a 10-year period, 2007–2016. Our Study 2 survey/experiment dataset is made up of 186 adult students at a major UK university.

Course syllabi: From pedagogy to andragogy

Course syllabi

Course syllabi in business schools have long served as tools to delineate and describe the course context. Their use in referring to the course content in an educational setting dates to 1889 (Parkes & Harris, 2002). Since then, the syllabus has served many distinct and important purposes in the educational environment such as acting as a contract, a communication device, a permanent record, a plan, a learning tool, and a cognitive map (Matejka & Kurke, 1994; Parkes & Harris, 2002). For instance, as a communication device it presents clues about the personality of the educator, while as a permanent record it outlines what will be taught in the course, how it will be delivered, and how students will be fairly evaluated (Parkes & Harris, 2002).

Syllabi create the first impressions for students as they provide a reflection of the instructor's intentions of "what" and "how" they will teach certain topics in the course (Miller et al., 2012). They also send a symbolic message to the students about the personality of the instructor who is about to deliver the course (Matejka & Kurke, 1994), set forth what is expected by both parties, and give guidance to students about the learning to be completed during the term (Parkes & Harris, 2002). Further, syllabi are increasingly used as devices to reflect accreditation processes that meet professional standards (for example, Association to Advance Collegiate Schools of Business (AACSB) and European Quality Improvement System (EQUIS)).

Context is identified by numerous authors in the educational literature as central to the design and delivery of syllabi to students (for example, Francis, 1997; Guzman & Trivelato, 2011; Kars-Unluoglu, 2016; Swartz, Shelley, & Cole, 2016). The importance of context for syllabi is considered at the classroom, faculty, institution, community, national, and global levels. For example, in a study which details the process of developing a course for organizational learning (Francis, 1997), the author argues that the structure of a course can facilitate or hinder this process of collective learning – where on one hand students can feel overwhelmed, but on the other they are given the opportunity to synthesize course materials with firsthand experiences, as well as with materials from previous courses.

We maintain that establishing a course context via syllabi also allows for students to consider courses in terms of their own current and future work identities. As such, they engage in "the pursuit of identity stabilization (consolidating an existing identity) or in identity transition (acquiring a new one)" (Petriglieri & Petriglieri, 2010, p. 44) because of exposure to course content. Previous research on this topic demonstrates that, within the social entrepreneurship context, potential social entrepreneurs view the concept of identity workspaces as opportunities for individuals to experiment with their potential future identities as social entrepreneurs (Pache & Chowdhury, 2012). Within this realm, syllabi as identity workspaces have also been

researched in EE programs offered to prisoners to help their postprison lives (Patzelt, Williams, & Shepherd, 2014).

Moreover, from a knowledge management perspective, we maintain that syllabi are a means of transferring codified knowledge. For example, Guzman and Trivelato (2011) posits that managerial logic is applied to teaching and learning activities, turning knowledge into a codified product – with students being approached as consumers. The result is a course outline that can be "stored, distributed, and marketed" (p. 452). They also suggest that there are different stakeholders with, sometimes, contraining forces, in the development of a syllabus including students, instructors, administration, and accreditation bodies.

Finally, we identified only a small number of studies in the extant literature tracking changes in syllabi over time in management courses. Hendry, Hiller, Martin, and Boyd (2017) plot the change in a single introductory management course over 25 years and show that courses are becoming less instructor centered (pedagogical) and more learner centered (andragogical). In another (notable) study examining SE syllabi, Robinson, Neergaard, Tanggaard, and Krueger (2016) provided ethnographic evidence of a change in a single course over 10 years. The authors suggest it is necessary to move from instructor centered (pedagogical) to learner centered (andragogical) teaching models to best facilitate learning. To our knowledge, besides this one, there are no studies that chart the changes in design and content of multiple SE outlines over time and across multiple years and universities.

Andragogical-inspired course syllabi: Fornaciari and Lund Dean's framework

As educators and subject specialists, we often overlook how much the writing featured in course materials such as syllabi and guidance notes for students is central to the process of learning (Lea, 2004). Designing syllabi based on andragogy, in terms of content, context, and approach (for example, language, fonts and layout), recognizes the needs of Millennial learners, who process information in different ways and have different "digital" lifestyles than the generations before them (Fornaciari & Lund Dean, 2014). We base our study on the framework developed by these authors and their recommendations for syllabi development that are learner centered and more consistent with students becoming partners in education (Fornaciari & Lund Dean, 2014; Lund Dean & Fornaciari, 2014). Although the framework is itself not a theory, it portrays the extensive definition of andragogical intervention as identified in the entrepreneurship education literature (for example, Guglielmino & Klatt, 1993; Krueger, 2007; Robinson et al., 2016). For example, the proposed components of course syllabi mesh well with the four andragogical assumptions discussed by Forest and Peterson (2006), which are: self-directed learners, experience, readiness to learn, and orientation to learning. As such, the framework represents a guide to examine the development of university-level course syllabi:

- Move toward inclusive syllabus language and policies, signaling mutual respect;
- Streamline syllabi to recognize the reading habits of today's students;
- The schedule portion of the syllabus as most important for students;
- Syllabus design and layout for accessibility and engagement;
- Consider students' electronic-based worldview;
- Design the syllabus as a resource and go-to document;

- Balance course structure with student input.

The value of this framework is that it provides practical and observable components of syllabi which, from a face validity perspective, adequately represent a guidepost for the qualitative and quantitative examination of course outline development over time from teacher-centered to student-centered approaches. The use of inclusive language is a key element in andragogy teaching philosophy (Lund Dean & Fornaciari, 2014). Inclusive language not only refers to the written words, but also to the subtle implied messages inherent in the language such as when a "we" means "you" (Lund Dean & Fornaciari, 2014). Another aspect of the language is the use of inspirational messages that motivate students about the vision of the course (Lund Dean & Fornaciari, 2014) and encourage them to participate with the instructor for better learning outcomes. Furthermore, Millennial students are looking for shorter and more focused syllabi as they tend to respond poorly (that is, lose interest and motivation) when they are presented with long and overly technical syllabi (Fornaciari & Lund Dean, 2014; Lund Dean & Fornaciari, 2014). The course timetable schedule and assignment deadlines should be presented clearly as students pay close attention to this portion of the syllabus and could directly involve students in the planning and calendaring process. Having a clear picture of the materials planned to be taught during the course helps students to correlate the material with the learning objectives (Lund Dean & Fornaciari, 2014).

Further, the literature has not devoted much attention to the way the syllabus is presented in terms of fonts, graphics, and spacing as well as other design elements related to the ease of reading (Lund Dean & Fornaciari, 2014). An andragogical-inspired syllabus design should be viewed as a tool that creates a unique "live" document that should stand on its own to get attention. Designing syllabi in ways that match the needs of Millennial students can ensure that the syllabus will be used as a resource and go-to document, which is integrated in the teaching process of the course and not just a one-time visit at the beginning of the course (Lund Dean & Fornaciari, 2014). It is crucial to ensure that the syllabi play a central role in improving learning outcomes and are not used as mere operational tools (Lund Dean & Fornaciari, 2014).

Considering students' electronic-based worldview for readability by the provision of electronic versions of syllabi acknowledges the needs of digitally literate learners who use laptops, smartphones, tablets, and other electronic devices. Lund Dean and Fornaciari's (2014) final recommendation relates to the heart of andragogy; namely, the active involvement of the learner (Collins, Smith, & Hannon, 2006). However, this recommendation is intentionally left rather broad to be implemented in various ways and stages of the course as the authors recognize that this redesign process will be a continuous and evolving process. For example, students can provide their input regarding the schedule, topics to be covered, and ideas for improving learning outcomes. Using the andragogically oriented syllabi reflects a mind-set that acknowledges the needs of the Millennial generation that looks for autonomy and independence (Lund Dean & Fornaciari, 2014).

Hypothesis development

Social entrepreneurship

We focus on charting the development of course syllabi in social entrepreneurship (SE). Whereas two decades ago there were only a handful of business schools offering SE courses, most top-ranked business schools across the world today have incorporated some aspect of SE in their curricula (Worsham, 2012). The field of social entrepreneurship education (SEE) has attracted accelerated attention of educators since the beginning of the 21st century with a focus on the complexities of educating students to manage the tension and moral conflicts between pursuing simultaneously a social welfare mission with commercial logic and success (Costanzo, Vurro, Foster, Servato, & Perrini, 2014; Tracey & Phillips, 2007). This dual character of SE has resulted in a lack of a clear understanding of the way in which SE can position itself in business schools, particularly next to its bigger academic sibling, general entrepreneurship (Pache & Chowdhury, 2012). This conflict, if not properly managed and taught, can result in either losing the dual focus of the social enterprise or becoming immersed in conflicts between organizational members representing both sides (Smith, Besharov, Wessels, & Chertok, 2012). Therefore, the authors suggest that SE needs to develop pedagogical tools that do not focus on "teaching" social entrepreneurs, but on creating opportunities for them to develop leadership skills. Indeed, more scholars recognize that it is critically important to adopt the appropriate teaching philosophy that can deal with the complex character of SE (Zhu, Rooney, & Phillips, 2016).

Most SE courses are currently built on the advances of EE and benefits from several decades of experience in educating students both "about" (that is, the theoretical aspects of setting up and managing a business) and "for" entrepreneurship (that is, the practical skills and knowledge required to identify opportunities and set up and run a business venture; Pache & Chowdhury, 2012; Piperopoulos & Dimov, 2015; Pittaway & Cope, 2007). For example, Greg Dees – who is often referred to as the "father of social entrepreneurship education" (Worsham, 2012, p. 442) – argues that his design for SE courses builds on traditional entrepreneurship courses, but with added layers of tools, frameworks, and models to address the central role of the social mission (Worsham, 2012). Although prior studies have identified the content, competencies taught, and context of SE courses in universities across North America, Europe, Asia, and Australia, they have left unanswered the question of *how* SE courses should be designed and taught (Miller et al., 2012).

In a recent and notable exception, Spais and Beheshti (2016) examine the evolution of social entrepreneurship courses over the 2004–2014 period, looking at the syllabi descriptions from 62 universities in 11 countries. The results of their study indicate that SE educators may have to construct new meanings and find new ways to teach SE courses such as creating a participative environment and acting as facilitators and not as "experts." Furthermore, Al Taji and Bengo (2018) emphasize the role of SE education in incorporating the pedagogical tools to teach managers and leaders of social entrepreneurship businesses how to deal with the hybrid/paradoxical nature of their organizations with both social and financial bottom lines. The authors tested the framework or model suggested by Smith et al. (2012) in social incubators/accelerators in Italy. Based on this model, they explored in detail three metaskills and six specific skills that SE educators should teach in a classroom setting: *acceptance*, which involves adopting an abundance mentality and embracing paradoxical thinking; *differentiation*, which involves recognizing the distinct value of each domain and mindfully attending to distinctions between domains; and *integration*, which involves developing trust, openness, and cultural sensitivity and seeking synergies in decision-making.

We thus examine SE syllabi acknowledging the assertion that course design reflects the mind-set of instructors delivering SE courses and, if educators are to develop a SE mind-set, then the students' mind-set will likely reflect that of their instructor (Welsh & Krueger, 2009). Furthermore, because SE is widely considered to be part of the broader EE curriculum and literature (Miller et al., 2012; Pache & Chowdhury, 2012), it is expected to have an impact on the satisfaction and inspiration of students, and it can, therefore, be grounded in theory.

Satisfaction and inspiration in social entrepreneurship course syllabi

Expectancy-value (EV) theory is a precursor to Fishbein and Ajzen's (1977) theory of reasoned action (TRA), which itself is a precursor to the theory of planned behavior (TPB; Ajzen, 1991). EV theory suggests that attitudes are formed via exposure to two sources (Fishbein & Ajzen, 1977). The first source is referred to as "persuasive communication" (Fishbein & Ajzen, 1977), which is characterized by the students' exposure to information related to the attitude object by some external source. The use of EV theory also aligns with how we perceive the motivational element of inspiration as being evoked by certain events (Thrash & Elliot, 2003) such as syllabi design. For example, in an entrepreneurship course, the course syllabus may instruct students that it is important to access venture capital funding in launching certain types of businesses. The second source, which the authors have termed as "active participation," allows students to gain information about the attitude object via their direct personal experience (Fishbein & Ajzen, 1977). For example, students planning to start their own business might participate in a funding "pitch" to actual investors to gain feedback and possible financial support for their startup (Pittaway & Cope, 2007).

We expect exposure to course syllabi will provide students with direct personal experience with their courses even before the course begins. We thus view the course outline in EV terms as a form of persuasive communication that can impact their attitudes, which have been established as important antecedents to intentions of becoming an entrepreneur (for example, McNally, Martin, Honig, Bergmann, & Piperopoulos, 2016; Souitaris et al., 2007). The syllabus should work, then, as a communication or signaling tool to engage, satisfy, and inspire learners about the essence of the attitude object, in this case a course in SE, and its social and economic impact (Krueger, 2007). Because the use of different teaching philosophies and pedagogies is an important and unexplored moderator in the relationship between entrepreneurship and its intended outcomes (Martin et al., 2013; Nabi et al., 2017), we seek to provide evidence, from the first-ever experiment of its kind, about how the design of a syllabus (that is, andragogically designed versus pedagogically designed) can differentially impact students' satisfaction and inspiration associated with their chosen courses.

We expect that students' attitudes, satisfaction, and inspiration toward their SE course will be stronger for andragogical outlines than for pedagogical outlines (Lund Dean & Fornaciari, 2014). Souitaris et al. (2007) suggest that entrepreneurship courses, in general, impact student's inspiration primarily through learner-centered, andragogical approaches (compared to more instructor-centered pedagogical approaches). In our study, like Souitaris et al. (2007), we define the *attitude of inspiration* as a change of hearts and minds toward a particular target or stimulus. The role of inspiration in sending motivational and promotional signals to students and

strengthening their intentions toward entrepreneurship has been highlighted by Piperopoulos and Dimov (2015) in their study about the relationship between a student's self-efficacy beliefs and entrepreneurial intentions moderated by the content of entrepreneurship courses. We, therefore, propose the following hypotheses:

Hypothesis 1 (H1): Students assigned andragogically inspired course syllabi will have significantly higher levels of satisfaction toward social entrepreneurship courses than those assigned pedagogically inspired course syllabi.

Hypothesis 2 (H2): Students assigned andragogically inspired course syllabi will have significantly higher levels of inspiration toward social entrepreneurship courses than those assigned pedagogically inspired course syllabi.

Data and methods

Study 1: Social entrepreneurship course syllabus collection and analysis

Sample

One of the authors of this study provided a database of course syllabi that had been collected for a previous project (but were not previously coded for the present research). These syllabi were collected in 2007 largely in the United States. In this sample of 113 total documents, 15 were excluded for not meeting the coding criteria of the present research. We chose the year 2007 to represent the cutoff for syllabus comparison over time for a practical reason in that all of the documents in the set were collected prior to that date. We thus created a "pre-2007" sample of course syllabi. After coding, the remaining set of documents that were not excluded represented the final pre-2007 sample in this study.

The additional "post-2007" set of course syllabi were collected in collaboration with a large-scale, worldwide study of the outcomes of entrepreneurship education based in North America. It made logical sense to compare the data this way, pre- and post-2007, as the first two decades of the 21st century have seen the most growth in social entreprenurship courses at the university level (Welsh & Krueger, 2009). We conducted our search for SE syllabi to courses from around the world. Because many course outlines are posted on the Internet, one author and two research assistants conducted targeted searches of SE courses by using online search phrases such as "social entrepreneurship course," "university + social entrepreneurship," and "college + social entrepreneurship." Another author collected current course syllabi from around the world by posting requests to relevant Academy of Management listservs (for example, management education and development, entrepreneurship). These efforts resulted in a total of 96 codable documents (Table 1).

All courses represented by the syllabi set were taught at the university level, with 95 percent listed as undergraduate courses and 5 percent listed as graduate courses. In terms of country of origin for the pre-2010 sample, 97 percent came from the United States, 1 percent from Canada, 1 percent from Mexico, and 1 percent from Belgium. For the post-2010 sample, 30 percent of the sample came from universities in the United States, followed by 20 percent from the United

Kingdom, 15 percent from Canada, 10 percent from Singapore, 7 percent from Australia, 7 percent from Hong Kong, 2 percent from India, and 1 percent each from Brunei, Indonesia, Ireland, and New Zealand.

Table 1. Coding framework for review of SEE syllabi.

Factor/Variable	Task	Coding instructions/options
Country	Type country name	N/A
State/Province	Type state/province name	N/A
University/College name	Type college name	N/A
Course Title	Type course title	Describe if info available
Term & Year	Type term and year	N/A
Course level	Identify course differences	0: undergraduate; 1: graduate course
Course required	Find out if course is required or elective	0: elective; 1: required
Language	Was the language of the outline inclusive (e.g., used "I" and "we")	0: no; 1: yes
Stream	Was the outline streamlined (i.e., was it brief and to the point?)	0: no; 1: yes
Schedule	Was the course schedule, including important dates, presented clearly and early in the outline?	0: no; 1: yes
Layout	Was the layout accessible, not confusing?	0: no; 1: yes
Electronic	Was students' electronic worldview represented in the outline (e.g., were links provided, digital contact information, etc.)?	0: no; 1: yes
Resource	Was the outline designed with the idea that it would be a 'go-to' document that could be easily referenced by students?	0: no; 1: yes
Balance	Was the outline balanced with student input, or potential input?	0: no; 1: yes

Two research assistants associated with our research project were trained to code the variables for this study based on Lund Dean and Fornaciari's (2014) framework. A few discrepancies between the raters arose when the results of their independent coding were compared. These discrepancies were resolved via a search for errors and consensus discussion by the lead authors of this study.

Results

The descriptive statistics derived from the seven pedagogy/andragogy variables associated with this research are presented in Table 2.

Table 2. Descriptive statistics and correlations of primary variables in Study 1.

	N	M	SD	1	2	3	4	5	6
1. Language	153	.18	.39						
2. Stream	153	.56	.89	−.09					
3. Schedule	153	.48	.50	.20**	−.03				
4. Layout	153	.61	.49	.23**	.27**	.42**			
5. Electronic	139	.46	.50	.06	−.12	.41**	.08		
6. Resource	153	.46	.50	.12	−.09	.46**	.17*	.47**	
7. Balance	153	.53	.50	.33**	.08	.15*	.30**	−.18*	.13*

*p < .01, **p < .001.

To test changes in the identified andragogical variables over time, we conducted means comparison analyses. Specifically, we used the post hoc means comparisons function of MANOVA. The results showed that, after controlling for country of origin, four of the seven andragogical variables improved significantly over time (see Table 3). We observed significant results for: *streamlined* (Wilks's lambda = 0.87, $F(1,152) = 11.28$, $p < 0.01$, $\eta^2 = 0.19$), *course schedule* (Wilks's lambda = 0.92, $F(1,152) = 9.02$, $p < 0.01$, $\eta^2 = 0.18$), *syllabus layout* (Wilks's lambda = 0.90, $F(1,152) = 37.13$, $p < 0.01$, $\eta^2 = 0.19$), and *resource documentation* (Wilks's lambda = 0.87, $F(1,152) = 16.15$, $p < 0.01$, $\eta^2 = 0.06$). The *language, electronic*, and *balance* variables did not change over time.

Table 3. Differences between variables at Time 1 (2007) and Time 2 (2017).

Variable	Time 1 (2007)	Time 2 (2017)	*F*-value
1. Language	*M* = .22; *SD* = .42	*M* = .24; *SD* = .44	.25
2. Stream	*M* = .25; *SD* = .44	*M* = .78; *SD* = 1.01	11.28**
3. Schedule	*M* = .34; *SD* = .47	*M* = .58; *SD* = .49	9.02*
4. Layout	*M* = .35; *SD* = .48	*M* = .80; *SD* = .41	37.13**
5. Electronic	*M* = .50; *SD* = .51	*M* = .44; *SD* = .50	.49
6. Resource	*M* = .28; *SD* = .45	*M* = .60; *SD* = .49	16.15*
7. Balance	*M* = .48; *SD* = .50	*M* = .56; *SD* = .50	.347

*$p < .01$, **$p < .001$.

Study 2: Examining Millennial students' attitudes toward social entrepreneurship course syllabi

Following the results of study one, two versions of an SE course syllabus, an andragogical-oriented (AO) one and a pedagogical-oriented (PO) one, were designed following the recommendations proposed by Lund Dean and Fornaciari (2014).[1] The AO was developed to represent high levels of all seven of Lund Dean and Fornaciari's variables, and the PO version was developed to represent low levels of the seven variables. We believe that this methodology was appropriately and sufficiently devised to test differences between the high and low conditions of our manipulation. In fact, it is conceptually similar to the commonly employed qualitative methodology in the organizational behavior and social psychology literatures of using short cases or vignettes to manipulate variable conditions using real-life scenarios (for example, Baron, Zhao, & Miao, 2015; Barter & Renold, 1999; Surbey & McNally, 1997). When properly crafted, these statements are recognized by their readers as accurate depictions of highly situational, real-life scenarios that activate intentional thinking that is reflective of actual participant behaviors (Lievens, Peeters, & Schollaert, 2008).

Sample and procedure

Students at a large British university participated in this research on a voluntary basis. Upon entering the class, they were randomly assigned a paper version of either the AO or PO syllabus for a class in SE. They were allowed 10–15 minutes to read it, and then they were prompted to

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[1] The two versions of the syllabi (AO and PO) are available on request from the authors. Preliminary versions of each syllabus were tested with several students and academics familiar with teaching SE courses at the undergraduate level.

complete an online survey and provide their ratings of satisfaction and inspiration for the syllabus they were given.

Participants were 186 students who were mostly women (63.6 percent) and had an average age of 21.5 years. One hundred and three participants were randomly assigned to the AO condition and 83 were assigned PO course syllabi. A small portion of participants, 6.95 percent, reported having been self-employed either at present or in the past. This was entered as an important control variable in this study's analyses. Age, gender, and previous employment history were also entered as controls in the overall analyses.

Results

The descriptive statistics derived from the seven pedagogy/andragogy variables associated with this research are presented in Table 4.

Table 4. Descriptive statistics and correlations of primary variables in Study 2.

Variable	*M*	*SD*	1	2	3	4	5
1. AO/PO	1.45	.50					
2. Gender	1.63	.48	−.13*				
3. Age	21.5	1.59	.16*	.03			
4. Self-employed	1.69	.65	−.03	.16*	.06		
5. Inspire	2.57	.97	−.13*	−.02	.26**	−.02	
6. Satisfaction	3.40	1.05	−.23**	.10	.07	.00	.64**

*$p < .01$, **$p < .001$. AO = andragogical-oriented; PO = pedagogical-oriented.

MANOVA means comparisons served as a manipulation check and demonstrated that participants rated the AO course outlines as having significantly higher levels for all seven of Lund Dean and Fornaciari's (2014) categories, Wilks's lambda = 0.92, $F(1,152) = 9.02$, $p < 0.01$ (see Table 5).

Table 5. Manipulation check results: andragogical-oriented (AO) versus pedagogical-oriented (PO) means comparisons.

Variable	*M*	*SD*	*df*	*F*	*p*-value
1. Language	.24	.44	1, 183	111.08	.000**
2. Stream	.78	1.01	1, 183	56.38	.000**
3. Schedule	.58	.49	1, 183	11.30	.001**
4. Layout	.80	.41	1, 183	8.77	.003*
5. Electronic	.44	.50	1, 183	61.96	.000**
6. Resource	.60	.49	1, 183	9.29	.003*
7. Balance	.56	.50	1, 183	16.62	.000**

*$p < .01$, **$p < .001$.

Results of a MANOVA analysis show a significant multivariate effect, Wilks's lambda = 0.94, $F(1,185) = 5.55$, $p < .01$. Students were significantly more satisfied with AO outlines than PO outlines, in support of H1; Wilks's lambda = 0.94, $F(1,185) = 5.55$, $p < .01$ (see Table 6). Students were also significantly more inspired by AO outlines than PO outlines, which supports H2; Wilks' lambda = 0.94, $F(1,185) = 5.55$, $p < .01$ (see Table 6).

Table 6. Tests of between-subjects effects of independent and control variables.

Variable	*df*	DV	*F*	*p*-value	Observed power
1. Self-employed	1, 185	SATISFY	.13	.72	.06
		INSPIRE	.36	.55	.09
2. Gender	1, 185	SATISFY	1.34	.25	.21
		INSPIRE	.14	.71	.07
3. Age	1, 185	SATISFY	2.08	.15	.30
		INSPIRE	17.77	.00**	.99
4. AO/PO	1, 185	SATISFY	8.94	.03*	.85
		INSPIRE	6.04	.02*	.67

*p < .01, **p < .001. AO = andragogical-oriented; PO = pedagogical-oriented.

Discussion

Our study aligns and complements recent research in the SE field, such as the study of Al Taji and Bengo (2018) and the one conducted by Spais and Beheshti (2016), in terms of investigating the pedagogical tools required to respond to the challenging nature of SE. We also provide the first-ever test in the EE literature of Lund Dean and Fornaciari's (2014) recommendations for designing andragogical-based course syllabi as essential tools of teaching. In spite of the importance of syllabi to the learning process (Lea, 2004), they have not been analyzed before in studies examining pedagogical tools for teaching SE. According to the results of Study 1, four of the seven andragogical variables showed improvement over time (that is, streamlined, course schedule, syllabus layout, and resource documentation). The remaining three variables (that is, language, electronic-worldview, and balance) showed no change over time.

Results from Study 2, which used both random assignment and survey methodology, confirmed our hypotheses relating to the formation of a general satisfaction toward the course (H1) and inspiration toward the course (H2) from reading the SE syllabus. Through the design and delivery of this experiment, grounded in EV theory, we demonstrated that the formation of students' satisfaction and inspiration were positively related to exposure to entrepreneurship course syllabi, in this case for a course in social enterpeneurship. Those syllabi that conformed to the andragogical principles laid out by Fornaciari and Lund Dean (2014) led to the formation of more positive attitudes than the more traditional pedagogical ones. These findings, though preliminary, are unique because they represent the first empirical results in the management education literature relating to the formation of student attitudes (namely, satisfaction and inspiration) toward course syllabi and, therefore, add to knowledge gained from attitudinal theories of learning, including EV and TPB (Ajzen, 1991).

Theoretical implications

Our study offers two important implications to the extant literature on entrepreneurship education. First, our article contributes to the recent discussion about the "paradoxical leadership model for social entrepreneurs" (Smith et al., 2012), and specifically on the call to EE researchers to come up with the pedagogical tools and teaching philosophies that can prepare students to manage and lead the competing demands of social enterprises (Al Taji & Bengo, 2018; Spais & Beheshti, 2016). Given the newness of social entrepreneurship education

and the uniqueness of its competing logics (social and commercial), our study suggests that we need to engage students as early as at the outset of their learning, beginning with the course design; that is, with an andragogically designed syllabus. The use of such syllabi can enable early stage cocreation between students and their teachers of what recent research (e.g. Al Taji & Bengo, 2018; Smith et al., 2012; Spais & Beheshti, 2016) has identified as critical to the effective delivery of SE education; namely, a more emotional, trusting, open, and sensitive learning environment. An adragogically designed syllabus can, therefore, become the enabling platform for delivering a truly transformational experience (Smith et al., 2012).

Second, in terms of teaching pedagogies in entrepreneurship education, we take a backward step to make what we think might be a leap forward. While we agree with influencial studies on *what* and *how* to teach an entrepreneurship course (for example, action-based learning, real opportuntites for starting up ventures, simulations, and pitches to venture capitalists) to inspire, talk to the hearts of aspiring students, and therefore increase their intentions of becoming an entrepreneur (for example, Honig, 2004; McNally et al., 2016; Piperopoulos & Dimov, 2015; Souitaris et al., 2007), our research shows that students' intentions and attitutes for entrepreneurship can be formed before the educator steps in the classroom. Carefully designing andragogically inspired course syllabi can reduce uncertainty, respond to students' needs for co-ownership of their learning activities and methods, and ultimately relate to "can" signals sent by the content of EE courses that trigger "promotional" dispositions strengthening self-efficacy among students and their entrepreneurial intentions (Piperopoulos & Dimov, 2015).

Practical implications

Designing streamlined syllabi recognizes the communication norms and reading habits of younger generations who are more comfortable in reading short, clear, and concise texts (Lund Dean & Fornaciari, 2014). Highlighting the schedule portion sends signals of respect to students in the context of inviting them to partner with their educators in arranging their calendars to meet the learning objectives (Lund Dean & Fornaciari, 2014). The layout and design of syllabi in terms of font style, font size, bullets points versus long paragraphs, in addition to integrating the syllabus with the course learning objectives and assignments, create an ongoing relationship between students and the syllabus throughout the run of the course. It is particularly important in EE, and for Millennial students, to convey clear messages from the outset of the course (Lund Dean & Fornaciari, 2014) to reduce ambiguity and uncertainty that can adversely impact students' intentions and behaviors.

On the other hand, the language of reviewed syllabi was rather exclusive and lacked inspirational messages, which can invite learners to take control of their own learning. Because words reflect the mental models of instructors (Welsh & Krueger, 2009), a lack of support for this element can impact the initial step of inspiring students, which in turn can adversely affect their intentions and behaviors toward the course. Further, a lack of students' input might serve only to widen the gap between educators and learners. The bigger this gap is, the less instructors know about students' responses to their syllabi (Nilson, 2007). Contribution to the ongoing development of syllabi can take a variety of forms, such as encouraging students to initiate their own projects, with the educator assuming a mentorship role during the project that fosters an environment of trust and safety (Collins et al., 2006; Forest & Peterson, 2006; Raelin, 2007) and enables students

to view the entrepreneurship course syllabi as "personally relevant." Further, students' input into the syllabus can impact how they view the syllabus to be personally relevant, which according to the constructivist approach moves learners from "what" to learn to "how" to learn (Dehler, 2009; Gaglio, 2004).

Finally, the absence of the students' electronic-based worldview from syllabi ignores the needs and practices of Millennial students, who are accustomed to more digital lifestyles than previous generations (Lund Dean & Fornaciari, 2014). This element in syllabus design can also influence the way students use syllabi as a resource and go-to document (Lund Dean & Fornaciari, 2014). Millennials view a lack of a digital worldview in their syllabi as a detachment from their own world of electronic media, which not only has become the center of their social circle, but also an integral part of their daily lives (Lund Dean & Fornaciari, 2014). This perception can create feelings of resistance among students to use these syllabi as they feel that their needs are ignored. In turn, feelings of resistance can negatively impact students' engagement in the course as well as their participation in class discussions and group work with peers.

Limitations and future research

Like most published studies, the present research has several limitations. First, regarding Study 1, although we are confident that we captured a large number SE course syllabi from several countries around the world, we acknowledge that we may not have gathered a fully representative global sample. Moreover, though we controlled for country in our analyses, there may be important cultural or regional differences in course syllabi format and design that have an impact on attitude formation. Future research could examine the relative impact of other course components (for example, lectures, cases, and videos) on student attitudes, particularly as mechanisms to create and maintain positive student attitudes over time. They could also explore the impact of modes of delivery (for example, online versus face-to-face, massive open online courses [MOOCs]) on course syllabi. For example, Welsh and Dragusin (2013) looked at EE and the role of MOOCs and challenged researchers to explore the pedagogical aspects of these courses.

Second, Study 2 was conducted at a single UK university with no comparison data collected from other schools. Future research could examine these results in comparison to those from attained from more schools in more countries to investigate the generalizability of our findings. Further, the impact of the positive satisfaction and inspiration formed owing to exposure to andragogical syllabi on behavioral intentions could be examined to potentially expand on how students' attitudinal reactions to course syllabi unfold in terms of the theory of planned behavior, over time and across multiple courses.

Third, we acknowledge that in our look at syllabus changes over time, our conceptualization of pedagogical and andragogical interventions is based on a framework from a single conceptual paper (Fornaciari & Lund Dean, 2014). The experimental examination of Lund Dean and Fornaciari's (2014) framework provides evidence that students not only noticed a significant difference between the AO and PO outlines, which indicates both face and discriminant validity of our manipulation, it also shows that andragogically designed outlines engendered significantly more positive attitudes toward the course than did pedagogically designed outlines. Nevertheless,

the framework has its own limitations and, to our knowledge, it has not been tested elsewhere. Specifically, the framework does not focus much (if at all) on the assessment elements of the course syllabus. Extensive research on entrepreneurship education has demonstrated that the type of assessment linked to any single course can have a major impact on the self-efficacy, attitudes, and intentions of students as well as to how "successful" we are as educators in preparing entrepreneurs to face unanticipated environmental factors (for example, Honig, 2004). Future research on syllabus design could take a look at the differential impact of the various elements of a course outline, including assessment elements, on student attitudes.

A fourth and final limitation is that our chosen framework is not specific to entrepreneurship or social entrepreneurship courses, but rather to general management course outlines. We, therefore, recognize that our choice of using social entrepreneurship course syllabi was, to a certain extent, deliberate as it was deemed by the researchers to be a good fit with the Lund Dean and Fornaciari (2014) framework and because the structure and content of social entrepreneurship courses have not yet been explored in great depth in the larger management education literature. Future research could examine the impact of syllabus design across management courses in a variety of disciplines and fields other than social entrepreneurship.

Concluding remarks

Despite the overall observed changes in social entrepreneurship courses over time, instructors' syllabi still in part reflect outdated pedagogical or instructor-centered perspectives that can affect the development of student attitudes toward the topic. We view an andragogical teaching approach to be particularly compatible with the social role played by social entrepreneurs and because of the positive attitudes toward social change that they hold. Social entrepreneurship has a unique dual nature, which requires the engagement of learners as an initial step to prepare them for the challenges associated with social enterprises. This indicates that inspiration plays an important role in learning: "The inspirational part of the programmes has to be designed purposefully and instructors should be trained not only to teach the entrepreneurship curriculum, but also to change 'hearts and minds'" (Souitaris et al., 2007, p. 2). Designing syllabi in such a way not only addresses gaps in the entrepreneurship education research literature, but it also identifies a way to positively influence our students to fulfill the purposes of learning about the full potential of social entrepreneurship – changing hearts and minds.

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