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Rethinking Competition-based Entrepreneurship Education in Higher Education Institutions: Towards an Effectuation- informed Coopetition Model

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Rethinking Competition-based Entrepreneurship Education in Higher Education Institutions: Towards an Effectuation-informed Coopetition Model

Purpose:

This paper takes focus with the university-based Business Plan Competition [BPC] and proposes how the theory of effectuation might inform a new model. Such a purpose is timely given the under-challenged nature of the BPC methodology.

Approach:

Extant literature pertaining to business planning and the business plan within entrepreneurship education and effectuation is reviewed; numerous conceptual issues which undermine BPC provision in its traditional form are then identified. In response to these identified issues, a series of principles which could underpin the introduction of an Effectuation-led Business Coopetition [EBC] are outlined.

Findings:

Strong emphasis on business plan production within a conventional BPC model raises questions about its capacity to release the entrepreneurial potential of the HEI student and provide them with an authentic and relevant entrepreneurial learning experience. Through using the ideas of effectuation to rethink provision, the action of business plan production can usefully be replaced with the action of business implementation. As well as facilitate a beneficial shift from competition to coopetition-based entrepreneurship education.

Originality/Value:

This paper valuably critiques the efficacy of a commonly employed yet under-challenged methodology for entrepreneurship education; the BPC. The propositions offered can guide competition provision in a more authentic, realistic and relevant way that is potentially better suited to inspiring and supporting entrepreneurial new venturing amongst students and graduates now rather than in the future. The paper thus has practical value to those designing and delivering competition-based entrepreneurship education.

Keywords: entrepreneurship education; business plan competitions; effectuation; venture creation; competition-based entrepreneurship education; business plan; coopetition

Article Classification: General Review

Introduction

Higher Education Institutions (HEIs) are now expected to stimulate nascent entrepreneurial activity amongst students of all disciplines through the provision of

1
2
3 entrepreneurship education interventions (Aldrich and Yang 2014; Anderson et al.
4
5 2014; EC 2008, 2006, 2004; Gibb 2012; Ertuna and Gurel 2011; Katz 2003; Young
6
7 2014). To this end, and because of the enduring preference for the business plan within
8
9 such interventions, the business plan competition (BPC) has been widely employed as a
10
11 methodology (Jones and Jones, 2011; Russell, Atchison and Brooks 2008; Sharikova et
12
13 al. 2017; Watson, McGowan and Cunningham 2018). These competitions require
14
15 participants, working individually or in teams, to develop and submit a business plan for
16
17 a new venture idea which is then subject to the evaluative judgement of a panel of
18
19 ‘experts’. Financial and non-financial prizes are subsequently and selectively awarded
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21 to those judged to hold the most potential. BPC programmes can also typically
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23 encompass training, networking and mentoring opportunities, hence supporting new
24
25 venture creation moreover.
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31 Notwithstanding the significant investment in this agenda and regardless of the
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33 high levels of intent declared prior to graduation, actual new venture creation remains a
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35 relatively exceptional career choice for new graduates, particularly in the UK (Rideout
36
37 and Gray 2013; Nabi and Holden 2008; Harding 2007). By way of illustration, only 1%
38
39 of UK higher education leavers in 2016/17 had started up a new business in the first six
40
41 months since graduating (HESA, 2018). This prompts concerns as to the efficacy of
42
43 methodologies currently adopted within HEIs in drawing out the potential of the learner
44
45 for new venture creation. Such concern is highly pertinent with regards to the BPC,
46
47 provision of which has endured largely without question (Florin, Karri and Rossiter
48
49 2007; Watson, McGowan and Smith 2014). Despite first, a lack of evidence to suggest
50
51 that BPC participation results in new venture creation and second, the broader debate
52
53 surrounding the relevance and effectiveness of putting focus on the business plan and
54
55 competition within entrepreneurship education (Bridge and Hegarty 2012, 2013;
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1
2
3 Brentnall, Rodriguez and Culkin 2018a, 2018b; Jones and Penaluna 2013; Daxhelet and
4
5 Witmeur 2011; Lange et al. 2007). Such observations are pertinent given the advent of
6
7 effectuation, a theory which deems new venture creation as guided by action rather than
8
9 business plan creation and adherence (Baron 2008; Sarasvathy 2008; Sarasvathy and
10
11 Dew 2005; Read et al. 2017). The growing attention upon coopetition¹ (Brandenburger
12
13 and Nalebuff 1996) within the broader entrepreneurship domain (Gast et al. 2015) is
14
15 also salient here given its notable lack of attention within discussions around
16
17 entrepreneurship education.
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20

21 The limited critique of the BPC methodology renders it a prime example of a
22
23 ‘taken for granted’ form of entrepreneurship education which researchers and educators
24
25 are urged to take a more critical stance toward (Fayolle 2013, 692). Consideration of
26
27 how alternative theoretical models such as effectuation can be applied to
28
29 entrepreneurship education is timely (Nabi et al. 2016). The current paper responds to
30
31 such a call within the specific context of competition-based entrepreneurship education.
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35 The aim of this paper is to propose how the theoretical principles of effectuation
36
37 can inform a new model of coopetition-based entrepreneurship education. The case for
38
39 such action is developed through reviewing extant literature pertaining to business
40
41 planning, business plans and competition within entrepreneurship education, as well as
42
43 effectuation. Numerous conceptual issues which undermine BPC provision in its
44
45 traditional form are subsequently identified. In response to these identified issues, a
46
47 series of principles are outlined which could underpin and guide the introduction of an
48
49 Effectuation-informed Business Coopetition [EBC] model. As an alternative to the
50
51 BPC, the model proposed is argued to be more authentic, realistic and relevant and
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58
59 ¹ Understood as the simultaneous pursuit of cooperation and competition between ventures
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1
2
3 moreover potentially better suited to inspiring and supporting entrepreneurial new
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5 venturing amongst students and graduates.
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8 9 **Entrepreneurship education, Business Planning and Business Plan** 10 **Competitions**

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14
15 Education for entrepreneurship represents the idea that entrepreneurial
16
17 behaviour can be stimulated via entrepreneurial learning through the design and
18
19 delivery of education either formally or informally (Davidsson and Honig 2003;
20
21 Harrison and Leitch 2005; Pittaway and Cope, 2007a; Pittaway and Cope, 2007b). Such
22
23 education has traditionally been concerned with equipping learners with the knowledge
24
25 needed to create new business ventures but focus has increasingly widened overtime to
26
27 encompass capabilities, behaviours and attitudes necessary for effectiveness (Katz
28
29 2003; Karatas-Ozkan and Chell 2010; QAA 2018). The design and delivery of
30
31 entrepreneurship education ought therefore to encompass opportunities for learning
32
33 through and from exposure to experiences and activities which authentically represent
34
35 the realities of new venture creation (Pittaway and Cope 2007a). A focus on business
36
37 planning and business plan creation within entrepreneurship education has been pursued
38
39 by entrepreneurship educators as central to providing such opportunities (Honig and
40
41 Samuelsson 2012; Karlsson and Honig 2009).
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48 ***Business Planning and Business Plans: The Rationale***

49
50 The prevailing focus on business planning and the business plan which can be
51
52 observed in contemporary entrepreneurship education provision can be deemed
53
54 symptomatic of entrepreneurship traditionally being taught in terms of the acquisition of
55
56 knowledge related to general business and management functions, i.e. marketing,
57
58 operations, human resources and finance, and within a business school context (Katz
59
60

1
2
3 2003; Moberg 2011). This is despite entrepreneurship education now being viewed as
4
5 distinctive from general business and management education.
6

7
8 Business planning entails information collection and vision creation as well as
9
10 developing objectives and strategies so that these can be achieved (Karlsson and Honig,
11
12 2009). Engaging in such planning has been considered conducive to: venture
13
14 development and success (Hormozi et al 2002); resource effectiveness (Delmar and
15
16 Shane, 2003); decision making (Chwolka and Raith 2012); goal attainment (Dimov,
17
18 2010) as well as an important learning tool (Castrogiovanni 1996). Such advantages can
19
20 be observed as underpinning sustained emphasis on business planning within
21
22 entrepreneurship education.
23
24

25
26 The business plan², can be viewed a formal, tangible and measurable output of
27
28 the business planning process (Chwolka and Raith 2012). Business plan creation has
29
30 commonly been deemed an important antecedent to action and success when creating
31
32 new ventures (Delmar and Shane 2003). Reducing uncertainty (Whalen and Holloway
33
34 2012), the plan can be used to facilitate procurement of resources and support (Kraus
35
36 and Schwartz 2007; Brinkmann et al 2010; Daxhelet and Witmeur 2011). It can also
37
38 serve as a learning tool to understand whether to pursue opportunities or not and guide
39
40 decision making (Chwolka and Raith 2012).
41
42
43

44
45 Positioning business plan creation as a common activity and output of
46
47 entrepreneurship education programmes is driven by the idea that this provides an
48
49 authentic entrepreneurial learning experience (Honig and Samuelsson 2012; Kelmar
50
51 1992; Lourenço, Jones and Jayawarna 2013; Wilson, Kickul and Marlino 2007). Which
52
53 moreover enables the development of beneficial entrepreneurial competencies that can
54
55

56
57 ² Understood here as ‘a written document that describes the current state and the presupposed
58
59 future of an organisation’ (Honig and Karlsson, 2004; 29),
60

1
2
3 be utilised in new venture creation (Ferrerias-Garcia, Hernandez-Lara, Serradell-Lopez,
4
5 2019; Honig and Karlsson 2004; Mitra and Manimala 2008; Tounes, Lassas-Clerc and
6
7 Fayole 2014; Wilson 2008). This focus also tangibly provides the written document
8
9
10 which might be sought by external parties such as banks or investors if support and
11
12 investment for an emergent venture is to later be acquired (Bridge and O'Neill 2017;
13
14 Daxhelet and Witmeur 2011). Typically following a standardised format, business plan
15
16 documents are easily evaluated and judged against each other, henceforth providing a
17
18 convenient option for those delivering entrepreneurship education programmes (Bridge
19
20 and Hegarty 2013).

21
22
23
24 It follows that the ascribed benefits of business planning and business plan
25
26 creation within entrepreneurship and entrepreneurship education has gone hand in hand
27
28 with the provision of BPC initiatives.

29 30 31 32 ***Business Plan Competitions: The Rationale***

33
34 A BPC typically involves participants, individually or in teams, working through
35
36 a structured process leading to the development and submission of a formal written
37
38 business plan for a new venture idea which is then subject to the evaluative judgement
39
40 of a panel of experts (McGowan and Cooper 2008; Watson and McGowan, 2017;
41
42 Watson, McGowan and Cunningham 2018). Although originating within a business
43
44 school context (Katz, 2003), BPCs tend to now be delivered by centralised enterprise
45
46 development units and recruit participants from the wider university community
47
48 (Russell et al. 2008; Sekula et al. 2009; Watson, 2019). These competitions
49
50 consequently serve as a means of drawing awareness to entrepreneurship as a viable
51
52 career option and to promote the start-up support available within the HEI (McGowan
53
54 and Cooper 2008). The large monetary prizes which are often attached to BPCs are a
55
56 means of promoting new venture creation as feasible and desirable (Randall and
57
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1
2
3 Brawley 2009). As too are the opportunities for ‘in-kind’ prizes, in the form of office
4 space or professional services that might also be offered (Russell et al. 2008).
5
6

7
8 BPCs are part of a broader competition-based learning agenda which has more
9 generally pervaded HEIs (Connell, 2013; Olssen and Peters, 2005). This agenda has
10 been particularly popular within enterprise and entrepreneurship education policy and
11 practice (Brentnall, Rodriguez and Culkin 2018a, 2018b). Competition has commonly
12 been portrayed as a powerful motivational force, a means of helping to drive
13 performance and goal attainment (Kistruck et al 2016; Worrell et al 2016). With regards
14 to entrepreneurship education specifically, competition is proffered as helping to reward
15 and inspire participants (Brentnall, Rodriguez and Culkin 2018a); as well as stimulate
16 the capabilities, behaviours and attitudes needed to engender entrepreneurial intent
17 (Arranz et al. 2017; Florin, Karri and Rossiter 2007) and effectiveness (Jones and Jones
18 2011; Russell, Atchison and Brooks 2008; Sekula, Bakhru and Zappe 2009).
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33 Elements which typically tend to accompany business plan creation within a
34 BPC programme, such as training, mentoring, feedback, networking, pitching and PR
35 opportunities, further enhance the potential for participants to gain from the competition
36 experience (Hegarty 2006; Russell, Atchison and Brooks 2008; Watson, McGowan and
37 Smith 2015; Watson 2019). Providing scope for participants to learn from each other
38 and other competition stakeholders, as well as develop their social networks (McGowan
39 and Cooper, 2008; Roldan et al, 2005).
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50 **Business Plan Competitions: A critique**

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54 Having explored why the BPC endures as a mechanism for entrepreneurship
55 education, we now turn our attentions toward critique of the BPC. Chiefly through
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1
2
3 consideration of the various contentions that surround the business plan and
4
5 competition.
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9 *Contentions surrounding the business plan*

10
11 The utility of formal written business plan and promotion of its creation have
12
13 been deemed overemphasised within entrepreneurship education (Bridge, 2013;
14
15 Dexhelet and Witmeur 2011) and BPC programmes more specifically (Lange et al.
16
17 2007). Continued inclusion of the business plan within such programmes has been
18
19 attributed to ritual and ease of evaluation rather than yielding the possibility of actual
20
21 new venture creation (Fayolle 2013; Honig 2004; Honig and Karlsson 2004; Whalen
22
23 and Holloway 2012). Regarding the value of business plan production as a learning tool,
24
25 Taylor, Jones and Boles (2004) suggest that as an outcome of an entrepreneurship
26
27 education programme the production of a business plan does not mean that an
28
29 individual has the skills which are necessary to start a new venture.
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32

33
34 Regarding the ascribed authenticity of BP production as an objective of
35
36 entrepreneurship education, the resultant lack of real world emphasis has also been
37
38 claimed as distracting from venture creation goals (Vincett and Farlow 2008). Edelman,
39
40 Manolova and Brush (2008) suggest a retained emphasis on the business plan can be
41
42 deemed a shortcoming in the authenticity and relevance of the activities which
43
44 entrepreneurship education might involve and its legitimacy moreover. Emphasis
45
46 instead would be better placed on the development of networks (Bridge 2013; Honig
47
48 and Karlsson 2001) and the iterative development and refinement of the business idea
49
50 (Corbett 2005); given the emergent and socially enacted nature of the entrepreneurial
51
52 process (Higgins, Smith and Mizra 2013).
53
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56
57 The presence of business plan production as an activity within entrepreneurship
58
59 education reflects the causal logic which has traditionally underpinned entrepreneurship
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1
2
3 education provision (Sharikova et al. 2017). Within the context of new venture creation,
4 this portrays new venture creation to be a systematic, sequential and predictive process
5 initiated by discovery of an opportunity and subsequently followed by extensive market
6 research, forecasting and strategising which informs the development of a formal
7 business plan that is then utilised to acquire resources necessary to achieve
8 predetermined venture implementation goals (Read et al. 2017; Whalen and Holloway
9 2012).

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19 Production of a detailed business plan prior to new venture creation has
20 paradoxically been deemed less valuable than conventionally espoused (Lange et al.
21 2007; Honig and Karlsson 2004; Karlsson and Honig 2009). This having the potential to
22 prematurely stifle action and momentum (Read et al. 2017). In reality much of the
23 information needed for business plan production can be unknowable until some venture
24 implementation has taken place (Watson and McGowan, 2018), as it is only through
25 seeing what works over a period of time that risks and feasibility can be assessed with
26 any hope of any degree of certainty (Bridge and O'Neill 2017;).

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37 Rethinking the traditional usage of the business plan as a framework for
38 educative provision is necessary (DeNoble and Zoller 2017). So that such provision
39 better reflects the realities of starting a venture, realities in which a traditional business
40 plan might not feature as prominently as commonly portrayed (Edelman, Manolova and
41 Brush 2008). The creation of business models has gained traction as an alternative. Here
42 emphasis is upon how value is created, delivered and captured; testing and validating
43 business models through customer interaction and feedback (Blank 2013, DeNoble and
44 Zoller 2017). This can still be considered a form of business planning, but is a more
45 practical and iterative approach.
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Contentions surrounding competition-based entrepreneurship education

The competitive basis of the BPC reflects a tendency to view competition as intrinsically beneficial (Kohn 1992; Ruben 1981). Referencing school-based enterprise education, Culkin and colleagues suggest it is dangerous to assume that competitions are effective learning interventions; to do so is to overlook that the theoretical basis of competition can be challenged and the unintended effects of competition that are seldom fully recognised (Brentnall, Rodriguez and Culkin, 2018b). The enduring deployment of competitions in educative practice is underpinned by taken for granted assumptions (Brentnall, Rodriguez and Culkin 2018a; Watson, McGowan and Smith 2014). First, that competition is more beneficial to stimulating entrepreneurial learning than cooperation and second, that competition and cooperation may not beneficially coexist within entrepreneurship education interventions to enhance the entrepreneurial learning experience and outcomes.

Whilst cooperation and competition are commonly presented as a dichotomy they coexist within the hybrid notion of coopetition which endorses their simultaneous promotion (Brandenburger and Nalebuff 1996; Gast et al. 2015). Although to date coopetition has received scant attention within the entrepreneurship education domain, it has been of growing interest in management, strategy and increasingly entrepreneurship (Gast et al. 2015; Mione 2009; Thomason, Simendinger and Kiernan 2013). Coopetition enables advantageous knowledge sharing, resource acquisition and innovation (Mention 2011).

Consideration of how alternative models can be applied within entrepreneurship education is timely given the contentions levelled at the business plan and competition-based learning (Nabi et al. 2016). Doing so provides a means of challenging the rituals

1
2
3 that prevail (Fayolle 2013). In the context of competition-based entrepreneurship
4
5 education specifically, calls for more emphasis to be placed on venture implementation
6
7 rather than business plan production have been made (Lange et al. 2007; Watson,
8
9 McGowan and Smith 2014). Effectuation theory offers useful potential here (Sharikova
10
11 et al. 2017) and also, in our view, complements the notion of coopetition-based learning
12
13 as valuable new focus in entrepreneurship education.
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19 ***Effectuation; Building a Case for an Effectuation-informed Business***
20 ***Coopetition Model [EBC]***
21

22 Developed by Sarasvathy and colleagues (Dew et al. 2009; Read et al. 2009;
23
24 Sarasvathy 2001, 2004, 2008; Sarasvathy and Dew 2005; Wiltbank et al. 2006),
25
26 Effectuation has increasingly been embraced as a useful theoretical lens through which
27
28 to view the complex process of opportunity emergence, development and
29
30 implementation (Fisher 2012; Matalamäki 2017). The core principles which
31
32 effectuation proposes guide new venture creation, namely the use of resources currently
33
34 available, experimental activity, risking only what one can afford to lose, co-creation
35
36 and continual learning; provide a good basis for informing revised thinking within
37
38 entrepreneurship education (Nabi et al. 2016; Sharikova et al. 2017; Wiltbank, Sudek
39
40 and Read, 2009).
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44

45 A defining principle of effectuation is that new ventures are created utilising the
46
47 resources or ‘means’ currently possessed rather than the goals which might be held.
48
49 These means reside within the entrepreneurship education participant’s current reality,
50
51 assets, beliefs and environment. According to Sarasvathy (2008) they can be ascertained
52
53 by the participant answering the questions ‘who am I?’, ‘who do I know?’ and ‘what do
54
55 I know?’ The readily available and intangible resources which ensue constitute the
56
57 beginnings of entrepreneurial endeavour, with the participant encouraged to focus on
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59
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1
2
3 'selecting between possible effects that can be created with that set of means'
4
5 (Sarasvathy 2001; 245); generating new venture opportunities from these 'mere
6
7 possibilities' (Read et al. 2017; 5). Such sentiment rejects the emphasis placed upon
8
9 relentless pursuit of the perfect entrepreneurial opportunity, deeming this unnecessary
10
11 and overemphasised (Sarasvathy 2001, 2008).
12
13

14
15 Recognising the importance of intuition and flexibility, Effectuation deems
16
17 opportunities to be proactively made through experimentation rather than discovered
18
19 (Chandler et al. 2011; Perry, Chandler and Markova 2012). Entrepreneurship education
20
21 would therefore usefully promote experimentation within provision. Rather than
22
23 expending effort on analysing opportunities and producing formal plans the
24
25 entrepreneurship education participant should be encouraged to experiment through
26
27 taking action to pursue sales from their nearest potential customer, any planning
28
29 undertaken being informal and shorter term (Read et al. 2017). As well as enabling the
30
31 expansion of means available, the learning afforded through experimentation enables
32
33 venture opportunities to be iteratively refined and subsequent actions determined
34
35 (Chandler et al. 2011). The actions taken and resources committed during
36
37 experimentation are decided on the basis of what one can afford to lose, with further
38
39 resources only committed when results are realised (Chandler et al. 2011; Fisher 2012;
40
41 Sarasvathy 2008). Pursued actions and their subsequent outcomes are a function of the
42
43 means available at any given point in time (Goel and Karri 2006; Whalen and Holloway
44
45 2012). This can be beneficial in the uncertain resource constrained environments which
46
47 participants of entrepreneurship education can find themselves and that moreover might
48
49 serve to prevent the realisation of intentions to create a new venture.
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56 Recognising the unpredictable character of new venture creation, Effectuation
57
58 encourages those starting ventures to leverage the contingencies (e.g. unexpected
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1
2
3 events, meetings or information) which might be faced during these endeavours
4
5 (Sarasvathy 2001). Rather than encouraging its participants to predict, avoid, overcome
6
7 or adapt to surprises as is traditionally the case, entrepreneurship education could
8
9 valuably do the same, emphasising the importance of the participant staying flexible,
10
11 expecting the unexpected and using any surprises as an opportunity or resource for the
12
13 new venture (Read et al. 2017).
14
15

16
17 Co-creation is a further defining principle of effectuation (Sarasvathy 2008);
18
19 opportunities are thus suggested to be created in collaboration and partnership with
20
21 stakeholder groups (Chandler et al 2011; Read et al. 2009). These stakeholder groups
22
23 can be anyone who might have an interest in the offering or working with the
24
25 entrepreneur but typically includes be customers, suppliers, prospective competitors or
26
27 previous collaborators (Read et al. 2009). The entrepreneurship education participant
28
29 would usefully be encouraged to identify and interact with potential stakeholders
30
31 (Fisher 2012). This stakeholder interaction can enable the establishment of partnerships
32
33 (Sarasvathy 2008) and pre-commitments to the emergent venture offering (Read et al.
34
35 2017) as well as allowing ideas to be shared, tested and feedback acquired (Fisher
36
37 2012). Additionally, it can facilitate the acquisition of resources; albeit financial, human
38
39 or social capital (Maine, Soh and Dos Santos 2015; Wiltbank, Sudek and Read 2009). It
40
41 follows moreover that the outcomes of stakeholder interaction direct future courses of
42
43 action (Sarasvathy 2008) and reduce uncertainty (Fisher 2012).
44
45
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49 One way of facilitating a shift towards participants of entrepreneurship
50
51 education being able to 'think and act' as entrepreneurs (Read et al. 2017; p52) is by
52
53 utilising the principles of effectuation to inform innovations in provision (Wiltbank,
54
55 Sudek and Read 2009). Whilst there is some indication that such endeavour has started
56
57 to gain traction (Sharikova et al. 2017), there is still much to be done (Nabi et al. 2016).
58
59
60

Outlining an Effectuation-based Business Coopetition Model

A number of pertinent conceptual issues emerge from the review offered thus far. First, BPCs have been widely utilised as an educative mechanism to promote venture start-up with limited evidence to suggest effectiveness in this regard. Second, considering what is known about the business plan and its value for enabling appropriate authentic entrepreneurial learning which reflects the realities of new venture creation, the BPC model could be considered wanting. Third, the business-plan centric nature of the BPC and its underpinning causation logic, offers a partial account of the broader entrepreneurial process given the growing emphasis upon effectuation as an alternative theory which has attracted growing support. Finally, these issues are compounded by the contentions which surround the use of competition-based entrepreneurship education. Given that these issues might indicate the BPC could be counterproductive to promoting the entrepreneurial activity intended, it is pertinent to explore how these issues can be reconciled through more explicitly incorporating the theoretical propositions of effectuation within provision.

To that end, the paper now presents five principles which, through the medium of an Effectuation-informed Business Coopetition model [EBC hereafter], can guide competition provision in a more appropriate and timely new direction. Figure 1 provides a visual overview of the underpinning antecedents for these principles.

Insert Figure 1 about here

Principle 1: Encouraging the participant to “do” rather than “plan to do”

The EBC operates on the assumption that every prospective participant, albeit a team or individual, have ‘means’ immediately available to draw upon with respect to ‘who they are’ ‘what they know’ and ‘who they know’ (Dew et al. 2009; Read et al.

1
2
3 2017; Sarasvathy 2001). Assisting participants to appreciate that they have such means
4 and that these can be leveraged during the EBC is critical. Therefore the only
5
6 prerequisite for participation would be that every participant enters with a willingness to
7
8 develop a venture possibility using the means they currently have available. Participants
9
10 should be encouraged to see fellow participants as collaborators and co-creators of new
11
12 possibilities rather than competitors. Participants might therefore get to know each other
13
14 at the outset of the programme so that they can explore whether there is scope to
15
16 combine personal means.
17
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19
20

21 The EBC provides an outlet for critical action allowing participants to ‘test the
22
23 waters’, creating possibilities utilising means available and testing the potential of these
24
25 possibilities through taking action, managing risk and building personal confidence with
26
27 each successful step, widening the participant’s repertoire of means for ongoing
28
29 expansion simply through participation (Bridge and O’Neill 2017; Timmons and
30
31 Spinelli 2009).
32
33
34

35 The action of implementation, rather than business plan production, becomes the
36
37 uniting principle of the EBC (Lange et al., 2007). Implementation does not require a
38
39 business plan (Bridge and Hegarty 2013; Read et al. 2017). By championing
40
41 possibilities (Sarasvathy 2008), the onus is on ‘taking action’, albeit building the
42
43 product, making the sale, becomes the crux of the EBC. As the coepetition context
44
45 becomes an arena for the development of the venture possibility through action, concern
46
47 is not upon the identification of perfect possibilities but rather those that can be worked
48
49 on within the time and space available within the EBC. Space for exploration,
50
51 experimentation and reflection are fundamental (Farney et al. 2016; Bridge and Hegarty
52
53 2013).
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3 ***Principle 2: The programme experience remains central***
4

5 The EBC retains a competitive element similar to the BPC model (McGowan
6 and Cooper 2008) but as previously stated this is tempered with an emphasis on
7 collaboration and co-creation between participants. Evaluation or judgement as to a
8 participant's level of engagement could, it is envisaged, be based upon participants
9 presenting the development of their venturing possibility through their implementation
10 activities. Prizes might therefore be given for progress and development of the
11 participant themselves, the potential of the venturing possibility described by successes
12 in sales and marketing activity undertaken and/or the level of stakeholder commitment
13 which have been elicited within the context of the EBC programme timescale.
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25 The prospective 'experience' can incentivise competition participation,
26 rendering it central to the EBC model. Self-selection to participate already indicates a
27 level of motivation in the participant to pursue entrepreneurial business venturing.
28 Engagement in the EBC experience should maintain and strengthen this. The experience
29 therefore encompasses implementation activities which support the development of a
30 venturing possibility, particularly marketing and selling activity (Bridge and O'Neill
31 2017). Such a format aims to promote the interaction of the participant and the
32 venturing possibility with the wider environment, so that the competition experience
33 becomes semi indicative of the context the participant might find themselves in post
34 EBC. The participant engages with the learning process, making sense of their
35 experiences and revising, where appropriate, their actions and level of engagement in
36 the uncertain dynamics of the effectuated planning process (Jones and Hongqin 2017;
37 Passararo et al. 2017; Treleaven 2012).
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3 ***Principle 3: Engendering stakeholder buy-in and involvement***
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5 In maintaining but also enhancing the semi-market place context which BPCs
6 typically encompass (Bell 2010; Russell, Atchison and Brooks 2008), an EBC would
7 retain heavy reliance upon buy-in and commitment from a wider business community.
8 Facilitating communication with others involved in the EBC, but also others who they
9 know more generally (Sarasvathy 2008), can define relationships and collaborations
10 which may be mutually beneficial in terms of bringing expertise, funding or technology
11 to the participant's venturing possibility (McGowan and Cooper 2008). This extends to
12 the availability of mentoring opportunities aimed at providing participants with
13 guidance on key aspects of venture implementation.
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26 Partaking in implementation activities as part of the competition experience
27 provides opportunities for the participant to interact and potentially elicit commitment
28 to their offering from potential stakeholders, partners, suppliers and customers within
29 the EBC but also in the wider environment of the EBC. Through doing so the EBC
30 provides opportunity for the participant to cultivate wider collaborative and mutually
31 beneficial opportunities (Sarasvathy 2008), with already established businesses. This, it
32 is envisaged, could incentivise the business involvement and sponsorship upon which
33 competition programmes can typically rely.
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45 ***Principle 4: Supporting transformation of participant and possibility***
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47 Every participant is viewed by the EBC as being idiosyncratic. The model thus
48 builds in space for the participants own aspirations to be recognised and emotions to be
49 accommodated. Consequently, the participant's experience can be used to facilitate the
50 attainment of these needs, rather than dictating or potentially inhibiting those
51 requirements. Moreover, the participant is facilitated to tailor the context of the EBC
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3 and conversely their experience of the EBC to their learning needs as participants in
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5 their own journey of business creation (Read et al. 2017).
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8 The EBC is accessible to those who may like the idea of entrepreneurial new
9
10 venturing but currently lack a nascent idea. As all one needs to enter is willingness
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12 within the coopetition context to create and explore venture possibilities on the basis of
13
14 the set of means they currently have available. This champions the notion of
15
16 transformative possibilities (Goel and Karri 2006; Sarasvathy 2004). The participant
17
18 need not consider they are ‘tied’ to any possibility which might be created. Instead the
19
20 venturing possibility is promoted as a ‘work in progress’, which can and should be
21
22 explored and developed in interaction with the coopetition setting, other participants
23
24 and wider environment (Read et al. 2017). This provides a unique, cumulative learning
25
26 opportunity for the participant, supporting the development of essential entrepreneurial
27
28 competencies (Johannisson 2016). It also provides a means for participants and other
29
30 stakeholders to contribute to the evolution of the participant’s venturing possibility as
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32 critical collaborators (Sarasvathy 2008).
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39 ***Principle 5: Promoting fluidity between participation and post-participation***
40 ***endeavours***
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43 Promoting the idea amongst its participants that “anything is possible within the
44
45 context of now”, the EBC seeks to promote less of a gulf between the experiences of the
46
47 programme and post programme endeavours. A focus upon what the participant is going
48
49 to do during the EBC, as it happens, reinforces the idea that each participant can pursue
50
51 their venturing possibility post-EBC using the resources currently held. As
52
53 misapprehension and uncertainty about the nature of entrepreneurial endeavour often
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55 influences the decision to abandon or defer entrepreneurial action (Read et al. 2017), the
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57 EBC aims to facilitate the participant’s next-step beyond the programme by engaging
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3 them in entrepreneurial action now. The EBC endeavours to raise awareness amongst
4 participants that they are already ‘doing something’ with their venturing possibility,
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6 albeit on a crude level, within the very context of the EBC. The idea is set with
7
8 participants that continued pursuit of their venturing possibility, post-EBC, is doable
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10 and does not represent so big a decision and is a relatively less daunting, natural
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12 progression or small next step.
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17 Building upon the momentum developed, the EBC seeks to leave the participant
18 with an ‘it’s difficult to walk away from this venture’ sentiment. The intent being that
19 participants will be more incentivised and perhaps find it harder to abandon continued
20
21 implementation of their venturing possibility post-EBC than if no implementation had
22
23 taken place. Importantly, the participant perceives that continued pursuit of their
24
25 venturing possibility does not necessitate an all-or-nothing choice between continued
26
27 pursuit of that venturing possibility or employment. It may even be feasible and
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29 practical that both could be managed together, at least for a time.
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35 The EBC offered promotes the idea that the experience of participation
36 transcends the timeframe of the actual competition entrance, remaining with the
37 participant as something which can be drawn upon to cultivate action in going forward.
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39 Henceforth the EBC experience becomes a ‘means’ which the participant can draw
40 upon (Jones and Hongqin 2017; Sarasvathy 2008) – part of who they are [through
41
42 heightening awareness of their traits, tastes and competencies], what they know
43
44 [through providing learning opportunities, expertise and experience] and who they
45
46 know [through giving rise to new social and professional networks]. These applicative
47
48 benefits transcend new venture creation, so thus even if the venturing possibility is
49
50 discarded after the conclusion of the EBC, participants can utilise aspects of the
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52 experience which are of benefit to their own needs and requirements going forward.
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3 We turn now to draw conclusions.
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7 **Conclusions**

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9 This paper has taken focus with the university-based BPC and suggests how
10 effectuation might be transferred and applied within this context. Such focus is timely
11 given the under challenged nature of the BPC model. Particularly in light of the
12 reservations levelled at business plan production and competition as a learning tool and
13 activity within education and new venture creation respectively, coupled with growing
14 emphasis on coopetition and effectuation. Henceforth it is suggested effectuation serves
15 as a vehicle through which a coopetition-based entrepreneurship education model might
16 be achieved.
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27 In this work we make several contributions. First, we contend that the strong
28 emphasis traditionally placed on the production of a formal written business plan within
29 the BPC model is counterproductive to an espoused rationale of supporting new venture
30 creation and an individual's entrepreneurial learning. Second, we offer a series of
31 principles which would enable effectuation to be transferred and applied within a
32 entrepreneurship education context, through the medium of an EBC; in which the action
33 of business plan production is replaced with the action of business implementation and
34 competition is replaced with coopetition.
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46 These contributions have theoretical and practical implications for BPC
47 provision generally but particularly within a university entrepreneurship education
48 context. The emergence of effectuation within the field of entrepreneurship is
49 positioned as offering untold value in heralding a change of emphasis within
50 competition provision and affording the competition agenda a valuable new direction;
51 namely towards coopetition. The EBC serves as a means of integrating effectuation
52 without compromising the elements which afford the BPC its popular status. The EBC
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3 represents an attempt towards the entrepreneurship education agenda reflecting and
4 embracing a combination of causation and effectuation logic. Henceforth the model
5 proposed transcends entrepreneurship as a planned rational and linear process and
6 entrepreneurship as a non-predictive, anti-rational and decision-led process.
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12 Our notion of an EBC does not negate the need for business planning as a
13 dynamic activity but of the business plan as a static outcome of such activity. Thus,
14 demanding distinction between the business plan and business planning, the latter being
15 accommodated through the mobilisation of effectuation within entrepreneurship
16 education. Reducing emphasis on the business plan, the EBC exercises a preference for
17 action now. Promoting exploration, development and implementation of possibilities
18 using the elements provided by the EBC experience generates momentum considered
19 conducive to entrepreneurial activity following participation. This moreover addresses
20 concern that participants may defer start-up activity post participation, hence potentially
21 better suited to achieving the overarching goal of cultivating entrepreneurial activity and
22 learning, which often guides competition provision.
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38 Managing student learning in such an effectuated context has implications too
39 for entrepreneurship educators. It raises pedagogical tensions between managing and
40 evaluating learning at the interface between theory and practice. It also requires a
41 greater level of entrepreneurial engagement and greater personal and professional
42 investment by entrepreneurship educators in order to ensure that student learning is
43 valuable and of sustainable worth. As well as putting onus on participants as
44 collaborators and co-creators rather than just competitors. They will have to become
45 'entrepreneurial' entrepreneurship educators if they hope to be effective in this
46 enterprise.
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3 Whilst the conceptual nature of this paper was appropriate given the broader
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5 research aim, this should be recognised as a key limitation. Such a limitation sets the
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7 scene for valuable further research into the competition-based entrepreneurship
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9 education phenomenon, which might empirically examine the value of the business plan
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11 within competition provision from the perspective of the participant. Additionally,
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13 further research might beneficially look at mobilising and testing the EBC model in
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15 practice. This could afford practical advice about how to mobilise the change toward
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17 helping participants experience entrepreneurship in both planned and non-predictive
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19 ways. We also suggest that there is a need to take a critical examination of the
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21 competition-based learning agenda which prevails in entrepreneurship education. The
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23 notion of cooperation within entrepreneurship education is an area which is ripe for
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25 further exploration and could offer untold opportunities for innovative educative
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27 practices going forward.
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60

References

- Aldrich, H.E. and Yang, T. (2014), “How to entrepreneurs know what to do? Learning and Organizing in new ventures”, *Journal of Evolutionary Economics*, Vol. 24, No 1, pp. 59-82.
- Anderson, S. N., Culkin, N., Penaluna, A., and Smith, K. (2014), “An Education System Fit for an Entrepreneur, 5th Report by the All-party Parliamentary Group for Micro-businesses” London: The Stationary Office. Available at: <http://www.enterprise.ac.uk/index.php/news/item/402-entrepreneurs-and-educators-agree-new-report-calls-for-better-integration-of-entrepreneur-skills-at-all-levels-of-education>.
- Arranz, N., Ubierbna, F., Arroyabe, M.F., Perez, C., and de Arroyabe. J.C.F (2017), “The Effect of Curricular and Extracurricular Activities on University Students’ Entrepreneurial Intention and Competences”, *Studies in Higher Education*, Vol. 42 No. 11, pp.1979-2008.
- Baron, R. A. (2008), “Effectual Versus Predictive Logics in Entrepreneurial Decision Making: Differences between Experts and Novices Does Experience in Starting New Ventures Change the Way Entrepreneurs Think? Perhaps, But for Now, “Caution” is Essential”, *Journal of Business Venturing*, Vol. 24 No 4, pp.310–315.
- Bell, J. (2010), “Student Business Plan Competitions: Who Really Does Have Access”, Paper presented at the 34th Annual Conference of the Small Business Institute, February 18-20, Albuquerque, New Mexico.
- Blank, S. (2013), “Why the Lean Start-Up Changes Everything”, *Harvard Business Review*, Vol.91, No.5, pp. 64-72.
- Brandenburger, A.M. and Nalebuff, B.J. (1996), *Co-opetition*, Doubleday: New York.
- Brentnall, C., Rodriguez, I.D., and Culkin, N. (2018a), “The Contribution of Realist Evaluation to Critical Analysis of the Effectiveness of Entrepreneurship Education Competitions”, *Industry and Higher Education*, Vol. 32, No. 6, pp.405-417.
- Brentnall, C., Rodriguez, I.D., and Culkin, N. (2018b), “Enterprise Education Competitions: A Theoretically Flawed Intervention”, in Higgins, D., Jones, P, and McGowan, P. *Contemporary Issues in Entrepreneurship Research*, Emerald Publishing Limited, pp. 25-48.

- 1
2
3 Bridge, S. (2013), “Reflections on the omission of social capital from enterprise
4 education and business start training.” *Education + Training*, Vol. 55 No. 8/9,
5 pp.899-910.
6
7
- 8 Bridge, S. and Hegarty, C. (2013), *Beyond the Business Plan: 10 Principles for New*
9 *Venture Explorers*. Palgrave Macmillan: Basingstoke.
10
- 11 Bridge, S., and Hegarty, C. (2012), “An Alternative to Business Plan-based Advice for
12 Start-ups?” *Industry and Higher Education*, Vol. 26 No.6, pp.443-452.
13
- 14 Bridge, S. and O’ Neill, K. (2017), *Understanding Enterprise, Entrepreneurship and*
15 *Small Business*. Palgrave Macmillan: Basingstoke.
16
- 17 Chandler, G. N., DeTienne, D. R., McKelvie, A. and Mumford. T. V. (2011),
18 “Causation and effectuation processes: A validation study.” *Journal of Business*
19 *Venturing*, Vol. 26 No. 3, pp. 375- 390.
20
- 21 Connell, R. (2013), “The Neoliberal Cascade and Education: An Essay on the Market
22 Agenda and its Consequences”, *Critical Studies in Education*, Vol.54. No.2,
23 pp.99-112.
24
- 25 Corbett, A.C. (2005), “Experiential learning within the process of opportunity
26 identification”, *Entrepreneurship Theory and Practice*, Vol.29, No.4, pp.473-
27 498.
28
- 29 Davidsson, P. and Honig. B. (2003), “The role of social and human capital among
30 nascent entrepreneurs”, *Journal of Business Venturing*, Vol. 18, No. 3, pp.301–
31 331.
32
- 33 Daxhelet, O., and Witmeur, O. (2011), “What Financial Backers Expect from Business
34 Plans: Effectual versus Causal Logic.” Universite Libre de Bruxelles. Working
35 Paper CEB11-029. Available at:
36 <https://dipot.ulb.ac.be/dspace/bitstream/2013/92208/1/wp11029.pdf>
37
- 38 DeNoble, A.F. and Zoller, T. D. (2017), “Is the Business Plan Really Dead and Should
39 it Be?: A Case for the Lean Start-Up Approach”, in Kuratko, D.F. and
40 Hoskinson, S. *The Great Debates in Entrepreneurship*, Emerald, Bingley,
41 pp.21-34.
42
- 43 Dew, N., Read, S., Sarasvathy, S.D and Wiltbank., R. (2009), “Effectual Versus
44 Predictive Logic in Entrepreneurial Decision-Making: Differences between
45 Experts and Novices”, *Journal of Business Venturing* Vol. 24, No. 4., pp.287-
46 309.
47
48
49
50
51
52
53
54
55
56
57
58
59
60

- 1
2
3 EC (European Commission). (2008), *Entrepreneurship in Higher Education, Especially*
4 *in Non-Business Studies*. Available at:
5
6 http://ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=3581
7
8 EC (European Commission). (2006), *Fostering Entrepreneurial Mindsets through*
9 *Education and Learning.Survey of Entrepreneurship Education in Higher*
10 *Education in Europe*. EC: Brussels.
11
12 EC (European Commission). (2004), *Helping to create an entrepreneurial culture: A*
13 *guide on good practices in promoting entrepreneurial attitudes and skills*
14 *through education*. EC: Brussels.
15
16
17
18 Edelman, L. F., Manolova, T. S. and Brush, C. G. (2008), “Entrepreneurship Education:
19 Correspondence between Practices of Nascent Entrepreneurs and Textbook
20 Prescriptions for Success”, *Academy of Management Learning & Education*,
21 Vol. 7, No. 1, pp.56-70.
22
23
24
25 Ertuna, Z. L. and Gurel, E. (2011), “The modernising role of higher education on
26 entrepreneurship education”, *Education + Training*, Vol.53, No.5, pp. 387-402.
27
28
29
30
31
32
33
34
35
36
37
38
39
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41
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44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

- 1
2
3 Gibb, A.A. (2012), “Exploring the Synergistic Potential in Entrepreneurial University
4 Development: Towards the Building of a Strategic Framework”, *Annals of*
5 *Innovation and Entrepreneurship*, Vol. 3, No.1, pp.1-21.
6
7
8 Goel, S. and Karri, R. (2006), “Entrepreneurs, Effectual Logic, and Over-Trust.”
9 *Entrepreneurship Theory and Practice*, Vol. 30, No. 4, pp.477–493.
10
11 Harding, R. (2007). *Graduate Entrepreneurship in the UK: Summary Report from GEM*
12 *UK Data*. NCGE: Birmingham.
13
14
15 Harrison, R. T. and Leitch, C. M. (2005), “Entrepreneurial learning: researching the
16 interface between learning and the entrepreneurial context.” *Entrepreneurship*
17 *Theory and Practice*, Vol. 29, No.4, pp.351-371.
18
19
20 Hegarty, C. (2006), *Business Plan Awards: Their Value in Northern Ireland*. National
21 Council for Graduate Entrepreneurship. Working Paper 053/2006. NCGE:
22 Birmingham.
23
24
25 HESA (Higher Education Statistics Agency). (2018), “Higher Education Leavers
26 Statistics: UK, 2016/17 – Leaver activities and characteristics”, available at:
27 [https://www.hesa.ac.uk/news/28-06-2018/sfr250-higher-education-leaver-](https://www.hesa.ac.uk/news/28-06-2018/sfr250-higher-education-leaver-statistics-activities)
28 [statistics-activities](https://www.hesa.ac.uk/news/28-06-2018/sfr250-higher-education-leaver-statistics-activities) (accessed 12 November 2018).
29
30
31
32 Higgins, D., Smith, K. and Mizra, M. (2013), “Entrepreneurial Education: Reflexive
33 Approaches to Entrepreneurial Learning in Practice”, *The Journal of*
34 *Entrepreneurship*, Vol.22, No.2, pp.135-160.
35
36
37 Honig, B. (2004), “Entrepreneurship Education: Toward a Model of Contingency-Based
38 Business Planning.” *Academy of Management Learning and Education*, Vol.3,
39 No.3, pp. 258 – 273.
40
41
42 Honig, B. and Karlsson, T. (2001), “Business plans and the nascent firm: a study of
43 instrumental and Institutional theories”, *Frontiers of Entrepreneurship*
44 *Research*, 13–23.
45
46
47 Honig, B., and Karlsson, T. (2004), “Institutional Forces and the Written Business
48 Plan”, *Journal of Management*, Vol. 30, No.1, pp.29 – 48.
49
50
51 Honig, B. and Samuelsson, M. (2012). “Planning and the Entrepreneur: A Longitudinal
52 Examination of Nascent Entrepreneurs in Sweden”, *Journal of Small Business*
53 *Management*, Vol.59, No.3, pp.365-388.
54
55
56 Johannisson, B. (2016), “Limits to and Prospects of Entrepreneurship Education in the
57 Academic Context”, *Entrepreneurship & Regional Development* Vol.28, No.5/6,
58 pp.403-423.
59
60

- 1
2
3 Jones, A. and Jones, P. (2011), "Making an impact" A Profile of a Business Planning
4 Competition in a University", *Education + Training*, Vol.53, No.8/9, pp.704-
5 721.
6
7
8 Jones, C. and Penaluna. A. (2013), "Moving Beyond the Business Plan in Enterprise
9 Education", *Education + Training*, Vol.55, No.8/9, pp.804-814.
10
11 Jones, O., and Hongqini. L. (2017), "Effectual entrepreneuring: sensemaking in a
12 family-based start-up", *Entrepreneurship & Regional Development*, Vol. 29,
13 No.5/6, pp.467-499.
14
15
16 Karatas-Ozkan, M. and Chell. E. (2010), *Nascent Entrepreneurship and Learning*,
17 Edward Elgar: Cheltenham.
18
19 Karlsson, T. and Honig, B. (2009), "Judging a Business by its Cover: An Institutional
20 Perspective on New Ventures and the Business Plan", *Journal of Business*
21 *Venturing*, Vol.24, No.1, pp.27-45.
22
23
24 Katz, J.A. (2003), "The Chronology and Intellectual Trajectory of American
25 Entrepreneurship Education 1876-1999", *Journal of Business Venturing*, Vol.18,
26 No. 2, pp.283-300.
27
28
29 Kelmar, J. H. (1992), "Business Plans for Teaching Entrepreneurial Behaviour",
30 *Education + Training*, Vol.34, No. 1, pp.30-32.
31
32
33 Kistruck, G.M., Lount, R.B., Smith, B.R., Bergman, B.J. and Moss, T.W. (2016),
34 'Cooperation vs. competition: Alternative Goal Structures for Motivating
35 Groups in a Resource Scarce Environment', *Academy of Management Journal*,
36 Vol. 59, No.4, pp.1174-1198.
37
38
39 Kohn, A. (1992), *No Contest: The case against competition*. New York: Houghton
40 Mifflin.
41
42
43 Lange, J. E., Mollov, A., Pearlmutter, M., Singh, S., and Bygrave.W. D. (2007), "Pre-
44 start-up Formal Business Plans and Post-start-up Performance: A study of 116
45 new ventures", *Venture Capital*, Vol. 9, No. 4, pp.237- 256.
46
47
48 Lourenço, F., Jones, O. and Jayawarna, D. (2013), "Promoting Sustainable
49 Development: The Role of Entrepreneurship Education", *International Small*
50 *Business Journal*, Vol. 31, No. 8, pp. 841-863.
51
52
53 Maine, E., Soh, P., and Dos Santos. N. (2015). "The role of entrepreneurial decision-
54 making in opportunity creation and recognition", *Technovation*, Vol. 39, No. 1,
55 pp. 53-72.
56
57
58
59
60

- 1
2
3 Matalamäki, M. J. (2017), "Effectuation, an emerging theory of entrepreneurship –
4 towards a mature stage of the development", *Journal of Small Business and*
5 *Enterprise Development*, Vol. 24, No. 4, pp.928-949.
6
7
8 McGowan, P. and Cooper. S. (2008), "Promoting Technology-based Enterprise in
9 Higher Education: The Role of Business Plan Competitions", *Industry and*
10 *Higher Education*, Vol.22, No.1, pp.29-36.
11
12
13 Mention, A-L. (2011), "Co-operation and co-opetition as open innovation practices in
14 the service sector: Which influence on innovation novelty?", *Technovation*, Vol.
15 31, No. 1, pp.44-53.
16
17
18 Mione, A. (2009), "When entrepreneurship requires coopetition: the need for standards
19 in the creation of a market", *International Journal of Entrepreneurship and Small*
20 *Business*, Vol. 8, No. 1, pp. 92-109.
21
22
23 Mitra, J., and Manimala, M. J. (2008), "Higher Education's Role in Entrepreneurship
24 and Economic Development", in Potter, J. *Entrepreneurship and higher*
25 *education*, OECD, Paris, pp.45-64.
26
27
28 Nabi, G. and Holden, R. (2008), "Graduate entrepreneurship: intentions, education and
29 training", *Education + Training*, Vol.50, No.7, pp.545-551.
30
31
32 Nabi, G., Walmsley, A., Linan, F., Akhtar,I., and Neame, C. (2016), "Does
33 Entrepreneurship Education in the First Year of Higher Education Develop
34 Entrepreneurial Intentions? The Role of Learning and Inspiration", *Studies in*
35 *Higher Education*, Vol. 43, No. 3, pp.452-467.
36
37
38 Olssen, M. and Peters, M.A. (2005), "Neoliberalism, Higher Education and the
39 Knowledge Economy: From the Free Market to Knowledge Capitalism",
40 *Journal of Education Policy*, Vol.20, No.3, pp.313-345.
41
42
43 Passaro, R., Quinto, I., and Thomas, A. (2017), "Start-up Competitions as learning
44 environment to foster the entrepreneurial process", *International Journal of*
45 *Entrepreneurial Behavior and Research*, Vol. 23, No. 3, pp. 426-445.
46
47
48 Perry, J. T., Chandler, G. N., and Markova, G. (2011), "Entrepreneurial Effectuation: A
49 Review and Suggestions for Future Research", *Entrepreneurship Theory and*
50 *Practice*, Vol. 36, No. 4, pp.837-861.
51
52
53 Pittaway, L., and Cope. J. (2007a), "Entrepreneurship education - A Systematic Review
54 of the Evidence", *International Small Business Journal*, Vol. 25, No. 5, pp. 477-
55 506.
56
57
58
59
60

- 1
2
3 Pittaway, L. and Cope, J. (2007b), "Simulating entrepreneurial learning: Integrating
4 experiential and collaborative approaches to learning", *Management Learning*,
5 Vol. 38, No. 2. pp. 211–233.
6
7
8 QAA (Quality Assurance Agency for Higher Education) (2018), *Enterprise and*
9 *entrepreneurship education: guidance for UK higher education providers*.
10 QAA: Gloucester.
11
12 Rideout, E.C. and Gray, D. O. (2013), "Does Entrepreneurship Education Really Work?
13 A Review and Methodological Critique of the Empirical Literature on the
14 Effects of University-Based Entrepreneurship Education", *Journal of Small*
15 *Business Management*, Vol. 51, No. 3, pp.329–351.
16
17 Read, S., Dew, N., Sarasvathy, S. D. and Wiltbank, R. (2009), "Marketing under
18 Uncertainty: The Logic of an Effectual Approach", *Journal of Marketing*, Vol.
19 73, No. 3, pp.1-18.
20
21 Read, S., Sarasvathy, S.D, Dew, N, and Wiltbank, R. (2017), *Effectual*
22 *Entrepreneurship*, Routledge: Oxford.
23
24 Roldan, M., A. Osland, M.V. Cannice, M. Solt, and B.V. Dean. 2005. "Business Plan
25 Competitions: Vehicles for Learning Entrepreneurship", in Wankel, C. and
26 Defillippi, R. *Educating Managers through Real World Projects*, Information
27 Age: Greenwich, pp. 309-333.
28
29 Ruben. H. L. (1981). *Competing*. New York: Pinnacle Books.
30
31 Russell, R., Atchison, M., and Brooks, R. (2008), "Business Planning Competitions in
32 Tertiary Institutions: Encouraging Entrepreneurship Education", *Journal of*
33 *Higher Education Policy and Management*, Vol. 30, No. 2, pp.123-138.
34
35 Sarasvathy, S. D. (2001), "Causation and Effectuation: Toward a Theoretical Shift from
36 Economic Inevitability to Entrepreneurial Contingency", *Academy of*
37 *Management Review*, Vol. 26, No. 2, pp.249–263.
38
39 Sarasvathy, S. D. (2004), "The Questions we ask and the Questions we Care About",
40 *Journal of Business Venturing*, Vol.19, No.5, pp.707-720.
41
42 Sarasvathy, S. D. (2008). *Effectuation: Elements of Entrepreneurial Expertise*. Edward
43 Elgar: Northampton.
44
45 Sarasvathy, S. D. and Dew. N. (2005), "New Market Creation as Transformation."
46 *Journal of Evolutionary Economics*, Vol.15, No.5, pp.533-565.
47
48 Sekula, R., Bakhru, S. and Zappe, S. (2009). "Playing to Win", *Nature Biotechnology*,
49 Vol. 27, No. 9, pp. 793-796.
50
51
52
53
54
55
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57
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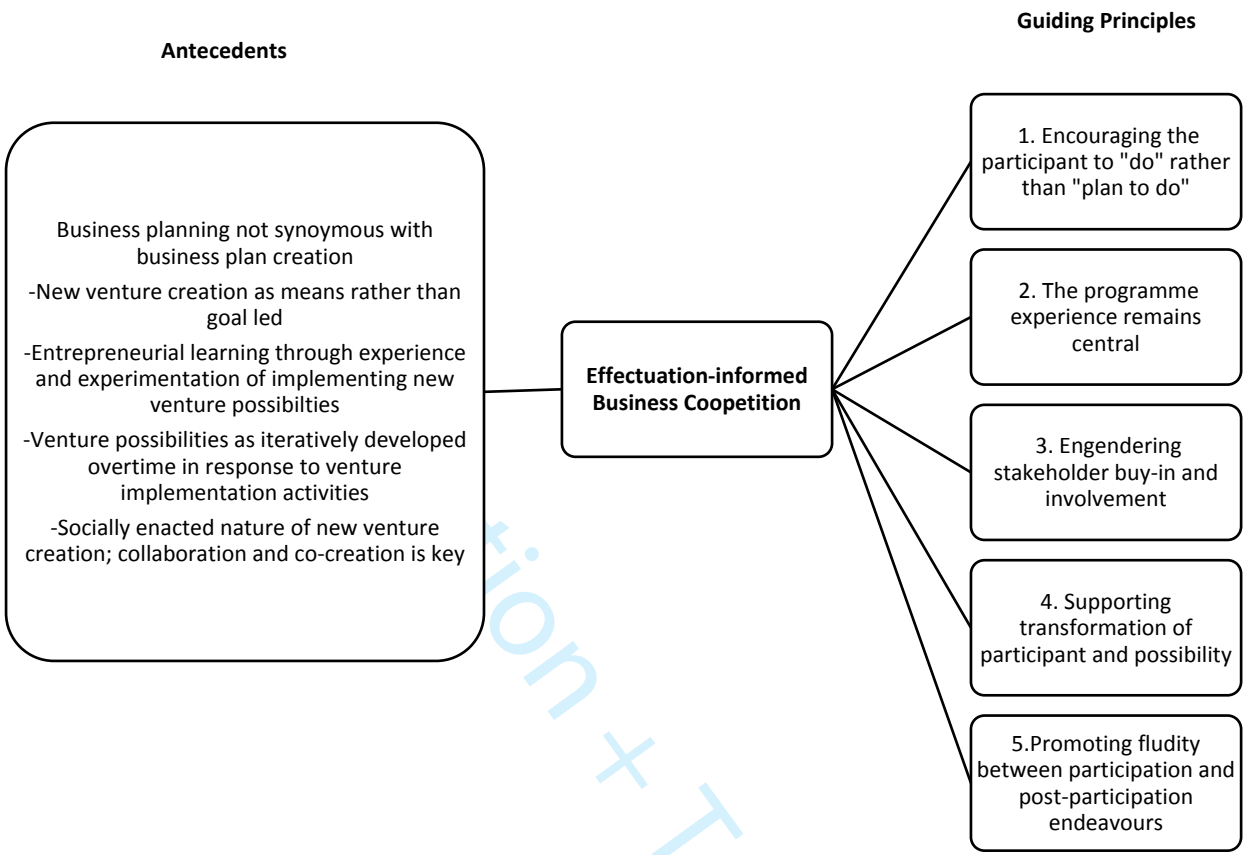
- 1
2
3 Shirokova, G., Osiyevskyy, O., Morris, M.H., and Bogatyreva, K. (2017), “Expertise,
4 University Infrastructure and Approaches to New Venture Creation: Assessing
5 Students who Start Businesses”, *Entrepreneurship & Regional Development*,
6 Vol. 29, No. 9/10, pp. 912-944.
7
8
9
10 Taylor, D.W., Jones, O., and Boles, K. (2004), “Building social capital through action
11 learning: an insight into the entrepreneur”, *Education + Training*, Vol. 46, No.
12 5, pp.226 – 235.
13
14
15 Timmons, J. and Spinelli, S. (2009), *New Venture Creation: Entrepreneurship for the*
16 *21st Century*, New York: McGraw-Hill International.
17
18
19 Tounes, A., Lassas-Clerc, N. and Fayolle, A. (2014), “Perceived entrepreneurial
20 competences test by business plan pedagogies”, *International Journal of*
21 *Entrepreneurship and Small Business*, Vol. 21, No. 4, pp.541-557.
22
23
24 Treleaven, L. (2012), “A Dissemination Methodology for Learning and Teaching
25 Developments through Engaging and Embedding”, *Studies in Higher*
26 *Education*, Vol. 37, No. 6, pp.747-767.
27
28
29 Vincett, P.S. and Farlow. S. (2008), "Start-a-Business": An experiment in education
30 through entrepreneurship”, *Journal of Small Business and Enterprise*
31 *Development*, Vol. 15, No. 2, pp.274-288.
32
33
34 Whalen, P. S. and Holloway, S.S. (2012), “Effectual Marketing Planning for New
35 Ventures”, *AMS Review*, Vol. 2, No. 1, pp. 34-43.
36
37
38 Watson, K. (2019), “Stimulating Entrepreneurial Behaviour Thorough Start-Up
39 Competitions: Current Features of Provision in UK Higher Education
40 Institutions” in McAdam, M. and Cunningham, J.A. *Entrepreneurial Behaviour*
41 *Individual, Contextual and Microfoundational Perspectives*, Palgrave
42 *Macmillan: New York*, pp.121-144.
43
44
45
46 Watson, K. and McGowan, P. (2018), "Emergent perspectives toward the business plan
47 among nascent entrepreneur start-up competition participants", *Journal of Small*
48 *Business and Enterprise Development*, [https://doi.org/10.1108/JSBED-02-2018-](https://doi.org/10.1108/JSBED-02-2018-0038)
49 [0038](https://doi.org/10.1108/JSBED-02-2018-0038)
50
51
52
53 Watson, K. and McGowan, P. (2017), “Technology Nascent Entrepreneur Experiences
54 of Start-up Competition Participation”, in Cunningham, J. and O’Connor, C.
55 *Nascent Technology Based Entrepreneurship*, Palgrave Macmillan: New York,
56 pp.279-308.
57
58
59
60

- 1
2
3 Watson, K., McGowan, P., and Cunningham, J.C. (2018), “An Exploration of the
4 Business Plan Competition as a Methodology for Effective Nascent
5 Entrepreneurial Learning”, *International Journal of Entrepreneurial Behavior &*
6 *Research*, Vol. 24, No.1, pp. 121-146.
7
8
9
10 Watson, K., McGowan, P. and Smith, P. (2014), “Extracurricular business planning
11 competitions: Challenging the assumptions”, *Industry and Higher Education*
12 Vol. 28, No. 6, pp. 411-417.
13
14
15 Watson, K., McGowan, P. and Smith, P. (2015), “Leveraging Effectual Means through
16 Business Plan Competition Participation”, *Industry and Higher Education*, Vol.
17 29, No.6, pp.481-492.
18
19
20
21 Worrell, F.C., Knotek, S.E., Plucker, J.A., Portenga, S., Simmonton, D.K., Olszewski-
22 Kubilius, P., Schultz, S.R., and Subotnik, R.F. (2016), “Competition’s Role in
23 Developing Psychological Strength and Outstanding Performance”, *Review of*
24 *General Psychology*, Vol.20, No.3, pp. 259-271.
25
26
27
28 Wilson, F., Kickul, J. and Marlino, D. (2007), “Gender, entrepreneurial self-efficacy,
29 and entrepreneurial career intentions: Implications for entrepreneurship
30 education”, *Entrepreneurship Theory and Practice*, Vol. 31, No.3, pp. 387–406.
31
32
33 Wilson, K. (2008), “Entrepreneurship Education in Europe” in Potter, J.
34 *Entrepreneurship and higher education*, OECD: Paris, pp.1-20.
35
36
37
38 Wiltbank, R., Dew, N., Read, S., and Sarasvathy, S. D. (2006), “What to do next? The
39 case for non-predictive strategy”, *Strategic Management Journal*, Vol. 27, No.
40 10, pp.981-998.
41
42
43
44 Wiltbank, R., Sudek, R., and Read, S. (2009), “The role of prediction in new venture
45 investing”, *Frontiers of Entrepreneurship Research*, Vol. 29, No. 2, Available
46 at: <http://digitalknowledge.babson.edu/fer/vol29/iss2/3>.
47
48
49
50
51
52
53
54
55
56
57
58
59
60 Young, D. 2014. *Enterprise for All – The Relevance of Enterprise in Education*, BIS,
London.

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