

Institution: Lancaster University		
Unit of Assessment: 17, Business and Management Studies		
Title of case study: Improving UK SME productivity through transformative learning: the Productivity through People programme		
Period when the underpinning research was undertaken: 2002 - 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Jason Cope	Lecturer	2001-2008
Ellie Hamilton	Professor	1997-present
Sarah Jack	Professor	2005-present
Jing Zhang	Research Associate	2005-2007
Ian Gordon	Senior Teaching Fellow	2010-2017
Martin Spring	Professor	2004-present
Mark Stevenson	Professor	2005-present
Christine Unterhitzberger	Teaching Fellow	2018-2020
Period when the claimed impact occurred: 2017 - 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact		
<p>Small and medium-sized enterprises (SMEs) constitute more than 99% of UK businesses but are typically less well-managed and productive than larger firms. World-leading research into entrepreneurship and SMEs conducted by Lancaster University Management School (LUMS) over the past 18 years has shown the critical importance of experiential learning and peer networks in SME management development. LUMS has embodied these principles in new programmes for SME managers, notably Productivity through People (PtP). Between 2016 and 2020, 275 managers from 235 UK SMEs have participated in these programmes, improving their management practices and increasing their firms' labour productivity by an estimated average of 10%. PtP's success led to a GBP11 million investment by the UK Government in a Small Business Leadership Programme and the key role of LUMS in the GBP20 million Department for Business, Energy and Industrial Strategy (BEIS) North West pilot of the Made Smarter industrial digitalisation initiative.</p>		
2. Underpinning research		
Research strategy		
<p>LUMS has conducted an 18-year programme of research linking entrepreneurship, management learning and leadership, and productivity in SMEs. In 2003, the Northwest Regional Development Agency, as part of its Alliance for Skills and Productivity, identified the need for improved leadership and management skills in SMEs, and funded part of the work. The research was initially rooted in entrepreneurship and led by Hamilton. More recently, LUMS Centre for Productivity and Efficiency, led by Spring, has researched SME management practices and productivity as part of a wider LUMS strategy to focus on productivity. Throughout, the research has informed the design of SME management development programmes, and vice versa.</p>		
From entrepreneurial learning to the LEAD programme		
<p>LUMS research on entrepreneurial learning in the early 2000s shifted the focus of entrepreneurship research from the entrepreneur's personal traits and enterprise establishment to the entrepreneur's learning processes during enterprise <i>development</i>. Using the entrepreneur as the unit of analysis, Cope [R1] demonstrated that reflecting on discontinuous events while building an enterprise could result in transformative learning in both the business and personal domains. Cope [R2] developed this learning perspective, demonstrating the criticality of understanding how entrepreneurs learn as individuals in relation to their business and the wider environment as the enterprise develops. The novel insight that entrepreneurs learn by reflecting on discontinuous events [R1] inspired new approaches to harnessing this learning mechanism in training and development interventions [R2], using peer networks to provide opportunities for social learning.</p>		

LUMS researchers used these important insights to create the 'LUMS Integrated Learning Model' for SME managers. The model included experiential events, structured peer networking, masterclasses, coaching, and action learning. Zhang and Hamilton [R3] researched early cohorts of the Leading Enterprise and Development (LEAD) programme for SME owner-managers, which LUMS developed using this model. This programme ran from 2004 to 2014, reaching > 1,700 firms. The research showed that developing trust among peers led to personal and business development and, in the personal domain, demonstrated the salience of 'entrepreneurial loneliness', which the programme's peer networks helped to mitigate. Gordon et al. [R4] then examined the evolution of the LEAD programme, re-confirming the importance of critical reflection and peer networks. Further, it demonstrated that programmes such as LEAD can provide transformative learning without depending entirely on discontinuous events [R1] experienced by entrepreneurs in the course of their work, a finding that underpinned subsequent programme development.

From LEAD to PtP: Large firms and the manager as translator

In 2015, in collaboration with BAE Systems, LUMS built on this research to develop another programme for SMEs, Innovation in Manufacturing and Engineering (IME). IME was part of the UK Commission for Employment and Skills' Futures Programme and aimed to increase the innovation capacity of SMEs in the North West, including BAE Systems' suppliers. IME used many elements of the LEAD programme, but crucially, it was the first LUMS programme to combine these elements with structured interaction between SMEs and a large firm. IME used this interaction to generate occasions for experiential learning [R1, R2]. It also reflected LUMS' research on the inter-firm aspects of flexibility [R5] and productivity. The IME programme only ran for one year, but was a successful proof-of-concept for what came next: LUMS was invited by the Productivity Leadership Group (PLG) to develop what became the PtP programme. The PLG began in 2015 as an initiative by senior business leaders, including Nigel Whitehead (then MD of BAE Systems UK) and Sir Charlie Mayfield (of John Lewis plc), to improve UK productivity. PtP is built on LEAD principles but, importantly, adds engagement between SME managers and large firms as a critical element. In PtP, based on the principle of experiential learning [R1, R2], SME managers participate in site visits to (in the LUMS version) BAE Systems, Rolls-Royce and Siemens, which are all part of the PLG. Managers from the large firms also mentor the SME delegates.

In later research, Spring and Unterhitzberger [R6] studied an early PtP cohort and showed that rather than simply adopting best practices, managers actively translate ideas and practices from large firms into their own firms. This insight challenges prevalent conceptions based on "diffusion" that see managers as passive conduits. This research illuminated the part played by peer networks in translation and allowed the corporate involvement in PtP to be validated and the approach to debriefing and reflecting on the site visits to be fine-tuned.

3. References to the research

- [R1] **Cope, J.** (2003). Entrepreneurial learning and critical reflection: Discontinuous events as triggers for 'higher-level' learning. *Management Learning* 34(4), 429-450. <https://doi.org/10.1177/1350507603039067> (828 citations Google Scholar)
- [R2] **Cope, J.** (2005). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice* 29(4), 373-97 <https://doi.org/10.1111/j.1540-6520.2005.00090.x> (1,450 citations Google Scholar)
- [R3] **Zhang, J. and Hamilton, E.** (2010). Entrepreneurship education for owner-managers: The process of trust building for an effective learning community. *Journal of Small Business & Entrepreneurship*, 23(2), 249-270. <https://doi.org/10.1080/08276331.2010.10593485> (67 citations Google Scholar)
- [R4] **Gordon, I., Hamilton, E. and Jack, S.** (2012). A study of a university-led entrepreneurship education programme for small business owner/managers. *Entrepreneurship & Regional Development: An International Journal*, 24(9-10), 767-805. <https://doi.org/10.1080/08985626.2011.566377> (94 citations Google Scholar)

[R5] **Stevenson, M. and Spring, M.** (2009). Supply chain flexibility: an inter-firm empirical study. *International Journal of Operations & Production Management*, 29(9), 946-71. <https://doi.org/10.1108/01443570910986238> (164 citations Google Scholar)

[R6] **Spring, M. and Unterhitzberger, C.** (2020). The role of operations managers in translating management ideas and practices between firms. *Production Planning & Control*, <https://doi.org/10.1080/09537287.2020.1823025>

4. Details of the impact

Since 2016, 275 managers from 235 firms with a combined turnover of GBP3.2 billion and a total of 11,000 employees have participated in and benefitted from the LUMS-designed PtP programme [S1(a,b)]. PtP’s reach has extended beyond LUMS: 3 other universities (Bath, Aston, and Strathclyde) have delivered it on a franchise basis since 2017. Be the Business, the organisational vehicle used by the PLG to run various activities and programmes, has coordinated this rollout, with PtP as its flagship programme.

PtP changes participants’ management practices, which in turn improves their firms’ productivity. As PtP participants, SME managers learn to translate ideas and practices from large firms, draw on key ideas from programme workshops and reflective sessions, and use their peer networks to explore and test better management practices in their firms. Many of the improvement areas are concerned with employee engagement. Managers also find peer networks important for further development and impact after completing the programme. In this section, we detail how PtP improved management practices, increased productivity, drew extensive recognition, impacted policy, and led to the creation of related programmes.

PtP’s impact on the management practices in participating firms

Measurement of the intermediate stage of impact – i.e., management practices – is built into PtP. At the start and end of the programme, participants undergo a benchmarking assessment of their management practices provided by the third-party Infinite Perspective consultancy. This allows managers to identify the areas where they most want to develop



and allows the effect of PtP participation on their practices to be assessed. The Be the Business evaluation [S1(b)] aggregates benchmark data from across all cohorts and all delivery partners who had completed both entry and exit assessments by April 2020 – a total of 109 delegates. These data show improvements in management practice across the seven dimensions shown in Figure 1; expressed as percentages, these improvements range from 14% (the ‘best people’ dimension) to 25% (‘great leadership’).

Figure 1 – Management practice improvements from benchmarking scores – all cohorts [S1(b)]

In addition to summarising the benchmarking, the Be the Business evaluation [S1(b)] includes a beneficiary survey that compares firms that have participated in PtP (responses from 59) with control groups of similar firms that have not. The *baseline comparison group* (n=206) consists of managers from firms interested in management training, while the *training comparison group* (n=114) is a subset of the baseline group that had undertaken training other than PtP. The evaluators surveyed the respondents to determine their PtP experiences (PtP participants only), key areas of management practice, and individual and business performances (PtP and control groups). Among the key findings were that, compared to the control groups, PtP participants were significantly more likely to use

networking to share best practices and enhance employee engagement and to use a range of people-centred management practices, e.g., creating teams of people who do not normally work together, conducting training needs assessments, and maintaining ISO 9000 standards.

Testimonials demonstrate the impact of PtP on management practices and outcomes [S2], [S1(b)]. A participant who became the MD of his industrial equipment firm, HML, after PtP said, *“The programme and my cohort encouraged and helped me to reflect on and learn from significant events and experiences from a range of different businesses. It was powerful because it focused on learning for ourselves, developing ideas together as a group and individually, not just being fed information. We also visited major companies to see cutting-edge working practices in action, and to actively think through what we could learn from them and bring back to HML”* [S2(a)].

Another participant, who also became the MD of his firm, Forsberg, said, *“The programme has had a major impact on our management practices. The programme provided me with techniques to improve my leadership and ultimately feed this into the business. Specifically, around transformational leadership, change management and communication styles”* [S2(b)].

PtP’s impact on productivity and other outcomes in participating firms

The evaluation survey [S1(b)] found that firms participating in PtP were much more likely than the control groups to increase turnover, create additional jobs, and make a profit (see Table 1). Although causality cannot be proven, these are positive early indications of the impact of PtP on business outcomes.

Table 1 – Reported performance: PtP vs comparison groups, financial year 2019-20 [S1(b)]

	PtP participants	Baseline comparison	Training comparison
Increased turnover?	70%	62%	57%
Made a profit?	80%	66%	70%
Created new jobs?	78%	63%	64%

As discussed in the Be the Business report [S1(b)], PtP’s full impact on firm productivity cannot immediately be known, due in part to the normal lengthy delay in reporting of official labour productivity data. However, it is possible to estimate improvement based on similar analyses. An [Office for National Statistics \(ONS\) analysis of management practices published in 2018](#) found that an increase of 0.1 in management practices scored on a scale of 0-1.0 was associated with a 9.6% increase in firm productivity. The ONS’s scales and method for measuring management practice effectiveness include many criteria similar to those used for PtP and, thus, strongly suggest a likely correlation between PtP’s impact on management practices and subsequent improvements in the productivity of participating firms. PtP practice improvements of 14%-25% are clearly higher than the 0.1 improvement in the ONS analysis that resulted in a productivity improvement of 9.6%. A very conservative estimate would thus suggest that PtP leads to at least a 10% increase in productivity, which is much greater than the nearly flat UK annual productivity growth in recent years. It should be noted that the impact reported in the Be the Business evaluation report only includes those participants who had completed the whole programme up to April 2020, not those who were part way through. Furthermore, although the participants were surveyed up to early 2020, the improvements will of course endure at least until the end of 2020 (COVID-19 disruptions notwithstanding). Finally, the traits that PtP engenders, such as great leadership, employee engagement, and the use of external networks, seem to be precisely those needed to adapt to an economy disrupted by COVID-19; SMEs must harness all the capabilities at their disposal, inside and outside the firm, to cope with such uncertainty and rapid change.

PtP policy impact and recognition

The 2017 Industrial Strategy white paper cited PtP as an exemplary productivity-oriented SME management development programme. The LEAD programme and PtP have also directly informed the government’s policy on SME management skills development, as shown in the 2019 BEIS Business Productivity Review, *“Action 9: We have committed up to £11m to create a Small Business Leadership Programme to provide small business leaders*

with leadership training, building on existing world class training programmes; such as Be the Business' Productivity Through People, Lancaster University's LEAD and Goldman Sachs 10,000 Small Businesses Programme" [S3].

PtP is one of only four UK SME leadership programmes rated in 2020 as "One-to-Watch" by the highly influential ScaleUp Institute, which commented, *"The Covid pandemic has delayed completion of the first full-scale evaluation, but early feedback has highlighted the effectiveness of working with universities and industry partners. Delegates have identified a range of benefits, including opportunities to access the latest management techniques and thinking from both academics and industry partners, growing confidence in their own leadership capability and personal effectiveness and the value of peer-to-peer collaboration"* [S4].

The former MD of BAE Systems said, *"Lancaster's world-leading research in the development of entrepreneurs and managers in SMEs has made PtP a uniquely effective programme... Three years on, we now have a body of evidence that demonstrates the effectiveness of PtP"* [S5].

PtP has also received extensive coverage on national and local TV/radio and in the press e.g., the *Financial Times* (potential readership: 227,000), *Lancashire Evening Post* (potential readership: 53,000), *BBC Breakfast* (potential viewership: 17 million) [S6].

Related programme and impact: Made Smarter

In 2018, BEIS announced GBP20 million of funding for the North West pilot of the Made Smarter initiative, which facilitates SMEs' adoption of industrial digitalisation. Because of the success of PtP, LUMS was engaged, without competition [S7], to develop a PtP-based management development programme specific to industrial digitalisation adoption. Between June 2019 and December 2020, 50 SME managers have participated in the Made Smarter pilot programme [S8].

5. Sources to corroborate the impact

[S1] Be the Business data: a) PtP reach, b) Be the Business Interim Evaluation Report 2, 2020.

[S2] Testimonials from PtP participants: a) Managing Director Hosokawa Micron Ltd, 2020, b) Managing Director Forsberg Ltd, 2020, c) Pharma Operations Director, Howorth Air Tech, 2020, d) MD at AM Services Group, 2020, e) Managing Director & Founder at EnviroSystems UK Ltd, 2020.

[S3] [BEIS report on the Business Productivity Review](#), 2019, p.9; also covered in [HANSARD](#), 2019.

[S4] [ScaleUp Institute's ScaleUp Review 2019/2020](#), 2020.

[S5] Testimonial from a former MD of BAE Systems, 2020.

[S6] Consolidated summary of press and media coverage: 2017-2020.

[S7] Documentation of LUMS' invitation to develop the leadership component of Made Smarter, 2020.

[S8] Made Smarter reach information, 2020.