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Turn the handle everyday: developing circular practices in hospitality through auto action learning.

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Abstract

This paper explores the role of auto action learning in supporting circular practices. It presents a case study of small UK based hospitality businesses taking part in a composting initiative and considers how participants learn new actions through auto-action learning enabled by scientific social media (SSM). This novel approach generates written reflections, sentiment ratings, and emotions from those involved in producing compost at the business premises. Analysis examines both learning engagement and levels of learning in relation to task, self and 'learning to learn'. Findings suggest varied engagement with auto action learning; where there is engagement, participants express positive emotions towards composting and waste management, despite challenges in achieving aspirations. The discussion reflects on auto action learning adaptation, through SSM, to initiate, support and potentially sustain circular practices in small businesses. Conclusions and recommendations propose further research to support the development of SSM enabled auto action learning for positive environmental impact.

Introduction

This paper explores the role of auto action learning (Learmonth and Pedler 2004) in the context of the circular economy. It considers how independent coffee shop businesses address the problem of food waste through composting, guided by auto action learning and enabled and measured by SSM[1]. The paper begins by introducing the circular economy and legislative changes that require behavioural and operational change in the context of speciality coffee. Action learning adaptation is explored, and auto action learning is proposed as the means for initiating change. The methodology explains how SSM can gather and categorise reflective data, both to support participant action and evaluate the learning process. Data are analysed quantitatively to inform engagement, and qualitatively in relation to levels of learning. Reflections, conclusions, and recommendations inform opportunities for action learning research and action research related to the ongoing adaptation of auto action learning using SSM, and the adoption of circular practices in the speciality coffee sector.

Action Learning and Circular Practices

In response to the climate crisis, Rebecca Solnit (2023) proclaims that we *'are deep in an emergency, and we need as many people as possible to do what they can to work towards the best-case scenarios and ward off the worst* (4). The framing of climate change is critical to raising awareness and driving engagement in everyday circular practices (Wright and Irwin 2024). The philosophy of Action Learning is aligned to this type of values motivated change and is concerned with the framing of real-world problems and making changes for good (Bourner 2011) through individual and collective action. Indeed, environmental challenges present opportunities for action learning as well as offering the potential for action research,

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[1] The study uses 'LoopMe' (See Loopme.io)

drawing on researcher and participant experiences to make sense of involvement in – and the impact of – programmes and practices for sustainable futures.

In relation to business operations, climate action requires a collective commitment to circular practices (Masson and Fritsche 2021) enabled by the integration of business goals and business models (Velenturf and Purnell 2021). Small businesses require knowledge for action, informed by – and communicated as – practical behaviours, to bridge the gap between scientific programmed knowledge and that which can be applied in practice (Creutzig and Kapmeier 2020; Lever et al. 2022). This requires a learning agenda that bridges knowing and doing, ultimately leading to external collaborations across diverse economic landscapes in ways that make visible a range of economic, social, and ecological practices that can help to strengthen emerging economies (Cameron and Gibson 2020; Lever et al. 2022) while reducing carbon emissions (Goodall 2020). The circular economy and circular practices are essential if resource loops are to be closed and interwoven with socially inclusive and increasingly digitalised networks of stakeholders (Pusz et al. 2024). This paper proposes that action learning can be adapted to initiate and support circular practices. It explores the interests and actions of participants from hospitality SMEs, a sector typically underrepresented in action learning accounts, but critical to the development of circular food systems.

The Environment Act (2021) came into force in 2023, requiring businesses to reduce food waste and ensure elimination from landfill by 2030[2]. Business operations must be configured to separate food waste and then allocate for recycling, composting, or anaerobic digestion. Composting is a scalable practice that contributes to circularity by reducing landfill and carbon emissions, reusing food waste, and raising the fertility of natural landscapes. It offers

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[2] https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted

a cheap, local, and low polluting approach to food waste disposal with a high environmental value than can be realised through regenerative practices (Duncan, Carolan and Wiskerke 2021; Feodorov et al. 2022) that support circular food economies (Lever and Sonnino 2022). While the impetus for change is clear, the implementation and evaluation of new waste management practices may be complex in small businesses. Composting in a hospitality setting requires learning 'for action' in terms of determining inputs and the use of appropriate equipment to produce high-quality compost (Feodorov at al. 2022). Additionally, management practices are impacted by training, individual and organisational learning capabilities, and emotional commitments to climate change (Hathaway 2017). We propose that Action Learning can facilitate the initiation and development of circular practices in the speciality coffee sector, a context affected by legislative change and characterised by a collective commitment to socio-environmental values (Jacobi et al. 2024).

Speciality coffee is a growing movement of small interdependent organisations involved in the cultivation, processing, roasting, and brewing of high-grade coffee (Morland 2018), bound by values of fairness, transparency, mutuality, and sustainability. Ethics and environmentalism are integral to the product and service differentiation strategies of growers, roasters, and coffee shop retailers (Bartoloni, Letto and Pascucci 2022; Ferreira and Ferreira 2018), and there is a sector wide agenda for socio-environmental change to support the welfare and sustainability of coffee farming communities (Jacobi, 2024). While composting is aligned to the speciality coffee ethos of lowering environmental impact (SCA), the nature of environmental activities in small hospitality businesses, such as coffee shops, is little understood (Elkhwesky et al. 2022). These are busy organisations, significantly impacted by COVID-19 (Rattan 2020) and the ongoing cost-of-living crisis (ONS, 2024).

This study reviews participation *in* and the learning outcomes *of* 'Conscious Composting', a COP-26 legacy funded project created and co-ordinated by Dark Woods Coffee, a coffee

roaster and B-Corp located in West Yorkshire in the North of England. The goal of the project was to develop waste reduction guidelines from the composting experiences of volunteer hospitality businesses performed over a five-month period. We identified the opportunity to adapt action learning to enable the development of circular practices and to assess the learning process, thereby combining action learning and action research (Altrichter et al. 2002).

Action Learning adaptation

Action learning is underpinned by an ethos of learning 'from', 'for' and 'through' action, all or which requires personal responsibility, proactivity towards problems, and a desire to make a difference to real world issues (Bourner 2011, 121; Edmonstone 2019). The design of learning programmes and the experiences of participants are varied and context specific (Edmonstone 2014), and therein lies the potential to combine action learning and action research (Brett et al. 2012) to enable and inform change agendas. Action learning provides both the practice and philosophy to facilitate learning for behavioural, personal, and organisational change (Stark 2006); action research informs the ongoing development of learning for circular practices. For this study, the proposed action learning adaptations extend the depth and breadth of application.

In relation to depth, on a personal level action learning involves transformation underpinned by changing emotions and emerging sense of self. However, despite acknowledging the importance of emotions (Brook 2010), action learning literature offers limited guidance for their assessment. Understanding can be hampered by challenges in data capture and sense making processes; emotions may not be recorded in a timely manner, or participants self-censor in action learning sets and written reflections. Depending on the techniques used and the duration of learning programmes, there may be insufficient trust and understanding

between participants to initiate emotional disclosure. This study proposes that recognising and managing emotions are integral to transformative learning for circular practices, and action learning adaptations should address this issue. In relation to climate change, there is a need for a collective emotional shift from shock, fear, and anxiety towards sentiments of hope (Hathaway 2017). Although different to a health service context, we note associations with Revan's acknowledgement of places of anxiety (Brook, 2010) that must contend with change amidst uncertainty.

In terms of breadth, this study extends the application of action learning by supporting a change agenda in speciality coffee shops. Hospitality SMEs are relatively underexplored in terms of action learning, and we assume that there are notable restrictions in terms time and cost, as well as a limited readiness to undertake new circular practices through action learning. Action Learning Sets seem neither possible nor desirable at the outset. Initiating and operating sets with busy, geographically disparate small businesses is problematic (Boak et al. 2016; Levy and Knowles 2021) in terms of set-up, co-ordinating meetings, sustaining attendance, and managing facilitation (Bourner 2011; Stark 2006). There are alternative forms to consider. Self-managed action learning sets (SMAL) pioneered in the late 1990s, offer an alternative route to organising collective learning by empowering participants to undertake facilitative roles (Bourner 2011). While this approach is perhaps possible in the longer term, our participant group have no prior knowledge of action learning and are not geographically proximate.

Virtual action learning (VAL) presents the opportunity of technology enabled learning in a low cost and efficient manner without the need for geographic co-location (Boak 2024; Stewart 2024). However, programme set-up and the development of learning commitments and competencies are challenging for a relatively short-term project. We assume issues in readiness to learn through collective practices (on or offline) without the time and resources

to prepare and support participants prior to action. How then, can Action Learning be done differently and inclusively for the benefit of organisations and individuals who want to engage in circular practices, where there is a lack of task related knowledge and no prior experience of action learning in the participant community?

Mindful of the challenges in busy hospitality settings, we propose action learning adaptation by removing action learning sets but offering support through mentorship. Importantly, the process needs to address uncertainty and 'not knowing', both in terms of learning to learn and learning how to integrate circular practices in a context characterised by time and resource limitations. We proposed a phase of individual action and self-reflection with mentor guidance to help participants to address own learning needs.

In addition, the learning process requires contextualisation in terms of time available and timing. In this case, there is a need to respond to a long-term environmental agenda through short term adaptations (we had a five-month period to support new composting practices). Moreover, composting practices would be impacted by seasonality (time of year) and the ability of participants to dedicate time for reflection and action. Hospitality businesses are notoriously busy, often affected by staff fluctuations and task intensity. Encouraging learning through daily action and systematic reflection needs to strike a balance between the needs of individual businesses and the overall aim of the project. Brook's review of historic action learning adaptation in the NHS (2010; 182) notes a combination of practices (other than learning sets) underpinned by the principle of learner self-discipline.

Where action learning is a short-term intervention, a singular drive for task completion may override personal and organisational learning (Dixon 1998). Equally, an overemphasis on personal development can divert attention from organisational, or in this case, sector related change (Revans and Botham 2001). We propose that developing a sense of self discipline and

personal accountability is critical to the climate change agenda and relevant to creating readiness for collaborative action learning in the future. We frame action learning as a process that harnesses commitment through values practices and support, to engender and develop task, personal and process related learning. Developing a sense of personal accountability is a meaningful value that can be instilled in a 'first phase' of action learning. Once a sense of self and one's own commitment to change is understood, so individuals can make use *of* and contribute *to* collaborative action learning. This scenario presents an opportunity for auto action learning.

Action Learning Adaptation through Auto Action Learning

This study proposes that auto action learning provides a best fit for initiating action learning in a context with limited task related knowledge and no prior participant experience of action learning. There is high motivation to undertake composting, as participation is voluntary and aligned with the socio-environmental agenda of speciality coffee. The values of self-accountability, proactivity, and the acceptance of learning in conditions of uncertainty, are deemed sufficient to utilise this approach. (Learmonth and Pedler 2004). According to Pedler et al. (2005), 'auto action learning' requires *'a repeated discipline of holding oneself to account for action against a set of questions.'* (61). This can be done systematically through a process of regular questioning, reflection and feedback between participant and researcher/mentor. Individual participants reflect on their actions through a series of questions, issued and reviewed by the researcher/mentor (in this case an experienced Learning Set facilitator). Auto action learning can reduce the sense of feeling alone in a problem situation; furthermore, the reflective dialogue is captured and analysed to help illuminate the learning experience (Learmonth and Pedler 2004), which can inform next steps and future programme design. There are, however, anticipated challenges in contextualising and evaluating change.

The extant literature concerning auto action learning is limited. One published account situates this approach as supplementary to a wider action learning agenda, involving learners who have prior experience of action learning (Learmonth and Pedler, 2004). Holding oneself to account is instilled through consistently responding to a series of standardised reflective questions and the guidance of a mentor. We acknowledge that our participants do not have prior action learning experiences; auto action learning is in effect a 'stand-alone' practice and not conducted in conjunction with any other form of action learning.

To aid learning and evaluation, this study employs technology in the form of SSM to maintain researcher/mentor and participant relationships, and like other virtual methods, increase the efficiency and reduce the costs of participation (Stewart, 2024).

Scientific Social Media enabled Auto Action Learning

SSM are platforms that enable content uploading, interactions, and information transfer between groups and individuals as well as recording data to measure engagement and participation. Increasingly, social media are used to co-ordinate learner groups and enable the timely recording and sharing of reflections (Callaghan and Collins 2021; Rhodes and Brook 2021), both formally and informally. Due to the recency of these innovations, there is limited understanding of the role of social media in action learning and there are calls for greater understanding in relation to their contribution to learning experiences (Foltyn 2022).

SSM has been used to support and research entrepreneurial and organisational learning (Lackéus and Sävetun, 2019; Lackéus, 2020; Lackéus and Sävetun 2023). Entrepreneurial learning has clear associations with action learning, in combining action and reflection, addressing real world problems, and in being concerned with the nexus between becoming entrepreneur and venture creation (Sear and Norten 2021). Questions also arise in terms of what works, in which contexts, and for whom?

In this study, SSM is used for two purposes: firstly, to support learning, and secondly, to evaluate the learning process. To explain, firstly, SSM capture data close to the occurrence of critical incidents. Apps and platforms can be used on mobile devices, and reflective prompts adapted and released to enhance engagement. Furthermore, both participant and researcher/mentor communications and response timings are recorded, so the pattern of engagement, action, and reflection can be reviewed and adapted over time.

Secondly, SSM can capture emotions easily and efficiently (Lackéus and Sävetun 2023), using predetermined terms or signifiers such as hashtags or emojis. Previous studies have noted the popularity of hashtags for self-expression with school age learners (Folytn 2022), employees, and nascent entrepreneurs (Lackéus and Sävetun 2023). By utilising a closed loop private communication system (between each participant and the researcher/mentor) it is possible to propose and capture emotions associated with actions and intent. Doing so can increase the revelatory depth of reflections and give greater insight into cause and effect between action and reflection (Lackéus, 2014). SMM have been used for reflective practice with large and small samples (Lackéus 2014; Lackéus and Sävetun 2023) and show promise in supporting and evaluating change agendas. Following 10 years in development and corresponding academic review, SSM have come of age as research tools, informing the design, support, and evaluation of learning. They have the potential to increase the prevalence of action learning in different organisational contexts, as well as increase our understanding of emotions in the reflective process. Thus, SSM platforms have the potential to disrupt both the learning process and how, when, and where reflective data is captured and analysed. According to Moldoveanu and Narayandas (2019), virtual learning platforms are: flexible in the pacing of content, accessible and therefore conducive to frequent use, as they have the capacity to contextualise and personalise learning practices and programmes, through ongoing measurement of engagement and contribution.

In this study, the use of SSM is exploratory, for the purpose of initiating, supporting, and evaluating auto action learning where learners are not a pre-existing learning community, are geographically disparate, and undertaking 'values' informed actions, to which outcomes are unknown. Our curiosity is in understanding how SSM enabled auto action learning can be used to introduce action learning and - through support - develop learner readiness. SSM can help participants to explore the sentiments of 'Revans' Questions', such as 'what am I trying to do' and 'what is stopping me' (Revans and Botham 2001).

Aim and contribution

This paper explores how composting was initiated and learned by participants in six hospitality SMEs. The aim of this research paper is to understand the role of auto-action learning, enabled and measured by SSM, for the purpose of undertaking novel circular practices within small coffee shop businesses. This represents an extreme case study (Vogt et al. 2011) in terms of the action learning context and adapting auto action learning using SSM, which contributes to debates about how action learning can evolve (Pedler et al. 2005). The study makes an original contribution by enabling auto action learning and evaluating the associated learning process.

Materials and Methods

Participation and data collection

When Dark Woods coffee were awarded COP-26 funding to establish the 'Conscious Composting' project, they approached 76 coffee retail clients for volunteers to take part; the first ten businesses to respond were invited to undertake composting and sign up to the SSM enabled learning process. Participant organisations reported their food waste levels, prior to the project, so that Dark Woods could purchase and install the most appropriate composter

for each business. Where possible, they visited the participating businesses to assist with the set-up of the composter and provide advice for them to get started.

The researcher functioned as a reflective practice mentor (Learmonth and Pedler 2004) in providing information to sign up to and use SSM. Not all of the businesses signed up to the action learning study, and one organisation was unable to participate, despite a keen interest, due to insufficient space at the premises. Participants from six businesses (one per organisation) actively contributed to the study and in most cases the participants were owner's/managers. A total of seven reflective tasks were issued (comprised of multiple questions – typically three questions per task) and released and completed between November 2022 and March 2023. The researcher/mentor generated reflective questions and provided personalised feedback to the six participants. Both responses and feedback were submitted in a closed loop bi-partite relationship, enabling dialogue, and checks for clarification between researcher/mentor and participant. The data collection process captured learning over time (and timings of reflection), thereby adding to the understanding of reflection situated in the workplace (Lackéus 2014; Lackéus and Sävetun 2023). A total of 38 reflective statements were submitted in response to the seven tasks. (Further response data is provided in Table. 3.)

Design of action learning prompts

As well as capturing the sentiments and emotions of the learner, reflective tasks were designed to enhance performance learning (Beard and Wilson 2013). Each task typically comprised of three questions. The principles of questioning insight (Coghlan 2012) and levels of learning (Burgoyne and Hodgson 1983, cited by Cope and Watts 2010) were applied to the composite questions. For example, Task 2 asked participants to:

> *Please identify any new task or process that you do (or staff do) now that the project has started. 2. In terms of last week, did you experience any challenges? If so, how*

did you overcome these? 3. What do you think you have achieved so far? Please select three tags that illustrate your emotions connected to the composting project at this stage.

Task 7 asked participants:

What have you learned about composting? ... think about what you know in terms of inputs, progress and outcomes. 2. What have you learned about yourself in relation to the task of composting? Maybe reflect on the hashtags you have been using. Comment on your motivation and practical engagement with the task. What does it mean to you? 3. What have you learned about learning? You may have been doing something completely new, with few guidelines. How have you found this learning process?

Due to the exploratory nature of the study and the novelty of using SSM, primary data collection experimented with varied questioning, in contrast to the study of Learmonth and Pedler (2004). While this is a departure from Revans' questions and a template approach (Learmonth and Pedler 2004), it creates the opportunity to explore the relationship between questions and engagement. A further sample of questions is presented in Table 1.

INSERT TABLE 1 HERE.

Table 1: Conscious Composting – sample of reflective questions

To begin with, questioning was mostly task orientated. As practice developed, questions probed for more personal and learning related reflections. Exploring different levels of learning help to inform our understanding of how decisions are taken and issues overcome. As Graham (1998, 9) notes:

Usually there is no 'right' answer but rather several ways forward and by choosing what to do and how to do it, the participants come to learn about the problem, about themselves and about the process of learning.

Variable questioning probed for 'learning to learn' insights, recognising that not knowing and uncertainty could influence actions and reflections. In addition to reflective statements, participants were invited to submit a combination of photographic images and general

sentiment ratings expressed on a scale from -2 (negative) to +2 (positive), and a choice of specific emotion 'tags' (see Table 2) from the predetermined list.

INSERT TABLE 2 HERE.

Table 2: Conscious Composting – emotion informed tags.

Hashtags are a common means of self-expression in social media (Foltyn, 2022). The tags used in this study include a mixture of positive and negative emotions and participants were asked to assign three emotion tags to each reflective task. This approach is subtle and efficient in removing the need for dedicated questioning and can also inform quantitative and qualitative review.

Research Limitations

The study was conducted over Autumn and Winter months, when progress was slowed by cold weather. Furthermore, UK hospitality businesses are extremely busy in the run up to Christmas and often close in January/New Calendar Year. An extension to the study would yield greater insight into how compost can be produced in relation to different seasons and changing service levels, and better explore the relationship between emotions and achievement of composting goals. It is also acknowledged that our questioning emphasised task learning, as composting was a new practice. Heeding advice from Dixon (1998), action learning should not default to task force behaviour; an extension to the study could allow for more varied questioning, with greater emphasis on personal development and organisational change. On reflection this novel study (for researcher and participants alike) did not make full use of the SSM functionality. More could be done to enable ongoing dialogue between researcher and participant 'in between' tasks. Keeping the remote conversation going would allow for deeper reflection and facilitate learning.

Results and Discussion

Engagement is assessed using simple quantitative measures enabled by SSM, which is followed by a more detailed qualitative section exploring the sentiment and content of reflective statements.

Quantitative overview of auto action learning engagement

The SSM recorded and distributed the reflective tasks and captured qualitative responses, timings of submissions, images, sentiments, and emotion tags. It also captured any additional exchanges between researcher and participant.

The SSM captures participation rates throughout the study. Table 3. summarises response rates to the reflective tasks. It also presents 'Average Feeling' an aggregation of participants' positive and negative sentiments assigned for each task over the duration of the study.

INSERT TABLE 3 HERE.

Table 3: Conscious Composting – reflective task and sentiment quantification.

Of note was the consistent reporting of positive sentiments for the duration of the study and, as a result, a high positive 'Average Feeling'. However, over time the engagement decreased in terms of the response rate and, in some cases, depth of reflection. This might be explained by successful task learning reported by some participants, whereby practical problems were overcome, as this response states:

> *I think we have achieved a better understanding of composting. How it works, the process, and why it is important. It's also brought to light how easy it is (from a business) perspective (SIC) to become a more sustainable and green business.* **(Participant E)**

In terms of expressed emotions, the most frequently used tags suggest that participants were proactive and motived to engage in composting (negative tags were used less frequently).

INSERT TABLE 4 HERE.

Table 4: Conscious Composting – tag quantification.

Notably, positive tags were listed in relation to responses that acknowledge a lack of progress (see next section). Despite the practical challenge of making quality compost, participants expressed proactive emotions. Although only required to provide three tags per reflective task, 11 responses used fewer and 14 used more. For some participants, tags were a preferred way of identifying emotions related to learning, as a participant noted:

> *The app works really well and I like the option of the feeling and hashtags. It gives an opportunity to convey emotions when it is hard to do so in writing* **(Participant C)**

Qualitative Reflections of Participant Experiences

This section presents a qualitative thematic analysis of learning, relating to task, self, and 'learning to learn' levels. Emotion tags are also listed with the corresponding reflective statement.

Task relating learning

Some participants had prior experience of composting at home but composting at business premises was a completely new activity. Reflections for Tasks 1 and 2 communicated excitement and enjoyment at doing something new. Composting requires a mix of different inputs and ingredients to attain quality outputs (Feodorov et al. 2022); learning what to add and perfecting a mix of inputs presented an interesting challenge.

The ability to sort waste effectively and add in appropriate amounts was typically seen as a shared responsibility, requiring input from all staff:

> *I'm excited but it is also a bit daunting… Training the team to be on top of what can go into the composter and what cannot is fairly easy but for everyone to remember at all times will be a challenge. (SIC)*

> **Tags**: *Curious, Eager, Excited to share experiences, Happy to contribute, Motivated, Needing Support, Wanting to do more, Wanting to learn* **(Participant C)**

Organisationally, the challenge was to integrate new actions into daily operations and to sustain these during busy times:

> *Remembering to use the coffee bin for coffee only has been a challenge during a busy service. During a busy service it is easy to forget this new rule. Making the adjustment to an old process rather than introducing a new one (such as a new bin) means that often old habits take over. With time I believe this to change. (SIC)*

> **Tags**: *Curious, Happy to contribute, Motivated* **(Participant A)**

Progress in making compost was affected by seasonal external conditions, specifically very cold weather. Participants needed to learn how to process compost during winter months. This is analogous with the idea of 'turning the handle' on the composter, every day. Participants were clearly impacted by challenging conditions:

> *One of the challenges we are finding, is that with the weather as cold as it currently is. The process of composting is significantly reduced due to the colder climate. Therefore, our composter is full already. Meaning we are limited as to what we can do until the compost is ready.*

> **Tags**: *Collectively involved, Excited to share experiences, Happy to contribute, Wanting to learn* **(Participant E)**

The timing of this study highlights organisational and external challenges, which can impede progress. Action learning in this context requires an appreciation of seasonality in determining what to do and when (it must align in terms of time and timing).

Learning related to self

The tags used suggested a strong motivation to undertake composting and learn new skills. Overall, participants reported progress in broad aspirational terms. In some cases, goals included a wider, external agenda.

> *To reduce our food waste to as near to zero as possible. And to encourage our customers to home compost more.*
>
> **Tags**: *Collectively involved, Happy to Contribute, Inspired* **(Participant I)**

In addition, engagement with composting led to further interest in waste management.

> *We want to think more about the packaging our food comes in, to reduce other areas of waste.*
>
> **Tags**: *Collectively involved, Motivated* **(ibid)**

Others conveyed a clear sense of proactivity in terms of learning and future aspirations,

despite not achieving intended outcomes during the research period.

> *At this stage the compost is getting better and our second half of the drum is looking a lot better than our first, it seems we overestimated our knowledge on compostable items, but we seem to be improving…*
>
> **Tags**: *Collectively involved, Excited to share experiences, Proud, Wanting to do more, Wanting to learn, Happy to contribute, Eager, Inspired, Motivated.* **(Participant H)**

Self-reflection identified gaps between 'where we are' and 'where we want to be', and so a

sense of creative tension emerges (Senge 1999).

> *In our short-term experience so far we need to look at different ways of making "waste management line" from the inside of our café to the composter more intuitive. By "the waste management line" we are talking about the collection and disposal of waste - separation/bin management - compost or disposal of waste. Ways of making this system more intuitive and simple could be by adding colour coded bins for customers to use…* **(Participant A)**

Problem definition is at the heart of informing the conceptualisation of change.

Learning to learn

As noted previously, participants acknowledged that compost was delayed by cold weather

and some businesses ran out of composting capacity. Thus, important learning emerges in

terms of goal setting and attainment. Participants had to find new ways to increase composting capacity or reduce food waste generated in the business, which translate as single loop and/or double loop learning responses (Argyris and Schön, 1978). Single loop learning seeks to address the composting practices:

> *We haven't been prepared enough to actually find a place for this compost when it is done…* **(Participant A).**

Whereas double loop learning opportunities reflect on generating and managing waste; in some cases, there is a sentiment shift towards resource management:

> *It is exciting to see how what we would call rubbish or waste can be turned into something else so useful…* **(Participant C)**

'Learning to learn' statements give insight into the impact of new actions on the organisation:

> *At this stage it's becoming clear that composting is not a quick fix to help manage our food waste.*
> **Tags**: *Curious, Other, Motivated* **(Participant A)**

In some cases, knowledge of how to use compost came from outside of the organisation.

> *We have quite a few people on the team who like gardening so some of the compost will be given to those team members. However, as a business we are big on community, so we will invite people from the community to take some as well.*
>
> **Tags**: *Excited to share experiences, Happy to contribute, Wanting to learn, Motivated, Inconvenienced.* **(Participant C)**

External stakeholders can present opportunities for collaboration and learning. Understanding who cares may help to sustain motivation in the longer term, as well as identifying the potential for 'communities of practice' than can be important for future collaboration and relational action learning (Boydell 2020).

Reflections of Participant Experiences

The qualitative analysis of auto action learning presents three key learning themes: adjusting tasks to a challenging context; the enduring presence of proactive emotions and positive sentiments; and finally, the potential for collaborative action (both internally and externally) to these organisations.

Composting within these businesses is a 'live issue', which is dynamic in terms of actions and outcomes. What to compost, and when, is dependent on the operations and resources of each business. The varied approach to questioning generated responses that alluded to the potential for single loop and double loop learning (Argyris and Schön 1978) in response to the problem situation. Composting can be conceptualised as an extension to existing operations or a process from which to explore related circular practices within the organisation and the wider sector. The high use of the 'wanting to learn' (See Table 4) tag implies the need to continue action and reflection over time. This would help to explain the relationship between intent and outcomes, thereby raising the capacity for double loop learning (Brockbank and McGill 2004).

Given the time it takes to make compost, there was a lack of outputs within the period of research, which has implications for learning and goal setting. There were also requests for help or answers to specific composting problems. As Participant C noted:

> *It's one thing to read instructions online and it's another thing to be able to ask a handful of people in real time.*

The researcher/mentor encouraged learning how to find help and self-directed collaboration.

The emotional tag data provides another way of assessing progress towards intentions and objectives, despite challenges that delay actions. The data suggests that positive feelings can be maintained towards taking meaningful action, even when it is not possible. This pervading proactivity can help in the participant 'weather' challenging conditions, until there is the opportunity for change. Solnit (2023 5, 6) determines hope as '*recognising the uncertainty of*

the future and making a commitment to try to participate in shaping it …to know that we must act without knowing the outcome of those actions'. Our findings suggest a gap between intention and action that conveys a sense of 'hope', which is necessary to respond to the global environmental crisis (Dauvergne and Clapp 2023). We propose that feelings of hopefulness could be assessed in future studies, though the use of related tags and reflective tasks.

Data suggest that auto action learning can help participants foster a commitment to action and learning in a context of uncertainty, as expressed through the positive sentiment rating and associated emotions. Might emotions be used in inform what it means to hold oneself to account through auto action learning? Perhaps intentions such as 'staying motivated' or 'wanting to make a difference' can help to drive accountable behaviour and future collaboration. As Lever and Sonnino (2022) note, making circular practices visible challenges the dominance of linear thinking by uncovering the potential to develop policy interventions that can support and embed circular innovations that help meet climate objectives.

Researcher Reflections of Supporting and Evaluating Auto Action Learning

Despite the challenges discussed, new actions and learning were evident in our study, as were positive sentiments throughout the learning process. This finding is relevant for the wider adoption of auto action learning. Indeed, even though participation and intended change outcomes may not be attained within a programme, positive sentiments may be sufficient to maintain a commitment to action and self-accountability.

We propose that auto action learning enabled by SSM increases the potential to contextualise, personalise, and improve the access to action learning. This is important to ensure that action learning continues to adapt and remain accessible. At its inception, Action Learning was an

innovative response to knowledge driven management learning, enabling managers to create and enact context specific learning. To adhere to these principles Action Learning should continue to grow and not become the privilege or preserve of those organisations that are able to fund and sustain action learning sets and formal action learning programmes. Circular practice communities may not be geographically proximate enough to enable in person sets, or have the connectivity, time, or resources to support VAL. This study also challenges that prior experience of action learning within the participant community is required for auto action learning. Instead, auto action learning can be seen as an accessible and flexible way of getting started, especially in a small business context. It can create the foundations for sustaining individual action, or, when means allow, enable relational action learning. In this case study context, wider inclusion could be sought in a similar way to 'communities of food practice' (Levkoe 2017).

Like other approaches, auto action learning does present issues in terms of engagement and sustaining learning over time; in this case three organisations did not take part in the auto action learning. For those that did participate, data captured by the SSM provides the means of understanding the frequency and depth of self-directed reflection, as well as the effectiveness of feedback and questioning from the researcher/mentor. In this study 26% of reflections were submitted outside of the 9-5 day. These data can be used to continually adjust and assess the process. We also note that some participants are more reflective than others, and more collaborative in their actions. Again, these data can inform general next steps as well as targeted facilitation.

Finally, tag and sentiment rating data present new means for how we capture – and understand – the relationship between actions and emotions. Extending the data capture period can generate further understanding of emotions in terms of motivation, self-questioning, and collaboration. SSM provides the capacity to update and alter tags, as well as

inform the task questions. The researcher/mentor can also refer to these data in their interactions with participants to increase the depth of reflection. Having undertaken auto action learning, participants are informed about what they are trying to do, and how they feel about their progress. Emotions and sentiments can also be used to explore the 'negotiation questions' (Revans and Botham 2001) in terms of tasks, emotions and learning with others.

Conclusions and Recommendations

This paper determines that auto action learning can be used to initiate and support learning for circular practices, and participant learning experiences have been used to inform a freely available web-based guide for hospitality businesses. SSM has a dual role in both enabling and evaluating the learning process. Importantly, SSM enable timely reflections and the expression of associated emotions; and in doing so reveal a prevailing sense of proactivity. Future action learning research can assess the content of - and engagement with - reflection over time as well as corroborate between behavioural change studies (Lackéus 2020), specifically in relation to emotions associated with the learning process. Furthermore, using varied questioning and wider reflective dialogue, SSM can extend from enablement and evaluation to informing the design of learning programmes (Lackéus and Sävetun 2023).

In summary, making sense of self in relation to circular practices is complex, not least because actions may be new. While the value of contributions and actions are difficult to assess in the short term, climate action and the net-zero agenda require the persistence of meaningful everyday circular practices (Solnit and Lutunatabua 2023). SSM has an emerging role in helping individuals and communities commit to and take accountable actions, as well as measure progress in terms of new practices and emotional shifts. Although the sample is small, and the period of data collection short, this study proposes that measurements of change can be informed by sentiment ratings and emotions, not least because they explain

persistence through difficult times. Participants can reflect on how their conscious actions adhere to desired intentions and outputs.

Further research can support action learning adaptation in two ways. Firstly, action learning research can explore the transition from auto-action learning to collaboration and relational action learning, using SSM. Action Learning that arises from different circular practices - in different organisations - creates the potential for a diverse knowledge base, raising the possibility for wider collaboration in a circular economy. It can explore who is or should be part of a collective agenda. The Conscious Composting Web guide presents a mix of general advice and case study reflections and invites dialogue from those interested in composting. Our participants recognised the potential for customers and local organisations to join the discussion, as well as adapting their behaviours at home. Composting might be good first introduction to circular practices for both small businesses and local residents. How then might a transition from individual to collective learning be supported and evaluated? What patterns of interaction are desirable and possible?

Secondly, action research can investigate the wider application and effectiveness of different action learning approaches for circular practices. Climate action requires a diverse knowledge base to support future action, which should be contextualised and amassed from practical learning initiatives. SSM enabled auto action learning offers a first step to moving from awareness and emotional commitment, to informed action. We propose action learning has role to play in capturing critical incidents and learning from larger groups of participants, with a view to enabling knowledge sharing systems to support the development of diverse economies in the coffee community and beyond, contexts that can be unified by hope and a collective commitment to changing everyday practices.

Acknowledgements

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TABLES: 'Turn the handle everyday' (Revisions as of 15-11-24 – see Table 3)

(1) Task related questions	(2) Self-related questions	(3) Learning to learn questions
Briefly describe your current approach to composting.	**At this stage, how do the outcomes relate to your expectations?**	**Please share one key learning point you have gained from your experiences so far?**
What do you discuss when you talk about composting with staff and colleagues?	**What have you learned about yourself in relation to the task of composting? Maybe reflect on the hashtags you have been using. Comment on your motivation and practical engagement**	**Would you like to be part of a composting group (online)? If yes, what would you hope to gain?**
What have you learned about composting? You might have mentioned learning points in other Loops, but think about what you know in terms of inputs, progress and outcomes	**If you are 'wanting to do more' (perhaps you have used this as a hashtag). What does 'doing more' mean to you? You can talk about the short term (weeks/months) or the longer term.**	**Based on your learning, how do you want to change the way you manage food waste in the short term? (What do you want to start doing differently?)**

Table 1: Conscious Composting - sample of reflective questions

Emotion informed tags (19) - available for each reflective task
Collectively involved, confused, curious, disappointed, disinterested colleagues, disorganised, eager, excited to share experiences, happy to contribute, hurried, inconvenienced, inspired, motivated, needing support, other, proud, ready to start, wanting to do more, wanting to learn.

Table 2: Conscious Composting – emotion informed tags

Number of participants using SSM (one per participating organisation)	6
Total number of reflective statements submitted	38
Statements accompanied by a positive sentiment	36
Statements accompanied by a negative sentiment	2
Average Feeling (aggregation of sentiment data for the full data set). (above zero is positive/highest value is +2)	1.3
Responses to Task 1	6
Responses to Task 2 (from a possible 3x6 = 18)	13
Responses to Task 3	6
Responses to Task 4	4
Responses to Task 5	4
Responses to Task 6	3
Response to Task 7	2
% of responses submitted outside the hours of 9am and 5pm	26

Table 3: Conscious Composting – reflective task and sentiment quantification

	Number of uses (overall)
High frequency positive tags	
Motivated	20
Happy to contribute	19
Collectively involved	18
Wanting to learn	12
High frequency negative tags	
Disappointed	3
Disinterested colleagues / Disorganised / Inconvenienced / Hurried	2 (each)
Needing Support	3

Table 4: Conscious Composting – tag quantification