

Engaging Healthcare Scientists in Cancer Diagnostics through Action Learning Sets: Evaluation Report

Sponsored by Health Education England

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1. Introduction

This evaluation report presents the findings of an Action Learning Sets (ALS) in which Healthcare Scientists in Cancer Diagnostics engaged, over a period of 7 months, from January 2020 to July 2020.

The Action Learning Sets were part of Christopher Sibley-Allen's Healthcare Scientist in Cancer Diagnostics Fellowship Project, which was aimed to engage the Healthcare Science workforce in the NHS. The Fellowship Project included the following three activities:

- **Action Learning Sets (ALS):** an experienced Action Learning Sets Facilitator meets with a group of Healthcare Scientists and cancer professionals who face cancer diagnostics challenges on a regular basis. ALS offer a professional development opportunity for the participants and a multidisciplinary approach to tackling system challenges in the diagnosis of cancer.
- **Sandpit innovation event approach:** a two-day innovation event facilitated by an expert interested in looking at cancer service performance. Before the COVID-19 lockdown a theme on the topic of advanced practice in histopathology was established. The primary aim was to encourage the adoption of healthcare scientists into expanded roles in cancer diagnostics. This would have the effect of a career progression opportunity for healthcare scientists, and free histopathologists to do fewer more complex cases.
- **Fostering a community of practice around cancer diagnostics:** the development of a Community of Practice where members share resources and expertise for providing patients information on cancer diagnostic tests. Several potential avenues which Healthcare Scientists could contribute too were explored, including reducing health inequalities in cancer services, sharing and standardising approaches to diagnostic testing protocols and more efficiently sharing resources across regional integrated care systems.

Unfortunately, due to COVID-19, the Action Learning Sets was the only activity that took place. An independent evaluator evaluated the Action Learning Sets and findings are presented in this report.

2. Healthcare Scientists: Background and Context

Healthcare Scientists play a vital role in the prevention, diagnosis and treatment of a huge number of medical conditions. They also help people live independent lives through rehabilitation. Healthcare Scientists help prevent, diagnose and treat illness using their knowledge of science and their technical skills. They use their expertise to help save lives and improve patient care in a supporting role or in direct contact with patients. They work in four main areas: Life Sciences, Physiological Sciences, Physical Sciences & Biomechanical Engineering and Bioinformatics. Some Healthcare Science careers (specifically Biomedical Scientists and Clinical Scientists) require statutory registration with the Health and Care Professions Council. For others, there are voluntary registers such as with the Professional Standards Authority for Health and Social Care and the Academy for Healthcare Science (www.healthcareers.nhs.uk/).

Healthcare Scientists can work in a wide range of settings and services across health and social care. They make a unique contribution to the planning and delivery of healthcare for people across the life span. Their roles are wide-ranging and contextualised and they engage in multidisciplinary practice in a diverse variety of specific healthcare specialties.

3. Action Learning Sets

3.1. Definitions of Action Learning and Action Learning Sets

Action Learning Sets are an approach to problem solving, and involve taking action and reflecting upon the results. Action Learning Sets aim to improve problem-solving processes and simplify the solutions developed by the action learning team.

Action Learning Sets have proven to be very effective in developing a number of individual leadership and team problem-solving skills. As a result, they have become a component in corporate and organizational leadership development programs.

Action Learning Sets participants bring a particular challenge facing them in their work to the Action Learning Sets meetings. The focus of the team is on supporting each individual in deepening their understanding and learning about that particular challenge. Between each meeting, members implement the actions identified.

3.2. Aim and description of the Action Learning Sets

The Action Learning Sets in this project aimed to offer a professional development opportunity for the participants and a multidisciplinary approach to tackling system challenges in the diagnosis of cancer experienced in the NHS.

Over a period of 7 months, a group of 5 Healthcare Scientists and cancer professionals with cancer diagnostics challenges met 6 times. The first two meetings took place face-to-face, but due to COVID-19, the last four meetings took place online.

An experienced Action Learning Sets Facilitator facilitated every meeting. The Project Coordinator also attended the meetings.

3.3. Recruitment and selection of the participants

In December 2019, the Project Coordinator, Christopher Sibley-Allen advertised the project via the Academy of Healthcare Science (AHCS) social media, targeting Practical Skills in Education and Leadership for Healthcare Scientists (PSEL) alumni, the London Scientific and Diagnostic Network and the Histopathology Scientists via the Institute of Biomedical Science. Professionals working in cancer service performance were targeted through the networks of Public Health England, NHS England & Improvement, the three London cancer alliances. All Healthcare Scientists or Cancer Systems professionals working in London with a workplace challenge around cancer diagnostics and who would like time and support from peers to consider these challenges were invited to participate.

3.4. Description of the Action Learning Sets participants

Table 3.1. Action Learning Sets participants, including the Facilitator

Demographics	
Gender	<ul style="list-style-type: none"> - Female: 5 - Male: 2
Discipline	<ul style="list-style-type: none"> - Action Learning Set Facilitator - Cancer Waits Improvement Facilitator - Cancer Improvement Manager Faster Diagnosis Standard Lead - Head of Flow Cytometry (Biomedical Scientist) - Trainee Clinical Scientist and Biomedical Scientist - Advanced Histopathology Practitioner and Biomedical Scientist - Healthcare Science Fellow and Clinical Scientist in nuclear medicine

3.5. Impact of COVID-19 on the project

Due to COVID-19, only two Action Learning Sets meetings took place face-to-face. The remaining four meetings took place online. Also because of COVID-19, two participants were no longer able to participate in the Action Learning Sets.

4. Evaluative Research Methods

4.1. Overall aim of the evaluation

The purpose of the evaluation of the Action Learning Sets (ALS) was to measure the experiences of the participants and the impact of their engagement with the activities.

4.2. The evaluation team

An independent evaluator, Dr Ann Ooms, who is an Evaluation Consultant in Healthcare and Healthcare Education, conducted the evaluation.

Dr Ann Ooms engaged with two stakeholders, namely the Project Coordinator, Christopher Sibley-Allen, and Sue Nash, who was the Action Learning Sets Facilitator. Stakeholder engagement enhances the credibility and validity of an evaluation and can influence how the stakeholders embraced and utilized findings and recommendations from the evaluation.

4.3. Evaluation design

The evaluation followed a mixed-methods triangulation design, where the aim is to explore and expand the quantitative results with qualitative data. The triangulation design is a design in which the quantitative and qualitative methods are implemented during the same timeframe and given equal weight. The quantitative and qualitative data are merged into one overall in-depth interpretation.

4.4. Data collection methods: tools and strategies

To collect data, a mixed-methods online questionnaire was developed using the principles of Tailored Design Method (Dillman, 2014), a method, which help maximize response rates while minimising the burden placed on the participants.

Dr Ann Ooms developed the questionnaire. The Project Coordinator and the Action Learning Sets Facilitator provided stakeholder-feedback, which was used to make improvements to the questionnaire.

The questionnaire was developed around the following five themes:

- Preparation for participation
- Engagement in the programme
- Value and satisfaction with the programme
- Impact of the programme
- Sustainability of the programme

It included 28 questions, namely 4 multiple-choice questions, 10 Likert-items in matrix format and 14 open-ended questions.

The questionnaire was administered online, using SurveyMonkey. At the end of the project, all participants received an email invitation to complete the questionnaire. This email included the link to the questionnaire, which was anonymous. The Project Coordinator and the Action Learning Sets Facilitator were also invited to complete the questionnaire.

4.5. Data analyses

Dr Ann Ooms analysed the data as follows.

4.5.1. Quantitative data

MS Excel and SPSS version 26 was used to analyse the quantitative data from the questionnaires. Descriptive statistical analyses were conducted, reporting on frequencies of multiple choice and Likert-type responses. Given the aim of the evaluation study, inferential statistics were not conducted.

4.5.2. Qualitative data

Thematic analysis was used to analyse the qualitative data collected through the open-ended questions of the online questionnaires. The qualitative data was coded manually, developing themes and subthemes from the data.

5. Results of the Questionnaire

5.1. Preparation for participation

The participants were asked to reflect on their preparation to engage in the Action Learning Sets (Table 5.1.). The response of the participants varied. Two somewhat disagreed that they received sufficient information prior to the Action Learning Sets and one somewhat disagreed that they were outlined in sufficient detail. However, all were aware of the amount of time the Action Learning Sets would take and most somewhat agreed that the process was outlined in sufficient detail.

The Coordinator had prior individual communication and dialogue (via email or by phone) with each participant about the ALS and their specific challenges. Also, the first meeting was a full day during which the Facilitator could ascertain whether the participants had previously participated in an ALS so she could build on their knowledge with a PowerPoint presentation and a group discussion.

Table 5.1. Participants' preparation to engage in the Action Learning Sets (ALS) (Frequencies)

	Disagree	Somewhat disagree	Somewhat agree	Agree
I received sufficient information prior to the Action Learning Sets		2		2
I was aware of the amount of time the Action Learning Sets would take				4
The Action Learning Sets process was outlined in sufficient detail		1	3	

Participants were also asked which additional information would have been useful to receive prior to the commencement of the Action Learning Sets. They thought it would have been useful to have been provided with more details about how the Action Learning Sets are run, a clear aim with more detailed information on what they were trying to achieve and a clear summary of expected outputs.

5.2. Participants' levels of engagement

The participants were asked which of the following Action Learning Sets meetings they attended. Of those participants who completed the questionnaire, one attended all the meetings, one attended two meetings, of which one face-to-face and one online, and two participants only attended one meeting, which was a face-to-face meeting. The Coordinator attended all meetings. Table 5.2. presents how many participants attended each of the six meetings.

Table 5.2. Action Learning Sets Meetings Attendance (Frequencies)

	Attendance by Participants	Attendance by Coordinator
Thursday, 23 rd January 2020 (face-to-face)	3	1
Thursday, 27 th February 2020 (face-to-face)	2	1
Thursday, 4 th June 2020 (online)	1	1
Thursday, 18 th June 2020 (online)	2	1
Thursday, 2 nd July 2020 (online)	1	1
Thursday, 23 rd July 2020 (online)	1	1

The participants were asked to reflect on their own and the others' engagement in the face-to-face and the online Action Learning Sets meetings (Table 5.3). Engagement and perceptions of other participants' engagement varied. Overall, participants reported to be more engaged in the face-to-face meetings than in the online meetings. One participant did not feel engaged during the online meeting, however reported that the other participant was very engaged. Three participants felt that the other participants were very engaged during the face-to-face meetings.

Table 5.3. Participants' engagement in the Action Learning Sets meetings (Frequencies)

	Not engaged	Somewhat engaged	Engaged	Very engaged
Face-to-face meetings			2	2
Online meetings	1		1	

Table 5.4. Participants' perceptions of engagement of the other participants in the Action Learning Sets meetings (Frequencies)

	Not engaged	Somewhat engaged	Engaged	Very engaged
Face-to-face meetings		1		3
Online meetings		1		1

Participants were given the opportunity to provide additional comments about their level of engagement in the Action Learning Sets meetings. Their responses are presented by theme, in Table 5.5. Three themes emerged from their responses: perceived lack of commitment, misunderstanding about the aim of the Action

Learning Sets, and impact of COVID-19. For some, the impact of COVID-19 was perceived as a lack of commitment by the other participants.

Table 5.5: Additional comments about the level of engagement with the Action Learning Sets meetings

Theme	Response (verbatim)
Perceived lack of commitment	- "It might have been helpful to get a more formal participant and line manager sign up and commitment to the ALS as some participants were unable to commit to all sessions and were required to be contactable during the sessions, which wasn't appropriate."
Misunderstanding of the aim of the ALS	- "I was asked to attend by my organisation and had expected it to be more about the service as a whole rather than individual experience."
COVID-19	- "Online was difficult simply due to the fact that Covid-19 changed availability of staff. I was covering the bench and unable to properly engage. It was an unprecedented situation" - "The online meetings proved problematic at times in getting an individual who was very overworked to find a safe, confidential area of the lab to join in. She had to leave one session because of this. The covid issue really impacted heavily on this person's work, as the lab was very under-staffed because of the need for social distancing."

5.3. Participants' satisfaction with the Action Learning Sets

5.3.1. Participants' satisfaction with the support provided during the Action Learning Sets

Participants were asked to what extent they were satisfied with the support they received while undertaking the Action Learning Sets, face-to-face (Table 5.6) and online (Table 5.7). Participants' level of satisfaction with support they received during the face-to-face meetings from different people varied from not satisfied to very satisfied. The support most positively perceived was provided by the line manager and the programme team. For the support provided during the online meetings, the participants' responses varied from somewhat satisfied to very satisfied. The support most positively perceived was again provided by the line manager, followed by the Facilitator.

Table 5.6. Participants' satisfaction with the support they received while undertaking the Action Learning Sets face-to-face (Frequencies)

	Not satisfied	Somewhat satisfied	Satisfied	Very satisfied
From the programme team		1		3
From your Facilitator	1		1	2
From the ALS participants		1	1	2
From your line manager			1	3
From colleagues in the workplace			2	

Table 5.7. Participants' satisfaction with the support they received while undertaking the Action Learning Sets online (Frequencies)

	Not satisfied	Somewhat satisfied	Satisfied	Very satisfied
From the programme team		1		1
From your Facilitator			1	1
From the ALS participants		1		1
From your line manager				2
From colleagues in the workplace			1	

Participants were also asked what kind of additional support would have been helpful to receive while engaging in the ALS Programme, whether it was delivered face-to-face or online (Table 5.8). One participant reported that the team and colleagues were incredibly supportive throughout. Three additional themes emerged from the responses, which apply to whether the Action Learning Sets were delivered face-to-face or online. These themes are finding dedicated time to engage with the Action Learning Sets, receiving constructive feedback after each meeting and support with achieving goals. One additional challenge was experienced when the Action Learning

Sets were delivered online, namely finding a private space in the work environment to participate in the meetings.

Table 5.8. Additional support that participants would have found helpful while engaging in the Action Learning Sets.

Theme	Subtheme	Response (verbatim)
Face-to-face and online delivery	Time	- "Although this wasn't challenge for me, I think many people, particularly the Healthcare scientist professions struggled with getting dedicated time away from urgent clinical work."
	Feedback	- "Constructive feedback after each session to summarise learning and development requirements throughout the programme."
	Achieving goals	- "How to interact proactively based on the ASL goals."
Online delivery	Private space	- "When the sessions were online getting a private confidential space was also difficult in the hospital setting."

5.3.2. Participants' satisfaction with the Action Learning Sets approach

Participants were asked to what extent they agreed with statements regarding the Action Learning Sets approach when it was delivered face-to-face (Table 5.9) and online (Table 5.10).

With regards to participants' satisfaction with the Action Learning Sets approach when delivered face-to-face, three participants responded positive to the statements but one participant disagreed that there was sufficient time for each participant to reflect on workplace challenges and somewhat disagreed with the statements related to sufficient time for each participant to participate and that participants took responsibility over the process. All participants agreed that the environment felt safe and felt respected by the participants.

Two of the four participants did not attend any online meetings, so only two participants responded to the statements related to satisfaction with the Action Learning Sets approach when it was delivered online. Their responses ranged from somewhat agree to agree, except for the statement "The environment felt safe" with which one participant disagreed. The Facilitator reported that, in order to keep the environment safe while the Action Learning Sets were delivered online, she halted the process within seconds of seeing that someone else was in the room.

Both participants agreed with three statements. They felt their concerns were listened to, that the participants were interested in the discussions and that the facilitator was fully engaged during the meetings.

Table 5.9. Participants' satisfaction with the Action Learning Sets Approach when it was delivered face-to-face (Frequencies)

	Disagree	Somewhat disagree	Somewhat agree	Agree
I felt my concerns were listened to			1	3
There was sufficient time for each member to participate		1	1	2
There was sufficient time for each participant to reflect on workplace challenges	1		1	2
The participants were interested the discussions			1	3
The environment felt safe				4
I felt respected by the participants				4
I felt supported by the participants			2	2
Participants took responsibility over the process		1	1	2
The facilitator was fully engaged during the meetings			1	3

Table 5.10. Participants' satisfaction with the Action Learning Sets Approach when it was delivered online (Frequencies)

	Disagree	Somewhat disagree	Somewhat agree	Agree
I felt my concerns were listened to				2
There was sufficient time for each member to participate			1	1
There was sufficient time for each participant to reflect on workplace challenges			1	1
The participants were interested the discussions				2
The environment felt safe	1		1	
I felt respected by the participants			1	1
I felt supported by the participants			1	1
Participants took responsibility over the process			1	1
The facilitator was fully engaged during the meetings				2

The participants were asked if there was anything else they would like to tell us about the Action Learning Sets approach. Three themes emerged from their responses: (1) a request for additional information and support, (2) the potential of the Action Learning Sets and (3) an interest in receiving a certificate. Responses are presented in Table 5.11.

Table 5.11: Additional comments about the Action Learning Sets approach.

Theme	Response (verbatim)
Additional information and support needed	- "Some advice and guidance on putting the ALS approach into practice would have been helpful. It had to be asked for."
	- "Some information available to take away would have also been useful i.e. a booklet, crib sheet, something that would remind of the basic ALS approach maybe."
	- "Unfortunately, I found it a little confusing as to what our goals were. It seemed as though we were learning about the approach itself rather than using it to tackle a specific problem and I think this was a misunderstanding on my side. If I were interested in using the approach at work with colleagues, the training may have been more useful. Although saying this, regrettably I was unable to attend most sessions in the end which meant I wasn't able to fully appreciate the ALS approach."
Potential of ALS	- "I think ALS can bring staff groups working on cancer services together that wouldn't normally meet directly. Through this exposure staff can learn ways to coach others, overcome their own workplace challenges and better understand the wider health care system and the shared goal of good cancer services!"
Certificate	- "Is there a certificate? CPD? available to take away for completing all the sessions?"

It is also worth mentioning that the Facilitator personally felt that rapport and the discipline had not been established until after the third meeting and the meetings went online after the second meeting. The online meetings were very much reduced in time, from a full day to 1.5 hours, and the Facilitator felt that this was less than she would have preferred and felt was effective. However, she reported that issues were still brought by the participants.

5.3.3. Challenges the participants faced during the Action Learning Sets meetings

Finally, the participants were asked to reflect on challenges they may have faced during the Action Learning Sets meetings. Three participants and the Coordinator responded, and their responses are presented in Table 5.12.

Table 5.12: Challenges the participants faced during the Action Learning Sets meetings.

	Response (verbatim)
Participants	- "I don't feel the group was diverse or large enough, especially towards the end of the programme. It was off-putting on occasions not to have full engagement and commitment from the individuals signed up to the programme. Working from home during the COVID-19 pandemic was challenging."
	- "Trying to ascertain what the goal of the process was."
	- "Difficulties to ask the right questions."
Coordinator	- "As the coordinator I found the challenge was to support the ALS process, particularly for people who might not have been familiar with the ALS approach. With regards to Healthcare Scientists (including myself) it feels like quite a different approach to problem solving that I was used too in the hospital working environment."

5.4. Impact of the participants' participation in the Action Learning Sets

5.4.1. Participants' perceptions of the extent to which their aims were achieved as a result of their engagement with the Action Learning Sets

To identify to what extent participants achieved their aims, they were asked to describe what challenges they faced in their work environment prior to participating in the Action Learning Sets and what they aimed to achieve or gain from their participation in the Action Learning Sets. The Coordinator also responded to these questions.

Challenges faced by the Participants and the Coordinator in their work environment ranged from none to many, and three Participants listed a range of challenges. Responses are presented in Table 5.13.

Table 5.13: What challenges the participants faced in their work environment prior to participating in the Action Learning Sets.

Response (verbatim)
- "None - very little impact on work commitments as I was able to flex around the sessions in order to commit to and complete the set."
- "Too many responsibilities."
- "I had various challenges related to my healthcare science specialism and my healthcare science fellowship. In my specialism, time management, building effective processes with colleagues, resilience when working on extremely slow and delayed projects. In my Fellowship, I was challenged with defining and developing a community and event related to healthcare scientists and cancer. There was a lot of challenge to build the support and engagement to make this happen."
- "Lack of structure in the dissection service."
- "There are many challenges."

The Facilitator reported that on Day 1 the group produced a mind map of what they saw or hoped that the benefits to the organisation was and the mind maps resulted in the following themes:

- Personal Development
- Seek shared learning and problem-solving approaches
- Increase coaching skills and knowledge re ALS
- Building a network
- Wanting to see the bigger picture or different perspectives
- Meet different people from different areas they were not familiar with
- Cancer Care and Pathology specifically
- Group to focus on cancer
- Fresh ideas and clear focus on CC pathway, collaboration of all involved
- How to be more effective in own sphere.

However, that was not entirely reflect in the questionnaire data. Four themes emerged from the questionnaire responses about what Participants aimed to achieve or gain from their participating in the Action Learning Sets: (1) develop skills, (2) gain confidence, (3) gain insight, and (4) gain experience in Action Learning Sets. One Participant reported to have misunderstood the aim of the Action Learning Sets. Responses are presented in Table 5.14.

Table 5.14: What participants aimed to achieve or gain from their participation in the Action Learning Sets.

Theme	Response (verbatim)
Develop skills	- "As a participant, I wanted to practice my coaching skills."
	- "Complete personal development objective."
Gain confidence	- "More confidence in my role."
Gain insight	- "As the coordinator I wanted to ensure the participants gained new insight to their challenges and instigate learning by taking action."
	- "Learn more about the different roles in the cancer healthcare system."
	- "Help in tackling the specific challenge I had mentioned at work."
Gain experience in Action Learning Sets	- "Gain experience in Action Learning."
Misunderstanding of aim of the ALS	- "I, mistakenly, thought the ALS was to discuss challenges in cancer pathways. I expected to discuss processes."

Participants were then asked to rate to what extent they managed to achieve these aims so far and their responses varied from not achieved to achieved (Table 5.15).

Table 5.15: The participants' level of achievement of their aims because of their engagement with the Action Learning Sets.

Level of achievement	Frequency
Not achieved	1
Partially achieved	2
Achieved	1
Exceeded the aims	

Participants were asked to provide more information reflecting on their responses to this question and their responses are presented in Table 5.16.

Table 5.16: Participants' reflection on the achievements of their Action Learning Sets aims so far.

Level of achievement	Response (verbatim)
Not achieved	- "This ALS was more about personal challenges in the workplace. The questions were about how you feel your manager is listening to you, or how you solve problems. But it was not about actual outward challenges to do with cancer pathways. Myself and my manager mis-interpreted the aim of this ALS."
Partially achieved	- "I've realised that probably I was worrying too much."
	- "It was helpful to discuss the issues out loud."
Achieved	- "I completed the programme and therefore achieved the personal development set. I gained experience in action learning and received feedback that I had improved in the process and approach."

5.4.2. The participants' development of new ideas of how to improve the healthcare system as a result of their engagement with the Action Learning Sets

None of the participants developed new ideas of how to improve the healthcare system as a result of their engagement with the Action Learning Sets, however the Coordinator did. He reported that the experiences of one participant in the first meeting gave him an idea of how his Fellowship work could support cancer services, specifically in arranging an event to encourage the adoption of advanced practice roles for Healthcare Scientists working in Histopathology and highlighting the potential impact on the London healthcare system cancer performance.

In addition, the Facilitator reported to have developed new ideas and had gained skills on facilitating Action Learning Sets meetings online. She planned to now read research papers related to online Action Learning Sets.

5.4.3. Impact of the Action Learning Sets on the participants' organisations

Participants were asked to what extent they agreed with statements with regards to the impact of their participation in the Action Learning Sets (ALS) on their organisation (Table 5.17). Participants' responses varied from disagree to agree. Least impact was reported on the impact of the Action Learning Sets on the potential in getting more involved in setting cancer healthcare system objectives and improve the diagnosis of cancer. Most impact was perceived in relation to enhancements in how participants communicate their work across cancer pathways and the perception that their engagement with the Action Learning Sets did or will have a positive impact on their practice.

Table 5.17. Impact of the Action Learning Sets (ALS) on the participants' organisations (Frequencies)

	Disagree	Somewhat disagree	Somewhat agree	Agree
The ALS enhanced how I communicate my work across cancer pathways		1	3	
Because of the ALS, I have the potential in getting more involved in setting cancer healthcare system objectives	1	3		
I have the potential to increase my impact on healthcare systems in my organisation	1	1	2	
My understanding of cancer patient pathways has enhanced because of the ALS	1	1	1	1
The potential to improve the diagnosis of cancer has enhanced because of the ALS		4		
The ALS increased my awareness of contributions we make to cost effectiveness		3	1	
Engaging in the ALS will have / has had a positive impact on my practice		1	3	

When participants were asked to further reflect on how their organisation gains or will gain from their participation in the Action Learning Sets Programme, three participants and the Coordinator responded, as presented in Table 5.18.

Table 5.18: Participants' reflection on how their organisation has or will gain from their participation in the Action Learning Sets.

Response (verbatim)
- "Organisation will now understand what this ALS actually aims to do, which is self enhancement, and will be able to send a more appropriate participant in future. Someone who is perhaps hoping to be a manager and can learn from it."
- "I can be involved in future ALS. I will be able to use ALS approaches to solve issues and challenges."
- "My hospital workplace is already seeing the benefits. I have been trying to apply coaching techniques with my colleagues and have been able to motivate and build a team of staff more effectively. I have been able to make big improvements to the departmental culture and processes of diagnostic testing quality management."
- "As I couldn't participate fully there is no real gain."

5.4.4. Impact of the Action Learning Sets on the cancer healthcare systems

Participants were also asked to reflect on how the cancer healthcare systems have gained or would gain from their participation in the Action Learning Sets Programme. One participant did not feel that with their level of participation in the Action Learning Sets, they could answer this question, however two participants and the Coordinator responded, and their responses are presented in Table 5.19.

Table 5.19: Participants' reflection on how the cancer healthcare systems has or will gain from their participation in the Action Learning Sets.

Response (verbatim)
- "Some challenges I brought to the group were resolved through the approach such as completing and sharing the best practice nationally of a cancer pathway case study. When I start to work directly with hospital Trusts again, I will put action learning into practice which will have a positive impact on relationships, confidence and solving issues within cancer services."
- "I have a better understanding of cancer pathways which is helpful however the changes I have made were made independently of the session I attended. Had I been able to attend more sessions there would have been more to gain."
- "I think the improvements I can make in my department will make our hospital diagnostic testing more robust, and I hope this is a culture and approach that can spread to other parts of the cancer services if local staff move on. I hope through improving my coaching skills in the group, we have collectively helped Histopathology services through support of healthcare scientists working in advanced practice roles and the 28 day faster diagnosis standard for cancer through support of colleagues working on cancer pathways improvement work."

5.4.5. Impact of the Action Learning Sets on the participants' professional development

Participants were asked to what extent they agreed with a range of statements with regards to the impact of their participation in the Action Learning Sets on their professional development (Table 5.20). Responses ranged from disagree to somewhat agree but no participant agreed with any of the statements. Least impact was reported on leadership skills, building collaborative relationships and growing a professional network. Most impact was reported on the development of new skills.

Table 5.20. Impact of the Action Learning Sets (ALS) on the participants' professional development (Frequencies)

	Disagree	Somewhat disagree	Somewhat agree	Agree
I developed new skills because of the ALS Programme	1	1	2	
My leadership skills have improved because of the ALS Programme	1	2	1	

	Disagree	Somewhat disagree	Somewhat agree	Agree
My communication skills have improved because of the ALS Programme	1	1	2	
The ALS Programme helped me to build collaborative relationships	1	2	1	
My confidence has improved because of the ALS programme	1	1	2	
My professional network has grown because of the ALS Programme	1	2	1	
The ALS Programme had/will have a positive impact on my career aspirations	1	1	2	
The ALS Programme had/will have a positive impact on my future career	1	1	2	

When asked to further reflect on how they personally had gained or would gain from participating in the Action Learning Sets Programme, three participants and the Coordinator responded. Participants reported that COVID-19 had a negative impact on their engagement and the other participants' engagement with the Action Learning Sets, which in turn reduced the impact for all participants. Despite this, participants reported that they developed skills, that their confidence was enhanced and that their network had expanded. Table 5.21 presents their responses.

Table 5.21: Participants' reflection on how they personally gained or will gain from participating in the Action Learning Sets.

Theme	Response (verbatim)
Developing skills	<ul style="list-style-type: none"> - "I have learnt more about leading and coaching - Completing the programme has improved my communication skills and how I tackle issues and challenges within the improvement work I carry out."
Confidence	<ul style="list-style-type: none"> - "I will be more confident to take part in ALS in the future now I have gained this experience."
Networking	<ul style="list-style-type: none"> - "I made contacts in different areas of the healthcare system."
Impact of COVID-19 on impact	<ul style="list-style-type: none"> - "Definitely COVID had a big impact as I think the face-to-face is more engaging."
	<ul style="list-style-type: none"> - "Covid-19 had a bad impact on the ALS itself as I was not able to participate in all session."
	<ul style="list-style-type: none"> - "COVID-19 was quite disruptive to the building of rapport and availability in the group."
	<ul style="list-style-type: none"> - "The impact of COVID-19 resulted in a long gap between the last face to face and first online session. Engagement and work priorities had changed for participants during this time and the group became smaller. The final two online session included

Theme	Response (verbatim)
	<p>only two participants and the facilitator. The face to face sessions were more effective and enjoyable. Online session worked well but distractions at home and the length of the session online was challenging.”</p>

5.5. Participants' perceptions of the sustainability of the Action Learning Sets

First, participants were asked to what extent they agreed with statements regarding the sustainability of the Action Learning Sets (Table 5.22). One participant disagreed or somewhat disagreed with three out of four statements and one other participant somewhat disagreed with all statements. The other two participants' responses were more positive. They somewhat agreed that they would be interested in engaging in another Action Learning Sets Programme, that engaging in the ALS was a good use of their time and that they had learned a lot. Despite the challenges caused by COVID-19, three participants agreed or somewhat agreed that they would recommend colleagues to engage in the Action Learning Sets programme.

Table 5.22. Participants' perceptions of the sustainability of the Action Learning Sets (Frequencies)

	Disagree	Somewhat disagree	Somewhat agree	Agree
I would recommend colleagues to engage in the ALS Programme		1	2	1
I would be interested in engaging in another ALS Programme	1	1	2	
Engaging in the ALS Programme was a good use of my time		2	2	
I learned a lot from engaging in the ALS Programme		2	2	

5.6. Participants' recommendations for improving the Action Learning Sets

Participants, the Coordinator and the Facilitator were asked if they had recommendations for improving the ALS programme and reflect on the different delivery modes (i.e., online versus face-to-face). The recommendations provided can be categorised in the following five themes: (1) the need for a clearer aim of the ALS, (2) enhanced preparation at the start of the programme, (3) a larger and more diverse group, (4) their preference for face-to-face meetings over online delivery, and (5) a more established level of commitment from all participants.

Table 5.23: Participants' reflection on how they personally gained or will gain from participating in the Action Learning Sets.

Theme	Subtheme	Response (verbatim)
Participants	- Clearer aim of ALS	- "I think when the information goes out to managers there need a be a clearer aim as to what the ALS is about. It needs to be clear it is more about personal development."
	- Preparation	- "Maybe to give some sort of preparation in order to be able to interact proactively with the rest of the participants."
	- Group mix and group size	- "Ensure the group is large and diverse enough."
	- Delivery mode	- "Face-to-face is more effective." - "I think face-to-face is better." - "Face to face is usually preferable."
	- Participant commitment	- "Formal sign up and commitment to complete all sessions."
Coordinator	- Group mix and group size	- "I think a slightly larger group would have been beneficial, with an even more diverse group of clinical staff working in cancer services. For example, having a GP, nurse, radiographer, commissioner or clinical trials specialist would have given a wider perspective to the group."
	- Delivery mode	- "I think the face-to-face ALS was probably more engaging for the participants. Although people had to physically move to a meeting room, it was easy to develop rapport, create a confidential safe space to discuss challenges and exclude external distractions. The online delivery had advantages as staff from different geographical locations could very easily come together, however there is a real challenge about then being free from distractions and maintaining the confidentiality needed."
	- Participant commitment	- "I think engagement dropped but this was to be expected when COVID-19 disrupted face to face meetings after the 2nd session."
Facilitator	- Delivery mode	- "Online works, but 90 minutes is not long enough but all we had available with the covid impact on participant's time at that time."

5.7. Participants' final comments related to the overall Action Learning experience

At the end of the questionnaire, the participants, the Coordinator and the Facilitator were given the opportunity to reflect on their overall experience of engaging in the Action Learning Sets. Their responses are presented in Table 5.24.

Table 5.24. Reflections on their overall Action Learning Sets Experience

Participant, Coordinator, Facilitator	Response (verbatim)
Participants	<ul style="list-style-type: none"> - "Thank you for the development experience and opportunity to take part." - "Lovely people and very supportive group. Regrettably, I was not fully engaged from the beginning as my organisation had sent me and I was very busy at work. I hadn't fully appreciated what the programme involved and didn't participate in most of it in the end. I think it would be a very useful experience in a different time, for example if I were in an established role with time to reflect, and not during covid! Thanks to all for being so lovely throughout." - "I am sorry Covid happened and I could not fully participate."
Coordinator	<ul style="list-style-type: none"> - "I originally wanted to focus the group on staff working along a specific cancer pathway to maximise the opportunity to impact cancer services, e.g. the Lung cancer pathway in SE London. However, getting the engagement for that was difficult and on reflection having healthcare scientists and cancer system professionals from diverse and less directly related parts of the cancer system felt like a good approach. I was concerned that the participants would not continue to engage, and although participation fell, this was largely related to COVID-19 and the group did re-engage for the session after the initial COVID-19 challenge had diminished. I was pleased to meet the participants and really inspired by their honesty and willingness to take part in the process. I also was greatly supported by the excellent facilitation and advice on evaluation! :) "
Facilitator	<ul style="list-style-type: none"> - "I would normally in sessions 5 and 6 get the participants to start to share the facilitation so that I can step out and leave a sustainable, self-supporting group. The context that we were working in at this time did not really lend itself to this."

6. Summary and conclusions

This evaluation report presents the findings of an Action Learning Sets (ALS) in which five Healthcare Scientists in Cancer Diagnostics engaged, over a period of 7 months, from January 2020 to July 2020. Unfortunately, due to COVID-19, the mode of delivery of the Action Learning Sets changed from face-to-face delivery to online delivery after the second meeting.

The Action Learning Sets aimed to offer a professional development opportunity for the participants and a multidisciplinary approach to tackling system challenges in the diagnosis of cancer experienced in the NHS.

The evaluation was undertaken by an experienced independent external evaluator who did not take part in the development or the delivery of the ALS and who did not participate in the ALS either. The purpose of the evaluation of the Action Learning Sets (ALS) was to measure the experiences of the participants and the impact of their engagement with the activities. The evaluation followed a mixed-methods triangulation design, where the aim is to explore and expand the quantitative results with qualitative data. To collect data, a mixed-methods online questionnaire was developed using the principles of Tailored Design Method (Dillman, 2014). The questionnaire was developed around the following five themes: (1) preparation for participation, (2) engagement in the programme, (3) value and satisfaction with the programme, (4) impact of the programme and (5) sustainability of the programme. The questionnaire was administered online, at the end of the Action Learning Sets programme, using SurveyMonkey. All participants, the Coordinator and the Facilitator were invited to complete the questionnaire.

COVID-19 had a negative impact on participants' attendance of the Action Learning Set. Of the five participants who attended the Action Learning Sets when they were delivered face-to-face, only three attended when it was delivered online. Consequently, the responses to questions in the online evaluation questionnaire related to the experiences with the online delivery of the Action Learning Sets was also limited. In addition, only one participant who completed the questionnaire attended all meetings.

Engagement and perceptions of other participants' engagement varied. Overall, participants reported to be more engaged in the face-to-face meetings than in the online meetings. Among the Participants, there was a perceived lack of commitment of other participants. Misunderstanding about the aim of the Action Learning Sets and COVID-19 had a negative impact on engagement.

On the outset, Participants' level of preparedness varied and participants would have liked to have been provided with more details about how the Action Learning Sets are run, a clear aim with more detailed information on what they were trying to achieve and a clear summary of expected outputs.

Participants' level of satisfaction with support they received during the face-to-face meetings from different people varied as well. Support from the line manager and the

programme team was perceived most positive. Participants would appreciate receiving constructive feedback after each meeting and support with achieving goals. One additional challenge was experienced when the Action Learning Sets were delivered online, namely finding a private space in the work environment to participate in the meetings. However, finding dedicated time to engage with the Action Learning Sets was reported as the main challenge.

Overall, the participants evaluated the Action Learning Sets approach positive. They felt that their concerns were listened to, that the participants were interested in the discussions, that the environment felt safe, they felt respected by the participants and that the facilitator was fully engaged during the meetings.

Participants' reflections on what they aimed to achieve or gain from their participating in the Action Learning Sets can be categorised in four themes, develop skills, gain confidence, gain insight, and gain experience in Action Learning Sets. When asked to rate to what extent they managed to achieve these aims so far, one reported to have achieved these aims, two to have partially achieved those aims and one reported that their aims were not achieved because of a misunderstanding of the overall purpose of Action Learning Sets.

Participants reported enhancement on how they communicate their work across cancer pathways and believe that their engagement with the Action Learning Sets did or will have a positive impact on their practice. However, they did not feel that their engagement with the Action Learning Sets will have an impact on the potential in getting more involved in setting cancer healthcare system objectives and improve the diagnosis of cancer. Participants' perception of personal development as a result of engaging in the Action Learning Sets also varied. Least impact was reported on leadership skills, building collaborative relationships, and growing a professional network but most impact was reported on the development of new skills. When asked to reflect, it was very clear that Participants felt that COVID-19 hindered the impact the Action Learning Sets had on their personal development, on the organisation and on the cancer healthcare systems.

Despite the challenges caused by COVID-19, three participants agreed or somewhat agreed that they would recommend colleagues to engage in the Action Learning Sets programme.

Participants' recommendations can be categorised in the five categories: the need for a clearer aim of the ALS, enhanced preparation at the start of the programme, a larger and more diverse group, their preference for face-to-face meetings over online delivery, and a more established level of commitment from all participants.

In final comments, Participants expressed either their disappointment about not having being able to attend many meetings or their gratitude for having been given the opportunity to take part in the Action Learning Sets.