

A case study of the perceptions of staff within the Office of the Revenue Commissioners in Ireland,
regarding the factors that influence their decision to adopt a new knowledge management system,
NASC.

Maura Corry BSc. Ed., MSc. Ed.

Thesis submitted for the award of Doctor of Education
The Institute of Education, Dublin City University

Supervisors of Research:

Prof. Deirdre Butler, Institute of Education,
Dublin City University

Dr. Margaret Leahy, Institute of Education,
Dublin City University

October 2025

Declaration:

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Doctor of Education is entirely my own work, and that I have exercised reasonable care to ensure that the work is original and does not to the best of my knowledge breach any law of copyright and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed: Maura Corry ID No: 53132475

Date: 09/10/2025

Acknowledgements and Dedication

I would like to acknowledge most gratefully all the staff on the EdD programme for their professionalism, support, and wisdom.

I sincerely acknowledge and thank Dr. Deirdre Butler and Dr. Margaret Leahy, for their insight, unwavering support, and feedback.

To my amazing classmates and our WhatsApp group who were a great support over the duration of this research, particularly my EdD Digital Learning colleagues, Suzanne, and Fergus. I learned so much from you all. To my colleagues in the Office of the Revenue Commissioners, thank you for your assistance and support during the data collection phase of this research, particularly my SITC girls, you know who you are!

It's been quite a journey, and I want to thank my husband, children, family and friends for your love, support, and encouragement throughout this journey.

I would like to dedicate this dissertation to Kathi who encouraged me to start this journey, and to Richard who supported and inspired me to see it through to the very end.

Table of Contents

DECLARATION:	2
ACKNOWLEDGEMENTS AND DEDICATION	3
LIST OF FIGURES:	9
LIST OF TABLES:	10
ABSTRACT	13
CHAPTER 1	14
INTRODUCTION	14
1.1 <i>Introduction</i>	14
1.2 <i>Context and Background</i>	14
1.2.1 Public Sector and Revenue	15
1.2.2 The introduction of NASC	16
1.2.3 NASC Project Team	18
1.2.4 NASC Project review by Avanade Consulting.....	20
1.2.5 Redesigning NASC.....	22
1.3 <i>Aim of Research and Research Questions</i>	24
1.3.1 Research Questions	26
<i>Overarching Research Question:</i>	26
1.4 <i>Researcher Positionality</i>	26
1.5 <i>Structure of Thesis</i>	28
CHAPTER 2	30
LITERATURE REVIEW.....	30
2.1 <i>Introduction</i>	30
2.2 <i>The purpose of change and the factors that affect the successful implementation of change in public sector organisations</i>	30
2.2.1 Purpose of Change.....	30
2.2.1.1 Who is driving the change: Top-down or bottom-up?	31
2.2.1.2 Processes of change	33
2.2.1.3 Culture.....	34
2.2.2 Why is change necessary?	36
2.2.3 Influences and Drivers of Change	36
2.2.4 Constraints to change	38
2.3 <i>Communication</i>	41
2.3.1 Understanding change in the public service through the lens of change theory	42
2.3.1.1 Diffusion of Innovations (Rogers, 2003)	43
2.3.1.2 Technology Acceptance Model (Davis, 1987).....	46
2.3.1.3 Combination of DOI and TAM	48
2.3.2 Communication styles	50
2.3.3 Communication between leadership and employees during the change process	51
2.3.4 Supporting change adoption through effective online learning.....	54
2.4 <i>Principles of good online Learning Design</i>	55
2.4.1 Environment	55
2.4.2 Content	56
2.4.3 Mode of delivery.....	57
2.4.4 Evaluation of learning.....	58
2.5 <i>Summary and Conclusion</i>	59
CHAPTER 3	61

METHODOLOGY	61
3.1 Introduction	61
3.2 Methodological Approach: Research Framework.....	61
3.2.1 Research Philosophy: Post-Positivist Stance.....	62
3.2.2 Research Approach: Abductive.....	63
3.2.3 Research Strategy: Case Study.....	64
3.2.4 Time Horizons.....	65
3.2.5 Data Collection Methods.....	65
3.2.5.1 Qualitative Surveys.....	65
3.2.5.2 Researcher Reflective Diary.....	66
3.2.5.3 Triangulation.....	67
3.3 Research Design.....	67
3.3.1 The case.....	67
3.3.2 The Sampling Process and the Sample.....	68
3.3.3 Sequence of Data Collection.....	69
a. Phase 1 – January to February 2022.....	69
b. Phase 2 – March to April 2022.....	69
3.3.4 Data Collection and Case Study Design.....	69
3.3.4.1 Phase Structure and Sequence.....	70
3.3.4.2 Survey Design and Instruments.....	71
3.3.4.3 Web-Based Survey Administration.....	72
3.3.4.4 Reflective Notes.....	72
3.4 Data Analysis Process.....	72
3.4.1 Step-by-Step Analysis Process.....	72
3.4.2 Braun and Clarke's Six-Step Process.....	76
3.4.3 Comparative Analysis Approach.....	84
3.4.4 Data Analysis- Closed Questions.....	85
3.4.5 Validity.....	86
3.4.6 Reliability.....	87
3.4.7 Generalisation.....	88
3.4.8 Ethical Considerations.....	89
3.4.9 Researcher's Role and Reflexivity.....	90
3.5 Conclusion.....	91
CHAPTER 4.....	92
RESULTS	92
4.1 Introduction	92
4.2 End User Survey Results.....	94
4.2.1 The Purpose and Drivers of Change in the Public Sector.....	94
Question 6: What do you think is the purpose of change?.....	95
Question 15: Do you think change is good for Revenue staff members? Explain.....	96
Question 21: What do you think will be the benefits of NASC?.....	97
Question 22: What will be the limitations of NASC?.....	98
Question 11: What expectations do you have for NASC?.....	100
4.2.2 Change Implementation Approaches: Top-Down and Bottom-Up Models.....	101
Question 4: Is the opinion of staff members asked when change is communicated?.....	102
Question 16: How is the opinion of staff members queried when change is communicated?.....	103
Question 12: How do you communicate change to your colleagues?.....	105
Question 18: How would you want change to be communicated to you?.....	107
Question 13: Is change communicated differently to people in different grades within Revenue?.....	109
Question 14: How are change concepts and terms explained to staff members?.....	111
4.2.3 Leadership and Communication in Organisational Change.....	113
Question 7: How do you feel when you are informed there will be a significant change at work?.....	114
Question 8: What are your expectations of the NASC training, or did it meet your expectations?.....	116
Question 10: In what way has the importance of NASC been explained to you?.....	118
Question 24: What have you heard from colleagues about NASC?.....	119
4.2.4 Resistance, Engagement, and User Adoption.....	120
Question 2: When I am informed of a change of plans, I tense up a bit/When you use NASC do you feel any stress?.....	121
Question 5: Do you feel that your work will be limited or improved by NASC? Why?.....	122
Question 9: What skills would you like to improve, or did you improve during NASC training?.....	124
Question 23: How will you apply NASC to your work?.....	125

4.2.5 Training Design, Learning Approaches, and Capacity Building	126
Question 1: Do you think you have clear expectations for the NASC training course/Following training do you have clear expectations for how you can use NASC?	127
Question 3: I have the skills that are needed to make NASC work.....	128
Question 17: What is the best way for you to learn a new skill?.....	129
Question 19: What do you think of the online training modules available to you through Revenue?.....	131
Question 20: In what ways could online training delivered by Revenue be improved?.....	133
Question 25: How many years do you have in public service?.....	134
4.2.6 Evaluating Change Success	135
4.2.7 Conclusion – general trends in end user findings	137
4.3 Results from Trainer Surveys.....	138
4.3.1 Question 1: What is your assessment of the training delivered so far?	138
4.3.2 Question 2: Has the informal feedback received been helpful?.....	140
4.3.3 Question 3: Have you noted any barriers to learning?	141
4.3.4 Summary of Trainer Perspectives	143
4.4 Observations from Researcher Reflections	144
4.4.1 January–February 2022: Leadership framing and early risks.....	145
4.4.2 February–March 2022: Mixed staff reactions and peer-led innovation	145
4.4.3 March–April 2022: Informal dialogue and persistent scepticism	145
4.4.4 April–May 2022: Leadership metrics vs. user experience.....	145
4.4.5 Post-implementation review: Competing perspectives.....	146
4.4.6 Summary.....	146
4.5 Conclusion.....	146
CHAPTER 5.....	148
DISCUSSION.....	148
5.1 Introduction	148
5.2 Staff perceptions about the purpose of the introduction of NASC and the factors influencing their decision to use NASC.....	149
5.2.1 Understanding the purpose of change	149
5.2.2 The role of top-down and bottom-up change implementation approaches	152
5.3 Staff perceptions of management’s communication approaches in encouraging adoption behaviour during the implementation of NASC.....	155
5.3.1 Leadership and Communication	156
5.3.2 Resistance, Engagement, and User Adoption of NASC	157
5.4 Staff perceptions of the effectiveness of the training approaches employed during the implementation of NASC.....	159
5.4.1 Training Design, Learning Approaches, and Capacity Building	159
5.4.2 Evaluating Change Success	161
5.5 Integrating Theory and Findings: A Synthesis of Change and Adoption.....	163
5.6 Conclusion.....	166
CHAPTER 6.....	167
CONCLUSIONS AND RECOMMENDATIONS	167
6.1 Introduction	167
6.1.1 Research Questions and Approach to Research	167
6.2 Summary of Key Findings.....	168
6.2.1 Staff perceptions of the purpose of change within Revenue and the factors that influence their adoption of NASC.....	168
6.2.2 Staff perceptions of management’s communication approaches in encouraging adoption behaviour during the implementation of NASC?	169
6.2.3 Staff perceptions of the effectiveness of the training approaches employed during the implementation of NASC?	169
6.2.4 Towards the NASC Adoption Model	170
6.3 Contribution to Knowledge	171
6.3.1 Empirical contributions.....	171
6.3.2 Theoretical contributions	172
6.4 Implications and Recommendations for Practice	173
6.4.1 Bridging organisational narratives and operational realities.....	173
6.4.2 Communication as reciprocal dialogue.....	173
6.4.3 Rethinking training and capacity-building	173

6.4.4 Supporting informal learning and peer networks.....	174
6.4.5 Cultural alignment and leadership modelling.....	174
6.4.6 Monitoring, evaluation, and continuous adaptation.....	174
6.4.7 Broader implications for the public service.....	175
6.4.8 Implications for professional practice.....	175
6.5 <i>Limitations and Future Research</i>	175
6.6 <i>Conclusion</i>	177
REFERENCES.....	179
APPENDIX A.....	195
NASC END USER SURVEYS.....	195
<i>Pre-Training Survey</i>	195
<i>Post Training Survey</i>	199
APPENDIX B.....	203
TRAINER SURVEY.....	203
APPENDIX C.....	205
RESEARCHER REFLECTIVE ENTRIES ON NASC IMPLEMENTATION USING GIBBS ¹ REFLECTIVE CYCLE FRAMEWORK.....	205
<i>Entry 1: Project Board Meeting (January, 2022)</i>	205
<i>Entry 2: NASC Project Board Meeting - Training Materials Development Session (January, 2022)</i>	207
<i>Entry 3: Staff Info Session (February, 2022)</i>	208
<i>Entry 4: NASC Project Board Meeting - Mid-Rollout Check-In (February, 2022)</i>	209
<i>Entry 5: Informal Staff Conversations (February, 2022)</i>	210
<i>Entry 6: NASC Project Board Meeting (February, 2022)</i>	211
<i>Entry 7: NASC Technical Demonstration to Department Leads (March, 2022)</i>	213
<i>Entry 8: Peer Learning Pilot Group Session (March, 2022)</i>	215
<i>Entry 9: Informal Feedback via Intranet Comments (April, 2022)</i>	217
<i>Entry 10: NASC Project Board Update (April, 2022)</i>	218
<i>Entry 11: Informal Conversation with a NASC Trainer (April, 2022)</i>	220
<i>Entry 12: Staff Feedback Session (April, 2022)</i>	221
<i>Entry 13: NASC Project Group (May, 2022)</i>	222
<i>Entry 14: Project Board Meeting (May, 2022)</i>	224
<i>Entry 15: Post-Implementation Review Planning (May, 2022)</i>	226
APPENDIX D.....	228
SURVEY QUESTIONS MAPPING GRID.....	228
APPENDIX E.....	235
PILOT STUDY REPORT: NASC IMPLEMENTATION SURVEY.....	235
EXECUTIVE SUMMARY.....	235
BACKGROUND.....	235
TECHNICAL ISSUES IDENTIFIED.....	235
CONTENT AND STRUCTURE FEEDBACK.....	235
<i>Plain Language Statement</i>	236
<i>Question Design Issues</i>	236
<i>Response Rate Concerns</i>	237
<i>Ethical and Data Protection Considerations</i>	237
<i>Recommendations for Final Survey Implementation</i>	237
<i>Conclusion</i>	238
<i>NASC End User Survey Instrument</i>	239
APPENDIX F.....	242
DETAILED MATRIX COMPARING THEMES ACROSS QUALITATIVE DATASETS.....	242
APPENDIX G.....	264
TRAINER SURVEY THEMATIC ANALYSIS USING BRAUN AND CLARKE (2006).....	264

<i>Step 1: Familiarisation with the Data</i>	264
<i>Step 2: Generating Initial Codes</i>	264
<i>Step 3: Searching for Themes</i>	264
<i>Step 4: Reviewing Themes</i>	264
<i>Step 5: Defining and Naming Themes</i>	265
Theme 1: Training Inconsistency and Adaptation Over Time	265
Theme 2: Practical Gaps Between Training and Real-World Use	265
Theme 3: The Value and Limits of Informal Feedback.....	265
Theme 4: Barriers to Learning	265
Theme 5: Communication Challenges	266
<i>Step 6: Writing Up</i>	266
Summary of Key Insights:	266
FINAL THEMES SUMMARY TABLE	267
APPENDIX H	268
CLOSED QUESTIONS ANALYSIS.....	268
APPENDIX I	274
CLOSED QUESTIONS DATASETS.....	274
APPENDIX J	284
DCU RESEARCH ETHICS COMMITTEE APPROVAL.....	284
APPENDIX K	285
TRAINER SURVEY DATA.....	285

List of Figures:

Figure 1-1 Avanade Report Executive Summary – Current State

Figure 1-2 Avanade Key Action Areas

Figure 2-1: Three categories of Resistance (Beatty, 2015)

Figure 2-2: The diffusion of innovation curve (Rogers, 2003)

Figure 2-3: Technology Acceptance Model (Davis, 1987)

Figure 2-4: Overlap of TAM with Rogers Stages of Innovation Adoption. Source: Wymer, S. and Regan, E. (2011)

Figure 2.5: Combined TAM–DOI model with communication as a cross-cutting influence.

Figure 3-1 Research onion (Saunders et al., 2016)

Figure 3-2 Research onion presenting the methodological approach adopted in this research

Figure 3-3 Question 5 Phase 1 pre survey

Figure 5-1 NASC Adoption Model

List of Tables:

Table 1-1 Comparison of SharePoint and Network Drives

Table 1-2: Avanade key issues, corresponding solutions and expected outcomes to support the successful implementation of NASC.

Table 2-1: Planned Change vs. Emergent Change (Armenakis and Bedeian, 1999).

Table 2-2: Developmental, Transitional and Transformative Change - Anderson, and Ackerman-Anderson (2010).

Table 2-3: Professional accountants – the future: 50 drivers of change in the public sector (Association of Chartered Certified Accountants, 2016)

Table 2-4: Dominant Characteristics and Values of Adopter Categories (Rogers, 2003)

Table 2-5 System and User behaviours

Table. 3-1 Comparison of themes that emerged in the responses collected from Q6

Table 4-1 matrix mapping end user survey questions to themes.

Table. 4-2 Question 6 Responses Coded

Table. 4-3 Question 15 Responses Coded

Table. 4-4 Question 21 Responses Coded

Table. 4-5 Question 22 Responses Coded

Table. 4-6 Question 11 Responses Coded

Table. 4-7 Question 4 Responses Coded

Table. 4-8 Question 16 Responses Coded

Table. 4-9 Question 12 Responses Coded

Table. 4-10 Question 18 Responses Coded

Table. 4-11 Question 13 Responses Coded

Table. 4-12 Question 14 Responses Coded

Table. 4-13 Question 7 Responses Coded

Table. 4-14 Question 8 Responses Coded

Table. 4-15 Question 10 Responses Coded

Table. 4-16 Question 24 Responses Coded

Table. 4-17 Question 2 Responses Coded

Table. 4-18 Question 5 Responses Coded

Table. 4-19 Question 9 Responses Coded

Table. 4-20 Question 23 Responses Coded

Table. 4-21 Question 1 Responses Coded

Table. 4-22 Question 3 Responses Coded

Table. 4-23 Question 17 Responses Coded

Table. 4-24 Question 19 Responses Coded

Table. 4-25 Question 20 Responses Coded

Table. 4-26 Question 25 Responses Coded

Table 4-27 Question 1 Trainer Surveys – Key themes identified

Table 4-28 Question 2 Trainer Surveys – Key themes identified

Table 4-29 Question 3 Trainer Surveys – Key themes identified

Table 5-1 Research Question and Interrelated Themes

Table G-1 Final Themes Summary Table

Table I-1: Phase 1 Pre-Training Survey closed question data set - How long have you worked in the Public Service

Table I-2: Phase 1 Post Training Survey closed question data set - How long have you worked in the Public Service

Table I-3: Phase 2 Pre-Training Survey closed question data set - How long have you worked in the Public Service

Table I-4: Phase 2 Post Training Survey closed question data set - How long have you worked in the Public Service

Table I-5: Response of staff with more than 20 years' service

Table I-6: Response of staff with more than 20 years' service to question on change and stress

Table I-7 Response of staff with more than 20 years' service to question on NASC training expectations

Table I-8 Response of staff with more than 20 years' service to question on skills necessary for NASC

Table I-9 Response of staff with more than 20 years' service to question on change communication with staff

Table I-10 staff with 20 or less years' service

Table I-11: Response of staff with 20 or less years' service to question on change and stress

Table I-12: Response of staff with 20 or less years' service to question on NASC training expectations

Table I-13 Response of staff with 20 or less years' service to question on skills necessary for NASC

Table I-14 Response of staff with 20 or less years' service to question on change communication with staff

Abstract

A case study of the perceptions of staff within the Office of the Revenue Commissioners in Ireland, of the factors that influence their decision to adopt a new knowledge management system, NASC.

Maura Corry

The basis of this study was to explore the perceptions of Revenue Staff regarding the factors that influenced their decision to adopt a new knowledge management system. Using a post-positivist case study approach the study examined staff perceptions of change management processes, communication styles, training application and the compatibility of the knowledge management system to work practices. The literature review explored the elements of change management in public sector organisations, as well as change theory, and online training design theory.

A post-positivist case study approach using qualitative methods was used as the research methodology to explore the perceptions of staff to the implementation of NASC. The research design utilised Qualtrics, a web-based survey tool, administered to representative samples of Revenue staff. The design was an exploratory case study and the collection of qualitative data in this research involved language and was abductive, using a process of moving back and forth between inductive and deductive analysis and using specific observations, evidence and patterns gathered from the research to make broad conclusions. The research was divided into two phases and focused on two separate cohorts of staff who were undergoing introductory training to NASC during the timeline of this research.

The findings of this study suggest that the perceptions of Revenue Staff are complex and dependent on many variables that include leadership and communication styles as well as effective change management techniques. The findings also suggest that good online training design enhanced positive perceptions of the NASC system.

This study contributes to the literature on change in public service organisations in Ireland. It confirms that good change management theory, positive communication and good online training design be explicit features of the introduction and rollout of IT systems, and that these features be supported by all levels of the organisation.

Chapter 1

Introduction

1.1 Introduction

This qualitative case study explores the perceptions of two cohorts of Revenue staff regarding the factors that influenced their decision to adopt a new knowledge management system (KMS) called NASC (Navigate, Access, Share, Collaborate) in the Office of the Revenue Commissioners (Revenue) in Ireland. Established by Government Order in 1923, Revenue serves as Ireland's national tax and customs authority. As of 2024, Revenue employs approximately 6,600 staff (full-time equivalents) across a network of 70 offices, organised into 16 administrative Divisions reporting to Assistant Secretaries throughout Ireland, with a presence in every county, all major airports and ports, and offices abroad in Brussels, London, and Lisbon (Revenue Commissioners, 2024).

Revenue's mission statement is "to serve the community by fairly and efficiently collecting taxes and duties and implementing Customs controls" (Revenue.ie, 2025). As documented on Revenue's website (Revenue.ie), Revenue continually modernises its processes and systems to align with this mission, and it consistently seeks to simplify operations for taxpayers while streamlining internal workflows to meet its operational objectives. The introduction of NASC in 2020 is part of these broader change initiatives, designed to enhance internal collaboration and knowledge sharing, thereby supporting the efficient collection of taxes and duties (Revenue.ie, 2025). It reflects Revenue's commitment to leveraging innovative solutions for simplifying tax collection and administration. Positioning NASC as an integral component of Revenue's ongoing technological advancements and organisational change processes, this study examines staff perceptions of NASC's purpose and the organisational processes, leadership communication, training design and informal peer networks that influenced perceived usefulness, ease of use and actual adoption. This chapter provides the context, background, and justification for the study before outlining the structure of the dissertation.

1.2 Context and Background

This research is situated within the wider context of digital transformation and knowledge management reform in the Irish public sector, where demographic pressures, evolving work practices, and the need for more efficient, transparent systems have prompted Revenue to implement new technological solutions such as NASC.

1.2.1 Public Sector and Revenue

In recent years the Office of the Revenue Commissioners (Revenue), and other Irish Public Sector organisations (i.e., the totality of public administration within the Irish state government system) have been under increasing pressure, from both internal and external stakeholders, to enhance performance and improve transparency and flexibility (Shannon, 2017). These pressures arise from economic and political changes as well as increasing demands for greater transparency and accountability (Association of Chartered Certified Accountants, 2016). Challenges relating to sustainability and the United Nations' 2030 Agenda for Sustainable Development have also informed the Irish public sector reform agenda (United Nations, 2015; United Nations, 2023). Such public sector reform consists of deliberate changes to the structures and processes of public sector organisations such as Revenue, with the objective of making them run more efficiently. However, to effect change and make the public sector more efficient, the basic building blocks of reform, including staff engagement and recognition, need to be assembled correctly. Otherwise, public sector organisations will not be able to meet their reform goals (Department of Public Expenditure and Reform, 2022).

While reforms and changes in Governments with conflicting agendas, and policy shifts place additional pressure on Revenue and other public sector organisations to adapt and manage new problems and challenges, external factors which cannot be anticipated also play a significant part in the change agenda. For example, according to the Department of Public Expenditure and reform, DPER, (i.e., the body responsible for overseeing the reform of the Public Service), events caused by the COVID-19 pandemic are examples of external factors that have led to dramatic changes in the way that Revenue and other public sector organisations in Ireland operate working practices (Department of Public Expenditure and Reform, 2022).

While there is a need, indeed a demand, for high performance from public sector organisations, change is necessary to improve performance, transparency, and flexibility within public sector organisations in order to achieve desired outcomes, (Department of Public Expenditure and Reform, 2023; Shannon, 2017). It is thus important to understand what change looks like in the public service, and how to utilise change management processes (Kuipers et al., 2014). When considering change, the drivers for change as well as the changing environment of public service organisations are important factors to examine (Caldwell, 2009; By et al., 2009; and Kuipers et al., 2014). This is because if organisations do not identify and understand the drivers for change, they

cannot adequately identify and establish good change management processes to manage successful change within the organisation (Kuipers et al., 2014).

Significant drivers of change within the Irish public sector include the projected wave of high retirements and the impact of the Covid-19 pandemic on work practices. Approximately 25,000 individuals are expected to retire between 2019 and 2028 (Pender and Chambers, 2018, p.4). This large-scale departure poses a serious risk of losing critical institutional knowledge and expertise, and may have far-reaching consequences for organisational efficiency, service delivery, and continuity (Institute of Public Administration, 2006). The loss of such valuable skills and experience has the potential to create significant gaps in operations, decision-making, and the ability to deliver on public sector objectives. To mitigate the impact of challenges pertaining to succession planning and the maintenance of knowledge management within Revenue, government offices have been motivated to implement systems and processes aimed at capturing and preserving this knowledge (Institute of Public Administration, 2006). This driver for change was the motivation for introducing NASC in 2020 (Revenue, 2020). The Covid pandemic presented as an additional driver for change, and added another layer to the complex process of introducing NASC. Covid created a changed work environment, leading to the introduction of a blended working programme across the public service in Ireland, in which some staff were given the option of working remotely up to four days per week. In this way, Covid led to a change in work practices and heightened the awareness of the need to have shared access to a knowledge management system.

1.2.2 The introduction of NASC

A shared drive system in place prior to the introduction of NASC served as a basic document repository but was ineffective as a knowledge management tool. It failed to provide structured knowledge transfer, leading to gaps in continuity, inefficiencies in information retrieval, and increased challenges in succession planning (Revenue, 2020). The system was disjointed, with departments and teams operating independently and using shared drives to store, search, and access files between computers connected to the same network. Shared drives were mapped to specific teams, restricting users to information allocated to their own drive. A significant volume of documentation relating to audits, court cases, and other critical revenue functions was stored either on individual drives or on team drives, with no clear indication of location. This lack of integration resulted in data being held in isolated silos, which hindered the ability to share, access, or consolidate information across the organisation.

Collaboration was similarly constrained. Staff were unable to work simultaneously on documents, with edited versions having to be emailed to colleagues, resulting in multiple copies and uncertainty about which version was the most up to date. As a result, decision-making was slowed, collaboration was cumbersome, and the fragmented system made knowledge preservation increasingly precarious in the context of anticipated retirements (Avanade, 2020).

Recognising these challenges, Revenue senior management envisaged that a shared knowledge management system would provide an intuitive, user-friendly platform capable of consolidating information, improving transparency, and supporting succession planning (Revenue, 2020). In 2019, Revenue's Information and Communications Technology and Logistics Division (ICTandL) purchased Microsoft SharePoint, a web-based collaborative platform that integrates with Microsoft 365 and is widely used for document management and workflow applications (Microsoft Support, 2022). The system was extensively customised to meet organisational requirements, including the development of a taxonomy and enforced tagging system for structured storage and retrieval. The adapted system, named NASC, was designed to act as a secure platform for storing, organising, sharing, and accessing sensitive material such as policy documents, audit records, and taxpayer information, with access restricted to relevant team members (see Table 1-1 for a comparison between NASC and the original network drives).

It was envisaged that NASC would directly address the limitations of the shared drive system by reducing the time staff spent searching for documents, improving collaboration through simultaneous editing, and ensuring consistency by promoting the use and re-use of existing documentation. In addition to reducing duplication of effort and unnecessary queries between colleagues, NASC was expected to increase sustainability by preserving organisational knowledge, thereby mitigating succession planning risks. By creating a single, shared platform, NASC aimed to break down silos, enhance visibility, and foster a collaborative way of working that would contribute to greater efficiency, transparency, and accountability across Revenue.

	NASC	Network Drive
Multiple people can access the data across the entire organisation	Yes, once the individuals have been given permission or invited to access the specific data/document. This allows multiple users to access and edit the one document, which means only one copy exists, making it easier to manage the editing process.	No, shared drives are mapped to different teams, so users can only access information on the drive that is mapped to their team. Documents cannot be shared across teams; they can only be emailed to other users, resulting in multiple copies of the document with multiple edits.
Access to intranet sites	Yes, used for centralised communication, official policies and documentation such as finding self-service information like tax and duty manuals. The NASC system uses a taxonomy categorisation system to structure information for easier management and retrieval.	No, team sites use email attachments for collaboration. There is a central repository for tax and duty manuals on an intranet, but it is difficult to utilise; the search function is not good. For example, if a user is looking for a specific manual, they need to input the specific name of the document; otherwise, the system will not find it.
Creation of Information silo	No, documents and document histories are stored in a shared central space that is accessible to multiple users.	Yes, because team members use email attachments and team drives for collaboration, it is difficult to determine document history, as numerous individuals may be working on the same document at the same time, creating multiple copies. Another issue is that team members' email files are only accessible by the user; the information is stored locally and cannot be accessed by anyone else other than system administrators.

Table 1-1 Comparison of SharePoint and Network Drives

1.2.3 NASC Project Team

NASC was designed and implemented by a project team which played a pivotal role in ensuring the implementation and adoption of the NASC system within Revenue. It was composed of the NASC development team and Assistant Principal Officers representing each Division within Revenue. The NASC development team consisted of technical specialists within Revenue's ICT and Logistics Division who were responsible for configuring, customising, and maintaining the system. Their work focused on the technical aspects of adapting Microsoft SharePoint into NASC, including system architecture, taxonomy, tagging rules, permissions, and testing. In contrast, the NASC project team was a broader, cross-functional group that included the development team alongside Assistant Principal Officers representing each Division within Revenue, comprising twenty-five people in total. While the development team concentrated on the technical design and functionality of the system, the project team was responsible for governance, implementation, and ensuring that Divisional requirements were reflected in the system's development. The project team therefore acted as a

bridge between technical design and organisational adoption, supporting decision-making and facilitating the rollout of NASC across the organisation. In the Irish public sector, multidisciplinary teams are increasingly used in ICT and digital transformation projects to integrate technical, operational, and business perspectives (Deloitte, 2023) and such approaches have been evident in governmental reforms involving ICT across agency divisions (O'Donnell and Boyle, 2004). The inclusion of Assistant Principal Officers was perceived particularly strategic, as their involvement supported the alignment of system features with operational needs and helped foster organisational buy-in. The NASC team collaborated with stakeholders including senior management, divisional representatives, frontline staff, ICT specialists, and trainers to gather and validate business requirements, ensuring the system aligned with organisational needs.

The NASC project team oversaw the technical design and deployment of the system, addressing metadata, taxonomy, and document migration, while also supporting staff through training and guidance on new workflows and features. They facilitated communication between stakeholders, monitored feedback, and provided ongoing user support to drive adoption and optimise system effectiveness. The team coordinated the rollout across Revenue's 16 Divisions, beginning with the 2019 pilot and continuing with the redesigned 2020 rollout following a review by the consulting firm Avanade. Their responsibilities included finalising onboarding schedules with Divisional representatives, presenting the NASC initiative, and identifying potential calendar constraints, ensuring a structured and coordinated deployment that balanced technical requirements with operational needs.

The researcher holds the position of an Assistant Principal within Revenue and was actively involved in the NASC implementation project as a central member of the project team. She worked closely with the team at each stage of the system's implementation. Her role included assisting with the design of tailored content for specific areas within Revenue, developing strategies to maintain effective communication channels, and contributing to techniques to support system adoption. She also considered best practices for online training delivery and ways to engage users remotely. This involvement positioned the researcher at the intersection of practical execution and strategic oversight, providing a unique vantage point to observe both operational challenges and organisational responses, and offering insight into factors influencing user engagement, workflow adaptation, and the broader effectiveness of the NASC implementation. This positioning of the researcher is further considered in Section 1.4.

1.2.4 NASC Project review by Avanade Consulting

The NASC content management solution was implemented on a pilot basis in November and December 2019 with the Information Management Branch in Revenue. Following the pilot phase, Revenue carried out a review of the NASC initiative using an external management consulting firm named Avanade (<https://www.avanade.com>). The review was prompted by the governance process of the Digital Government Oversight Unit at the Office of the Government Chief Information Officer in Ireland (OGCIO). The governance process of the OGCI, specifies several measures that suggest how data should be governed, managed, and reused in a secure, efficient and transparent manner. These measures typically include data classification, access control, data quality standards, data sharing protocols, compliance requirements, data retention and disposal guidelines, and monitoring and auditing processes. They collectively aim to establish a robust framework for managing data responsibly, and ensuring it supports Revenue goals while maintaining security and compliance. Using a tendering process, Avanade were selected to independently conduct a review of the NASC initiative to examine the robustness, usability and value for money of the solution as well as the longer-term viability of the approach. The Avanade assessment involved conducting one-to-one and small group interviews across Revenue leadership, the NASC project team and pilot staff over a two-week period. Avanade presented their findings to Revenue in an internal confidential report. The researcher has access to and has permission from Revenue leadership to discuss some details of the Avanade report, which pertain to the research presented in this thesis; however, the report remains confidential.

The Avanade review highlighted several challenges faced by Revenue staff when using NASC (see Figure 1-1 for the executive summary). Staff reported significant difficulties in managing the organisation's data, including problems accessing, storing, and sharing information. Avanade established that these challenges were exacerbated by the complex use of metadata and taxonomy, which introduced inefficiencies in tagging and organising documents, making it difficult to locate content. Additionally, technical issues, such as inconsistent system behaviour and problems with the upload wizard, were found to have led many users to adopt workarounds, or to revert to old work practices, thus undermining the system's effectiveness. Furthermore, the Avanade report highlighted gaps in training and in change management, indicating that Revenue's processes for preparing staff, guiding adoption, addressing resistance, and embedding NASC into everyday workflows were insufficiently developed.

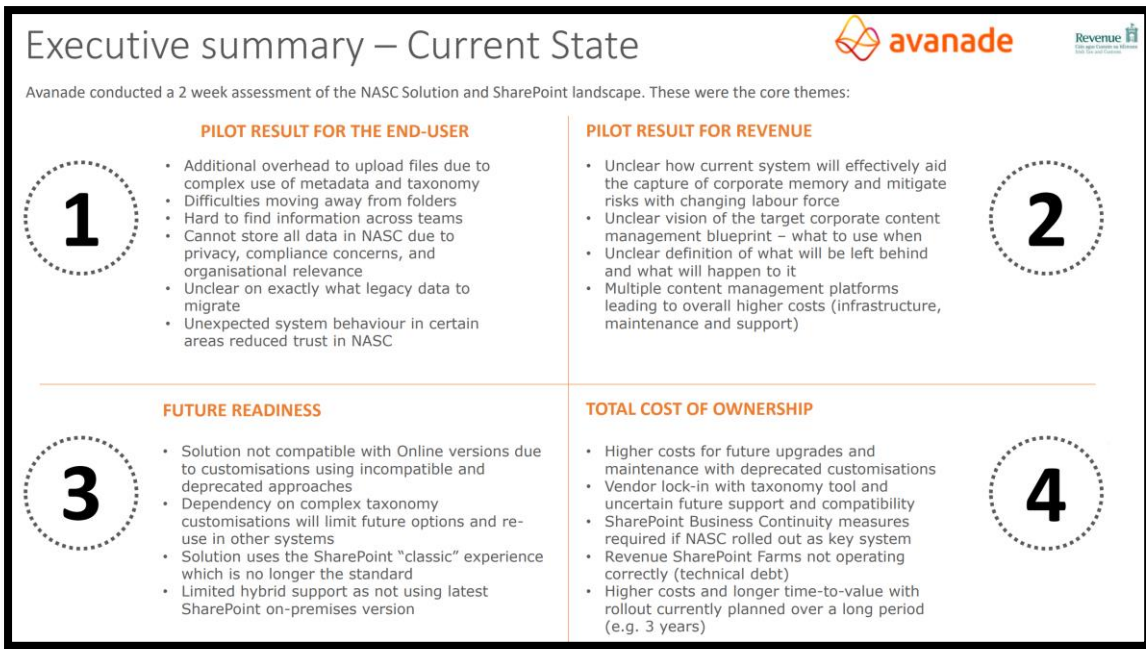


Figure 1-1 Avande Report Executive Summary – Current State

As found by Avande, the resistance to change caused by overall system behaviour issues was related, in part, to the complexity of the metadata and taxonomy used in saving information. This complexity, which may stem from the interconnected nature of Revenue processes, structures and culture led the Avande review to recommend a halt on system rollout, and mobilisation of a phase of due diligence activities. Avande recommended simplifying metadata and taxonomy, addressing technical inconsistencies, and overhauling the training and change management approach to ensure smoother user adoption and system functionality (see Figure 1-2).

Based on the review findings, the following three key areas were Avande’s recommendations for Revenue going forward:

1. Reassess the project scope, team, and delivery approach of the NASC system.
2. Realign technology and knowledge design to SharePoint (NASC) best practices to achieve the organisation’s goals.
3. Reinforce change management training and communication channels – by having a clear NASC training plan and communication strategy, the project team would be better positioned to make sure everyone understood why the change is necessary and to facilitate the successful implementation of NASC (Avande, 2020).

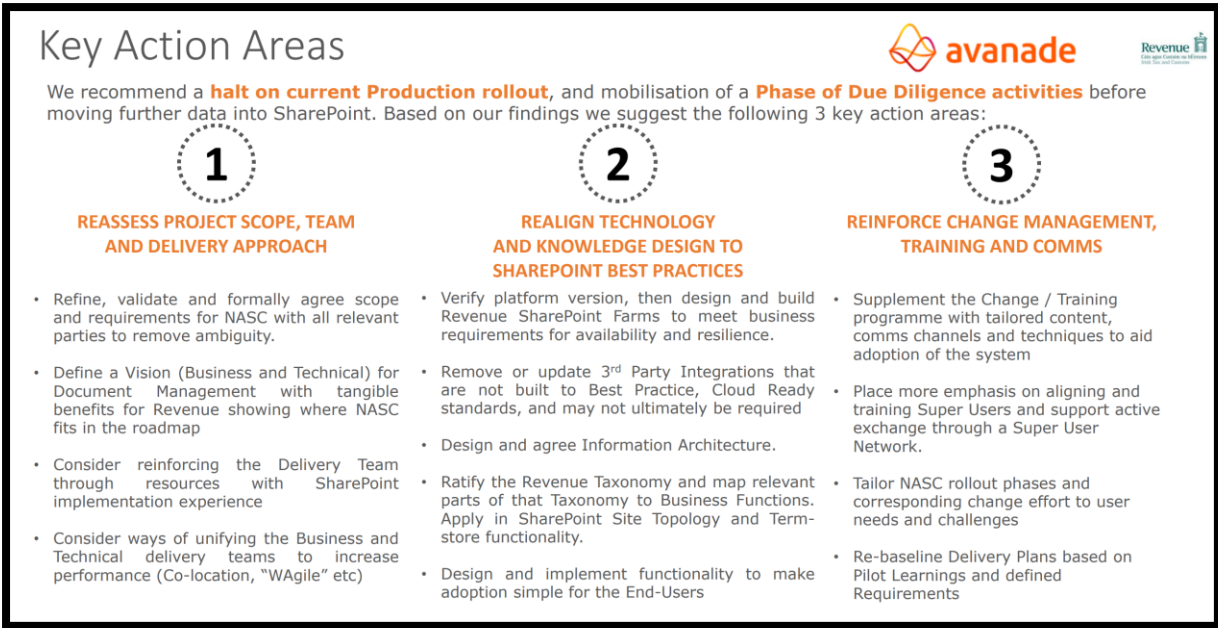


Figure 1-2 Avanade Key Action Areas

1.2.5 Redesigning NASC

Following the Avanade review in January, 2020, a decision was made by the project team to pause further rollout of NASC so that NASC could be re-scoped and re-designed in line with the Avanade recommendations. To address the key findings of the Avanade review, the project team designed and agreed on a new implementation approach for NASC, incorporating the review's recommendations to resolve each issue.

Table 2-1 below presents a structured response to Avanade's recommendations. It outlines the key challenges identified, the solutions proposed by the NASC project team, and the anticipated outcomes. This approach was designed to ensure that the NASC implementation directly addresses Avanade's concerns, supports effective change management, enhances user engagement, and improves overall project and system performance.

The project team re-examined the primary drivers for NASC to develop the new approach. This approach included the re-structuring and honing of the NASC scope so that instead of trying to implement the entire NASC system, the separate functions would be delivered as a series of waves or phases. Phase 1 was launched in 2022, focusing on familiarising staff with NASC, particularly the basic elements of the system's document management solution such as how to store and collaborate on documents. As part of this phase, and as recommended by Avanade, the 2016

infrastructure that underpinned NASC pre-Avanade review; was replaced with the 2019 version of SharePoint.

Avanade's Recommendation	Key Issues Identified	Proposed Solutions	Expected Outcomes
1. Reassess the project scope, team, and delivery approach of the NASC system.	<ul style="list-style-type: none"> - Ambiguity in project scope and requirements. - Lack of alignment between business and technical teams. 	<ul style="list-style-type: none"> - Clearly define and formally agree on project scope and requirements with all stakeholders. - Reinforce the project team with SharePoint and knowledge management expertise. - Establish structured collaboration between business and technical teams. 	<ul style="list-style-type: none"> - Clear project direction and shared understanding across teams. - Improved coordination between technical and business units. - Reduced risk of project misalignment and delays.
2. Realign technology and knowledge design to SharePoint (NASC) best practices to achieve the organisation's goals.	<ul style="list-style-type: none"> - Outdated or unsuitable technical integrations. - Complex taxonomy and information architecture. - Limited vision for document management. 	<ul style="list-style-type: none"> - Verify platform version and ensure SharePoint Farms are resilient. - Remove or update third-party integrations that do not align with cloud-readiness and best practices. - Design an intuitive taxonomy and information architecture mapped to business functions. - Define a clear vision for document management with measurable benefits. 	<ul style="list-style-type: none"> - A technically sound and scalable NASC system. - Improved document accessibility and knowledge retention. - Better alignment with SharePoint best practices for long-term sustainability.
3. Reinforce change management training and communication channels.	<ul style="list-style-type: none"> - Gaps in change management and user training. - Lack of user engagement and clarity on NASC's purpose. 	<ul style="list-style-type: none"> - Develop a structured NASC training plan tailored to different user groups. - Implement a clear communication strategy to explain NASC's purpose and benefits. - Use phased rollouts and pilot testing to refine training and implementation. - Establish a strong user support network to facilitate adoption. 	<ul style="list-style-type: none"> - Higher user adoption and confidence in NASC. - Clear understanding of system benefits and necessity for change. - Reduced resistance to change and improved knowledge-sharing culture.

Table 1-2: Avanade key issues, corresponding solutions and expected outcomes to support the successful implementation of NASC.

The COVID-19 pandemic occurred simultaneously with the redesign of the NASC project and had a significant impact on the implementation of NASC. The pandemic led to changes in the way public sector organisations operate. Every Government department, including health, finance, education, transport and law enforcement, had to change how they operate (Department of Public Expenditure

and Reform, 2022). The need for change happened suddenly, and public agencies had to come to terms with the demands, both internally and externally, as many public servants were working remotely. Interestingly, prior to the Covid pandemic, the option of remote working was one that had been put forward through the Civil Service Employee Engagement Surveys in 2015, 2017 and 2019 as a work/life balance option (Civil Service Employee Engagement Survey, 2020). It had been deemed a possible future option by management, but one that would require research, and the idea had lain dormant until it was deemed essential as a response to the COVID pandemic.

The Pandemic and the introduction of remote working changed the scope of the NASC project. The Avande report which triggered the redesign of the NASC project was issued in January 2020 and Revenue staff began working remotely in March 2020. The element of remote working required re-assessment of how NASC was introduced to staff. While remote working meant online learning was now necessary, it also increased the necessity of working collaboratively online, so knowing how to interact with NASC became more important for staff. Prior to the pandemic, introductory training was carried out in person, and supplementary training materials were made available online. The pandemic and post-pandemic approach to NASC training needed to include the necessary element of online training only. The NASC training plan needed to take into account that effective online training delivery relies on adopting flexible, technology-enhanced methods, such as effective virtual platforms, to cater to diverse learner needs and ensure accessibility (Dhawan, 2020).

This research investigates how the findings from the Avande review shaped the subsequent redesign of the NASC implementation strategy. Drawing on the researcher's embedded role within the project team, it focuses on how gaps identified in change management, user adoption, and alignment with organisational objectives were addressed, and also examines the impact of these adjustments on staff engagement, workflow adaptation, and the overall effectiveness of NASC across Revenue.

1.3 Aim of Research and Research Questions

Although NASC was introduced to address a specific need relating to knowledge management, O'Flynn (2015, p. 21), an expert in public management reform and relationships, questioned why so many public sector initiatives are launched despite the lack of clearly measurable benefits from their implementation. Sounman (2020) also observes that the literature offers limited clarity on what constitutes successful implementation of change within the public sector. This vagueness stems from the complex and multifaceted nature of public sector organisations, where success can be

interpreted in various ways depending on the context, stakeholders, and objectives involved (O’Flynn, 2015; Sounman, 2020). Factors such as achieving policy compliance, improving service delivery, increasing stakeholder satisfaction, and fostering long-term sustainability may all be considered indicators of success. Still, there is no consensus on how to measure or prioritise these outcomes (O’Flynn, 2015). Additionally, the absence of standardised criteria for evaluating change initiatives contributes to inconsistencies in how success is defined and assessed, leaving room for subjective interpretations and varying benchmarks across different studies and practical applications (Sounman, 2020). This lack of specificity underscores the need for more focused research to establish clear and actionable frameworks for evaluating the success of change in the public sector. O’Flynn argues that this absence of clarity is partly due to “a lack of robust conceptual models to understand public sector change” (2015, p. 21). In addition, Byeon et al. (2022) note that there is limited detail available on the measurement or assessment tools used by public service organisations to gauge staff perceptions of change processes. This gap highlighted for the researcher a lack of standardised frameworks or methodologies for systematically collecting and analysing feedback from employees or other stakeholders during organisational transitions. Consequently, the researcher noted that this deficiency can hinder efforts to understand user experiences, address concerns, and tailor change strategies effectively, potentially impacting the overall success of change initiatives. In general, changes are implemented because of need, but very little research is done to assess if staff feel that the change is implemented successfully (Byeon et. al., 2022).

This study aimed to examine the perceptions of staff in Revenue regarding the implementation of NASC and the associated changes. Specifically, the research focused on two distinct groups of staff to explore how the change management strategies employed by Revenue influenced their ability to work effectively, maintain transparency, and adapt flexibly to new workflows. By focusing on NASC, a knowledge management system designed to streamline document storage, retrieval, and collaboration, the study aligns with Revenue’s mission to “serve the community by fairly and efficiently collecting taxes and duties and implementing Customs controls” (Revenue.ie, 2025). Leveraging the insider perspective while maintaining academic rigour, the research evaluated how effectively Revenue’s change management practices facilitated system adoption, with the ultimate goal of enhancing organisational efficiency and supporting Revenue’s broader mission.

While this research attempted to understand change within the narrow focus of one project, it sought to bring clarity to the understanding of public sector change by examining existing knowledge and insights about how change occurs within public sector organisations, including the processes, challenges, and factors influencing successful transformation. The Avanade review

highlighted issues with staff trust in NASC and the challenges surrounding user adoption behaviour. The findings revealed that system behaviour issues undermined staff trust in NASC, which in turn limited user adoption. This prompted the researcher to question why staff perceptions are often overlooked as a measure of success when implementing new systems and processes. The review specifically identified a lack of staff input and feedback during the design and implementation of the NASC pilot. In response, this research aimed to examine staff perceptions of the redesigned NASC Wave 1 approach. Understanding staff perceptions is considered essential to identify usability issues, assess user behaviour, and evaluate satisfaction with the system (Byeon et al., 2022). A key focus of this study was addressing the action areas identified in the Avade review: the need to reinforce change management, training, and communication strategies. By exploring staff perceptions, the researcher aimed to identify which aspects of NASC were effective, and which required improvement. This focus on user feedback was crucial, as Byeon et al. (2022) emphasise that user adoption is significantly influenced by perceived ease of use, perceived usefulness, and how well new systems align with users' existing workflows and expectations.

1.3.1 Research Questions

The development of the primary research question was guided by the need to explore staff perceptions of NASC's implementation within the Office of the Revenue Commissioners. Avade's findings highlighted staff challenges as a critical factor in the system's success, making it essential to understand how NASC staff engage with and adopt NASC. Consequently, the research sought to examine key factors influencing staff adoption, including their perceptions of NASC's purpose, its usefulness, and the overall change management process.

Overarching Research Question:

What are the perceptions of staff regarding the factors that influence their decision to adopt the new Knowledge Management System, NASC, within the Office of the Revenue Commissioners in Ireland?

1.4 Researcher Positionality

This concluding section addresses researcher positionality in the study. As stated, researcher holds the position of an Assistant Principal within Revenue and was actively involved in the NASC implementation project as a central member of the project team. The decision to undertake this doctoral research study was informed by the researcher's first-hand experience of the initial rollout

of NASC, and subsequent discussions within Revenue following the publication of the Avande review, which identified critical issues in staff engagement, training, and system usability.

In conducting this study, the researcher's dual role as both a practitioner within Revenue and an academic investigator provided a unique and valuable perspective on the implementation of the NASC system. This insider positionality allowed for an in-depth understanding of Revenue's organisational structure, processes, and culture, offering rich contextual insights that might not have been accessible to an external researcher. However, as noted by Holmes (2020), Unluer (2012), and Berger (2015), insider research presents significant methodological challenges, particularly concerning bias, reflexivity, and objectivity.

The researcher's identity, role, and relationship with the research setting had a profound influence on data collection, analysis, and interpretation (Holmes, 2020). As an insider within Revenue, the researcher had direct experience with the organisation's knowledge management practices, training structures, and digital transformation initiatives. This familiarity, while valuable for contextual interpretation, also introduced potential bias in analysing staff perceptions and evaluating Revenue's change management strategies. Unluer (2012) highlights that insider researchers often struggle with over-identification, which can lead to selective perception and assumptions that may not be critically examined. Similarly, Berger (2015) discusses the risk of either exaggerating distance to appear objective or becoming overly sympathetic to the organisation's challenges. To mitigate these concerns, the researcher adopted several strategies aimed at reducing bias and maintaining academic rigor – ensuring diverse staff representation, reflexivity and triangulation of data sources.

First, as detailed in Chapter Three, a key strategy was to use online surveys (see Appendix A) to gather the views of approximately 100 NASC end user staff across different levels of the organisation, as well as online surveys to gather the views of trainers involved in the implementation of NASC (see Appendix B), ensuring that a wide range of perspectives was represented. This approach aligns with Unluer's (2012) recommendation for insider researchers to actively seek diverse voices to counterbalance personal familiarity with the subject matter. By integrating multiple perspectives, the study reduced the likelihood of researcher bias shaping conclusions, instead providing a more balanced and credible evaluation of staff adoption and satisfaction.

Second, to further address potential biases, the researcher maintained a reflective journal throughout the study (See Appendix C). This practice enabled a critical examination of assumptions, interpretations, and personal influences on the research process. Berger (2015) emphasises the importance of reflexivity in insider research, arguing that continuous self-examination enhances the

transparency and credibility of findings. By documenting thoughts, preconceptions, and evolving interpretations, the researcher was able to identify and account for potential subjectivities.

A final methodological safeguard was the triangulation of data. Staff involved with the rollout of NASC, as well as trainers responsible for delivering the NASC implementation were surveyed, and a researcher diary was maintained. Holmes (2020) argues that successful organisational change requires more than structural adjustments, it necessitates a deep understanding of how employees experience and adapt to new systems. Similarly, Berger (2015) notes that insider researchers can play a crucial role in identifying and addressing barriers to change, provided they maintain reflexivity and methodological rigour. They argue that insider positionality, when managed carefully, can be a strength rather than a limitation.

By employing diverse data collection methods, maintaining reflexivity, and using triangulation, the researcher was able to mitigate bias while leveraging deep organisational knowledge to produce meaningful insights.

1.5 Structure of Thesis

This chapter provides an overview of the research, outlining its background, significance, and objectives. It introduces the research problem, explaining the context in which the study takes place and why it is important. The chapter also presented the research aims and primary research question, highlighting the key issues the study seeks to address. Additionally, it defines the scope of the research, and explains the structure of the dissertation, setting the foundation for the chapters that follow.

Chapter 2, literature review, offers an overview of the findings drawn from academic literature in relation to the research question and sub questions. The research was informed by literature related to change management in public service as well as adoption behaviours during change processes. Literature related to social learning was considered, and the relationship between communication styles and change was explored with reference to leadership communication styles.

Chapter 3, methodology, outlines the research process and clarifies the research questions guiding the study. It details the chosen research methods and their implementation, supporting the collection, analysis, and reporting of data. The chapter also addresses the research's limitations and ethical considerations. It discusses the philosophical foundations of the study and provides a rationale for the selected research design.

Chapter 4, findings, presents the research findings based on the analysis of the collected data. It reports what was discovered during the study in a clear and structured manner.

Chapter 5, analysis and discussion, examines the findings in greater depth through thematic analysis, enabling triangulation with themes identified in the literature review. The chapter interprets the results, explores their significance, and situates them within a broader context.

Chapter 6, conclusion and recommendations, summarises the key findings and the conclusions drawn by the researcher. It also discusses the practical implications of the research, particularly regarding the future implementation of IT systems within Revenue, and offers recommendations based on the study's outcomes.

Chapter 2

Literature Review

2.1 Introduction

This research investigated the perceptions of staff regarding the factors that influence their decision to adopt the new Knowledge Management System, known as NASC, within the Office of the Revenue Commissioners in Ireland. This chapter presents a review of the literature that informed the research. There are three parts to the chapter. The first explores understandings of the purpose of change and the factors that affect the successful implementation of change in public sector organisations. The second part explores communication styles in the context of change, examining how communication influences adoptees' behaviour and how relevant change theories help explain this relationship. The third section explores online training design and examines public servants' perceptions of how they learn. The chapter concludes by drawing key conclusions that justify the study and research questions.

2.2 The purpose of change and the factors that affect the successful implementation of change in public sector organisations

It is accepted that change is a complex and challenging progression, requiring buy-in from all the entities involved, as well as cooperation at all levels within organisations if it is to occur (Shannon, 2017; Mangan and Lawrence-Pietroni, 2019). This first part of the literature review accordingly addresses the purpose of change within public sector organisations; it begins by examining the characteristics of change, as well as the drivers, influences and constraints. The section also includes an examination of the factors that affect success of change as well as elements that create resistance.

2.2.1 Purpose of Change

There are interchangeable terms used to define change and it is necessary to clarify what it is people are referring to when they talk about change. Over two decades ago, Senge (1999) examined the inconsistent meanings of the word change, noting that on the one hand it can refer to external change in terms of technology, stakeholders, or the social and political environment, and, on the other hand, to internal changes, for instance, restructuring, or the introduction of new processes. However, irrespective of whether change is external or internal, Senge (1999) argues that it includes common characteristics affecting people, processes, and culture. Consequently,

these are the key characteristics that need to be considered when examining change within public sector organisations. Building on this understanding of change, it is essential to examine how these key characteristics, people, process, and culture, shape change within public sector organisations. Specifically, this review explores who is driving the change and how it is implemented (people), what is driving the change, why it is necessary, and what factors influence its success (process), as well as how the change is perceived (culture). Additionally, as effective communication is crucial in facilitating successful implementation (Kuipers et al., 2014), the role of communication in shaping perceptions and ensuring a shared understanding of the change process is discussed,

2.2.1.1 Who is driving the change: Top-down or bottom-up?

Change within public sector organisations can be process driven and/or user driven with elements of both incorporated in the change processes at the one time (Parry et al., 2014). The process of change in public sector organisations is generally described as top-down and bottom-up (Jurich et al., 2014; Kuipers et al., 2014; Orazi et al., 2013). Top-down refers to the change being introduced by senior management at the top of the organisation and filtering down to the entry-level staff at the bottom of the organisation. It is based on a hierarchical decision-making process, in that senior executives and leaders craft goals, policies, and strategies that they then cascade through the organisation. Driven by senior leadership, it is aimed at fostering unity and ensuring that everyone moves in the same direction. Bottom-up refers to change happening in the opposite direction, with the change progressing up towards senior management (Higgs and Rowland, 2005). While bottom-up change is sometimes seen as emergent and participatory, it is not always the case. The interplay of authority, resources, and structural constraints means that bottom-up change does not automatically lead to inclusive, widespread, or truly emergent change (Heyden et. al, 2016). In fact, Top-down and bottom-up change can be considered mutually inclusive, in that they can be happening at the same time, and therefore have some overlap with each other (Higgs and Rowland, 2005). While the top-down approach is being implemented, the bottom-up approach can also be happening throughout the organisation with employees participating in the process, by promoting and engaging with others at every level in the organisation to move collectively in one direction.

Both top-down and bottom-up approaches, are used to implement change in public sector organisations globally (Heyden et. al, 2016) and the implementation of change in public sector organisations can vary between public service jurisdictions; i.e. it can be a top-down approach that is authoritative and does not consult with or involve staff, or a bottom-up approach that implements a participatory style of change implementation (Shannon, 2017). However, much of the literature on

public sector change describes implementation as being top-down, with changes being “made to” organisations rather than changes being “made by” organisations (Kuipers et al., 2014).

The top-down approach to change, is often referred to as the “US/Anglo-centric perspective” (Pettigrew et al., 2001) and is commonly associated with public sector organisations in the United States, United Kingdom, and Ireland (Pettigrew et al., 2001; Hill and Hupe, 2009). New Public Management (NPM) reform, a predominantly top-down model of change (Pettigrew et al., 2001) which is rooted in the US/Anglo-centric perspective, emerged in the 1980s, and continues to influence public service organisations today (Xerri et al., 2015). This type of reform aims to improve efficiency by incorporating private-sector management practices, such as decentralisation, and privatisation. Changes are imposed by central authorities or upper management with little consultation or involvement from lower-level employees or the public. Public service agencies are viewed through a managerial lens, often perceived as bureaucratic and inefficient. The goal of applying business strategies is to enhance efficiency and responsiveness to public needs. While these methods are now over 40 years old and often considered outdated (Pike et al., 2006; Shannon and Van Egeraat, 2013), Ireland, the UK, and the US continue to rely on this approach to reform public service agencies (Shannon and Van Egeraat, 2013; Neal et al., 2008).

International trends have seen some shift from 'top-down' to 'bottom-up' approaches (Pike et al., 2006; Shannon and Van Egeraat, 2013) Countries such as The Netherlands and Finland have demonstrated a more bottom-up approach to change (Hill and Hupe, 2009). This approach involves those lower in the hierarchy having more input into decision-making, and those at the top looking to their employees for advice, information, and decision-making input. It is believed that by having more responsibility and opportunities to contribute, employees will stay motivated and identify the best way to work. By focusing on bottom-up initiatives, it is argued that revitalisation can be spread through departments as opposed to being pushed down from the top (Hayes, 2002). The literature stresses the need to ensure that a bottom-up approach to change is put in place by organisations so that the commitment of employees to change might be achieved (Demircioglu, 2020).

Both top-down and bottom-up have advantages and disadvantages. Top-down change is very structured and controlled and implements change quickly because it eliminates the need for extensive coordination between leadership and employees (Ryan et al., 2008). With bottom-up change management, employees are heavily involved in the change plan, leading to goals and objectives that are achievable at every level of the organisation (Mangan and Lawrence-Pietroni, 2019). Purported advantages are that motivation is stronger within the organisation since

employees feel that their voices are being heard and they feel involved in the change process. However, bottom-up change processes take longer to achieve as there is a greater need for coordination between different levels within the organisation (Mangan and Lawrence-Pietroni, 2019). Irrespective of whether bottom-up or top-down approaches are adopted, external and/or internal factors such as government changes and policy changes, as well as conflicting agendas, mean that frequently, change management plans are abandoned or changed mid process (Hermansen and Sundqvist, 2022). This makes it difficult to effectively measure the success or failure of either top-down or bottom-up models of change (O'Flynn, 2015; Tsoukas and Papoulias, 2005).

The difference between the two approaches to change can affect the success of the change. Kuipers et al. (2014) carried out a literature review on 133 articles published in the period from 2000 to 2010 based on the themes of the context, content, process, outcome and leadership of change. They found that almost half the publications were based on the dominant top-down aspects of the US and UK change perspectives and point towards the culture and geography of the organisation as influencing the success of change. Errida and Lotfi (2021) carried out an in-depth review of 37 organisational change management models to identify the factors that affect change management success. They note the importance of examining the influences of drivers that pressure organisations to change their practice. They identify processes as being key factors that affect the success of change within organisations (Errida and Lotfi, 2021). They also found that culture, communication and leadership, and the complexity of the change management plan, as well as inadequate training and development affected the success of change (Errida and Lotfi, 2021).

[2.2.1.2 Processes of change](#)

Literature reviews, completed by Armenakis and Bedeian (1999) and Rieg, et. al. (2021), on change management refer to the processes that are involved in the implementation of change; they distinguish between two different approaches to change: planned and emergent (See Table 2-1). Planned change is described as deliberate, following a process of mindful reasoning and systematic actions (Morley et. al., 2004). In contrast, emergent change happens in an unplanned and spontaneous way, one example being the introduction of remote working as a response to the Covid pandemic. Planned change involves long-term programmes and projects and is intentional. It is generally top-down in direction and generally works very well for smaller organisations (Armenakis and Bedeian, 1999). Emergent change is a strategy that involves quickly developing

and implementing plans (Armenakis and Bedeian 1999). It is generally associated with bottom-up approaches to change (Hayes, 2002). The emergent approach to change is based on the assumption that all organisations operate in a turbulent, dynamic and unpredictable environment. (Morley et. al., 2004) whereas planned change involves using preplanning, and the general premise is that emergent change occurs naturally in response to need. However, it is also true that they are not mutually exclusive.

Planned Change vs. Emergent Change

Planned change	Emergent change
<ul style="list-style-type: none"> • Intentional • Improve organizational processes • Rooted in data/evidence (science!) • Directed from higher levels of management • Smaller institutions 	<ul style="list-style-type: none"> • “Loosely coupled” institutions <ul style="list-style-type: none"> • Multiple autonomous subunits • Constant adaptation to changing conditions • Identify patterns/themes across initiatives • Improvement within and across the Division

Table 2-1: Planned Change vs. Emergent Change (Armenakis and Bedeian, 1999).

Regardless of which process is adopted, what is critical for successful implementation of change is the culture that exists within the organisation.

2.2.1.3 Culture

Public sector organisations have cultural drivers initiating change (Institute of Public Administration, 2015). For example, a cultural driver of change during the planned need for systems upgrades within an organisation can lead to the emergence of adaptations throughout rollout. Cultural drivers of change during the implementation of systems may also include influential ideas that impact behaviour and create new trends, or lead to the emergence of new adoption behaviours (Institute of Public Administration, 2015).

Research on the impact of culture on change management in public service organisations highlights various internal and external factors that shape the change process (Day and Shannon, 2015).

Internal factors may include leadership style, organisational structure, and employee engagement, while external factors often involve environment, political influences, policy changes, and societal

expectations. The culture within an organisation, its shared values, norms, and attitudes, plays a crucial role in determining how these factors interact and influence change.

Anderson and Ackerman-Anderson (2010), renowned experts in change management, classify change into three categories: developmental, transitional, and transformative (see Table 2-2). Understanding these distinctions is essential, as the effectiveness of change initiatives often depends on how well they align with the existing organisational culture and its capacity to adapt.

Developmental	Transitional	Transformative
Improvement of what is: new state is prescribed enhancement of existing state	Design and implementation of desired new state that solves an existing problem	Fundamental change in strategy, operations, worldview where new state is largely unknown. New state requires fundamental shift in mindset, organizing principles, behavior and/or culture

Table 2-2: Developmental, Transitional and Transformative Change - Anderson, and Ackerman-Anderson (2010).

Developmental change involves minor improvements to existing processes and typically does not require significant shifts in organisational culture. In contrast, transitional change is more complex, as it replaces an existing process with a new one. Transformational change is the most challenging, as it creates entirely new processes, often requiring fundamental shifts in both behaviour and organisational culture (Anderson and Ackerman-Anderson, 2010).

Effectively managing change requires first identifying its nature, whether it is planned or emergent, and the approach it follows, whether top-down or bottom-up (Morley, 2004). However, beyond simply classifying change, it is crucial to understand why the change is necessary and how it will impact those involved. Successful change management depends not only on implementing new processes but also on securing employee buy-in and fostering a shared vision. Engaging stakeholders early in the process helps build trust, reduce resistance, and ensure that change is not only adopted but sustained. While the literature (Hayes, 2002; Morley, 2004) discusses the need for change in the public sector as a response to specific intent, or conscious requirement, it should be noted that the need for change is not always easily identifiable (Day and Shannon, 2015). While change can be

planned or emergent, and it can develop without any intended outcome, the need for change is not always clear to those involved (Armenakis and Bedeian, 1999; Higgs and Rowland, 2005; Parry, et al., 2014).

2.2.2 Why is change necessary?

Public sector organisations are continuously forced to change to be more effective, efficient, open, and responsive to policy challenges, making change a necessary process (Hayes, 2002; Morley, 2004). They are vulnerable to changing governments with differing political agendas and leaders with different personal itineraries (Jurisch et al. 2014). Conflicting agendas and goals that need to be achieved can lead to confusion within public sector organisations (Kuipers et al., 2014). As a consequence, public sector organisations are found to focus more on managing risk and stakeholder interests rather than on employee satisfaction as a reason for change (Dwyer et al., 2013).

To understand the nature and context of change, one needs to examine the influences and drivers of change.

2.2.3 Influences and Drivers of Change

The words 'influences' and 'drivers' are often used interchangeably when examining the pressure for change in the public sector. They refer to an internal or external pressure that affects change to strategy, plans, designs, products, services and/or operations (O'Flynn, 2015). Internally, for example, one influence is key performance indicators (KPIs), which are set at management level. KPIs dictate the performance levels staff need to achieve. According to O'Flynn (2015), when monthly performance reports are carried out at each level of the organisation, it suggests that KPIs are not met; the lack of performance necessitates change, either to the KPIs or the performance of staff. O'Flynn also argues that externally, influences such as public perception have led to significant changes in the way agencies operate. Policies have changed, risk assessments have become a more significant element of business, and the public is demanding greater involvement in the decisions made for them by government leaders. A survey carried out by the Association of Chartered Certified Accountants (ACCA), (2016), (See Table 2-3) lists the top 25 drivers of change in public sector organisations, highlighting the main drivers to be changes in government, economics and global change. Subsequent studies carried out by the ACCA between 2020 and 2023 gathered insights from senior public sector leaders, commentators, and academics worldwide (Department of Public Expenditure and Reform, 2020; ACCA, 2023). The findings highlight the critical skills needed to

implement change, including expertise in information technology, economics, government, and accountancy.

In the public sector, the need to improve performance is a common driver of organisational change, particularly when performance issues are evident. However, change can also be prompted by a perceived gap between how performance is viewed and the actual outcomes achieved (Parry et al., 2014; Morley et al., 2004). According to Day and Shannon (2015), change in public sector organisations is typically a structural and intentional process aimed at achieving improvement. This suggests that large-scale change is usually deliberate, involving a series of planned actions and strategic decisions (Parry et al., 2014). The success of such change initiatives often depends on the presence and influence of key change drivers. For instance, the ACCA (2016) identifies a range of internal and external drivers that shape public sector change efforts. Internal drivers identified by the ACCA include leadership vision, organisational culture, and strategic priorities, while external drivers encompass regulatory developments, technological advancements, and shifts in the broader policy or market environment. Armenakis and Bedeian (1999) further emphasise that the intention behind change significantly influences how the change process unfolds, whether it is planned, emergent, or a combination of both

RANK	DRIVER	CATEGORY
1	The level of economic growth	Economy
2	Quality and availability of the global talent pool	Business of government
3	Business leaders' responsiveness to change and disruption	Business of government
4	Use of Public Private Partnerships (PPPs)	Business of government
5	Big data: the development and exploitation of large organisational databases, data mining and predictive analytics	Science and technology
6	Non-financial information and integrated reporting	The practice of accountancy
7	Stability of the global economic infrastructure	Economy
8	Cybersecurity challenges for government	Science and technology
9	Stability of national revenue bases	Economy
10	Spread of diversity in society and the workplace	Society
11	Workforce age structure	Society
12	Experimentation with and adoption of new business models	Business of government
13	Balance between external financial accounting and internal managerial accounting	The practice of accountancy
14	Clarity in financial reporting and defining the audit function	The practice of accountancy
15	Competition for limited natural resources	Environment, energy and resources
16	Defining the scope of the accountant's role	The practice of accountancy
17	Speed and duration of business cycles	Business of government
18	The digitisation of work	Science and technology
19	Accounting skills capacity in transitional economies	The accountancy profession
20	Flexibility, suitability and cost of accountancy training	The accountancy profession
21	Global climate change	Environment, energy and resources
22	Governance and provision of outsourced public services	Politics and law
23	Extent of foreign direct investment in developed and developing economies	Business of government
24	Level of international political volatility	Politics and law
25	Scale and distribution of global population growth	Society

Table 2-3: Professional accountants – the future: 50 drivers of change in the public sector (Association of Chartered Certified Accountants, 2016)

What all of this implies is that while these drivers set the stage for transformation, neglecting the staff, the employees or stakeholders who experience and implement the change, is a critical mistake. Change efforts often fail when user perceptions, experiences, and adaptability are overlooked. Resistance, disengagement, or outright rejection can derail even the most well-intended initiatives. True, lasting change requires alignment between the drivers of change and the experience of those affected by it. In essence, successful change is not just about why it happens, but also about how it is perceived and embraced by those who must live with it. The characteristics of planned and emergent change, as illustrated in table 2-1, vary in terms of implementation. However, common themes emerge across both approaches, particularly in the areas of leadership style and communication strategies, which remain essential regardless of the chosen change model (Day and Shannon, 2015).

To better understand the key drivers of change in the public sector, organisations such as the Civil Service Department of Public Expenditure and Reform and the ACCA have conducted employee engagement surveys. These surveys identify a wide range of drivers influencing change, such as shifts in government, economic trends, and global developments. As shown in table 2-3, the top-ranked factors include economic growth, the availability of a global talent pool, and business leaders' ability to respond to change and disruption. In contrast, factors such as the speed and duration of business cycles and the level of foreign direct investment in developed and developing economies were ranked as less significant.

These insights emphasise the complexity of change in the public sector and reinforce the need for strong leadership, strategic communication, and a workforce equipped with the right skills to navigate evolving challenges.

2.2.4 Constraints to change

Many change strategies have been adopted in the public service from the corporate and private sector (Shannon, 2017). This is no surprise as public sector organisations are considered very similar to large private organisations (Caldwell 2009, in By et al., 2009; Kuipers et al. 2014). Both have objectives and goals, key processes, financial and technical resources, and strict accountability (Shannon, 2017). However, the significant differences between them are the contexts within which they operate, and the culture of the organisation also influences the change management process differently (Shannon, 2017).

There are several constraints facing public sector organisations in bringing about successful change. Firstly, public service leaders are not typically hired for their expertise in change management; they are generally appointed to their positions because of their expertise in public policy (Mangan and Lawrence-Pietroni, 2019). Moreover, many public sector leaders have risen through the ranks of the organisation and are enmeshed in the culture of the organisation (Mangan and Lawrence-Pietroni, 2019). Secondly, public sector organisations continue to exhibit styles of bureaucratic or hierarchical organisational culture, meaning that there is a succession of tiers from the lowest grades of staff in the organisation to the highest executive. Each level has clearly defined roles and responsibilities (Kohei and Hyunkang, 2020; Sounman, 2020). Change can thus be difficult for these organisations as many consist of rigid structures and processes that can be stubborn and resistant to change (Mangan and Lawrence-Pietroni, 2019). Thirdly when leaders are enmeshed in this type of culture, they may be unlikely to understand how important culture is to change since they may not be familiar with the role of culture in the change process (Kohei, and Hyunkang, 2020). Many public sector leaders have a limited amount of time to manage change within their agency due to changes in government and conflicting policy agendas (Sounman, 2020). The hierarchical, bureaucratic systems, tend to be rigid and make decision making slow. Traditional hierarchical cultures which are bureaucratic in nature tend to be resistant to change (Dublin City University and Department of Public Expenditure and Reform, 2020). An analysis carried out by Dublin City University Business School and the Department of Public Expenditure and Reform in 2020 following an employee engagement survey, found that “the current hierarchical grade structure is not compatible with the current or future needs of the Public Service; and a weak culture of involvement is present at all grades” (DCU and DPER, 2020, p3). This is one of the primary reasons why change management processes take a great deal of time to implement and why, in some cases, the implementation is unsuccessful (Beatty, 2015).

Resistance to change implementation can come from both the employees and the organisation (Xerri et al., 2015). As stated by Beatty (2015), resistance to change is considered inevitable because in general, human beings don't like change, and it makes individuals anxious and uncooperative. Beatty (2015) defines resistance under three categories: cultural, personal, and intellectual (see Figure 2-1), and breaks down the concept of resistance into three levels:

- Level one: Intellectual. This level deals with individuals not understanding the need for change; it has not been explained to them that the change will benefit them. They cannot support an idea if they don't completely understand what the end goals are and how they will personally benefit.

- Level two: Personal. This level deals with loss. It could be that individuals feel loss because their work pattern will change, or they will need to upskill, or maybe it's a geographic change. The greater the change, the greater the resistance will be.
- The third level or category of resistance involves the culture of the organisation. If individuals believe that management is not capable of carrying out the change initiative, they will resist the change (Beatty, 2015). Beatty (2015) believes that if leaders communicate and explain the process to staff, they will alleviate fears and lessen resistance. She also believes there will be strong resistance to change if the implementation disrupts the established customs and principles of the organisation.



Figure 2-1: Three categories of Resistance (Beatty, 2015)

In the context of a public sector workplace, resistance to change is often shaped by structural, cultural, and institutional factors unique to this environment (Beatty, 2015). While theories of resistance typically include cognitive, emotional, and behavioural dimensions, a more nuanced exploration should incorporate pragmatic concerns that directly impact employees' work lives.

- **Structural and Bureaucratic Constraints:** Public sector workplaces are typically governed by rigid hierarchies, regulations, and long-established practices. Changes that disrupt these structures, such as new policies, budget reallocations, or shifts in governance can provoke resistance due to concerns about procedural fairness, job security, and compliance burdens (Beatty, 2015).

- **Industrial Relations and Union Influence:** In many public sector environments, strong union representation means that employees are acutely aware of how changes may affect their salaries, benefits, and working conditions. Resistance may stem not only from personal or psychological factors but also from collective concerns about workers' rights, bargaining power, and negotiated agreements (Beatty, 2015).
- **Workload and Role Uncertainty:** Changes in policies or procedures can lead to increased workloads, role ambiguity, and shifting responsibilities. Workers may resist not out of reluctance to change per se but because they perceive the change as impractical, ill-conceived, or unfairly increasing their burden without adequate support or compensation (Beatty, 2015).
- **Public Accountability and Political Pressures:** Unlike private sector organisations, public sector workers must navigate political pressures and heightened scrutiny. Resistance can arise when changes are seen as politically motivated rather than evidence-based, or when they are imposed without sufficient consultation (Beatty, 2015).
- **Professional Identity and Service Ethos:** Many public sector employees see their work as a vocation tied to service delivery rather than profit-driven objectives. Changes that appear to undermine professional autonomy, ethical standards, or the ability to serve the public effectively can trigger resistance based on values and professional identity (Beatty, 2015).

By incorporating these broader perspectives, the discussion of resistance to change moves beyond traditional theoretical categories to acknowledge the specific, pragmatic realities faced by public sector employees. Armenakis and Bedeian (1999) emphasise that the intention of change serves as a key driver, shaping not only the approach, whether planned, emergent, or a combination of both, but also influencing the attitudes and experiences of those involved. This underscores a critical truth: change is not just about leadership vision or external pressures; it is about how people perceive and engage with the process.

2.3 Communication

Communication has been identified as a key factor in managing successful change, particularly in the implementation of new systems and processes. Effective leadership communication helps shape perceptions, reduce resistance, and drive engagement throughout the change process (Morley, 2004). To this end, Change Theory provides a framework for understanding how individuals and organisations respond to transformation, emphasising the role of clear messaging, stakeholder involvement, and strategic communication in facilitating adoption behaviours. This section thus

explores the role of communication styles in facilitating organisational change, with a focus on how leaders in public sector organisations use communication to drive employee adoption. Drawing on key principles from Change Theory, it examines how effective communication strategies can influence readiness for change, reduce resistance, and foster commitment among staff during transformation initiatives.

2.3.1 Understanding change in the public service through the lens of change theory

Implementing change in public sector organisations is a complex process influenced by structural, political, and cultural factors. Given these unique challenges, change theory provides a critical foundation for understanding how change unfolds, why certain initiatives succeed or fail, and how leadership and communication strategies impact adoption (Ackerman-Anderson, 2010). The application of established change models allows researchers to analyse the key drivers of change, identify barriers to implementation, and assess the role of leadership and communication in guiding transitions. This theoretical perspective is essential for developing structured, evidence-based approaches to change management in the public sector, ensuring that reforms are not only well-intentioned but also effectively executed and sustained.

To effectively manage change, Anderson and Ackerman-Anderson (2010) stress the importance for leaders to communicate relevant change management plans. They also argue that change is not a 'one size fits all' strategy and leaders need to understand why the change is necessary and what the benefits of change will be when they communicate change to their staff. Leaders also need to choose the change management strategy, or combination of strategies that will best suit their needs (Rogers, 2003).

Researchers have used several traditional frameworks to conduct their studies, but the combination of more than one theoretical approach is necessary for complete understanding of the issues involved in this research. Several studies suggest that combining Davis' (1989) Technology Acceptance Model (TAM) and Roger's (2003) Diffusion of Innovation (DOI) theory provides a more comprehensive understanding of technology adoption (Taherdoost, 2017; Alharbi and Drew, 2014). TAM focuses on individual perceptions of usefulness and ease of use (Davis, 1989), while DOI examines the broader diffusion process influenced by innovation attributes, communication channels, and social systems (Rogers, 2003). Researchers argue that integrating these models helps bridge the gap between user acceptance and wider organisational adoption, offering a more holistic approach to studying change (Taherdoost, 2017; Alharbi and Drew, 2014). In this research, the combination of DOI and TAM enables the construction of a detailed picture of how Revenue staff

adopts NASC by examining their perceptions of their adoption behaviours, as well as their perceived ease of use and perceived usefulness of NASC. The combined model enables the researcher to analyse how adoption behaviours evolved over time, providing meaningful insights for understanding and explaining staff engagement with NASC, and offering implications that may inform the implementation of future systems within Revenue.

Determining success in change initiatives often depends on clearly defined criteria, with many researchers emphasising the importance of measuring user adoption and perceived value (Weissert and Goggin, 2002; O’Flynn, 2015). In this research, the success of NASC was understood not simply as its technical implementation, but as the extent to which staff perceived it as useful and incorporated it into their everyday work practices. If users perceive NASC as beneficial and actively engage with it, this will indicate a successful adoption and effective implementation of change. Conversely, low engagement or resistance may signal gaps in communication, training, or alignment with user needs. Building on the previous discussion on measuring change success and user adoption, the TAM (Davis 1989), and DOI theory (Rogers, 2003), provide valuable frameworks for understanding how users perceive and adopt new systems like NASC, helping to explain the factors that drive or hinder successful implementation.

2.3.1.1 Diffusion of Innovations (Rogers, 2003)

Everett Rogers, a professor of communication studies, developed the Diffusion of Innovations theory, and proposes that there are four components that motivate the diffusion (or spread) of a new idea, system, or process:

- the innovation itself,
- communication channels,
- time,
- the social system (the individuals that the innovation is being delivered to).

Rogers believes that diffusion occurs through a five–step decision-making process. His five stages (awareness of the change being implemented, interest in the system or innovation, positive evaluation of the system, opportunity to trial the system, and adoption of the system) are essential to successful diffusion. According to Rogers, “there are also five established adopter categories (see Table 2-4), and while the majority of the general population tends to fall in the middle categories, it is still necessary to understand the characteristics of the complete range of the target population” (Rogers, 1995, p.204).

The categories in Table 2-4 are relevant to this study as they align with the social system within the Revenue organisation. The teams involved in the initial rollout of NASC can be classified as early adopters because they demonstrated a willingness to engage with the new system ahead of wider organisational deployment. This is evident from their active participation in pilot phases, early feedback contributions, and openness to adopting new processes despite the uncertainties typically associated with large-scale IT change. Their behaviour reflects characteristics outlined in Rogers' Diffusion of Innovations theory, where early adopters are seen as opinion leaders who are more open to innovation and play a critical role in influencing broader acceptance across the organisation.

Adopter Categories	Characteristics & Values
<i>Innovators</i> “Venturesome”	<ul style="list-style-type: none"> - Venturesome, and obsession with this category due to a desire for ‘the rash’, ‘the daring’ and ‘the risky’ - Control of substantial financial resources - Ability to understand and apply complex technical knowledge - Ability to cope with a high degree of uncertainty - Not always respected by other members of the social system
<i>Early Adopters</i> “Respect”	<ul style="list-style-type: none"> - The category that is generally sought by change agents - Role model for other members of the social system - The Early Adopter is considered by many as the individual/organization to check with - Take a central position in the communication networks of the social system
<i>Early Majority</i> “Deliberate”	<ul style="list-style-type: none"> - This category is not the first by which the new is tried, nor the last to lay the old aside - Making up one-third of the members of a social system - Frequently interacting with others
<i>Late Majority</i> “Skeptical”	<ul style="list-style-type: none"> - Adoption after the average member of a system has adopted the new idea - Adoption as a result of both economic necessity and the result of increasing network pressures - Innovations are generally approached with a skeptical and cautious air - Relatively scarce (financial) resources available
<i>Laggards</i> “Traditional”	<ul style="list-style-type: none"> - The last to adopt a new idea - Isolated from the others in the system - Point of reference is the past - Suspicious towards innovations and change agents - Limited (financial) resources - Cautious

Table 2-4: Dominant Characteristics and Values of Adopter Categories (Rogers, 2003)

The staged rollout strategy initially targeted areas within Revenue where staff were relatively more comfortable with information technology, on the basis that these groups might require less time to adapt and could demonstrate early benefits of NASC. In line with Rogers' (1995) diffusion of innovations theory, such early adopters were expected to provide a positive influence on subsequent phases of the rollout, although this assumption required careful management to ensure broader engagement. The following figure (2-2) shows the adoption curve. The plan for NASC is that at some point the system will reach critical mass. This is when the number of individual adopters ensures that NASC is self-sustaining (Rogers, 2003). A 2017 OECD Report translated this sentiment to the Public Service when it stated that:

governments must not only be innovative; they must also create the right conditions for innovation within and across systems. This means being able to identify problems and translate ideas into projects that can be piloted on a small scale and then implemented and diffused to effect system-wide change. It also means recognising the processes and structures that can support and accelerate innovation (p. 5).

Another important aspect of Roger's model is the rate of adoption. This is defined by Rogers as "the relative speed at which participants adopt an innovation" (Rogers 1995, p. 257). This is measured by "the length of time required for a percentage of the members of a social system to adopt an innovation" (Rogers 1995, p. 257). An individual's adopter category decides the rates of adoption. In general, individuals who are in the 'early adopter' category require less time to adopt compared to the "late majority" and "laggards" (see figure 2-2). An individual may reject an innovation or system at any stage of the adoption process, whether during initial exposure or after implementation. By applying DOI theory to Revenue, this analysis assesses the interest levels of Revenue staff and predicts their adoption behaviour. In the rollout of NASC, DOI serves as a valuable tool for measuring success, as adoption is not solely about implementation but also about sustained engagement and integration into daily workflows. If Revenue staff actively use NASC and perceive it as beneficial, this indicates successful adoption, whereas low uptake may highlight barriers that need to be addressed.

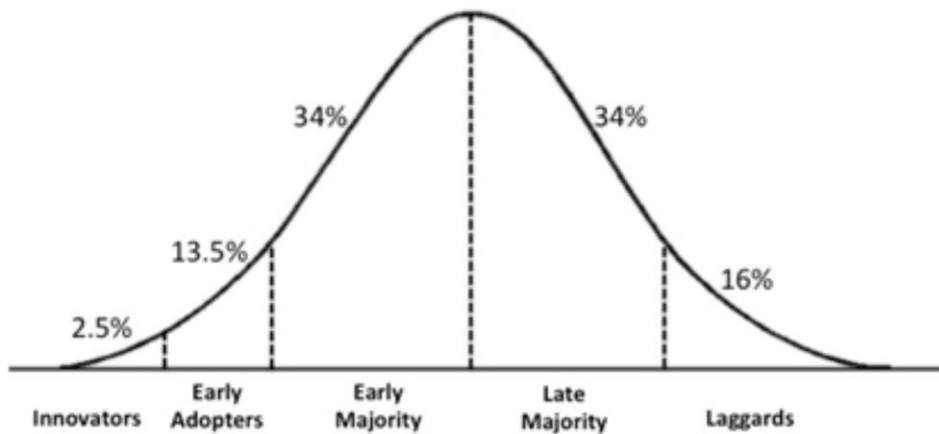


Figure 2-2: The diffusion of innovation curve (Rogers, 2003)

Rogers (2003) outlines the key stages of innovation adoption, from initial awareness to sustained use. These stages highlight that adoption is not a single event but a process, that requires careful management to move individuals from awareness to long-term engagement. For the change process to succeed, organisations must support each stage, ensuring clear communication to build awareness, providing targeted training to encourage adoption, facilitating low-risk opportunities for testing, and reinforcing the benefits of continued use. Without this structured approach, innovations risk stagnation, as initial interest may not translate into long-term, self-sustaining adoption.

While the various stages and factors in change models may seem complex, the key takeaway is that successful change implementation requires considering both the innovation itself and the individuals adopting it. The DOI model is useful in assessing how the use of NASC spreads within Revenue, and the factors influencing its adoption. However, DOI alone does not fully explain individual decision-making and perceptions of usefulness. To address this, an additional model, such as the Technology Acceptance Model (TAM), is necessary to examine the specific factors driving individual acceptance and sustained use of NASC.

2.3.1.2 Technology Acceptance Model (Davis, 1987)

The technology acceptance model (TAM), an information systems theory, developed by Fred Davis in 1987 (see figure 2-3), is one of the most widely cited models in the field of technology acceptance and has received considerable empirical support over the past decade (Taherdoost, 2017). TAM was the preferred model in this study, rather than TAM2 or TAM3, due to the fact that it is easy to comprehend, it has few elements and has shown to be very predictive in assessing and explaining the acceptance of information systems by individuals (Taherdoost, 2017).

Davis (1987) investigated various influences of technology acceptance and produced two significant determinants, "perceived usefulness" and "perceived ease of use", as a theoretical base for specifying the causal link between attitudes and behavioural intentions towards technology. TAM assumes that the acceptance of technology is predicted by the users' behavioural intention, which is, in turn, determined by the perception of technology usefulness in performing the task and perceived ease of its use. The PU refers to "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis and Venkatesh, 1996, p20) and the PEOU refers to "the degree to which a person believes that using a particular system would be free from effort" (Davis and Venkatesh, 1996, p20).

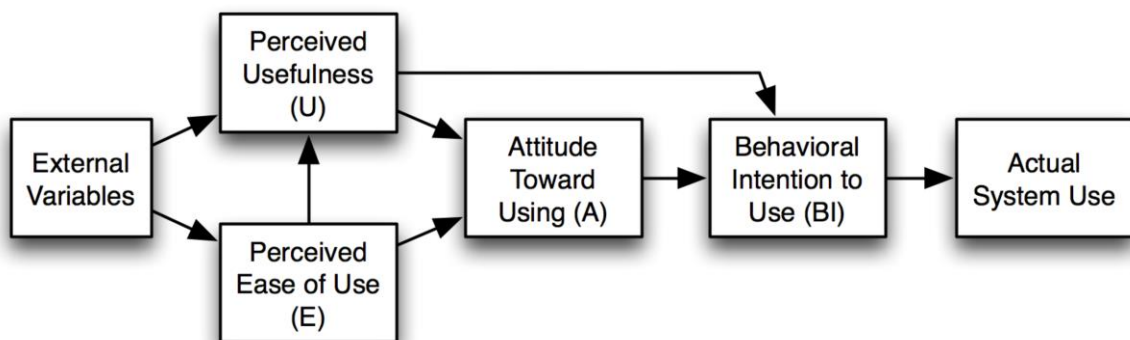


Figure 2-3: Technology Acceptance Model (Davis, 1987)

Perceptions of usefulness of the technology as well as perceptions of ease of use have a considerable impact on attitude of the user towards the system which can be determined as either being favourable or unfavourable. It is imperative that a constructive attitude must be encouraged and developed throughout training so that staff's behavioural intention to use and actual system use will be effective (Wymer and Regan, 2011). Thus, if a positive attitude towards NASC is not cultivated, the desired behaviour will not occur. Revenue's strategy of rolling out initially to areas comfortable with information technology can be considered shrewd, as according to Taherdoost (2017) and Stouten et al. (2018), people that are more comfortable with new technology are more likely to have positive attitudes towards a new system, and the expected outcome will be a high usage of the system. This suggests that as the innovation gains a more positive status within the organisation, staff in later rollout stages will perceive it as more useful and easier to use, increasing the likelihood of adoption.

2.3.1.3 Combination of DOI and TAM

Combining TAM and DOI provides a more comprehensive understanding of adoption, as DOI explains how an innovation spreads through an organisation, while TAM examines the individual user's perceptions of its usefulness (PU) and ease of use (PEOU), both of which are critical for sustained adoption and success. Combining both Davis' and Rogers' theories establishes a relationship between the DOI and the TAM frameworks, (See Figure 2.4). The combined model was designed by Wymer and Regan (2011).

The combined TAM/DOI model (Wymer and Regan, 2011) provides a holistic framework for understanding both organisational diffusion and individual adoption of innovative technologies. It incorporates external factors, such as change communication, user training, system characteristics, user involvement in design, and the nature of the implementation process, which all influence adoption decisions. This integration strengthens the analysis by linking organisational rollout strategies (DOI) with individual perceptions of usefulness and ease of use (TAM), making it a more robust approach to evaluating change management success. Additionally, four noteworthy variables are also considered: gender, experience, age, and voluntariness of use.

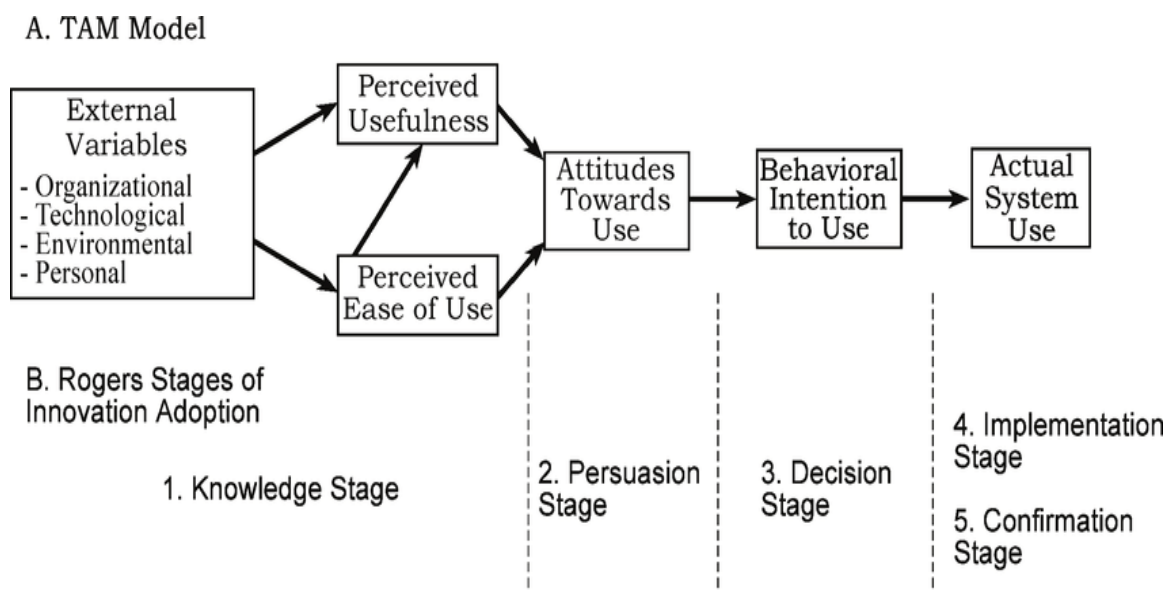


Figure 2-4: Overlap of TAM with Rogers Stages of Innovation Adoption. Source: Wymer, S. and Regan, E. (2011)

The blended TAM/DOI model enabled this research to describe system adoption by analysing user adoption behaviour. Versions of this model have been widely used (Wymer and Regan, 2011), including by Yu and Tao (2009), who combined both theories to examine attitudes toward innovative technology adoption. Their findings provide insight into pre-adoption attitudes, adoption decisions,

and long-term use or rejection. While they emphasise the need for further research, their conclusions align with Jeyaraj et al. (2006), who reviewed adoption and diffusion studies from 1992 to 2003, concluding that the integration of TAM and DOI is a strong predictor of successful innovation adoption.

Building on Yu and Tao's (2011) premise that the combined model effectively explores user attitudes, this research applies it to evaluate Revenue staff perceptions of NASC implementation. Studies, such as those by Greenhalgh et al. (2008), show that early adopters have different characteristics from later adopters, reinforcing the need to tailor change management communication strategies to different user groups. A targeted approach ensures that adoption barriers are addressed, and engagement strategies are optimised for each adopter category.

While Rogers' (1995) categories of adoption provide a useful lens, the findings suggest that the implementation of NASC did not follow a simple linear diffusion from Innovators to Laggards. Senior management and the NASC development team might be viewed as Innovators in that they championed the system and understood its perceived usefulness (PU) and perceived ease of use (PEU). The group targeted in Stage One were intended to function as Early Adopters, familiar with similar systems and therefore expected to model the benefits of NASC. However, the findings indicate that early perceptions were mixed, with the pilot phase reinforcing scepticism as much as it encouraged enthusiasm. This points to the importance of peer-to-peer learning and local role modelling, which emerged as more influential than the sequential diffusion of categories. For subsequent groups, particularly the Early Majority, adoption was strongly shaped by whether the system was seen to work in practice and whether communication was clear, relevant, and interactive. While a small group of staff could be described as more resistant, the findings underscore that NASC was not simply a technological innovation but represented a broader shift in mindset about how information is conceptualised, shared, and connected across the organisation.

According to Beatty, (2015), and Mangan and Lawrence-Pietroni, (2019), the constraints involved in the change process in public sector organisations, relate to the performance of the system being implemented and the effect performance issues might have on adoption behaviours. If the system is complex, users might perceive it as being difficult to use and this will affect their adoption behaviour. And if users experience challenges using a new system that performs similar tasks to a system, they are already familiar with, they might not perceive its usefulness and instead revert to using the system they are already familiar with (see Table 2-5). Deeper understanding of these issues

will inform communication strategies and training design of future iterations of NASC to ensure greater chance of success.

Each of the system factors outlined in Table 2-5 relates directly to staff trust and adoption behaviours identified in the Avanade review (Avanade, 2020), reinforcing the idea that resistance to change often stems from fear of the unknown. In public sector contexts, managing this resistance is particularly challenging due to rigid organisational structures, shifting political priorities, and limited windows for implementation (Beatty, 2015; Mangan and Lawrence-Pietroni, 2019). Resistance is a key reason why change initiatives can stall or fail altogether (Beatty, 2015). However, this resistance can be effectively managed when its root causes are understood and addressed strategically.

System	User
System behaviour issues reducing trust and limiting required adoption change	Adoption behaviours
Complexity of system causing users to continue using old system	Perceived ease of use of NASC
Challenges finding and storing documents on shared drives	Perceived usefulness of NASC

Table 2-5 System and User behaviours

This is where effective communication and well-designed online learning interventions play a crucial role. Clear, targeted communication helps build transparency and trust, reducing uncertainty and aligning staff with the purpose of the change (Beatty, 2015; Mangan and Lawrence-Pietroni, 2019).

2.3.2 Communication styles

Communication is defined as the transfer of information between people and is identified as a significant aspect of the change process (Beatty, 2015; O’Flynn, 2015; Kitsios and Kamariotou, 2019). Communication in organisations consists of the interactions that take place for the purpose of working together towards these goals or conducting business in general. Beatty (2015) emphasises that reducing resistance to change depends on communication that is open, transparent, and directly relevant to staff experiences, framed in a straightforward manner that builds trust and reduces uncertainty. Focusing on the directionality of communication is also essential to making sure that communication is not just top-down but multi-directional, involving respectful listening (Shannon, 2017). Shannon (2017) also expands on the influence of differing communication styles and discusses the impact of drip-feeding information, suggesting that such a

strategy serves to “galvanise the rumour mill, while the use of corporate buzzwords blur the situation” (p. 471). This indicates that even when the change agents are communicating to staff, they are not communicating with staff and that the deeper, more focused communication that is optimal is not always provided. O’Flynn (2015) highlights the importance of the culture of the organisation as a determinant of the type of communication to be used, and states that the communication strategy should be appropriate to the culture of the organisation as different communication styles work best with different types of organisational structures (O’Flynn, 2015; Kitsios and Kamariotou, 2019). For example, if the organisation has a top-down culture, then communication from management filtering downwards is most effective (O’Flynn, 2015).

Effective communication during organisational change reduces resistance to change (Beatty, 2015; O’Flynn, 2015). As previously stated, when resistance to change is low within an organisation, the change is more likely to be successful (Day and Shannon, 2015). In contrast, communication failure may cause stress, job dissatisfaction, low trust, a decrease in organisational commitment, and ultimately absence and termination (Kitsios and Kamariotou, 2019). However, effective communication is not easy and depending on the change, it may involve dealing with conflict within the organisation during the change process, which is sometimes easier to ignore (Beatty, 2015; O’Flynn, 2015).

The objective of an effective communication plan should be to demonstrate to employees and other stakeholders that change is both required and achievable (Kitsios and Kamariotou, 2019). When employees are satisfied with the management communication, they have a positive attitude to the organisational change, and they see it as an opportunity (Kitsios and Kamariotou, 2019). Poor communication can affect an organisation’s efficiency negatively (O’Flynn, 2015), and it is essential to understand the elements of effective communication at every level of the organisation, particularly if the organisation communicates in a top-down structure (O’Flynn, 2015). In that case, it is the leader’s role to determine the communication process and the culture of communication in the organisation (Mangan and Lawrence-Pietroni, 2019).

2.3.3 Communication between leadership and employees during the change process

Leadership communication is a process of influencing a group or community towards achieving a common goal (Morley, 2004). It is identified as key to leading effective change in the public sector (Boyle and Humphreys, 2001; Charlesworth et al. 2003), and is essential to achieving the vision and policy set out in public service change management strategies (Boyle and Humphreys 2001;

Mangan and Lawrence-Pietroni, 2019). Several effective leadership communication characteristics critical to leading change effectively have been identified in the literature, including encouragement, engagement, and compassion (Boyle and Humphreys, 2001; Kitsios and Kamariotou, 2019). Utilising these characteristics will help leaders influence their staff to accomplish whatever management wants to achieve.

Effective communication from organisational leaders is central to securing employee and stakeholder buy-in, which requires both engagement and the provision of appropriate training to support change (Senge et al., 2015). Positivity is also essential, as it fosters a sense of ownership among staff in the change process (Ostroff, 2006). When leaders actively seek staff involvement, they encourage this ownership and strengthen employee commitment to the change. Kitsios and Kamariotou (2017) similarly found that employees with greater input and involvement respond more positively, suggesting that bottom-up approaches may yield more successful outcomes than top-down models. However, while bottom-up engagement enhances legitimacy, it requires significant coordination and time. In contrast, top-down communication can be quicker, operating through hierarchical structures that filter messages down without the need for wider coordination (Shannon and Van Egeraat, 2013; Mangan and Lawrence-Pietroni, 2019). Yet this approach, often associated with the public sector, has been criticised as dictatorial and imposing, as goals and objectives are typically determined at senior level without wider consultation, and then communicated, sometimes unclearly, to teams responsible for implementation (Shannon, 2017). The risks of message diffusion or distortion as communication cascades downward are well-documented (Shannon and Van Egeraat, 2013; Mangan and Lawrence-Pietroni, 2019). Nonetheless, top-down communication can succeed where leaders adopt effective strategies that combine clarity with encouragement, engagement, and compassion, and where staff feel that their contributions are valued, and team efforts are recognised. In such contexts, communication fosters not resistance but a culture of positivity across the organisation (Shannon, 2017).

Whether implementing top-down or bottom-up communication strategies, Christensen (2005) and Ridder et al. (2005) stress the importance of good leadership communication in the process of change, focusing on an organisation's long-term betterment, above and beyond any short-term personal gains. Additionally, Kuipers et al. (2014) highlight credibility and competency as key strengths of successful leadership communication during change implementation. Much has been written about leadership qualities and different types of leadership, as well as the theories of leadership communication., However, there is little discussion of the measurements of the

leadership’s communication role in relation to the successful implementation of change (Shannon, 2017). This gap in explanation is surprising, given that most authors agree that effective leadership communication is critical to the successful implementation of change in the public sector (Kuipers et al., 2014; Shannon, 2017). While the importance of communication is widely acknowledged, the mechanisms by which it influences change outcomes remain largely unexplored. Without understanding *why* communication matters, how it shapes employee engagement, reduces resistance, and fosters alignment, organisations risk treating it as a superficial tool rather than a strategic necessity. To bridge this gap, it is essential to turn to change theory, which provides the frameworks needed to understand the processes that drive successful change. By applying the combined TAM–DOI model, this study highlights how leadership communication interacts with perceived usefulness, perceived ease of use, and adopter categories to shape organisational culture, resistance, and adaptation, thereby influencing the success or failure of change initiatives (see figure 2-5).

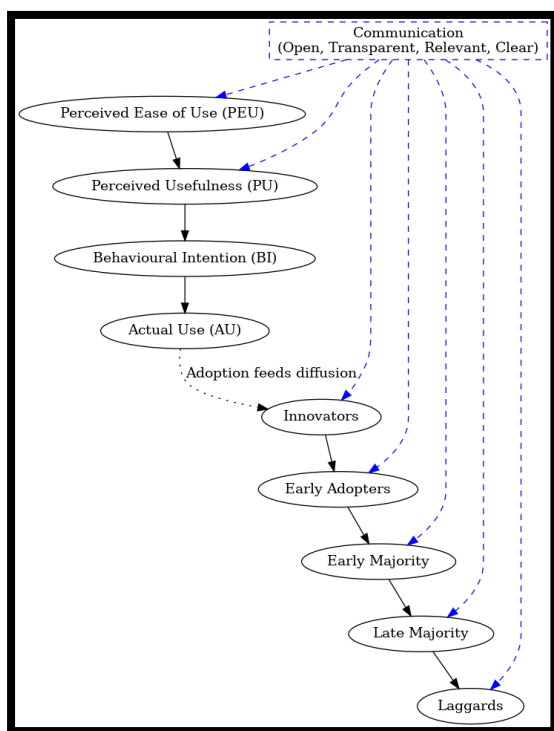


Figure 2.5: Combined TAM–DOI model with communication as a cross-cutting influence.

This adapted framework integrates the Technology Acceptance Model (TAM) and the Diffusion of Innovation (DOI) theory, highlighting perceived usefulness (PU), perceived ease of use (PEU), and adopter categories. Communication is incorporated as a cross-cutting factor that shapes

perceptions, reduces uncertainty, and influences adoption across all stages, thereby reinforcing the interdependence between leadership messaging, organisational culture, and staff engagement in change processes. Effective communication serves as the essential link between the intention behind a change and its adoption in practice. Even the most well-designed change initiatives will falter if they are not clearly and convincingly communicated. Success depends not only on what is being changed, but on how well that change is understood, trusted, and embraced by those affected.

Organisations must develop communication strategies that address both internal drivers, such as strategic objectives and leadership direction, and external pressures like regulatory demands and market trends. Crucially, these messages must also prioritise the staff experience by making individuals feel informed, involved, and valued. Overlooking this aspect poses significant risks; resistance, confusion, and disengagement often arise from unclear, inconsistent, or top-down messaging that fails to connect with users' concerns and needs.

However, clear communication alone is not enough. To truly support adoption, messaging must be reinforced through meaningful, user-centred learning experiences. A well-structured communication plan sets the stage by clarifying the why, what, and how of change, but it is through thoughtfully designed learning interventions that users gain the practical understanding and confidence to engage with new systems and processes.

2.3.4 Supporting change adoption through effective online learning

The literature highlights a persistent gap in understanding how change is measured, implemented, and communicated within the public sector (Kuipers et al., 2014; Shannon, 2017). While leadership, communication, and strategic planning are recognised as essential components of successful change, there is a striking lack of focus on the perspectives of those most affected by change, the staff. This research underscores the importance of user perceptions in shaping the outcomes of change initiatives. Ambiguity around what constitutes success, reliance on top-down approaches, and disruptions due to external factors all contribute to inconsistent change management outcomes. However, without actively engaging users, through clear communication, participatory approaches, and well-defined success criteria, organisations risk resistance, disengagement, and implementation failure. This study addresses a gap in the existing research by focusing on user perceptions, specifically, how individuals experiencing change interpret it, respond to it, and ultimately influence its success or failure. These perceptions are critical, as they shape the real-world outcomes of any change initiative.

Building on this understanding, the design of effective online learning plays a vital role in translating communication into action. Well-structured training supports successful implementation by reinforcing clarity, enhancing understanding, and enabling staff to adapt to new systems and workflows. By aligning learning interventions with staff needs and organisational objectives, online learning contributes not only to immediate adoption but also to the long-term sustainability of change initiatives within the public sector.

2.4 Principles of good online Learning Design

The third and final part of this literature review examines the principles of good online learning design. This is important in the context of this research as online learning design is an important element of the change management process (Toro-Troconis et. al., 2019). If users don't understand how to use NASC, the implementation is not going to be successful (Bransford et al., 2000).

Online learning design refers to the process of structuring and creating pedagogically informed digital learning activities which make effective use of appropriate online tools and resources (Klein and Tracey, 2011). It examines how best to structure an online learning environment, and how digital technology and other resources can be used to support the learning process to ensure the learning outcomes are achieved effectively (Klein and Tracey, 2011). Online learning designers choose structure, environment, order of learning activities, and the type and frequency of assessment of the learning, as well as the mode of delivery or the nature of technology used to support online learning (Czerkowski and Lyman, 2016). Online learning design has evolved to refer to the complex collaboration between the instructor, the learner, and the method of delivery, where the focus is on the type of learning (Czerkowski and Lyman, 2016). The consensus is that as learning resources, tools, and delivery methods develop, the design process must also develop (Shaver, D. 2107). Good online learning design refers to measured choices relating to environment, content, mode of delivery, and evaluation of learning (Bransford et al., 2000). The following sections examine these elements of online learning design.

2.4.1 Environment

The premise behind good online learning environments is that they should help people to learn in an effective, efficient, enjoyable and user-friendly way (Bransford et al., 2000). However, there is no simple, straightforward answer to this. There is agreement that online learning environments can be effective by making the conditions for optimal learning explicit, by providing opportunities for people to learn and an organisational culture that motivates learning-oriented behaviour (Mehall, 2020). A

number of environmental principles for good online learning design have been identified. Research carried out by Holland (2019) found that these principles include the provision of opportunities for online interaction, which support the learning process and allow the learner to feel empowered. The online interaction should also facilitate personalised learning experiences, which again allows the learner to feel empowered and in control of their own learning. By providing an effective learning space the learner has the capacity to make effective decisions autonomously in relation to their online learning (Holland, 2019).

The primary challenge practitioners face is designing online learning conditions that accommodate diverse learning styles (Herman, 2012). Effective online learning environments involve the provision of effective workstations, clear instructions and effective overviews to help online learners navigate the online environment, as well as having clear course outlines, schedules and learning objectives (Stangor and Walinga, 2019).

2.4.2 Content

There are several theories and methods employed by education practitioners to design good online learning content which enable and empower learners to learn (Eduventures, 2017). However, it is equally important that educators to focus on the purpose and intention of the content chosen to underpin the learning design (Bransford et al., 2000). Comprehensive pedagogical practices are selected according to the teacher's beliefs, the perceived needs of the learner, and the requirements of the learning activity which also underpins how content is viewed and understood by the learner (Eduventures, 2017). The content also needs to be relevant to the learner. While attention and curiosity are essential elements, learners also need to know that understanding the content will help them to achieve their goals (Czerkowski and Lyman, 2016).

Effective online learning design content is characterised by its clarity and organisation where clarity ensures that learners can easily understand the material presented (McNeal, 2015). This involves using simple language, avoiding jargon when possible, and providing clear explanations of complex concepts. Well-designed, clear content also maintains a logical flow, guiding learners through the material in a structured manner that aids comprehension and retention (McNeal, 2015).

Organisation of content plays a crucial role in online learning design (Eduventures, 2017). Content should be well-structured with clearly defined sections, headings, and subheadings and should be arranged in a way that is easy for learners to access and manipulate online (Eduventures, 2017). This

not only helps learners navigate through the material but also assists in breaking down complex topics into manageable chunks, making the learning process more digestible. Additionally, incorporating multimedia elements like videos, infographics, and interactive quizzes can enhance engagement and cater to different learning styles, ensuring a more inclusive and effective learning experience (Eduventures, 2017).

2.4.3 Mode of delivery

There is a large body of research focusing on how the mode of online delivery of learning affects learning (Toro-Troconis et al., 2019; Holland, 2019; Kaili et al., 2021). It is accepted that the use of multiple instructional methods, such as videos, quizzes, readings, and interactive simulations, allows learners to engage with the content. Intuitive navigation, clear instructions, and accessible materials contribute to a positive online learning experience and create an online learning environment with user friendliness in mind (Kaili et al., 2021). Multiple instructional online modes of delivery also accommodate different learning preferences (Kaili et al., 2021).

Keller and Katsuaki (2004), have analysed how learning occurs and have designed modes of delivery that are directed to specific areas of learning and combined with teaching/learning strategies. Their processes were classified into four categories depending on the needs of the learner (Keller and Katsuaki, 2004). These categories involve:

- gaining learner attention, - what will draw the learner in, career progression, manager encouragement, etc.
- establishing the significance of the type of teaching to learner goals and learning styles, - how relevant is the learning to the learner, will it make life/work easier
- building learner confidence – allowing the learner to have their voice heard by welcoming their involvement in the learning design, is their opinion valued and acted upon
- developing enjoyable learning situations by managing learners' intrinsic and extrinsic motivations. – what type of motivation/reward best provokes the learner to learn, is it job satisfaction, career progression, etc.

To address these four categories and to secure and improve a learner's attention, effective online learning design must incorporate a variety of approaches to modes of delivery of online content, such as the use of interesting graphics, animation or any kind of approach that causes the learner to pay

attention, even if it appears odd or strange (Bransford et al., 2000; Wladis, et al., 2014). Learners also benefit from peer-to-peer engagement. By encouraging collaboration and fostering learner interaction through online modes of delivery such as discussion forums, group projects, and collaborative activities, learning is encouraged and supported (Bransford et al., 2000).

2.4.4 Evaluation of learning

Effective online learning design involves a systematic process of identifying learning goals, developing strategies to achieve those goals, and evaluating the outcomes of those strategies (Czerkowski and Lyman, 2016; Laing, 2021). Evaluation is particularly important, as it enables instructors to assess learners' understanding, track progress, and identify areas for improvement (Toro-Troconis et al., 2019). Constructive evaluation provides ongoing feedback throughout the learning process, using methods such as quizzes, assignments, and interactive activities that allow learners to apply and test their knowledge in real time. By regularly assessing performance, instructors can detect misconceptions or gaps in understanding early, facilitating timely interventions and course adjustments (Toro-Troconis et al., 2019). Well-designed online learning is therefore crucial for public sector organisations to achieve the objectives of training programmes, whether delivered face-to-face or remotely (Laing, 2021).

Comprehensive evaluation serves as a broad assessment tool at the end of a learning module or course (Czerkowski and Lyman, 2016). This could involve final exams, projects, or portfolios that measure learners' overall grasp of the material. Comprehensive assessments provide valuable insights into the effectiveness of the online learning design, helping instructors gauge the success of their teaching strategies and the attainment of learning objectives (Toro-Troconis et. al., 2019). Additionally, they offer learners the opportunity to demonstrate their acquired skills and knowledge, reinforcing their confidence and motivation to continue learning (Kaili et. al., 2021).

Feedback mechanisms are crucial for fostering continuous improvement in online learning design (Toro-Troconis, et. al., 2019). Constructive feedback should be timely, specific, and actionable, highlighting both strengths and areas for improvement. This not only helps learners understand their current standing but also encourages them to reflect on their learning process and take ownership of their education. Furthermore, instructors can use feedback to refine their instructional methods, update content, and adapt to learners' needs, ensuring that the online learning remains engaging, relevant, and effective (Toro-Troconis et. al., 2019).

Positive feedback experiences help learners build on past successes, reinforcing the perception that their achievements result from their own abilities and effort (Czerkowski and Lyman, 2016). This sense of accomplishment contributes to learners' overall satisfaction with the learning experience and supports intrinsic motivation. Extrinsic rewards should be applied carefully, so as not to undermine this intrinsic motivation (Czerkowski and Lyman, 2016). Fairness in evaluation is equally important. Learners need to perceive that the workload is reasonable and that assessments reliably reflect the learning objectives and course content (Wiggins and McTighe, 2005). When learners experience fairness in evaluation, they are more likely to be motivated both in the immediate learning context and for future learning opportunities (Richey et al., 2011).

2.5 Summary and Conclusion

Thoughtfully developed online training supports users in building the skills and confidence necessary to engage with new systems (Mangan and Lawrence-Pietroni, 2019). By enhancing both perceived usefulness and perceived ease of use, two core factors in encouraging adoption behaviour, user-centred learning design, combined with effective communication strategies, is essential for overcoming resistance and ensuring the successful rollout of NASC.

Change in the public sector is driven by the need to improve service delivery, increase efficiency, and respond to evolving societal demands (Shannon, 2017). The literature highlights that effective leadership communication reduces resistance, builds trust, and fosters engagement (Kuipers et al., 2014), while well-designed online learning enhances staff adaptability and accelerates change adoption. This chapter has therefore critically reviewed the literature on public sector change, leadership communication, and online learning design, emphasising their interconnected role in facilitating successful change implementation.

The first sections of this chapter establish the theoretical foundation that underpins this research. Exploration of public sector change theory and leadership communication provides a framework for understanding how change is initiated, communicated, and sustained in complex organisations such as Revenue. Leadership plays a pivotal role not only in setting strategic direction but also in shaping staff perceptions and adoption of change. Rogers' Diffusion of Innovations offers insights into how new ideas and technologies spread within social systems, highlighting the importance of early adopters, communication channels, and perceived attributes of innovation such as relative advantage and compatibility. Similarly, the Technology Acceptance Model (TAM) explains user adoption by focusing on perceived usefulness and perceived ease of use. Together, these

frameworks offer a lens to examine the behavioural, organisational, and communication dynamics that influence adoption outcomes.

Informed by these theoretical foundations, this study investigates how change is communicated by leadership, how staff respond, and how learning design supports or hinders adoption. This allows the research to probe staff perceptions in a structured way, analysing factors that drive or impede adoption and evaluating the effectiveness of communication and training strategies in shaping user engagement with NASC. The literature review demonstrates that successful change initiatives rely on a strategic combination of communication, learning design, and leadership support. Staff engagement in the learning process is crucial, as participation fosters a sense of ownership and competence in navigating change (Shaver, 2017). In the case of NASC, Revenue's change management programme must ensure that communication strategies and online learning practices effectively support staff throughout the transition, keeping them engaged and equipped to adopt new processes.

Specifically, this research seeks to answer the following questions:

1. How do staff perceive the purpose of change within Revenue, and what factors influence their adoption of NASC?
2. How do staff perceive management's communication approaches in encouraging adoption behaviour during the implementation of NASC?
3. How do staff perceive the effectiveness of the training approaches employed during the implementation of NASC?

The following chapter outlines the methodology used to explore staff perceptions of the change management process during NASC's implementation.

Chapter 3

Methodology

3.1 Introduction

This research sought to identify the perceptions of staff regarding the factors that influence their decision to adopt the new Knowledge Management System, NASC, within the Office of the Revenue Commissioners in Ireland. This chapter presents and justifies the methodological approach adopted in the research, together with the research design which was an exploratory case study (Hak and Dul, 2009). There are three main parts to the chapter. The first presents the methodological approach to the research while the second outlines the design of the research. The chapter ends with discussions on data analysis, reflexivity, ethics, and limitations of the research.

3.2 Methodological Approach: Research Framework

The design for this research was informed by the “research onion” (Figure 3-1), proposed by Saunders et al. (2016), which describes the main layers or stages to formulate an effective methodology (Raithatha, 2017).

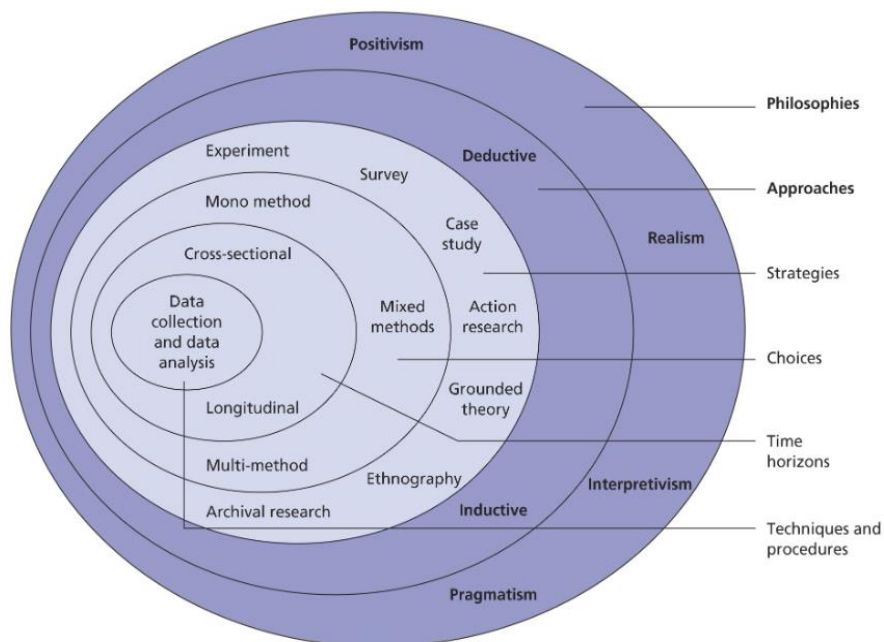


Figure 3-1 Research onion (Saunders et al., 2016)

Specifically, the research onion model was used as an organising framework to present the ontological, epistemological, and axiological nature of this research as outlined in Figure 3-2 below:

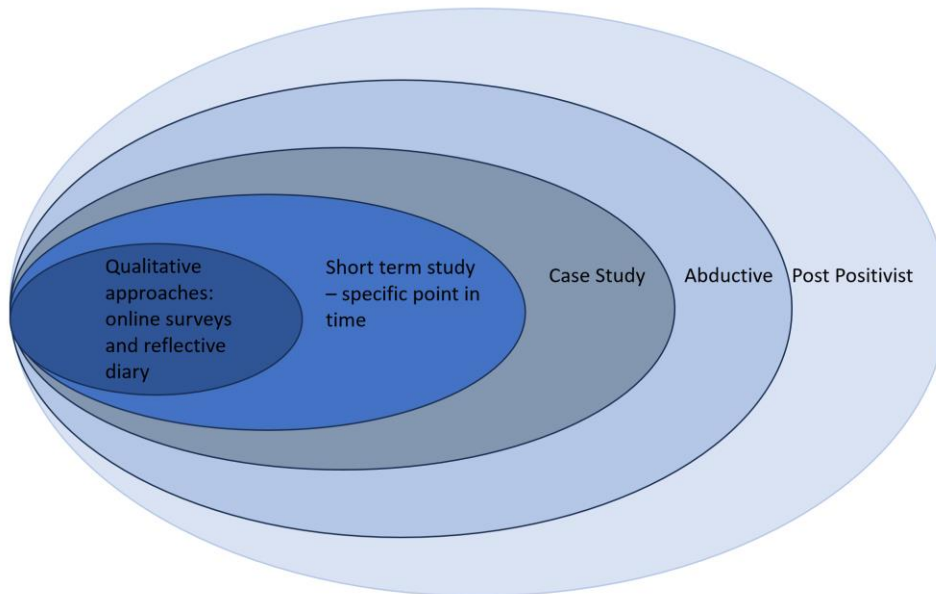


Figure 3-2 Research onion presenting the methodological approach adopted in this research

3.2.1 Research Philosophy: Post-Positivist Stance

This research was guided by a post-positivist paradigm, which recognises that while an objective reality exists, human ability to fully apprehend it is inevitably shaped by individual context, perspective, and experience (Denzin and Lincoln, 2000; Howe, 1985). Post-positivism accepts that multiple truths can coexist, with participants' perceptions considered valid representations of their lived realities (Dul and Hak, 2008; Verschuren and Doorewaard, 1999). Rather than seeking absolute certainties, post-positivist research aims to develop plausible, context-sensitive explanations that are grounded in empirical observation but are also open to variability and interpretation (Onwuegbuzie, 2000; Tekin and Kotaman, 2013).

A central feature of post-positivist inquiry is the role of the researcher. The researcher is positioned not as an objective authority but as a critical, reflective learner, open to multiple perspectives, aware of their own influence on the research process, and committed to reflexivity (Ryan, 2006; Tekin and Kotaman, 2013). Knowledge is viewed as co-constructed through the interactions between researcher and participants, rather than independently discovered (Lor, 2011). Post-positivism, therefore, demands not only empirical rigour but also flexibility, openness, and a commitment to ethical engagement with the participants' subjective experiences.

By adopting a post-positivist lens, this research deliberately engaged with Revenue staff's perceptions of the NASC system implementation as situated, experience-based accounts shaped by their organisational context. As outlined in Chapter 1, the researcher's dual role, as both an insider with prior experience of and a researcher embedded in the NASC rollout, was central to the methodological approach. This position enabled a deep, contextually grounded inquiry that aligned with post-positivist principles of reflexivity, co-construction of knowledge, and openness to multiple realities. Rather than striving for objective detachment or universal generalisations, the research aimed to develop rich, evidence-informed interpretations of how Revenue staff experienced and made sense of organisational change during a live digital transformation.

3.2.2 Research Approach: Abductive

An abductive approach was well-suited to this research as it allowed for the generation of new ideas, methodological flexibility, and a deeper understanding of the phenomenon under study (Kaplan and Maxwell, 1994; Patton, 2002). Abductive inquiry typically begins with incomplete observations and proceeds to the most plausible explanation for the findings. Rather than testing hypotheses (as in deduction) or simply drawing generalisations from patterns (as in induction), abduction involves interpreting surprising or puzzling results and iteratively moving between theory and data (Kaplan and Maxwell, 1994; Patton, 2002; Maxwell, 2005). In this study, the dynamic interplay between the theoretical framework outlined in Chapter 2 and emerging empirical evidence enabled the researcher to refine existing concepts and propose new insights regarding the adoption of NASC within Revenue. This iterative process allowed for a richer, context-sensitive understanding of the organisational change under investigation, using evidence to develop explanations that were likely, though not certain, to be true (Patton, 2002). The approach aligns with post-positivist assumptions in that- while post-positivist researchers recognise that careful observation can support reasonable inferences, they reject claims of complete objectivity (Patton, 2002).

Abductive reasoning also takes the researcher's background and prior experiences into consideration, acknowledging the active role of the researcher in interpreting data, shaped by their knowledge and prior experiences. This approach was particularly appropriate for a case study design, where the researcher was close to the phenomenon under study and directly engaged with the sources of data, enabling a deeper, contextually grounded analysis of how staff responded to the NASC system implementation.

3.2.3 Research Strategy: Case Study

This research adopts an exploratory case study approach, which is particularly appropriate for investigating phenomena that are not yet well understood or extensively studied (Yin, 2014). As explained by Yin (2014), exploratory case studies are used to gain in-depth insights, identify patterns, and generate hypotheses, especially in contexts where prior research is limited or emerging. This approach enables the researcher to ask open-ended questions and explore the “how” and “why” behind complex processes, making it well-suited for early-stage inquiry into dynamic or evolving situations, helping reveal key drivers and barriers to change (Yin, 2018).

In this study, the exploratory case study design provided a flexible yet structured framework for comprehensively describing and analysing the multifaceted factors influencing staff adoption of the NASC system within the Office of the Revenue Commissioners. It also allowed for the integration of multiple qualitative data sources to produce rich, interpretive insights grounded in context (Merriam, 1998; Yin, 2014).

There are several benefits to the case study approach. Case study research refers to the study of a bounded system in which the delimited scope or boundaries of the case being studied are defined (Yin, 2014). The bounded nature supports the exploration of individuals, groups, or organisations within clearly defined temporal and geographical contexts (Creswell, 2002). In this case, the study was bounded by its focus on staff within the Office of the Revenue Commissioners in Ireland, during the rollout phase of the NASC Knowledge Management System. The temporal boundary was defined by the period immediately before and after staff received training on the system, allowing for a focused examination of their evolving perceptions throughout a critical phase of organisational change.

Given the limited research on how organisational change is measured within Irish public service organisations (as outlined in Chapter 2), an exploratory case study was well-suited to address this gap. Yin (2014) highlights the value of case study approaches for investigating complex, context-dependent processes such as organisational change, allowing underlying patterns and principles to emerge. The exploratory case study methodology also aligned with the post-positivist stance adopted in this research, viewing knowledge as socially constructed and that the researcher actively shapes the interpretation of findings. Overall, this methodological approach supported a deeper and more nuanced understanding of the NASC implementation and the organisational change processes within Revenue.

3.2.4 Time Horizons

As stated in 3.2.3, case studies are defined by specific boundaries of time and activity, and this research was intentionally designed as a short-term, bounded inquiry. The study focused on a clearly defined subject, participants' perceptions of the NASC system, within a specific timeframe during its rollout. Data collection was strategically aligned with key milestones in the NASC implementation process to capture participants' experiences at critical stages of change. Specifically, data was gathered at two points: before participants were introduced to NASC and again after they had completed NASC system training. This timing was essential for capturing the evolving perceptions of staff as they moved through the implementation process. By collecting data at these defined intervals, the research enabled a comparative analysis of shifts in attitudes, understanding, and readiness, offering valuable insight into how participants responded to and engaged with the system over time.

This approach ensured that participants' initial expectations, apprehensions, or misconceptions were captured before any influence from structured communication, training, or peer experiences occurred. The second round of data, collected post-training, provided insights into how those early perceptions had changed (or remained the same) once staff had received formal guidance and begun to interact with the new system. This structuring of data collection was critical for accurately tracing the impact of training, communication, and support efforts on staff adoption and engagement.

3.2.5 Data Collection Methods

To address the research questions within a post-positivist, exploratory case study design, this study adopted a qualitative data collection strategy. Two complementary methods were used: anonymous qualitative surveys with staff and trainers, as well as reflective researcher diaries. This combination enabled a richer, more nuanced understanding of the NASC system implementation by capturing both staff and trainer perspectives and the evolving insights of the researcher

3.2.5.1 Qualitative Surveys

Qualitative surveys were issued to NASC staff as well as to NASC trainers. These surveys were selected for their ability to generate rich, context-sensitive data across a broad participant base. Unlike quantitative surveys, which use fixed-response formats, qualitative surveys employ open-ended questions that invite detailed narrative responses. This approach allowed participants to express their views in their own words, offering insights into both what they experienced and how they made sense of those experiences (Braun and Clarke, 2013, 2021).

As Braun et al. (2021) and Jansen (2010) argue, qualitative surveys are increasingly recognised as a credible method for capturing subjective meaning, particularly in institutional contexts. In this study, an anonymous web-based format was used to support inclusivity and encourage openness; this anonymity enabled participants to respond candidly, an important consideration when exploring sensitive topics like organisational change.

Qualitative surveys also offered practical advantages. They accommodated a larger sample while maintaining depth, making them well-suited to exploring the diverse experiences of staff during the NASC system implementation. As Braun and Clarke (2013, p. 136) observe, this method helps researchers "capture what is important to participants," making it a powerful tool for participant-centred inquiry.

In sum, the qualitative surveys provided a valuable means of accessing authentic, reflective, and varied accounts of NASC staff perceptions, enhancing the overall credibility and richness of the dataset. In addition to the NASC staff survey, a tailored survey was developed specifically for trainers to capture their perspectives on training delivery, participant readiness, and implementation challenges.

[3.2.5.2 Researcher Reflective Diary](#)

The researcher used reflective diaries to document observations, feelings, biases, and critical incidents as they emerged throughout the research process, contributing to an evolving and nuanced understanding of the study context (Ortlipp, 2008). As an insider researcher, involved in both the implementation and evaluation of NASC, the researcher's proximity to the phenomenon offered privileged insights into organisational dynamics, informal staff reactions, and emergent cultural shifts that may have remained hidden from formal surveys or interviews (Ortlipp, 2008).

However, this proximity also introduced potential risks of subjectivity and bias, making structured reflexivity essential to maintaining rigour (Berger, 2015). To support this, the researcher employed a reflective diary structured explicitly around Gibbs' Reflective Cycle (1988). Following each key research activity, such as survey design, data collection, and thematic analysis, reflections were recorded using Gibbs' six stages: Description, Feelings, Evaluation, Analysis, Conclusion, and Action Plan. For instance, during data analysis, the "Feelings" and "Evaluation" stages were used to identify personal reactions to participant responses, while the "Analysis" and "Conclusion" stages facilitated recognition of how professional background might be shaping interpretation. This structured

approach enabled the researcher to bracket assumptions, maintain reflexivity, and enhance transparency and credibility throughout the research process.

Beyond supporting personal reflexivity, the reflective diary also served as a legitimate source of qualitative data. When analysed systematically, such reflections offer an additional layer of interpretation that can be used to triangulate participant feedback, thereby deepening insight and enhancing the study's credibility (Lincoln and Guba, 1985). In this project, the reflective diary proved especially valuable in capturing dimensions such as organisational culture, leadership dynamics, and the lived experience of change, elements often difficult to access through more formal data collection methods. As such, it represented an appropriate and integral method for researching complex, context-sensitive organisational phenomena.

3.2.5.3 Triangulation

Methodological triangulation was used to provide corroborating evidence that shed light on a theme or perspective (Lincoln and Guba, 1985). Together, the use of reflective diaries and qualitative surveys from both staff and trainers allowed for methodological triangulation, strengthening the overall validity and depth of the study. While the qualitative surveys captured a broad range of participant perspectives at key stages of the NASC implementation, the reflective diaries provided continuous, situated insights into organisational dynamics as they unfolded. This combination of participant-driven and researcher-driven data sources enabled the identification of consistent patterns, emerging tensions, and areas of divergence, thus enhancing the study's credibility (Patton, 1999). By drawing on multiple forms of qualitative evidence, the research developed a richer, more nuanced understanding of how organisational change was experienced across different roles and contexts within Revenue, consistent with the principles of post-positivist inquiry.

3.3 Research Design

This section outlines the research design adopted for the study, detailing the methodological choices made to align with the post-positivist paradigm. It explains how the study was structured to explore participants' perceptions of the NASC system implementation within a real-world organisational setting, using contextually grounded and methodologically rigorous approaches.

3.3.1 The case

The case examined in this study comprises two Divisions in the Office of the Revenue Commissioners in Ireland scheduled for the rollout of NASC between January and April 2022. These Divisions were

selected because they represented early adopters of the system, providing a timely and information-rich setting in which to explore how staff engage with training and system implementation within Revenue during a critical phase of organisational change.

3.3.2 The Sampling Process and the Sample

While the sampling approach adopted in the study was informed by the principle of data richness (Suri, 2011), the primary driver was convenience, given the constraints of time, resources, and access commonly associated with insider research (Cohen, et al., 2007; Jansen, 2010). This study thus employed a convenience sampling strategy, chosen for its practicality and alignment with the organisational context of the research. Two Revenue Divisions, each comprising approximately 185 staff, were selected because they were already scheduled for the NASC rollout between January and April 2022. Their relevance as early adopters and their accessibility to the researcher, who held an insider role, made them suitable for inclusion in the study. Participation was voluntary. To ensure the sample remained manageable and data collection could be completed within the rollout timeframe, the first 50 staff respondents from each Division were selected, resulting in a final sample of 100 participants. The 10 trainers were selected because they represented the entire population of trainers involved in the NASC rollout in the two selected Divisions, making their inclusion critical for understanding the training process in full.

The staff sample is likely to have consisted primarily of Clerical Officers (COs) and Executive Officers (EOs), as these grades form the majority of staff and are the ones most directly impacted by the NASC implementation. While some Higher Executive Officers, Assistant Principals, and Principal Officers may also have responded, the operational grades, who engage with the system as part of their daily duties, would have made up most of the sample. However, due to the anonymous nature of the survey, it was not possible to provide a precise breakdown of respondents by grade or role. To ensure consistency and minimise potential response bias, a single uniform survey instrument was used for all staff participants.

In addition to the staff participants, all 10 trainers responsible for delivering NASC training in the selected Divisions were invited to take part in the study. These trainers were professionally known to the researcher through their shared involvement in the NASC project group. Each trainer received a personalised email outlining the purpose of the study, their role in it, and the ethical safeguards in place. All 10 trainers gave their consent and completed the trainer-specific survey in both phases of data collection.

3.3.3 Sequence of Data Collection

Data collection followed a structured sequence over two distinct phases:

a. Phase 1 – January to February 2022

- **Stage 1:** Pre-training survey distributed to 50 staff in early January
- **Stage 2:** Half-day online NASC training delivered by 10 trainers to 50 staff in groups of 10 staff members
- **Stage 3:** Mid-training trainer survey administered in late January
- **Stage 4:** Post-training survey distributed to staff in early February

Preliminary thematic analysis and descriptive statistics were conducted immediately after Phase 1 to inform the ongoing rollout and refine training materials. Detailed reflective notes were maintained consistently throughout the study and systematically reviewed at the end of each phase. These notes were not merely observational but served as a critical reflexive tool, allowing the researcher to monitor emerging patterns, question assumptions, and track the evolving interpretation of data in real time. By revisiting and analysing these reflections after each data collection phase, the researcher was able to enhance the depth, coherence, and credibility of the thematic analysis, while also remaining attuned to the influence of their insider role.

b. Phase 2 – March to April 2022

- **Stage 1:** Pre-training survey distributed to a second group of 50 staff in early March
- **Stage 2:** Training delivery using same format and trainers as Phase 1
- **Stage 3:** Trainer survey repeated mid-training in late March 2022
- **Stage 4:** Post-training staff survey distributed in early April 2022

3.3.4 Data Collection and Case Study Design

This study followed a two-phase case study design, enabling the researcher to collect a more extensive and temporally sensitive dataset on staff and trainer perceptions of the NASC system during its rollout. Each phase corresponded with a specific cohort of staff receiving NASC training, and data were collected before, during, and after the training process. This sequential structure allowed for comparative insights and real-time refinement of the training approach based on participant feedback.

3.3.4.1 Phase Structure and Sequence

In Phase 1, 50 staff members from one Revenue Division were invited to complete a pre-training survey in early January 2022, with two weeks allocated for responses. The survey aimed to capture their perceptions of NASC prior to training. Afterwards, they attended a half-day online NASC training session via Microsoft Teams. Each session was facilitated by a trainer and included up to 10 participants. The training introduced participants to NASC's key functions, such as system navigation, case tracking, data inputting, and managing workflow queues, and aimed to equip them to begin using the system immediately in their daily work. Supplementary resources, such as instructional manuals, short video guides, and access to a dedicated support email ("NASC-help"), were also made available during the training window, providing staff with on-demand guidance and additional support to reinforce their learning and address emerging issues.

In late January 2022, approximately halfway through the Phase 1 training period, all 10 NASC trainers were issued a survey link designed to gather their feedback on the training process. The survey explored perceptions of participant engagement, content clarity, and any emergent challenges.

Following completion of the training sessions in early February 2022, the same 50 staff participants received the post-training survey and were given two weeks to respond. The two-week window gave staff time to implement NASC after they received the training.

Findings from Phase 1, which were discussed at NASC project board meetings attended by the researcher, highlighted several recurring issues. Staff reported that the demonstrations were delivered too quickly, leaving insufficient time to absorb key information, and that the learning materials provided were overly complex and difficult to use. These findings indicated a need for slower pacing during demonstrations and more accessible training resources. In response, the project team implemented minor but meaningful adjustments, including the creation of additional explanatory videos, revisions to the training documentation, and improved guidance for trainers. These changes not only addressed immediate concerns but also informed the design of Phase 2 training, which placed greater emphasis on clarity, accessibility, and pacing to enhance user engagement and understanding. This aligns with the principles of user-centred learning design, which stress the importance of adapting training to learner needs, and with the Technology Acceptance Model, as clearer and more accessible training directly supports perceptions of usefulness and ease of use, thereby encouraging adoption.

Phase 2 began in early March 2022 with 50 staff members from a second Revenue Division. While the same instruments and data collection process were used to ensure consistency across phases, pre-training surveys prior to the sessions, trainer surveys midway through delivery, and post-training surveys upon completion, the training itself was modified in response to Phase 1 feedback. Adjustments included slower pacing during demonstrations, clearer trainer guidance, and the provision of additional explanatory videos and revised documentation to improve accessibility and user engagement.

In late April 2022, the researcher and the NASC project group met on two occasions to review the findings from Phase 2, comparing them to Phase 1 results to assess progress, identify further improvement areas, and evaluate the training's impact.

3.3.4.2 Survey Design and Instruments

Two tailored survey instruments were developed (see appendix A and B), one for NASC end user staff and one for NASC trainers. The staff survey was administered twice, once before and once after training, while the trainer survey was distributed once, midway through the training rollout. Survey design was guided by the research questions and themes identified in the literature review, and a detailed mapping exercise was carried out to ensure alignment between each survey item and the study's aims (see Appendix D for the mapping grid).

The staff survey included 25 items, comprising 21 open-ended questions, two closed-ended demographic questions, and three rating-scale questions. Open-ended questions were prioritised to allow for exploration of staff perceptions, concerns, and learning experiences in their own words, offering rich and context-sensitive insights (Creswell and Creswell, 2018). Closed and scale-based questions were included to gather demographic data and support basic comparative analysis (Bissett, 1994).

To ensure clarity and usability, the staff survey was piloted with 10 Revenue staff not involved in the final sample. Feedback from the pilot informed revisions to question wording, survey length, and overall structure (see Appendix E for details).

The trainer survey (see Appendix B) consisted of three open-ended questions focused on delivery quality, participant engagement, and perceived training challenges. This instrument captured valuable data from those delivering the programme and provided insight into how the training was experienced from the instructional side.

Individual web-based surveys were chosen over group interviews to protect participant confidentiality and encourage candid reflection (Creswell, 2013). In a structured public sector setting, concerns about professional visibility and hierarchy may inhibit honest feedback (Creswell and Creswell, 2018). Anonymous surveys helped reduce social desirability bias and created a psychologically safe environment for expression (Creswell and Creswell, 2018).

3.3.4.3 Web-Based Survey Administration

All surveys were administered using Qualtrics (Qualtrics.com) a secure online survey platform. Web-based delivery was chosen for its accessibility, efficiency, and ability to protect participant anonymity, critical factors in a large, hierarchical organisation like Revenue (Saleh and Bista, 2017; Wright, 2005). Qualtrics ensured user-friendly navigation, mobile compatibility, and secure data handling

3.3.4.4 Reflective Notes

In addition to formal surveys, the researcher maintained detailed reflective notes throughout the project, particularly during NASC project board meetings (see Appendix C). These notes captured real-time observations, evolving interpretations, and insights into team dynamics and decision-making processes. They contributed to the study's reflexivity and served as an additional layer of qualitative data, enriching the overall analysis.

3.4 Data Analysis Process

A systematic and transparent approach to data analysis was employed in this study, guided by Braun and Clarke's (2006, 2021) six-phase thematic analysis framework and supported using NVivo software. This method was selected for its flexibility and suitability for exploring complex, context-specific experiences such as digital transformation in a large public sector organisation. NVivo was used to organise, code, and manage the qualitative data efficiently, while also supporting transparency, auditability, and reflexivity throughout the process.

3.4.1 Step-by-Step Analysis Process

Data analysis was conducted in the following structured sequence:

1. Phase 1 – Pre-Training Survey (Staff):

Responses to the open-ended questions in the pre-training survey from the first group of 50 staff were imported into NVivo and analysed using Braun and Clarke's (2021) six-phase process. This involved familiarisation with the data, generating initial codes, identifying patterns, clustering codes

into candidate themes, reviewing and refining these themes, and finally defining and naming each theme. The goal was to capture staff expectations, concerns, and perceived readiness before receiving NASC training.

2. Phase 1 – Post-Training Survey (Staff):

Once Phase 1 training was complete, the corresponding post-training survey responses from the same staff cohort were analysed separately using the same six-phase thematic process. This analysis focused on shifts in perception, experiences of the training itself, immediate reactions to using NASC, and emerging challenges or supports identified by staffs.

3. Phase 2 – Pre-Training Survey (Staff):

Data from the second group of 50 staff, collected before they underwent NASC training, were then analysed. This stage of analysis focused on exploring participants' expectations, experiences, and perceptions of NASC, providing insight into how the revised training approach was received.

4. Phase 2 – Post-Training Survey (Staff):

Post-training responses from the second group of staff were then analysed and compared with their own pre-training reflections. This provided insight into how participants' perceptions and experiences of NASC evolved following the revised training approach.

5. Trainer Survey Analysis:

Trainer responses, collected midway through each phase of the overall rollout, were analysed as a standalone dataset. This provided a complementary perspective on training delivery, participant engagement, and observed barriers or facilitators to successful NASC adoption.

6. Cross-Phase Comparison:

After analysing all four staff datasets (Phase 1 pre/post and Phase 2 pre/post) individually, a cross-phase comparison was conducted. Using NVivo's matrix and theme-query functions, similarities and differences across cohorts were systematically compared. This enabled identification of themes across both phases, as well as insights into changes in perception over time. These themes are presented and discussed in chapters five and six.

A comparative discussion of the findings from Phases 1 and 2 is presented in Chapter 5, where cross-phase analysis highlights both recurring themes and differences that emerged over the implementation period. To ensure analytical consistency and to strengthen the rigour of the thematic claims made in this chapter, the researcher conducted a systematic, question-by-question

comparative analysis of the pre-training survey datasets from both Phase 1 and Phase 2 followed by a question-by-question comparative analysis of the post training survey data sets from both Phase 1 and Phase 2. The rationale for this approach was twofold: first, to integrate findings from both phases in order to examine the commonalities and differences in staff perceptions throughout the training and implementation of NASC, and second, to build on the themes identified in Phase 1 by testing their relevance and applicability in Phase 2, thereby allowing a more comprehensive understanding of staff experiences to emerge. This provided stronger evidentiary support for the claim that participants entered the training with similar expectations, assumptions, and concerns, thus offering a firmer foundation for subsequent comparison of post-training outcomes.

The comparison process involved aligning responses to equivalent survey questions, particularly open-ended items such as Question 6 for example, which asked, *“How do you think NASC will impact your work?”* As described responses were analysed independently within each phase before carrying out a cross comparison. In doing so, codes and the emergent themes were reviewed iteratively to ensure that any identified similarities were not the result of superficial similarity, but instead reflected meaningful alignment in participants’ conceptualisations of NASC and its anticipated effects. Table 3-1 (below) presents a comparative overview of the themes emerging from participants’ responses to Question 6, highlighting pre- and post-training perceptions across Phase 1 and Phase 2. The table illustrates not only how staff understanding and expectations of NASC evolved through the training process, but also how perceived improvements in information accessibility, sharing, and communication relate to factors influencing adoption and engagement. By examining these patterns, it is possible to identify areas where the training successfully reinforced perceived usefulness and ease of use, as well as aspects requiring further attention to support sustained adoption.

To strengthen the comparative depth and methodological rigour of the qualitative findings, Appendix F presents a detailed matrix of themes across the qualitative detail of the two staff datasets (Phase 1 and Phase 2), organised by survey question. This thematic matrix does more than tabulate data, it visually reinforces areas of thematic convergence, such as commonly reported improvements in knowledge sharing and communication, as well as divergences, particularly around system limitations and practical usability that became more prominent in Phase 2 post-training responses. For example, themes such as *“improved access to information”* and *“collaboration”* appeared consistently in both phases, pre- and post-training (see Appendix F, Questions 6, 12, and 22), suggesting widespread optimism about NASC’s potential benefits. However, analysis of Phase 2 data uncovered new or more nuanced concerns, including *“difficulty in navigation”* and

“incompatibility with case working,” which were notably absent or less frequent in Phase 1 responses. These Phase 2 findings indicate that while staff recognised the potential benefits of NASC, practical challenges related to day-to-day use became more apparent once they engaged with the system directly. This contrast highlights that initial optimism may be tempered by experiential realities, emphasising the need to address usability issues and ensure the system aligns closely with existing workflows to support successful adoption.

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=39)
Improved	17	—
Improved (easier to find/share info)	3	32
Improved communications	14	—
Limited	4	4
Neither	0	1
Unsure / Don't know what NASC is	0	5
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Improved	19	—
Improved (easier to find/share info)	12	23
Improved once trained properly	—	4
Improved communications	9	—
Limited	0	8
Neither (no change)	2	6
Unsure	1	0

Table. 3-1 Comparison of themes that emerged in the responses collected from Q6

The analysis of trainer data, presented in Appendix G, was conducted separately to focus specifically on training delivery and effectiveness. Analysing this dataset independently allowed the unique insights and perspectives of trainers to be accurately captured without being conflated with staff responses. Emergent Themes included the “importance of demonstration and practical examples” and “lack of clarity around NASC’s purpose”. These themes mirror those raised by staff and provided triangulation that added weight to the findings from the staff dataset. Analysing the datasets separately, while comparing responses question by question, provided a structured framework for exploring both continuity and contrast across the research phases. This approach enabled the identification of recurrent themes shared by both cohorts, as well as phase-specific variations that reflected evolving perceptions of the NASC rollout. Incorporating participant voices throughout added depth and credibility to the findings, grounding the thematic analysis in the lived experiences of staff and highlighting how training, system use, and communication influenced adoption.

A detailed account of the analysis process is provided in the section that follows, outlining how the data were systematically examined to identify key themes, variations between phases, and insights into staff perceptions of NASC.

3.4.2 Braun and Clarke's Six-Step Process

By applying Braun and Clarke's six-phase model consistently across four staff data sets and one trainer data set, and by structuring the analysis to track both temporal and thematic developments, the study produced a rich, credible account of how NASC training and system implementation were experienced by different participant groups over time.

Data were uploaded into NVivo in chronological order, beginning with the Phase 1 pre-training survey responses, then Phase 1 post-training survey responses, followed by Phase 2 pre-training and then Phase 2 post-training responses. This sequential approach established a baseline understanding of staff perceptions prior to the training interventions. The researcher employed open coding initially, where data segments were tagged based on emergent ideas related to change readiness, communication, and training expectations. Once initial codes were generated from each Phase, the researcher proceeded to carry out a cross comparison of themes between the two Phases, enabling comparative exploration of perceptual shifts following the training intervention.

Throughout the coding process, NVivo's node structure helped organise codes under broad thematic categories aligned with the four overarching research questions: (1) Change Management in Revenue, (2) Leadership and Communication, (3) Online Training Design, and (4) Need for and Adoption of NASC. NVivo facilitated efficient querying, data visualisation, and theme tracking across all datasets, ensuring analytical depth and consistency.

Braun and Clarke's (2006) six-step thematic analysis framework guided the development of themes:

1. Familiarisation with the data: The researcher thoroughly reviewed all survey responses and reflective notes through multiple readings. During this initial stage, key impressions were noted regarding communication importance, system navigability, and training content accessibility.

Example of Braun and Clarke step one:

Phase and Stage	Example of Participant Data	Initial Impressions / Notes	Emerging Focus Areas
Phase 1 – Pre-Training	“that it will replace Revnet and be the way of the future“	Participant expects NASC to replace Revnet, showing some understanding of purpose but limited detail about function or application.	Communication Clarity, Anticipated System Use
Phase 1 – Post-Training	“making it easier to share info“	Participant now associates NASC with easier information sharing. Indicates progress in understanding, though still surface-level.	Training Impact, Confidence in Use
Phase 2 – Pre-Training	“That info will be easily accessible“	Expectation that information will be easily accessible. Tone is neutral but suggests growing awareness of NASC's potential benefits.	System Accessibility, Anticipated Benefit
Phase 2 – Post-Training	“To make file sharing easier and less reliance on shared drives and emailing“	Participant sees NASC as a tool to reduce email dependency. Suggests more practical understanding post-training.	System Integration, Usability Confidence

2. **Generating initial codes:** Open coding was employed to identify meaningful segments of text related to the research questions. Using NVivo, the researcher systematically coded responses, developing initial codes that captured key ideas expressed by participants.

Example of Braun and Clarke step two:

Phase and Stage	Example of Participant Data	Initial Code(s)	Notes on Coding
Phase 1 – Pre-Training	“Interested“	Openness to change. Curiosity.	Participant response marked by a neutral-to-positive tone, indicates willingness to engage with change
Phase 1 – Post-Training	“easier to share info“	Ease of information sharing. Improved workflow.	Indicates an early benefit perception, linked to practical usage of the NASC system
Phase 2 – Pre-Training	“All information in one place“	Centralised information access. System potential.	Expectation that NASC will streamline access to information, showing future-oriented thinking.
Phase 2 – Post-Training	“Easier access to documents“ “easier file sharing between Divisions“	Improved file sharing. Improved collaboration	Reflects increased understanding of system capabilities and collaborative functions after training.

3. **Searching for themes:** Using NVivo, related codes were clustered into broader categories that reconstructed the data into a coherent analytical framework. As patterns became evident, codes were organised into preliminary themes directly aligned with the research questions.

Example of Braun and Clarke Step three:

Phase and Stage	Example Code	Category	Preliminary Theme
Phase 1 Pre	“Change is good”; “Interested in the changes” “It will have some benefits”; “Knowledge management”	Positive emotional response to change. Anticipation of improvement.	Readiness for Change. Perceived Value of NASC as a knowledge management tool.
Phase 1 Post	“Making it easier to share info”; “Better knowledge maintenance” “High expectations for greater cross-team work”	Improved data flow and communication. Cross-functional utility	Enhanced Collaboration. Professional Integration and Efficiency.
Phase 2 Pre	“Happy with progress”; “Easier access to information” “Navigating NASC”; “Data retention”	Openness to digital change. Anticipated skill acquisition.	Positive Orientation Toward Digital Tools. Learning Expectations.
Phase 2 Post	“beneficial way of working” “good collaboration”	Improved collaboration. Improved communication.	Enhanced Collaboration. Improved communication.

4. **Reviewing themes:** Themes were critically examined to ensure sufficient data supported them and accurately represented participant responses. This iterative process involved revisiting codes and data extracts to verify thematic coherence and distinctiveness. The researcher noted the recurrence of similar themes across both pre- and post-training surveys in both implementation phases, suggesting robust thematic consistency.

Example of Braun and Clarke Step four:

Phase and Stage	Data Extract Example	Evidence of Reviewing Themes	Theme
Phase 1 Pre	<p>“ability to easily share information and manage knowledge across teams” “If staff don’t use it, it won’t work” “Incorporate more practical learning whenever possible”</p>	<p>Early responses pointed to improved collaboration and knowledge sharing as key anticipated outcomes. Concerns about uptake were prominent and distinct from technical barriers. Clear emphasis on hands-on training approaches supported retaining this as a theme.</p>	<p>Anticipated Benefits – Sharing Knowledge Resistance to Change. Training Preferences.</p>
Phase 1 Post	<p>“One stop shop for up-to-date information” “When areas just use it like the traditional drives” “The system sometimes doesn’t hold up and the connection drops”</p>	<p>Post-training responses reinforced pre-training anticipation, showing robust thematic consistency. Similar concerns persisted post-training, verifying theme coherence across timepoints. Technical challenges emerged post-training, adding nuance to the limitations theme identified earlier.</p>	<p>Anticipated Benefits. Resistance to Change. Technical issues.</p>
Phase 2 Pre	<p>“Greater awareness and sharing of information in the organisation” “The limitations will be caused by people not saving or tagging correctly”</p> <p><i>“Put as many of them as possible online so that we can use them anytime”</i></p>	<p>Participants anticipated centralised knowledge benefits, aligning with Phase 1 patterns. Highlighted distinct concerns about governance and tagging practices. Preferences for flexible training emerged as a separate, coherent theme.</p>	<p>Anticipated Benefits. Knowledge Centralisation. Dependence on tagging – technical issues. Practical/Self-directed learning.</p>
Phase 2 Post	<p>“Improved sharing and reduced duplication of work” “Benefits are limited to good tagging and governance” “Short, real-time training and more often” Slow. Lack of privacy. Need files on staff/user drives.”</p>	<p>Reaffirmed the pre-training theme; reviewed and confirmed coherence post-training. Concerns about tagging persisted post-training, confirming thematic distinctiveness. Continued emphasis on flexible and bite-sized training validated this theme across the dataset. Similar technical barriers as Phase 1 post-training strengthened its case as a cross-phase theme.</p>	<p>Anticipated benefits. Knowledge Centralisation. Technical issues – dependence on tagging. Self-directed learning. Resistance to change</p>

5. **Defining and naming themes:** Themes were refined and clearly defined to capture their essence. The researcher used NVivo to examine statistical data related to each theme, quantifying the number of questions and units of meaning coded under each theme. This analysis revealed four major themes with corresponding subthemes: Change Management in Revenue (Public Sector), Leadership and Communication, Training Design, and Need for and Adoption of NASC.

Example of Braun and Clarke Step five:

Theme	Subtheme	NVivo Coding Units (P1 Pre / P1 Post / P2 Pre / P2 Post)	Phase 1 Pre Example	Phase 1 Post Example	Phase 2 Pre Example	Phase 2 Post Example
Change Management in Revenue	Resistance to Change	28 / 19 / 22 / 17	People won't use it, will continue to do what they always did.	Limited. It's harder to create folders, so the system slows us down.	Re NASC, it's because some people didn't use the old system either.	User buy-in is low; some still avoid using it.
	Perceived Benefits	34 / 42 / 29 / 36	Better knowledge maintenance; all info in one place.	Improved . Access to a central location for information.	To share information/knowledge that already exists but is fragmented.	Easier access to docs; file sharing across Divisions.
	Purpose of Change	15 / 21 / 17 / 23	Improvement in processes. More efficiency.	To move with the times, improve productivity and efficiency.	Centralise information holding/sharing.	To be more efficient and ensure compliance with best practices.

Leadership and Communication	Staff Involvement in Change	19 / 25 / 16 / 20	It's not; staff are not asked their opinions when change is communicated.	Usually via email survey or QandA sessions.	Rarely consulted, decisions made at higher levels.	It's too late to query opinions; decisions are already made.
	Preferred Communication Methods	22 / 30 / 20 / 25	Told in easy to understand language.	Via a meeting with option to provide feedback, not just emails.	Prefer open discussions rather than memos.	Clearly and encourage open dialogue through presentations and team meetings.
	Leadership Support	13 / 17 / 14 / 19	I feel anxious when change is sudden and unsupported.	Leaders have become more open to staff feedback since training.	Little support for staff dealing with changes.	Managers now reassure teams and provide QandA sessions.
Training Design	Learning Preferences	26 / 33 / 24 / 31	Practice; I learn best by doing.	By showing examples and hands-on exercises.	I prefer a classroom type training.	Do in-job training and periodic refreshers.
	Accessibility and Inclusivity	11 / 14 / 10 / 13	More choice for people with additional needs.	Include more working examples of real scenarios.	Short, real time training and more often.	Break out rooms for practical exercises.
	Perceptions of Online Training	18 / 23 / 17 / 22	They are good but could include more interactivity.	Good, but time allocation for attending is still lacking.	Fine. Online training takes away from interaction though.	Revenue need to give a higher priority to training as part of performance reviews.

Need for and Adoption of NASC	Anticipated Benefits	31 / 38 / 29 / 35	Structured storage of information.	Find information easier; collaborate across units.	Maximize data storage and sharing.	Efficient process; easier document sharing.
	Anticipated Limitations	24 / 28 / 21 / 26	Search difficulties and resistance to new systems.	May not be compatible with file upload programs; variations in structures	Slow system, lack of privacy.	User buy-in and lack of training are limiting factors.
	Application in Work	14 / 19 / 15 / 18	Send docs using NASC so everyone can work on one file.	Store files on projects. It will also be very useful for collaboration.	Location for finding required information.	I will hopefully start to save and work on my projects using NASC.

6. **Writing up:** The analysis was documented with direct quotations from participants to maintain visibility of their voices in the final text. Each quoted response was accompanied by a unique record identification code for example, respondent 15 in the Phase one Pre training survey would be "P1Pre15", ensuring anonymity while providing transparent links between findings and original data sources. However, it must be noted that due to the anonymity of the survey it is not possible to say that respondent 15 in the pre training survey is the same person as respondent 15 in the post training survey.

Example of Braun and Clarke step six:

Theme	Subtheme	Phase 1 Pre (Quote + ID)	Phase 1 Post (Quote + ID)	Phase 2 Pre (Quote + ID)	Phase 2 Post (Quote + ID)
Change Management in Revenue	Resistance to Change	"People won't use it; they'll continue doing what they always did." (P1Pre15)	"Limited. It's harder to create folders; slows us down." (P1Post08)	"Some people didn't use the old system either." (P2Pre21)	"User buy-in is low; some avoid using it." (P2Post17)
	Perceived Benefits	"Better knowledge maintenance; all info in one place." (P1Pre23)	"Access to a central location for information has improved." (P1Post12)	"It helps to share fragmented knowledge across teams." (P2Pre09)	"Easier access and collaboration across divisions." (P2Post33)
	Purpose of Change	"Improvement in processes. More efficiency." (P1Pre07)	"To move with the times and improve productivity." (P1Post11)	"Centralise information holding and sharing." (P2Pre18)	"To be more efficient and ensure compliance." (P2Post24)
Leadership and Communication	Staff Involvement in Change	"Staff are not asked opinions when change is communicated." (P1Pre04)	"Now they use surveys or QandA sessions to get feedback." (P1Post19)	"Rarely consulted; decisions made at higher levels." (P2Pre11)	"It's too late for feedback; decisions already made." (P2Post27)
	Preferred Communication	"Told in easy to understand language." (P1Pre08)	"Prefer meetings with options for feedback, not just emails." (P1Post10)	"Open discussions rather than memos are needed." (P2Pre16)	"Encourage dialogue via presentations and team meetings." (P2Post22)
	Leadership Supportiveness	"I feel anxious when change is sudden and unsupported." (P1Pre05)	"Leaders are now more open to staff feedback since training." (P1Post09)	"Little support for staff dealing with changes." (P2Pre14)	"Managers now reassure teams and provide QandA sessions." (P2Post15)
Training Design	Learning Preferences	"I learn best by doing; more	"More hands-on examples in	"Prefer face-to-face	"On-the-job refreshers

		practical exercises needed.” (P1Pre06)	training were helpful.” (P1Post14)	workshops for complex topics.” (P2Pre13)	worked better for retention.” (P2Post09)
	Accessibility and Inclusivity	“More choice for people with additional needs.” (P1Pre19)	“Include more working examples of real scenarios.” (P1Post03)	“Short, real time training sessions would help.” (P2Pre05)	“Break out rooms for practical exercises were useful.” (P2Post06)
	Perceptions of Online Training	“They are good but could include more interactivity.” (P1Pre17)	“Good, but time allocation for attending is still lacking.” (P1Post18)	“Fine. Online training lacks interaction though.” (P2Pre10)	“Higher priority needed for training in performance reviews.” (P2Post20)
Need for and Adoption of NASC	Anticipated Benefits	“Structured storage of information will improve workflows.” (P1Pre18)	“Find information easier; collaboration is smoother now.” (P1Post05)	“Centralised sharing reduces duplication.” (P2Pre07)	“It streamlines access to key documents.” (P2Post11)
	Anticipated Limitations	“Search difficulties and resistance to new systems.” (P1Pre12)	“May not be compatible with file upload programs.” (P1Post20)	“Slow system, lack of privacy.” (P2Pre08)	“User buy-in and lack of training are limiting factors.” (P2Post16)
	Application in Work	“Send docs using NASC so everyone can work on one file.” (P1Pre21)	“Store files on projects; useful for collaboration.” (P1Post13)	“Location for finding required information.” (P2Pre03)	“I hope to start saving and working on projects in NASC.” (P2Post18)

3.4.3 Comparative Analysis Approach

As described earlier, a key focus of the analysis was the cross-comparison of thematic findings across the two implementation phases, specifically between the pre-training surveys of Phase 1 and Phase

2, and separately between the post-training surveys of both phases. The analysis revealed a strong thematic alignment between Phase 1 and Phase 2 pre-training responses and again between Phase 1 and Phase 2 post-training responses. These findings are presented in Chapter 4.

The consistency of themes across both pre- and post-training surveys in the two phases strengthens the argument for thematic robustness. It also suggests that the identified issues and impacts of the NASC rollout were not isolated, but rather reflective of broader organisational dynamics that persisted across the implementation timeline.

3.4.4 Data Analysis- Closed Questions

The data analysis process began with the closed questions from the web-based surveys. These questions explored participants' length of service in the public sector and their perceptions of whether they had the skills and expertise to successfully implement NASC. Because the closed questions generated quantifiable responses, the data reduction process was straightforward. Responses were grouped into categories based on participants' selected answers. For example, Figure 3-3 presents the findings from Question 5 in the Phase 1 pre-survey. The results were then used to create descriptive charts (see Appendix H). As Halim et al. (2018) note, "data collected can be sorted and displayed graphically according to the user" (p. 311). Filtering tools such as drop-down response tabs were also applied to enable comparison and categorisation across responses (see Appendix I).

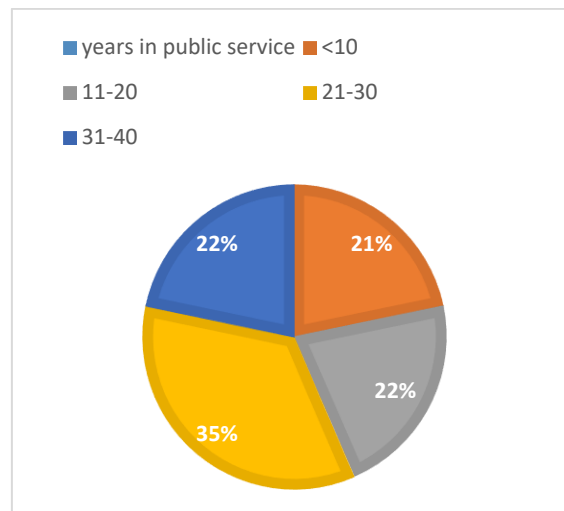


Figure 3-3 Question 5 Phase 1 pre survey

3.4.5 Validity

In the context of this study, validity refers to the extent to which the research accurately captures and reflects the phenomena under investigation. Qualitative validity rests on four key criteria, credibility, transferability, dependability, and confirmability, which guided the study's design, data collection, analysis, and interpretation (Lincoln and Guba, 1985). In addition, the study addressed specific forms of validity commonly applied in applied social research: internal validity, construct validity, content validity, face validity, and procedural validity (Babbie, 2020). Each is outlined below.

Internal validity, defined as the coherence between data and interpretation (Babbie, 2020), was addressed through triangulation and pattern matching across all stages of the thematic analysis. Triangulation was used to search for convergence across three distinct data sources, (1) survey responses from staff, (2) feedback from trainers, and (3) reflexive journal entries by the researcher. These sources provided corroborating evidence for emerging themes and allowed for multiple perspectives to illuminate similar phenomena. As Lincoln and Guba (1985) argue, triangulation helps reduce the risk of chance associations, enhances trustworthiness, and builds coherent justifications for the inclusion of themes.

Pattern matching was employed to enhance internal validity by providing a systematic way to verify that observed responses aligned with the study's conceptual expectations. Recurring responses and consistent expressions across different participant groups and survey phases were identified and mapped to preliminary codes, allowing the researcher to confirm that the emerging themes were logically consistent and empirically grounded. By comparing patterns across datasets, the analysis could detect discrepancies or confirm consistencies, thereby strengthening confidence that the findings accurately reflected participants' perceptions. The use of NVivo software further supported this process by enabling transparent documentation of coding decisions and facilitating iterative refinement of themes.

Construct validity, the degree to which the research accurately reflects the theoretical constructs it aims to explore (Babbie, 2020), was addressed in two ways: during data collection and again during the interpretive write-up. First, survey instruments were grounded in theoretical frameworks related to organisational change, digital transformation, and public sector reform. Items were designed to reflect key constructs such as perceived usefulness, ease of use, readiness for change, and the need for NASC. The alignment between theory and instrument ensured that responses would speak directly to the study's core research questions. Second, during write-up, construct validity was

reinforced through the careful mapping of emergent themes to these conceptual domains, supported by direct quotations from participants.

Content validity, is the degree to which the research instruments cover the full scope of the inquiry (Babbie, 2020), was established through the comprehensive design of the survey tools, which were informed by an in-depth literature review and consultation with members of the NASC project team. These included system developers and Divisional representatives, who helped pilot the instrument for clarity, relevance, and completeness. Although this pilot group constituted an expert or elite sample, their feedback ensured that items reflected the operational and cultural realities of the NASC implementation. This ensured comprehensive coverage of relevant themes while reducing ambiguity and misinterpretation (Babbie, 2020).

In addition to internal validity, the study also addressed other forms of qualitative validity to strengthen overall trustworthiness.

Face validity was enhanced by using plain, non-technical language in survey instruments and aligning question formats with everyday professional experiences within the organisation (Babbie, 2020). Iterative pilot testing and refinements based on feedback further ensured that the instruments were relevant and clear. To support credibility and interpretive validity, the analysis incorporated verbatim quotations linked to anonymous participant IDs, enabling transparency in how findings were derived from raw data. Combined with triangulation and reflexive engagement with the data, this approach allowed interpretations to remain faithful to participants' lived experiences while maintaining theoretical rigor.

Finally, **procedural validity** was strengthened through the use of NVivo, which facilitated consistent coding procedures and a clear audit trail, linking codes, memos, and source material to support a structured and replicable analytic process.

Together, these strategies, including triangulation, pattern matching, theory-informed design, piloting, and careful documentation supported by a detailed audit trail, ensured that the study's conclusions were both evidence-based and methodologically robust, accurately reflecting the complex organisational context in which NASC was implemented.

3.4.6 Reliability

In this study, reliability is understood in qualitative terms as dependability, the consistency and trustworthiness of findings within their specific social and organisational context (Lincoln and Guba,

1985; Shenton, 2004). Rather than implying absolute replicability, reliability refers to the extent to which the research process is logical, traceable, and documented in a way that allows others to understand and evaluate the study's conclusions. This was achieved through several strategies. Meticulous record-keeping and the maintenance of an audit trail ensured that all decisions, from instrument design to thematic coding, were systematically documented, allowing transparency in the research process. The use of thick description, including verbatim quotations from participants, grounded interpretations in actual staff experiences, supporting consistency and credibility across data sources. Reflexive acknowledgement of potential researcher bias and the application of triangulation further enhanced dependability, ensuring that findings were not unduly influenced by individual perspectives (Creswell and Poth, 2018; Patton, 2015). Collectively, these strategies demonstrate that the study's conclusions are methodologically rigorous and dependable, reflecting the realities of NASC implementation within Revenue.

3.4.7 Generalisation

Generalisation in research refers to the extent to which the findings of a study can be applied beyond the specific context, participants, or setting in which the research was conducted. It addresses the question: *To what degree can the results be extended to other populations, environments, or time periods?* Since qualitative studies often involve smaller, purposefully selected samples, the goal is not statistical generalisability, but rather analytical or theoretical generalisation. This means that the insights gained can contribute to a broader understanding of similar phenomena in other contexts if the reasoning and interpretations are well supported and transferable.

Given the researcher's insider position and the context-specific nature of this study, claims of broad generalisability must be approached with caution, as findings are closely tied to the particular organisational setting, culture, and participant experiences, which may not be directly transferable to other contexts (Lincoln and Guba, 1985; Merriam and Tisdell, 2016). The aim of this research was to develop a theoretically rich and contextually grounded understanding of how staff within Revenue experienced the implementation of NASC. As such, the study aligns with the concept of transferability, as outlined by Lincoln and Guba (1985), where the applicability of findings to other settings is determined by the depth of contextual detail and the reader's ability to assess relevance. Through thick description, transparent methodological choices, and clear alignment between themes and research questions, the study supports analytical generalisation, allowing the insights to inform similar change initiatives in comparable public sector contexts. However, the researcher's embedded role within the organisation may shape how findings are interpreted and limits the extent

to which conclusions can be extended beyond this institutional setting without critical consideration. These boundaries are acknowledged to ensure the integrity and credibility of the interpretive process.

3.4.8 Ethical Considerations

This research was conducted in accordance with Dublin City University (DCU) ethical guidelines. Full ethical approval was applied for and granted in May 2021 (see Appendix J). Ethical considerations focused on informed consent, participant autonomy, data protection, conflict of interest, and methodological transparency. All participants were fully informed of the purpose, process, and voluntary nature of the research. Prior to completing the web-based survey, participants were presented with a plain language statement that outlined their rights, including the right to refuse participation and the right to withdraw from the study at any point prior to survey submission. As the surveys were anonymous, it was clearly stated that once submitted, responses could not be isolated or removed. Participants provided informed consent by ticking a box on the opening screen of the survey (see Appendix A).

Participants were invited to take part in the study via email invitations issued directly by the researcher. This approach was necessary because the researcher was embedded within the NASC project team and had direct access to potential participants, allowing for timely communication and clarification of study objectives. While the use of a gatekeeper is often recommended to reduce potential bias, in this instance, the researcher's insider position also facilitated informed consent, as participants were already familiar with the researcher's role and the context of the NASC implementation. The ethics application approved this recruitment approach, emphasising that invitations would clearly explain the voluntary nature of participation, guarantee anonymity, and provide contact details for further information. This method ensured that participants could make an informed decision to participate while maintaining ethical standards of transparency, autonomy, and confidentiality.

Data confidentiality and security were central to the research design, ensuring that participants' responses were protected and handled responsibly. All data were stored securely on a folder in the researcher's DCU Google Drive and, in line with DCU policy, were retained only for the duration of the study before being permanently deleted. Ethical and organisational oversight was maintained throughout. An outline of the research proposal was submitted to Revenue senior management, who formally approved the study, and the NASC Project Group was briefed on the research purpose and process prior to data collection. These measures not only safeguarded participant information

but also ensured transparency, organisational support, and the ethical integrity of the study, reinforcing confidence in the validity and credibility of the findings.

3.4.9 Researcher's Role and Reflexivity

Jootun et al (2009) consider the core of reflexivity as making “the relationship between and the influence of the researcher and the participants explicit” (p. 45). As this study both adopted a post-positivist perspective and was insider research, reflexivity was an integral and crucial aspect of the research.

The role of the researcher, as emphasised in post-positivist inquiry, is not that of a distant observer but of a reflective, critically engaged participant. The active involvement of the researcher in the implementation process required continual reflexivity, not only to acknowledge how the researcher's background, assumptions, and interactions shaped the research, but also to ensure ethical and transparent engagement with participants. In line with the paradigm's emphasis on empirical rigour and interpretive sensitivity, the researcher approached the data as partial but meaningful insights into lived realities, co-constructed through dialogue and shaped by evolving organisational dynamics. This commitment to reflexive, context-sensitive interpretation ensured that the research remained firmly anchored in post-positivist epistemology, while also producing findings that are both practically relevant and theoretically grounded.

As explained in Chapter 1, the researcher occupied an insider role, both as an employee of Revenue and as a member of the NASC Project Group, while simultaneously conducting the research. As a member of the NASC project group, the researcher held established professional relationships with many participants and had a deep understanding of the organisational context. This dual role presented both strengths and potential limitations. While this insider research provided many advantages such as easier access to participants, enhanced rapport, and richer contextual understanding (Unluer, 2012). it also introduced ethical and methodological challenges, particularly related to perceived or actual conflicts of interest. These included the risk of bias in data interpretation, selective attention to favourable feedback, or unintentional influence on participant responses due to prior professional interactions. To mitigate these risks, the researcher engaged in ongoing reflexivity throughout all stages of the study. This involved maintaining a reflective journal to record decisions, observations, and potential sources of bias; systematically questioning how her insider role might influence data collection and interpretation; and discussing emerging themes with colleagues to challenge assumptions and ensure alternative perspectives were considered. Reflexive practices were applied during coding, analysis, and the presentation of findings, ensuring

transparency in how conclusions were drawn and enhancing the overall trustworthiness and credibility of the research. Reflexivity was maintained throughout the study by systematically considering the researcher's role, assumptions, and potential influence on data collection and analysis. Many aspects of this reflexive engagement have been addressed throughout this chapter, particularly in relation to data gathering and the thematic analysis process. By actively reflecting on these factors, the researcher sought to minimise bias, uphold ethical standards, and ensure that interpretations were credible, transparent, and grounded in participants' perspectives.

3.5 Conclusion

This chapter outlined the research paradigm and methodological choices underpinning the study of Revenue staff perceptions of the NASC implementation. Grounded in a post-positivist paradigm, the study employed qualitative surveys, supported by reflective journaling and trainer insights, to capture the complex dimensions of organisational change, training engagement, and system adoption. Research instruments were carefully designed and piloted, with open-ended questions and NVivo-supported thematic analysis enabling rigorous and transparent interpretation.

Triangulation across multiple data sources enhanced credibility, while ethical considerations, such as informed consent, anonymity, and reflexivity in managing the researcher's insider role, ensured both rigour and interpretive depth. Overall, the methodological framework supported a contextualised understanding of staff experiences and responses to NASC. The next chapter presents the findings, drawing on survey data, trainer reflections, and researcher notes to examine evolving staff perceptions, identify barriers and enablers, and analyse how factors such as leadership, communication, and training design influenced adoption.

Chapter 4

Results

4.1 Introduction

This chapter presents the results of the research, drawn from seven primary data sets: four staff surveys (pre- and post-training surveys from both Phase 1 and Phase 2), two trainer surveys (one from each phase), and the researcher's reflective notes. The chapter presents the staff survey findings from phase 1 and phase 2 first, followed by the trainer survey findings and finally observations from the researcher reflections will be presented to support the survey results from end users and trainers – these will be used as part of the discussion in Chapter 5. Each data set was analysed using Braun and Clarke's (2006) six-phase model of thematic analysis. To preserve the contextual integrity of each phase, the data sets were analysed sequentially. As explained in Chapter 3, Phase 1 data, comprising the pre-training staff survey, trainer survey, post-training staff survey, and researcher reflections from January to end of February, were analysed first. Open coding was conducted in NVivo, enabling the identification of preliminary themes such as change readiness, communication clarity, and expectations around the NASC system. Based on these early findings, refinements were made to the training design ahead of the Phase 2 rollout, including a stronger focus on system usability and tailored support for end users. Phase 2 data were then analysed separately using the same coding framework to ensure consistency, allowing for both recurring and newly emerging themes to be identified. Table 4-1 below provides a detailed mapping of questions to the themes that emerged.

Section 4.2 examines the findings of the end-user surveys in a structured, thematic format outlining the findings from all questions related to each particular theme. The findings are presented without interpretation and are designed to provide a clear representation of staff perceptions, expectations, and experiences as they related to the Knowledge Management System (NASC). The thematic structure outlines each of the related survey questions and groups findings by phase and training stage to facilitate comparison. It should be noted that of the 50 participants in Phase 1, 31 responded to the pre training survey and 39 responded to the post training survey. Of the 50 participants in Phase 2, 38 responded to the pre training survey and 39 responded to the post training survey. However, due to the anonymous nature of the survey it cannot be determined if the same participants responded to the pre and post training surveys.

Thematic Heading	Survey Questions numbers and theme they refer to
Purpose and Drivers of Change	Q6 (purpose of change), Q15 (is change good), Q21 (benefits of change), Q22 (limitations of change), Q11 (expectations of change)
Change Implementation Approaches	Q4 (staff opinion asked about change implementation approaches), Q16 (opinion queried in relation to how they felt about change), Q12 (communicating change), Q18 (how change should be communicated), Q13 (is change communicated differently to different grades), Q14 (how have change concepts/terms been explained)
Leadership and Communication	Q7 (feelings about change), Q8 (expectations of training), Q10 (in what way has the importance of NASC been explained to you), Q24 (what are colleagues' views about NASC)
Resistance, Engagement, and User Adoption	Q2 (stress), Q5 (work limited or improved), Q9 (skills to improve), Q23 (application of NASC)
Training Design, Learning Approaches, and Capacity Building	Q1 (clear expectations for NASC training), Q3 (Do you have the skills to make NASC work), Q17 (what is the best way for you to learn a new skill), Q19–Q20 (what do you think of Revenue's online training modules and what improvements can you suggest), Q25 (years in service)
Evaluating Change Success	Cross-cutting insights from all questions

Table 4-1 matrix mapping end user survey questions to themes.

The end-user survey data are presented thematically and structured by phase (Phase 1 and Phase 2) as well as by time point (Pre-training and Post-training). Each question is analysed using a table that summarises recurring themes identified from open-text responses. For each theme, the table indicates the number of participants who mentioned it in their response. The notation “N = ...” shows the total number of valid responses for that phase and time point.

For example, in Question 6 (“What do you think is the purpose of change?”), responses are grouped under themes such as *Improved way of working/facilitate effective working practices*, *Maintenance of knowledge*, or *Improvement/progress*. The table presents:

- **Phase 1 Pre-training (N=31)** and **Phase 2 Pre-training (N=38)** results, capturing initial perceptions before exposure to NASC training.

- **Phase 1 Post-training (N=39)** and **Phase 2 Post-training (N=39)** results, reflecting how perceptions evolved after training.

This structure allows for both within-phase comparisons (Pre vs Post) and cross-phase comparisons (Phase 1 vs Phase 2), showing how attitudes shifted over time and across cohorts.

Following the presentation of the end-user survey findings, Section 4.3 presents the trainer survey data in a structured, question-by-question format, with results disaggregated by Phase 1 and Phase 2 to highlight changes across the rollout. Ten trainers participated in Phase 1, and the same number responded in Phase 2. However, due to the anonymous nature of the survey, it is not possible to establish whether individual trainer responses in Phase 1 correspond directly to those in Phase 2. Finally, Section 4.4 presents observations from the researcher's reflective diary entries, which provide additional context and triangulation of both end-user and trainer data.

4.2 End User Survey Results

The end-user survey data is examined and presented under thematic headings to highlight key patterns and insights into staff perceptions of the NASC system, capturing how expectations, experiences, and levels of confidence evolved across both phases of training.

4.2.1 The Purpose and Drivers of Change in the Public Sector

Understanding the purpose and drivers of change is essential to interpreting how staff engage with organisational transformation (Davis, 1987; O'Flynn, 2015). In the public sector, where change is often shaped by competing demands for efficiency, knowledge retention, and service improvement, staff perceptions provide valuable insight into both the opportunities and challenges of reform (O'Flynn, 2015). The survey responses from questions 6,11,15,21 and 22 examined in this section highlight how employees framed the purpose of change, their views on its impact, and their expectations of new systems, offering a picture of how change is understood, supported, or resisted in practice.

Survey responses to Question 6 (see table 4-2) highlighted how staff understood and framed the purpose of change.

Question 6: What do you think is the purpose of change?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Improved way of working/facilitate effective working practices	24	19
Maintenance of knowledge	—	6
No purpose	—	—
Progress and efficiency	—	12
Status quo needs to be shaken up	1	—
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Improved way of working/facilitate effective working practices	21	—
Improvement/ progress	14	19
Maintenance of organisational knowledge	5	21
No purpose just introduction of new product	2	1
Unsure	1	—

Table. 4-2 Question 6 Responses Coded

In Phase 1 pre-training, the majority of participants (24 out of 31) associated change with improving working practices, while no one emphasised progress and efficiency. After training, this perspective broadened: 21 respondents continued to highlight improved work practices, but a large number explicitly connected change to progress and efficiency (14), and a further five recognised the importance of maintaining organisational knowledge. A small minority remained sceptical, with two suggesting change was merely the introduction of a new product and one unsure of its purpose.

Phase 2 responses reflected a more distinct pattern. Before training, staff pointed to progress and efficiency (12), improved working practices (19), and knowledge retention (6). By post-training, however, knowledge maintenance had become the dominant theme, with 21 participants framing it as the primary rationale for change. Progress and efficiency remained important (19 mentions), while references to improved working practices diminished. Only one participant questioned the purpose of change at this stage, suggesting that the shift was away from broad generalisations and towards a clearer consensus around knowledge as the central driver. Responses to Question 15 also showed general views of how staff perceive if change benefits staff.

Survey responses to Question 15 explored whether staff believed organisational change was good for Revenue employees. In Phase 1 pre-training, support for change was almost unanimous: 30 out of 31 participants endorsed it as positive, with many framing it as necessary for efficiency and improved ways of working. Fifteen explicitly linked change to greater efficiency, while nine highlighted its role in helping staff work better. At the same time, a minority offered a note of caution, with five warning that change could also generate stress.

Question 15: Do you think change is good for Revenue staff members? Explain.

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Not always – needs to work	—	6
Change causes stress	5	—
change equals more efficient service	15	—
Change is good for Revenue staff	30	—
Yes, changing and evolving keeps the organisation modernised	—	36
Yes, helps us work better	9	—
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Depends on change, some is good, some is bad, change is good if it adds value otherwise no.		10
Not always, needs to work / should be required, not just done for the sake of change	6	—
Yes, changing and evolving keeps the organisation modernized / helps us to work better / leads to innovation / necessary for progress	31	22
Yes, if the change is implemented properly	3	7

Table. 4-3 Question 15 Responses Coded

Post-training in Phase 1, enthusiasm remained strong but became more nuanced. While 31 participants affirmed that change was valuable for staff, their reasoning was more refined: some emphasised its role in innovation and progress, while others stressed that change should not be implemented for its own sake. Six participants noted that change must be purposeful and add value, and three underlined the importance of careful pacing and effective execution. The overall tone remained supportive, but it was increasingly shaped by conditions for success.

Phase 2 responses followed a similar trajectory. Before training, nearly all participants (36 of 38) described change as good, particularly in helping the organisation modernise and evolve. However, six respondents tempered this positivity by stressing that change must be meaningful and properly implemented. After training, this cautious strand became more pronounced: 22 participants continued to describe change as essential for progress and modernisation, but seven emphasised that its success depended on careful planning, and 10 argued that its value should be judged on tangible outcomes.

Across both phases, then, support for change remained consistently strong, but post-training responses reflected a shift from broad enthusiasm to a more critical, impact-focused stance. Staff increasingly recognised that while change could modernise and improve organisational practice, its benefits depended on being purposeful, well-managed, and not pursued simply for its own sake.

Question 21: What do you think will be the benefits of NASC?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Central repository for information and knowledge	—	13
Better knowledge maintenance and sharing of information / better group collaboration	17	22
Easier working methods	10	—
Ease of use	—	6
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Awareness of issues	—	1
Better communication	2	—
Transparency	1	—
Easier information sharing and group collaboration / better knowledge maintenance	33	29
More efficient working	—	6
No benefit / old system was better	1	1
No time lost travelling to training	—	1

Table. 4-4 Question 21 Responses Coded

Survey responses to Question 21 examined what staff believed would be the benefits of NASC. In Phase 1 pre-training, participants' expectations were largely positive, with 17 anticipating that the system would improve knowledge maintenance and information sharing, and 10 suggesting it would enable easier ways of working. At this stage, however, no participants highlighted communication benefits, nor did any express doubts about the system's usefulness.

After training in Phase 1, optimism not only persisted but grew stronger. Thirty-three participants identified knowledge sharing and collaboration as the key benefits, representing almost a doubling of pre-training responses. In addition, two participants began to emphasise improved communication, and one highlighted greater transparency as an organisational gain. Only a single respondent suggested there would be no benefits, marking the exception to an otherwise positive trend.

In Phase 2, pre-training expectations reflected those of Phase 1, though with some notable shifts in emphasis. Twenty-two participants saw NASC as a tool for collaboration and information sharing, 13 described it as a central repository for knowledge, and 6 already viewed it as easy to use, even before training. Post-training, these perceptions were reinforced and expanded. Twenty-nine participants identified improved collaboration and knowledge sharing, while six pointed to greater efficiency in workplace practices. A few individual respondents also highlighted less obvious benefits, including increased awareness of key issues and reduced time spent travelling to training. As in Phase 1, only one participant expressed a preference for the old system.

Across both phases, the pattern was clear: training amplified confidence in the benefits of NASC. While pre-training views reflected anticipated advantages, post-training feedback demonstrated a more grounded sense of its value, shaped by actual use. Benefits such as improved communication only emerged after training, suggesting that some positive outcomes were experiential rather than predicted. Dissent was minimal, with only two participants across both phases expressing reservations, reinforcing the generally strong endorsement of NASC’s potential and realised value.

Concerns about perceived limitations also emerged in the responses to Question 22.

Question 22: What will be the limitations of NASC?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Depends on user skill / user ability and intention to use / buy in	11	11
No limitations	2	—
Not suitable for all information types	4	—
Compatibility issues with other systems and programmes	—	6
Not user friendly	4	—
Functionality issues	—	11
No limitations	—	4
That the same issues will occur with large folders and libraries and a new solution will have to be sought	—	1
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
No limitations	4	4
Not suitable for sharing all file types leading to inconsistency in use	6	—
Restrictions such as GDPR limit sharing of info and utilization of systems	7	—
Too difficult and cumbersome to use / too resource intensive	11	2
Functionality issues	—	6
Lack of training	—	1
Learning from other cases will not be available	—	1
Privacy and security	—	2
user ability and intention to use, buy in / Resistance to change – staff will continue to use older systems	8	16
Unsure	—	5

Table. 4-5 Question 22 Responses Coded

In Phase 1 pre-training, concerns were mostly tentative and speculative. Eleven participants suggested that any limitations would depend largely on user ability and willingness to engage with the system, while smaller groups raised issues about user-friendliness (4) and the inability to handle

all information types (4). Only two participants felt there would be no limitations, indicating that although reservations existed, they were not widely entrenched at this stage.

Post-training in Phase 1, however, these concerns became sharper and more specific. Eleven participants now described the system as 'too difficult' or 'cumbersome' to use, while eight predicted resistance to adoption, with staff continuing to rely on older systems. New concerns also surfaced, with seven citing GDPR and data-sharing restrictions, and six pointing to the system's inability to support all file types. At the same time, four participants reported no limitations, double the pre-training figure, suggesting that while scepticism deepened for some, training reassured others about NASC's potential.

Phase 2 followed a similar pattern. Before training, 11 participants again focused on user skills and buy-in, while another 11 cited functionality issues. Six raised concerns about compatibility with other Revenue systems, and one noted potential problems with folder and library structures. Four participants, however, reported no anticipated limitations. After training, user-related concerns grew more prominent, with 16 respondents highlighting buy-in and resistance as key barriers. Functionality issues persisted (6 participants), while smaller numbers raised privacy and security risks or pointed to the need for additional training. Notably, five respondents remained unsure even post-training, signalling that uncertainty about NASC's performance lingered despite exposure to the system.

Altogether, the data from both phases show a consistent thread: before training, limitations were largely hypothetical and focused on usability, compatibility, and user skill. After training, concerns became more grounded in direct experience, reflecting concrete issues such as resistance to change, system complexity, and compliance constraints. Across both phases, user engagement and buy-in emerged as the most enduring and significant perceived limitation.

Across both phases, expectations for NASC detailed in the responses to Question 11 revealed both optimism and caution.

In Phase 1 pre-training, expectations for NASC centred on practical benefits, with thirteen participants anticipating that the system would make work more efficient and eleven expecting easier access to knowledge and information. Smaller groups highlighted other considerations: three felt that successful implementation would depend on staff buy-in, one mentioned security of data, and one viewed NASC primarily as a replacement for existing systems. These responses show that

while optimism around efficiency and accessibility was strong, some participants were already mindful of the cultural and operational challenges that could affect uptake.

Question 11: What expectations do you have for NASC?

Theme	Phase 1 Pre (N= 31)	Phase 2 Pre (N=38)
Better collaboration and teamwork / useful for group projects and team working	—	8
Easier access to knowledge and information	11	—
Easier to share info	—	12
More efficient working	13	8
No expectations / doubtful it will be used as much as anticipated	—	7
Replace old systems / improvement on previous system	1	2
Improved security of data	1	—
Expect that change from old system will require buy in from staff	3	—
Extra steps involved in tagging documents while saving	—	1
High expectations		2
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Easy to share info	16	9
Improvement in working practices	—	22
More efficiency	12	—
No expectations / poor expectations	11	4
Positive	—	3
Better collaboration and teamwork / useful for group projects and team working	3	—
Easier access to knowledge and information	16	—

Table. 4-6 Question 11 Responses Coded

Following training in Phase 1, expectations shifted as participants responded to direct exposure to the system. Sixteen participants identified improved collaboration and easier sharing of information as the most significant benefits, while another sixteen reiterated the importance of better access to knowledge. Twelve continued to expect efficiency gains, though this was a slight reduction from pre-training, suggesting a more tempered view of productivity improvements. However, eleven participants reported no or poor expectations, indicating that for a substantial minority, training did not dispel doubts and in some cases may have reinforced scepticism.

In Phase 2 pre-training, expectations showed a stronger emphasis on collaboration, with eight participants anticipating that NASC would support teamwork and group projects. Twelve participants highlighted easier information sharing, while eight pointed to efficiency gains, echoing the Phase 1 focus on productivity. At the same time, scepticism was pronounced: seven participants expressed no expectations or doubted that NASC would achieve the level of adoption anticipated, and one

noted concerns about additional steps involved in tagging documents, reflecting apprehension about increased workload.

By Phase 2 post-training, expectations were more positive overall, with twenty-two participants identifying improved working practices as a clear benefit. Nine highlighted easier information sharing, while three gave explicitly positive comments about the system's potential. Nonetheless, scepticism persisted for some, with four participants continuing to report no expectations at all. The contrast between the majority who endorsed tangible benefits and the minority who remained unconvinced illustrates a consistent pattern across both phases: training expands perceptions of NASC's value, particularly in relation to collaboration and practical improvements, but does not eliminate doubts for all users.

The responses across these questions show that staff consistently associated organisational change with improvement, efficiency, and knowledge retention, but their views evolved as they engaged with training and the system itself. Pre-training perspectives tended to frame change in broad, sometimes abstract terms, emphasising progress, efficiency, and better ways of working, while post-training responses reflected a more grounded understanding that highlighted specific benefits such as collaboration, knowledge sharing, and modernisation. At the same time, cautionary notes persisted, particularly around user buy-in, system functionality, and the risk that change could create additional pressures if poorly implemented. Across both phases, then, the purpose and drivers of change were understood positively but conditionally: staff endorsed reform when it was seen as purposeful, well-supported, and practically beneficial, yet remained alert to barriers that could undermine adoption.

These mixed expectations highlight the tension between optimism and scepticism surrounding NASC, a dynamic that closely relates to how change is introduced and managed within the organisation, leading into an examination of top-down and bottom-up approaches to change implementation.

4.2.2 Change Implementation Approaches: Top-Down and Bottom-Up Models

Effective implementation of change depends not only on its purpose but also on how it is communicated and enacted within the organization (Kuipers et al., 2014). In the public sector, this often involves a tension between top-down directives, where change is led by management, and bottom-up approaches, which emphasises consultation, dialogue, and staff involvement (Kuipers et al., 2014). The survey data presented in this section explores how employees experienced and

perceived these approaches, highlighting differences in consultation, communication methods, and the extent to which staff felt genuinely engaged in shaping change.

This section draws on several survey questions that capture staff experiences of consultation, communication methods, and the framing of change within Revenue. Question 4 and Question 16 focus on whether staff opinions are sought during change communication and, if so, through which mechanisms. Questions 12 and 18 explore the methods used by staff to communicate about change and the purposes underpinning these exchanges. Question 13 examines whether change is communicated differently across organisational grades, while Question 14 investigates how change concepts and terminology are explained to staff. Overall, these questions provide insight into the balance between top-down and bottom-up communication, the accessibility of change narratives, and the extent to which staff felt genuinely engaged in shaping organisational transformation.

Survey results on consultation with staff in question 4 revealed contrasting patterns between phases.

Question 4: Is the opinion of staff members asked when change is communicated?

	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Yes	21	17
No	9	21
	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Yes	23	24
No	16	15

Table. 4-7 Question 4 Responses Coded

In Phase 1 pre-training, most staff felt their opinions were taken into account, with twenty-one of thirty-one respondents indicating “yes.” After training, however, the picture became more mixed. Although the number of participants who reported being consulted rose slightly to twenty-three, the number who felt excluded also increased markedly, with sixteen respondents stating that their opinions were not sought. Part of this shift reflects the larger post-training sample (thirty-nine compared to thirty-one), yet the results nonetheless suggest that a greater proportion of staff came to perceive consultation as limited. Rather than resolving concerns, training appears to have heightened awareness of where consultation was absent or uneven. This points to a more complex perception of staff involvement, where some individuals saw improvements, but others became more conscious of being left out of the process.

The pattern was different in Phase 2. Before training, the majority of participants felt that their opinions were not sought, with twenty-one out of thirty-eight responding “no.” After training, however, perceptions shifted noticeably. Twenty-four of thirty-nine participants indicated that their views were considered, compared to fifteen who felt otherwise. This marks a clearer improvement compared to the more mixed outcomes observed in Phase 1, suggesting that the training in Phase 2 had a more positive influence on staff perceptions of consultation during change.

While Question 6 provided only a yes/no response, Question 16 offers greater insight into whether, and in what ways, staff opinions are sought during the communication of change.

Question 16: How is the opinion of staff members queried when change is communicated?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Older staff resistant, younger staff more open / staff that query change seen as disrupters	—	1
Townhalls	—	1
Opinion not queried	6	6
Staff opinion queried through QandA sessions, feedback sessions	15	17
Through bottom-up feedback	—	5
It depends on the size of change being implemented	—	2
Discussion	—	2
Electronic survey/questionnaire	—	5
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
By discussing in teams	—	9
By email	—	2
Feedback invited after change is implemented/by time change is implemented it's too late to query opinions	3	1
Older staff resistant, younger staff more open	1	—
Queried but ignored	4	—
Don't know, not sure	—	2
Not queried	5	1
Open invitation for feedback / QandA Sessions, surveys, Feedback sessions / request for queries re change	21	21
Queries inbox	—	1

Table. 4-8 Question 16 Responses Coded

In Phase 1 pre-training, staff perceptions were divided over whether their views were sought in relation to change. Fifteen participants reported that feedback was collected through mechanisms

such as Q and A sessions and feedback forums, while six believed their opinions were not queried at all. The remainder of participants gave no clear indication, suggesting that opportunities to provide input may have been inconsistent and varied significantly across the organisation.

Following training in Phase 1, a larger number of participants reported more formal opportunities to contribute. This increase partly reflects the higher number of respondents post-training (thirty-nine compared with thirty-one pre-training), yet it also suggests that exposure to training made staff more aware of structured consultation mechanisms. Twenty-one reported that staff were invited to share opinions through structured channels such as open calls for queries, surveys, and feedback sessions. However, these opportunities were not considered genuine by some as four participants stated that while feedback was requested, it was often ignored. A further three felt that opportunities only arose after changes had already been implemented, leaving little meaningful scope to influence outcomes. These responses highlight an ongoing perception that while processes for consultation existed, they did not always translate into genuine engagement. Finally, those who maintained that no consultation took place remained fairly consistent.

In Phase 2 pre-training, staff reported a wider variety of consultation methods than in Phase 1. Seventeen participants referred to structured opportunities such as Q and A sessions, feedback forums, and surveys, while five pointed to bottom-up processes and another five mentioned electronic questionnaires. Nonetheless, six participants still felt their opinions were not sought, echoing Phase 1, and one raised concerns that questioning change could be perceived as disruptive. These findings highlight that, despite the availability of formal mechanisms, cultural barriers around openness and psychological safety persisted.

By Phase 2 post-training, reported opportunities for consultation expanded further. Twenty-one participants, the same number as in Phase 1 post-training, described structured methods such as Q and A sessions, surveys, and invitations for feedback, while nine highlighted informal channels such as team discussions. Additional mechanisms were also cited, including townhalls, dedicated queries inboxes, and email channels. Yet even with this range of options, doubts remained: two participants were unsure whether opinions were genuinely sought, and others implied that while staff could provide input, this input did not necessarily influence outcomes.

Across both phases, the findings suggest that while training raised awareness of formal consultation processes and expanded the range of mechanisms available, doubts about the timing, authenticity, and impact of staff input persisted. Even as more structured avenues became visible, a proportion of

staff continued to perceive these channels as symbolic rather than substantive opportunities to influence organisational change.

Questions 12 and 18 explored not only the methods through which staff communicated change, but also their underlying purpose in doing so, whether to inform, to reassure, or to involve colleagues in the process.

Question 12: How do you communicate change to your colleagues?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
By communicating benefits of change	6	12
Clear language	—	1
Formally, Multiple communication channels / verbally, email and meetings	20	37
Informally, conversations with colleagues	10	1
Look for feedback	—	5
Through training	—	1
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Clearly	3	—
By communicating in a collaborative way	3	—
Explanation of benefits	—	8
In advance of change	—	1
Informally, conversation with conversations	6	—
Formally, through email and meetings	22	23
No communication	2	—
Practically	4	2
By providing support	—	3
Reassuringly / positively	2	1
Seek upward feedback	—	2
Respectfully	2	—

Table. 4-9 Question 12 Responses Coded

For Question 12, participants were asked how they communicate change to their colleagues. In Phase 1 pre-training, responses showed that the majority relied on formal methods, for example through structured briefings or official announcements such as email and meetings, with twenty participants describing formal communication channels, while ten indicated that they preferred informal channels such as conversations with colleagues. A smaller number, six in total, specifically mentioned that they focused on outlining the benefits of change when communicating. This suggests that although formal delivery was common, the messaging itself was not always centred on explaining the benefits of change.

After training in Phase 1, formal communication, such as emails and meetings, again emerged as the dominant approach, reported by twenty-two participants, with six stating they used informal

methods such as conversations with colleagues. There was some evidence of broadening in the styles of communication used at this stage. Three participants highlighted clarity as an important aspect of how they deliver messages, while four mentioned practicality. A small number reported seeking to reassure colleagues or to adopt a collaborative style, with two also stating that they aimed to communicate respectfully. Interestingly, two participants indicated that they did not communicate change at all, reflecting a notable outlier compared to the majority.

The responses in Phase 2 pre-training suggested a more varied communication landscape than in Phase 1. Thirty-seven participants indicated that they used multiple channels, including email, meetings, and verbal updates, though the data did not always make clear whether these were formal mechanisms (such as scheduled team meetings and official communications) or more informal exchanges between colleagues. Twelve participants reported presenting change in a positive light by emphasising its benefits, pointing to an element of personal interpretation in how messages were conveyed. A further five described actively seeking feedback, suggesting a degree of two-way interaction that had been less apparent in the earlier phase.

Post-training in Phase 2, the emphasis on multiple channels persisted, with twenty-three participants continuing to describe their use of email, meetings, and verbal communication. The focus on benefits also remained visible, with eight participants citing this aspect. Several reported that they communicated change by providing reassurance or offering support, while others referred to adopting a practical approach. Two participants specifically mentioned encouraging upward feedback, pointing to the beginnings of a more dialogical style of communication.

Taken together, the findings indicate that formal communication dominated in Phase 1, both before and after training, while Phase 2 demonstrated some evidence of a broader set of practices, including blended channels, benefit-focused communication, and active engagement with feedback. These responses suggest that while structured approaches to communication remained consistent, approaches such as meetings, emails, and verbal updates continued to dominate, Phase 2 also revealed some emerging signs of dialogue and reassurance. A minority of participants described actively seeking feedback or framing change positively, indicating a tentative move towards more participatory communication practices alongside the prevailing reliance on established channels.

Building on these findings, Question 18 considers how participants themselves would prefer change to be communicated, highlighting the importance of clear, timely, and transparent approaches that enable stakeholders to feel informed, supported, and engaged throughout the process

Question 18: How would you want change to be communicated to you?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Training / demo	7	5
Combination of communication channels	—	3
Depends on change	—	2
Impactfully	6	—
Electronically	—	7
Involved from the beginning / in advance, clearly and concisely	10	8
Positively	—	2
Practically	—	4
Involving my input	—	7
Top down	—	5
Verbally	—	11
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Effective communication offering rationale	14	—
Formally	19	—
Individually	4	—
Explanation of benefits and requirements of change	—	9
Face to face	—	3
In advance, clearly and concisely	—	4
Involving dialogue	—	7
Presentation, email, online forum	—	5
Timely / promptly	8	6
Top down	—	6
Training, demonstration	—	10
Verbally	—	3

Table. 4-10 Question 18 Responses Coded

For Question 18, participants were asked how they would want change to be communicated to them. In Phase 1 pre-training, responses indicated that staff placed the highest value on being involved early and receiving communication that was both clear and concise. Ten participants expressed a preference for being brought into the process from the beginning, highlighting early involvement as central to building trust and understanding. Six participants stated that they wanted communication to be impactful, while seven favoured demonstrations or training as a means of understanding change rather than relying on written or verbal description alone.

Following training in Phase 1, preferences became more defined in terms of method and content. Nineteen participants indicated that they would like change to be communicated formally, for example through structured briefings or official announcements. Fourteen participants emphasised the importance of receiving a clear explanation of the rationale for change, suggesting that they

valued not only information about what was happening but also why it was necessary. Eight wanted communication to be timely, and four expressed a preference for individualised updates, reflecting a desire for greater personal relevance in how change messages were delivered.

The responses in Phase 2 pre-training indicated an even broader spread of preferences. Eleven participants wanted verbal communication, while seven favoured electronic updates. Five stated that demonstrations or training would be the most effective way to communicate change, and eight highlighted the importance of being informed early, in a clear and concise manner. Seven participants expressed a desire to be actively involved in the process, while others noted the usefulness of multiple communication channels, practical examples, and opportunities for input. Two suggested that the approach to communication should depend on the nature of the change itself.

Post-training in Phase 2, clarity, practicality, and timeliness continued to be emphasised; however, participants increasingly expressed a preference for blended approaches, understood here as the integration of multiple communication channels and styles. Such approaches involved combining formal mechanisms, including presentations and team meetings, with more interactive methods such as online forums, demonstrations, and opportunities for dialogue. This shift suggests a recognition that effective communication during change requires not only the dissemination of information but also opportunities for clarification, reinforcement, and engagement. Ten participants identified training and demonstration as particularly effective, while nine emphasised the importance of clear explanations of both the benefits and requirements of change. Six highlighted the need for communication to be timely, six expressed a preference for a top-down style, and seven favoured a more dialogic approach that encouraged interaction. These findings indicate a gradual movement towards more participatory practices, even as established formal mechanisms continued to dominate.

In summary, the responses across both phases show that staff consistently valued communication that was early, clear, and actionable. Training appeared to sharpen preferences, shifting responses from general principles towards specific methods, including multi-channel delivery and practical examples. At the same time, a tension persisted between those who preferred communication to follow a top-down, authoritative model and those who sought greater opportunities for dialogue and involvement.

Perceptions of how change was communicated across grades, as captured in Question 13, reflected the persistence of hierarchical structures. In both phases, several participants explicitly described

communication as ‘top-down,’ with Phase 1 post-training generating five such responses and Phase 2 post-training six. In addition, a larger group of participants characterised communication as different at the top compared with lower grades, often noting that higher-level staff received strategic or high-level information while lower grades were given more operational or specific instructions. This provides evidence that, while some participants perceived communication as equitable across grades, a clear theme of top-down delivery was present across both phases.

Question 13: Is change communicated differently to people in different grades within Revenue?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Change is communicated across all levels equally	4	—
No	—	10
Yes, communication is tailored / different communication styles	—	1
Yes, high level at top, specifics lower down / different for different grades rephrase for clarity for reader	—	14
Yes, more input required from higher grades	—	
Yes, top down	15	8
Yes, depends on complexity of change		1
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
No	13	12
Sometimes, not all grades included in communication process	—	2
Yes	—	7
Yes, different communication styles / communication is tailored to different grades	8	—
Yes, different for different grades / more information given to higher grades / high level at top, specifics lower down / more input required from higher grades	11	—
Yes, top down – communication is different at the top	4	17

Table. 4-11 Question 13 Responses Coded

For Question 13, participants were asked whether change is communicated differently to people in different grades within Revenue. In Phase 1 pre-training, most participants described communication as hierarchical in nature. Fifteen participants stated that it was delivered in a top-down manner, with senior staff receiving information first or in greater detail. A smaller number, four participants, felt that change was communicated equally across all levels, though this was clearly a minority view.

After training in Phase 1, perceptions shifted. Thirteen participants indicated that communication did not differ by grade, suggesting that they now viewed it as more evenly distributed. However, eight participants still believed that communication was tailored according to grade, and eleven

offered a more detailed account, stating that higher grades tended to receive broad, strategic messages while junior staff were given more operational or specific information. Four participants continued to describe the process as primarily top-down, showing that while some views had changed, the perception of hierarchy in communication was not entirely displaced.

The responses in Phase 2 pre-training were more evenly divided. Ten participants believed communication was the same across all grades, while fourteen stated that it varied, with higher grades receiving more strategic-level information. Eight participants described communication specifically as top-down, while others suggested that the approach depended on factors such as the complexity of the change or the responsibilities associated with different roles.

By the end of Phase 2, responses again indicated a stronger perception of hierarchy. Seventeen participants stated that change was communicated in a top-down fashion, eleven believed it was the same across grades, and seven felt that the style of communication differed according to grade. Some participants also noted that the level of detail shared depended on leadership priorities and the type of change being introduced, with senior staff more likely to receive strategic overviews while others were provided with practical instructions.

Altogether, the findings across both phases show that top-down communication was consistently seen as the dominant model, even where some participants reported more equal or tailored approaches. Training appeared to encourage some participants to view communication as more balanced, but the belief that senior staff receive different or additional information remained a recurring theme. Overall, perceptions of communication across grades reflected both structural hierarchy and the practical demands of delivering messages that varied in strategic or operational focus.

This reliance on formal channels and top-down structures was also evident in question 14 when staff were asked how concepts and terms were explained.

In Phase 1 pre-training, most participants pointed to formal structures such as meetings and presentations as the main way these concepts were conveyed, with fifteen participants describing this approach. Eight characterised the process as top-down, while five said that explanations filtered down informally through colleagues rather than through official channels. Notably, no participants at this stage reported that concepts were explained in a clear or accessible way, suggesting that although structures were in place, they did not necessarily lead to greater understanding.

Question 14: How are change concepts and terms explained to staff members?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Filter down informally	5	—
Formal structure – meetings and presentations / QandA sessions	15	7
Top-down communication	8	
Depends on staff member	—	1
Electronically	—	9
Multiple communication channels	—	5
Not explained/ badly explained	—	10
Very well, simply and clearly	—	7
Via training	—	1
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Continual updates	—	2
Bottom-up communication	1	—
Descriptively	—	1
Don't know/not sure	—	5
Electronically / via team meetings		11
In large groups / formal structure/ meetings/ seminars, presentations	17	6
Tailor based / need to know	4	—
Not explained, badly explained	5	6
QandA sessions	—	1
Theoretically	—	2
Top-down communication, explanation of impact, dissenters not tolerated	3	7
Very well, simply, and clearly	6	3
Via training	—	9

Table. 4-12 Question 14 Responses Coded

After training in Phase 1, formal communication remained the most common method, with seventeen participants continuing to report meetings, presentations, or similar structured formats. However, a shift was visible in the emphasis placed on clarity and adaptation. Six participants now stated that terms were explained clearly and simply, while four highlighted that explanations were sometimes tailored to staff needs. At the same time, issues persisted for others: five participants said that concepts were still poorly explained, and three described the process as remaining top-down in style. Interestingly, one participant suggested that communication was bottom-up, reflecting a rare alternative perspective.

In Phase 2 pre-training, concerns about lack of clarity were more strongly expressed. Ten participants stated that change concepts were either not explained or badly explained, while others

focused on the methods of delivery. Nine mentioned electronic communication, seven referred to presentations or meetings, and five said that multiple channels were used. Positive experiences were less frequent, though seven participants noted that concepts were explained clearly and simply, indicating some variation across staff experiences.

Following training in Phase 2, the emphasis on communication methods persisted. Eleven participants pointed to electronic communication or team meetings, while six described large-group formats such as seminars or presentations. Nine participants reported that training itself was used to explain change concepts, highlighting a practical way of supporting understanding. At the same time, seven characterised communication as top-down and noted that this often left little scope for dissent. Clarity remained uneven: six still felt that explanations were poor, five were unsure how concepts were communicated, and only three described them as clear and simple. A small number added that explanations sometimes came across as theoretical or descriptive rather than practical.

Across both phases, change was primarily communicated through formal and structured channels such as emails, meetings and presentations, with a clear reliance on top-down delivery. While training contributed to greater awareness of consultation mechanisms, staff perceptions of involvement remained uneven. In Phase 1, participants initially reported higher levels of consultation, but post-training responses revealed growing awareness of exclusion and limited influence. In contrast, Phase 2 showed a more positive shift after training, with increased acknowledgement of opportunities to contribute. Structured mechanisms such as QandA sessions, feedback forums, surveys and team discussions became more visible over time; however, doubts persisted about the authenticity and impact of these processes, with some staff perceiving consultation as symbolic rather than meaningful.

When communicating change to colleagues, participants in both phases relied mainly on formal channels, particularly in Phase 1, though Phase 2 respondents demonstrated a broader mix of approaches, including informal conversations, reassurance and the communication of benefits. Staff consistently expressed a preference for communication that was early, clear and actionable, with demonstrations, training and multi-channel delivery viewed as particularly effective. Nonetheless, a tension remained between those who favoured authoritative, top-down communication and those who sought opportunities for dialogue and involvement.

Perceptions of how change was communicated across grades highlighted the persistence of hierarchical structures. Many participants indicated that senior staff received strategic or detailed information, while lower grades were given operational messages. Although some post-training

responses suggested greater equality in communication, the belief that information flowed downwards remained strong across both phases. This hierarchy was also evident in how change concepts and terminology were explained. Formal methods such as presentations, electronic updates and meetings were common, but clarity varied considerably. While some staff reported improvements in explanation and tailoring after training, many continued to experience communication as abstract, inaccessible or poorly delivered.

Overall, although formal mechanisms for communication were firmly in place, they did not always translate into genuine engagement, consistent clarity or shared understanding. Training helped to broaden awareness and, in some cases, prompted more participatory practices, but it also made participants more conscious of gaps in timing, inclusivity and influence. The findings suggest a continuing need for communication that is timely, transparent and dialogic, balancing structure with genuine opportunities for involvement.

These patterns highlight not only the methods through which change was communicated but also the limitations of those approaches, pointing to the influence of leadership in shaping both the style and effectiveness of communication during periods of organisational change.

4.2.3 Leadership and Communication in Organisational Change

Leadership and communication play a decisive role in shaping how staff anticipate, interpret, and respond to organisational change (Heyden et al., 2016). Effective communication can reduce uncertainty, foster trust, and support engagement, whereas inconsistent or poorly delivered messages may heighten apprehension or resistance. To understand how these dynamics were experienced during the introduction of NASC, the following section draws on a series of survey questions examining leadership, messaging, and staff sentiment. Responses to Question 7, which explored how employees feel when informed of significant workplace change, reveal considerable variation across both phases and provide an initial insight into the emotional climate surrounding organisational transformation. This is followed by analysis of Questions 8, 10 and 24, which shed light on expectations of training, perceptions of how the importance of NASC was communicated, and the influence of colleagues' views on staff attitudes. Together, these questions illustrate how communication and leadership practices shaped not only understanding of NASC but also individual and collective responses to its implementation.

Responses to question 7, which examined staff perceptions of leadership and communication during periods of significant workplace change, demonstrated considerable variation across both phases.

Question 7: How do you feel when you are informed there will be a significant change at work?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Apprehensive/anxious/ disheartened	10	9
Initially negative but in the end positive	7	—
Negative	4	—
no feeling / apathetic	—	3
Positive / hopeful	13	20
Depends on if I agree with the change	—	9
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Ambivalent	—	1
Apprehensive/anxious /disheartened	17	5
Apathetic / no feeling	4	—
Change is good	—	4
Depends on if I agree with the change	—	—
Depends on situation	—	4
Fine - if change is explained clearly well implemented	—	10
Hesitant but committed	—	2
Interested in what change will do for me and my organisation	—	6
No issues	—	8
Positive	18	—

Table. 4-13 Question 7 Responses Coded

Before training in Phase 1, participants expressed a wide range of reactions to workplace change. Thirteen described their feelings as generally positive or hopeful, while ten reported apprehension or anxiety. Seven participants indicated that although their initial response to change was negative, they eventually came to view it more positively. Four participants, however, expressed outright negative attitudes, and no one reported feeling neutral or indifferent.

After training, responses shifted toward greater acceptance and away from outright negativity. Eighteen participants reported feeling positive about change, representing a slight increase compared to pre-training. Seventeen still described themselves as apprehensive or disheartened, indicating that anxiety about change remained a significant concern even after training. Four participants said they felt no particular way about change, reflecting a move towards neutrality rather than negativity. Notably, no respondents post-training expressed an outright negative stance or conditional acceptance, suggesting that training may have reduced resistance and fostered a more open outlook toward workplace change.

After training in Phase 2, participants' attitudes towards workplace change showed some notable shifts compared to the pre-training responses. While pre-training data indicated that 20 participants felt generally positive or hopeful about change, post-training feedback reflected a more nuanced

emphasis on the conditions under which change was acceptable. Ten participants specifically stated that they were comfortable with change when it was clearly communicated and well executed, an attitude echoed in some pre-training responses but expressed more explicitly after training. The number of participants who said they had no issues with change in general fell from 20 in pre-training to eight post-training, suggesting a move away from broad optimism towards a more conditional acceptance. Curiosity about the outcomes of change increased slightly, with six participants expressing interest post-training compared to a smaller proportion who voiced similar sentiments before training. Rather than remaining consistent, these responses evolved in both number and tone. While nine participants pre-training said their reaction depended on whether they agreed with the change, four post-training expressed a similar conditional stance but framed it more broadly as depending on the situation. This shift suggests not simple continuity but a move towards greater flexibility and tolerance. Interestingly, hesitation coupled with commitment emerged in post-training responses, with four participants adopting this stance, a perspective not clearly evident before training. Feelings of uncertainty were reported by three participants post-training, a shift from the three who expressed apathy pre-training. Finally, the number of negative responses decreased slightly, from nine pre-training to five post-training, suggesting a modest reduction in resistance or anxiety towards change.

Question 8 explored staff expectations of training within Revenue.

In Phase 1, pre-training expectations for NASC varied, though the most common theme was a desire for training to enhance efficiency at work. Thirteen participants expressed this view, reflecting a pragmatic expectation that training should directly support their day-to-day tasks. A smaller group of four anticipated that the sessions would clarify the reasons behind NASC's introduction and strengthen their understanding of data management, while three foresaw potential difficulty in learning the system. At this stage, however, participants rarely referred to demonstrations, practice, or hands-on guidance. Their expectations centred more on understanding the idea behind the change and how it might improve processes, rather than on being shown how to apply it in practice.

Post-training in Phase 1 revealed a clear shift. Seventeen participants reported gaining a better understanding of NASC's purpose and rationale, demonstrating that training had addressed a gap that was not a strong focus before training but emerged as a valued outcome afterwards. Sixteen participants described the sessions as effective overall, with several praising the clarity of the delivery. Yet some limitations were also evident: two participants explicitly criticised the lack of practical training, and one felt the explanation of NASC was still inadequate. In addition, five

participants said they entered the training with little or no expectation. Rather than implying satisfaction, this may indicate uncertainty, limited anticipation, or a lack of clarity about what the training would involve.

Question 8: What are your expectations of the NASC training, or did it meet your expectations?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Difficulty learning about NASC	3	—
A more efficient way of working / to benefit my work	13	2
Improved understanding of NASC	—	22
Low expectation - poor explanation of rationale for introduction of NASC received pre training	—	1
No expectations/ limited expectations	—	9
Expectation of better understanding of reasons behind introduction of NASC / expectation of better understanding of data management and manipulation	4	1
Expectation that training should be effective	—	6
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Haven't had training yet	—	4
Improved understanding of NASC / better understanding of reasons behind introduction of NASC	17	—
Limited expectations / no expectations	5	—
No, needs to be more practical	2	2
Somewhat, still not confident	—	3
Somewhat, training was good but had to self-learn a lot	—	1
Yes, multiple ways to learn	—	2
Yes, training was effective, practical, demonstrative, clear and informative	16	24
No - poor explanation of rationale or NASC	1	—

Table. 4-14 Question 8 Responses Coded

The Phase 2 pre-training picture was notably different. Here, expectations were more explicitly knowledge-oriented: twenty-two participants said they hoped to gain a clearer understanding of NASC, by far the most common theme and a stronger emphasis than in Phase 1. Nine reported having limited or no expectations, while only a few pointed to more specific goals such as improving data management skills or ensuring that training would be effective. The weight placed on improving understanding suggests that participants in this phase were seeking greater conceptual clarity, perhaps reflecting earlier weaknesses in communication about NASC itself.

After training in Phase 2, responses were both more positive and more diverse. Twenty-four participants described the Phase 2 sessions as practical, clear, and informative. This suggests that the training was perceived as more usable and accessible than in Phase 1, though the data does not specify whether this involved hands-on learning or simply clearer delivery. Several participants

highlighted the value of having demonstrations, online resources, and opportunities for self-directed learning, suggesting that the adjustments made to the training were effective and responsive to learner needs. Nonetheless, challenges remained. Although four participants reported that they had not yet attended the training, this likely reflects the staggered rollout of sessions or the timing of the post-training data collection, rather than a flaw in the training design itself.

When viewed collectively, the data suggest a progression across phases. In Phase 1, expectations were shaped by efficiency and a general hope for greater clarity, with post-training outcomes revealing an increased appreciation for understanding NASC's rationale. In Phase 2, expectations became more explicitly knowledge-focused from the outset, and post-training feedback indicated that sessions were experienced as more practical and varied in their delivery. This shift may reflect improvements in how information about NASC was communicated from senior levels prior to training. Despite these advances, a recurring theme across both phases was the desire for more hands-on, confidence-building opportunities, underscoring the importance of embedding applied learning at the heart of training design.

Perceptions of how the importance of NASC was explained in response to question 10 also varied.

In Phase 1, pre-training responses painted a relatively positive picture of communication about NASC, with sixteen participants stating that the system's importance had been well communicated. This suggests that, at least for a majority, the pre-implementation messaging had reached its intended audience. However, the fact that five participants explicitly described communication as poor, alongside others who felt that concepts and terminology were not always explained clearly, indicates an inconsistency in how this messaging was delivered or received.

Post-training in Phase 1, the narrative shifted slightly but did not resolve these disparities. While fifteen participants reported that the benefits of NASC had been explained to them, ten directly attributed this understanding to the training sessions themselves, implying that pre-training communication alone was insufficient. Yet six participants still reported receiving no clear explanation of NASC's purpose even after training, signalling a persistent communication gap. This is further complicated by the fact that five participants said they had learned about the system primarily through team meetings, and only four described the communication as clear. These findings hint at an over-reliance on informal or ad hoc channels to fill in knowledge gaps, channels that, while potentially effective for some, appear not to have reached or resonated with all staff.

Question 10: In what way has the importance of NASC been explained to you?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Benefits explained / knowledge retention, sharing and group work	—	9
Good communication / good explanation	16	2
No explanation / little explanation	—	7
Poor communication	5	—
Through training	—	5
Formal explanation / formal communication	—	5
Through high level explanation	—	1
Information forums/information storage	—	3
NASC is initially problematic but ultimately valuable	—	1
Verbally	—	4
NASC is very important for Revenue	—	3
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Emails and meetings	5	5
Good explanation / in a clear manner	4	2
How it can benefit individual / benefits explained	15	1
It hasn't gotten buy in	—	2
No / little explanation	6	11
Response to knowledge management info sharing issue	—	10
Through training and info session	10	10
Verbally	—	1
Top-down communication	2	—

Table. 4-15 Question 10 Responses Coded

The Phase 2 pre-training picture was notably less positive. Here, seven participants reported receiving little or no explanation of NASC, a higher proportion than in Phase 1. Nine participants described the system's importance in terms of knowledge sharing and collaboration. One participant criticised the explanation as being pitched at too high a level, and several described it as vague or insufficient. This suggests not just a lack of information, but an issue of accessibility and relevance: information may have been technically provided, but not in a way that staff could readily connect to their day-to-day work.

Post-training in Phase 2 illustrated some improvement, but also revealed striking parallels to Phase 1. Ten participants stated that the training sessions clarified the system's value, echoing Phase 1's finding that training often played a remedial communication role. Ten also reported understanding NASC's role in addressing issues around information sharing and knowledge management, suggesting a clearer functional understanding than in Phase 1. However, the persistence of eleven participants who still reported little or no explanation of NASC's purpose is telling. Even with structured training, a substantial segment of staff remained unclear on the rationale behind the

system, raising questions about the depth and tailoring of the training content. Across both phases, the pattern is remarkably consistent: a reliance on training sessions to fill in communication gaps, a continuing minority who remain unconvinced or uninformed, and a dependence on a patchwork of secondary communication channels such as team briefings and emails.

Responses to Question 24, which captured colleagues' broader views of NASC, also appeared to shape how staff perceived the effectiveness and clarity of communication.

Question 24: What have you heard from colleagues about NASC?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Negativity - difficult to use	7	5
No choice, must adapt to it	4	—
Not much/ no feedback received	6	16
Positivity - easy to use / beneficial	9	13
It's a new file storage system	—	3
Useful	4	—
Neutral	—	1
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Difficult to use, negative	9	5
Initial difficulty, now improved	—	2
Uncertainty	8	—
It's beneficial / positive / easy to use	19	9
Mixed response	—	4
Neutral	—	—
No different from shared drive	—	3
Not much / no feedback received	7	11

Table. 4-16 Question 24 Responses Coded

In Phase 1, pre-training impressions of NASC gathered through colleagues were divided. Nine participants reported hearing positive feedback, often describing the system as easy to use or beneficial, while seven recounted more negative views that highlighted difficulties in navigation. A smaller number characterised NASC as simply useful (four participants) or noted that its introduction left staff with no choice but to adapt (four participants). Six participants reported receiving little to no feedback at all, suggesting that for some, colleague discussions had not played a significant role in shaping expectations of the system.

Following training in Phase 1, colleague perspectives were more commonly reported in positive terms. Nineteen participants said they had heard favourable feedback, more than double the pre-training figure. At the same time, negative views persisted, with nine still recalling that colleagues found the system difficult to use. Uncertainty also featured strongly: eight participants described

their colleagues as unsure about NASC, and seven said they had received no meaningful feedback. This suggests that while training may have reinforced positive perceptions, it did not fully resolve ambiguity or eliminate doubt.

The pre-training picture in Phase 2 differed in emphasis. Thirteen participants reported hearing positive views, while five described colleagues' experiences as negative. However, the most common theme, cited by sixteen participants, was that they had heard little or nothing about NASC from others. A few noted that colleagues regarded the system neutrally, or compared it to existing shared drives, implying that some saw limited novelty in its introduction.

Post-training in Phase 2, feedback was more varied and less consistently positive than in Phase 1. Nine participants reported hearing positive opinions, while five described negative ones. Four characterised the feedback as mixed, and eleven said they had still heard little from colleagues, echoing the muted pre-training picture. Some participants did note that colleagues' views shifted over time, with initial difficulties giving way to more favourable experiences, though this was only mentioned by a small number.

In summary, the findings suggest that while training tended to amplify positive colleague feedback, especially in Phase 1, it did not erase criticism or uncertainty. In Phase 2, the most striking feature was the prevalence of limited or absent discussion about NASC, both before and after training, indicating that in some teams, the system had not yet become a topic of sustained peer-to-peer conversation. Across both phases, word-of-mouth endorsement appeared to matter, but its influence was inconsistent and often tempered by silence, uncertainty, or mixed views. These varied impressions of NASC, shaped both by training and by colleagues' word-of-mouth feedback, provide an important backdrop for understanding broader patterns of resistance, engagement, and user adoption.

4.2.4 Resistance, Engagement, and User Adoption

Resistance and engagement are critical indicators of how effectively organisational change is received by staff (Oreg et al., 2011). While some participants embraced NASC as a tool for improving communication and information sharing, others expressed apprehension, stress, or uncertainty about its value. To explore these dynamics in detail, the following subsections examine staff responses to four key questions: their experiences of stress when using NASC or adapting to change (Question 2), their perceptions of whether NASC would improve or limit their work (Question 5), the

skills they hoped to develop or reported improving during training (Question 9), and the ways they anticipated and ultimately applied NASC in their daily practice (Question 23). Together, these insights highlight both the opportunities and challenges involved in fostering meaningful engagement with new systems.

Stress and apprehension emerged as consistent themes in response to question 2.

Question 2: When I am informed of a change of plans, I tense up a bit/When you use NASC do you feel any stress?

	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Strongly agree	1	1
Somewhat agree	12	12
Neither Agree nor Disagree	8	9
Somewhat disagree	2	11
Strongly Disagree	7	5
	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Strongly agree	17	17
Somewhat agree	15	15
Neither Agree nor Disagree	4	4
Somewhat disagree	2	2
Strongly Disagree	1	1

Table. 4-17 Question 2 Responses Coded

The responses to Question 2 show a notable shift in participants' experiences of stress from the pre- to post-phases across both Phase 1 and Phase 2. In Phase 1 pre training, most participants leaned toward agreement, with 12 of 31 respondents somewhat agreeing and 1 strongly agreeing that they feel tension when plans change. A smaller number disagreed (2 somewhat disagree, 7 strongly disagree), while 8 remained neutral. Following the intervention, there was a marked increase in the number of participants reporting stronger agreement: 17 strongly agreed and 15 somewhat agreed, indicating that post-intervention, participants were more aware of or more likely to report feeling stress when plans changed. Neutral and disagreement responses decreased, with only 4 neutral, 2 somewhat disagree, and 1 strongly disagree.

In Phase 2 a similar trend was observed. In the pre training responses were heavily clustered around agreement (12 somewhat agree, 1 strongly agree), with 9 neutral and 16 disagreeing to some degree. In the post training, the number of participants reporting strong agreement increased to 17, with 15 somewhat agreeing, mirroring Phase 1 results. Neutral and disagreement responses dropped sharply to 4 neutral and 3 combined disagreement responses (2 somewhat disagree, 1 strongly disagree).

Across both phases, post-intervention data show a clear shift toward agreement that using NASC or encountering changes in plans induces stress. One possible explanation is that training increased staff knowledge of how NASC functioned and, in turn, heightened their awareness of the system’s potential impact on their work practices. This may have made the scale of change feel more tangible, contributing to stronger reports of stress. The increase in “strongly agree” responses suggests heightened awareness or acknowledgment of stress following the intervention. Phase 1 and Phase 2 follow remarkably similar patterns, indicating consistency in the impact or perception across groups.

When asked whether NASC would limit or improve their work in question 5, respondents were broadly positive.

Question 5: Do you feel that your work will be limited or improved by NASC? Why?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Improved, improved communication, easier to find/share info	34	32
Limited	4	4
Neither	0	1
Unsure / Don’t know what NASC is	0	5
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Improved	19	—
Improved (easier to find/share info)	12	23
Improved once trained properly	—	4
Improved communications	9	—
Limited	0	8
Neither (no change)	2	6
Unsure	1	0

Table. 4-18 Question 5 Responses Coded

In Phase 1, pre-training responses suggested that most participants expected NASC to improve their work. Seventeen participants described general improvements, while fourteen specifically pointed to enhanced communication as the main benefit. A smaller group of three anticipated that it would make information easier to locate and share. Four participants, however, expressed concern that the system might limit their work. Notably, no one reported being unsure about NASC at this stage, indicating that at least a basic awareness of the system was already established.

Following training in Phase 1, the number of participants reporting that NASC would improve their work rose slightly, from seventeen to nineteen. More strikingly, the number highlighting easier information sharing as a key benefit increased from three to twelve, suggesting that training helped participants better appreciate this functionality. By contrast, those citing improved communication

declined from fourteen to nine, despite the larger post-training sample. Importantly, no participants in this phase reported that NASC would limit their work, and only one expressed uncertainty, indicating that training had broadly reinforced positive perceptions of the system.

The pre-training picture in Phase 2 showed even stronger expectations of benefit. Thirty-two participants anticipated that NASC would improve their ability to find and share information, making this the dominant theme. In contrast to Phase 1, however, five participants said they were unsure what NASC was, pointing to uneven communication about the system prior to training. Four others suggested that NASC might limit their work, although they did not provide detailed reasons.

Post-training in Phase 2, participants continued to report improvements in information sharing, with twenty-three emphasising this point. Four added that these benefits only became evident once they had been properly trained, highlighting the importance of hands-on instruction. At the same time, some concerns emerged. Eight participants now reported that their work would be limited by NASC, while six others said the system made little or no difference to their work. Although the majority still recognised its value, these responses suggest that for some, the training experience did not fully resolve doubts about NASC's practical impact.

Altogether, findings from both phases indicate that training consistently strengthened participants' recognition of NASC's role in supporting information sharing. However, while concerns about limitations disappeared after training in Phase 1, they re-emerged more prominently in Phase 2, suggesting that perceptions of NASC's value remained uneven across contexts.

Question 9 asked participants about their skills expectations and outcomes and their responses were mixed.

In Phase 1 pre-training, the majority of participants, fifteen in total, expressed a clear desire to deepen their understanding of the NASC system. A small group of three indicated an interest in enhancing their general IT skills. Strikingly, no participants in this phase referred to communication, leadership, or broader soft skills, suggesting that expectations were narrowly focused on technical competence rather than interpersonal or organisational development.

Post-training in Phase 1, twelve participants reported that their understanding of NASC had improved, and ten felt that their IT skills had developed as a result of the training. However, the largest single group, sixteen participants, stated that they had not improved in any skill area, or implied that they no longer perceived a need to do so. This could reflect genuine satisfaction with

their existing skill levels, but it might also indicate that the training was perceived as reinforcing existing knowledge rather than extending it. Another possibility is that the structure of the training, while informative, may not have explicitly signposted opportunities for skill development beyond the core system functionality.

Question 9: What skills would you like to improve, or did you improve during NASC training?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Better IT skills / search functions	3	7
Better understanding of NASC	15	8
Better organisational skills	—	10
Ease of data manipulation	—	4
Knowledge	—	1
No need to improve skills	—	2
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Better understanding of NASC	12	8
Change management communication	—	2
Didn't receive training	—	3
No need to improve skills / none	16	16
Patience, mindset improvement	—	2
Search function, IT skills	10	6
Understanding of Revenue	—	1

Table. 4-19 Question 9 Responses Coded

Phase 2 pre-training responses revealed a broader and more varied set of development goals than in Phase 1. Ten participants expressed a desire to enhance their organisational skills, eight wished to improve their understanding of NASC, and seven focused on IT or data-related competencies. Interestingly, two participants stated that they had no particular skills they wished to develop, which could reflect either confidence in their current capabilities or uncertainty about the potential scope of the training.

Following the Phase 2 training, eight participants reported that their understanding of NASC had improved, and six indicated that they had enhanced their search function and general IT skills. However, as in Phase 1, a significant proportion, sixteen participants, stated that they had not experienced any improvement, or had not expected to. This recurring pattern across both phases could point to a training model that consolidates existing knowledge more than it extends it, or to a mismatch between participant expectations and training content. Notably, Phase 2 also elicited more diverse post-training outcomes: some participants cited improvements in patience and mindset, signalling a recognition of behavioural or attitudinal change as a form of skill development, while three reported that they had not yet received training.

Taken together, the findings suggest a subtle but important shift between the two phases. Whereas Phase 1 participants approached the training with a narrowly defined, technical focus, Phase 2 respondents displayed a broader awareness of both technical and organisational skill development opportunities. Despite this, there was little difference between the post-intervention responses in both phases. A substantial portion of participants concluded that no skill improvement was required or achieved, raising questions about how skill development objectives are communicated, measured, and reinforced within NASC training.

Staff were asked how they would apply NASC in question 23.

Question 23: How will you apply NASC to your work?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Daily	—	3
Improve skills	—	3
Easier to share and find information / information and document sharing	22	23
No impact, not suitable for case working	—	6
Unsure	—	4
Will not apply NASC	2	—
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Carefully once I understand it	2	—
File storage	—	2
For case working	—	1
Group collaboration	9	10
Security of sensitive material	1	—
Information and document sharing / easier to share and find information / saving documents for sharing	23	25
No application	—	3
Storage	1	—
Not sure, will decide as I get more familiar with NASC	—	3
Research	—	4
Will not apply NASC	3	—

Table. 4-20 Question 23 Responses Coded

In Phase 1, before training, the dominant anticipated use of NASC was clear: twenty-two participants expected it to help them find and share information more easily. Only two said they would not apply the system at all, and very few mentioned collaboration or file storage as likely uses, suggesting a relatively narrow view of its potential.

After training, the picture broadened slightly. Twenty-three respondents confirmed they would indeed use NASC for finding and sharing information, virtually the same number as before, but new

patterns emerged. Nine participants now planned to use it for collaboration, and some began to see its potential for secure file storage. Nevertheless, three participants remained resistant, saying they would not apply it, indicating that training did not completely shift all attitudes.

Phase 2 began with a somewhat wider scope of anticipated use even before training. Twenty-three participants saw NASC as a tool for document sharing and collaboration from the outset, a broader application than in Phase 1's pre-training stage. Six indicated it would not be relevant to their case working, while a small number imagined daily use or skills improvements. Four were unsure how they would apply the system, reflecting a mix of curiosity and uncertainty.

Post-training in Phase 2, uptake and diversification of use became more pronounced. Twenty-five participants reported using NASC for saving and sharing documents, and ten highlighted its value in group collaboration. Three participants still rejected its application, while another three had yet to decide. Interestingly, one participant noted its usefulness in case working, an application absent from earlier responses. Overall, the post-training feedback in Phase 2, like Phase 1, revealed an expansion in the perceived and actual applications of NASC, but the change was more marked here, with collaboration and broader functionality featuring more strongly.

Across both phases, the most consistent pattern is that training consolidated the use of NASC for information sharing. more participants were also prompted to identify additional uses such as collaboration, file storage, and, in rare cases, case work. Resistance was concentrated among a minority of participants who, in both phases, remained unconvinced of NASC's value even after training.

These patterns highlight not only how staff perceived NASC's impact on their daily work, but also the extent to which training design and delivery shaped those perceptions, making it important to consider the approaches used to build capacity and support learning.

4.2.5 Training Design, Learning Approaches, and Capacity Building

Training plays a central role in shaping how staff engage with new systems and in determining the sustainability of organisational change (Holmes, 2020). The design and delivery of NASC training influenced not only participants' understanding of the system but also their perceptions of skill development, confidence, and capacity to apply it in practice. The following analysis considers staff perspectives across several dimensions: whether they felt they had clear expectations for the training and subsequent use of NASC (Question 1), their confidence in possessing the skills needed to make the system work (Question 3), their preferred approaches to learning new skills (Question

17), their views on the effectiveness and relevance of online training modules (Questions 19 and 20), and the role of prior public service experience in shaping training outcomes (Question 25). Together, these findings provide insight into how training approaches supported capacity building, while also revealing persistent limitations in adoption.

Question 1 revealed that staff had clear expectations for NASC.

Question 1: Do you think you have clear expectations for the NASC training course/Following training do you have clear expectations for how you can use NASC?

	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Yes	26	26
No	5	12
	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Yes	34	28
No	5	11

Table. 4-21 Question 1 Responses Coded

Responses to Question 1 indicate that participants’ clarity of expectations for NASC training remained largely unchanged before and after the intervention. In the pre-training surveys, the majority in both phases responded “Yes,” with 26 participants in Phase 1 and 26 in Phase 2 indicating that they felt they had clear expectations. Levels of uncertainty were slightly higher in Phase 2, where 12 participants responded “No” compared with 5 in Phase 1. Post-training, the number of participants reporting unclear expectations remained consistent in Phase 1 (5) and showed only a minimal decrease in Phase 2 (11), suggesting that the training had little impact on participants’ clarity of expectations. Overall, these findings indicate that while staff largely began with a baseline understanding of what to expect from NASC training, the intervention did not substantially alter perceptions of clarity.

Question 3 asked participants to rate their perceived ability to use NASC effectively.

The pre-training findings for question 3 reveal important differences between the two phases. In Phase 1, participants were divided, with the largest group somewhat agreeing that they had the skills necessary to make NASC work (12), while others remained neutral (8) or expressed some level of disagreement (9 in total). Only one participant strongly agreed, indicating limited confidence in advance of training. In Phase 2, while a similar number somewhat agreed (12) or were neutral (9), there was a noticeably higher level of disagreement (16 compared with 9 in Phase 1). The higher

number of participants expressing disagreement in Phase 2 may reflect the larger sample size rather than a greater level of uncertainty or scepticism compared with Phase 1.

Question 3: I have the skills that are needed to make NASC work.

	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Strongly agree	1	1
Somewhat agree	12	12
Neither Agree nor Disagree	8	9
Somewhat disagree	2	11
Strongly Disagree	7	5
	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Strongly agree	17	17
Somewhat agree	15	15
Neither Agree nor Disagree	4	4
Somewhat disagree	2	2
Strongly Disagree	1	1

Table. 4-22 Question 3 Responses Coded

After training, both phases converged on a very similar pattern of responses, demonstrating the impact of the training intervention. In each phase, the majority strongly agreed (17) or somewhat agreed (15) that they now had the skills necessary to make NASC work. Neutral responses were low (4 in both phases), and disagreement was minimal (3 in each phase). This indicates that while more Phase 2 participants entered training with greater doubt, their post-training perceptions aligned almost exactly with those of Phase 1 participants. The improvement in Phase 2 is particularly significant given the higher level of initial scepticism, and suggests that refinements made to the training design, such as a stronger focus on usability and tailored end-user support, were effective in enhancing clarity and building confidence.

Question 17 indicated that preferences for learning approaches consistently favoured practical methods.

In Phase 1 before training, most staff made it clear that learning by doing was their preferred route to building new skills. Twenty-one participants favoured practical, hands-on approaches, with a smaller group, six participants, leaning towards mentoring. Five preferred more traditional teacher-led instruction, and three liked step-by-step guidance. Online learning barely registered, with just one mention, and no one chose fully self-directed methods.

After training in Phase 1, the appetite for practical, hands-on learning remained strong, with twenty-six participants continuing to prioritise this approach. Sixteen also highlighted the value of blended formats that combined face-to-face or online training with mentoring, while five mentioned demonstration as a useful method. Other options, such as reference guides or simply personal interest, were mentioned only occasionally.

Question 17: What is the best way for you to learn a new skill?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Demonstration	—	2
Post training support	—	7
Mentoring	6	—
Online	1	—
Practical / self-learning	21	26
Step by step clear instructions	3	—
Teacher led	5	—
Training / face to face/ online / mentoring	—	27
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Demo	5	5
Depends on skill, different skills require different methods	—	1
Interactive presentations	—	1
Practice and self-learning	26	26
Training _ face to face, online, mentoring	16	16
Having interest in skill	2	—
Reference guide	1	—

Table. 4-23 Question 17 Responses Coded

What is particularly noteworthy, however, is the emergence of a clear appetite for online learning, which had not featured strongly in pre-training responses. This shift may reflect participants' increased exposure to digital platforms during the training process itself, which familiarised them with online resources as viable tools for learning. It may also signal a growing recognition that online formats offer flexibility and accessibility, particularly in busy work environments where scheduling in-person sessions can be difficult. In this sense, while training did not alter participants' fundamental preference for hands-on learning, it broadened their appreciation of complementary approaches, with online delivery gaining traction as a practical and scalable option.

The dominance of experiential learning remained evident in Phase 2, but with some added nuance. Twenty-seven participants favoured a blend of face-to-face or online instruction with mentoring, and twenty-six highlighted practice and self-learning as their preferred method. Seven emphasised

the importance of post-training support, a pattern that may reflect timing-related factors, including COVID-19 restrictions, which increased reliance on online and independent learning approaches.

Following training in Phase 2, the commitment to practical application was as strong as ever. Twenty-six participants highlighted self-learning and practice as their top methods, with sixteen maintaining that formal training, whether face-to-face, online, or blended, remained valuable. Demonstration, mentoring, and flexible learning formats continued to feature, while passive, lecture-style learning drew little enthusiasm.

What this means in practice is that, regardless of the phase or timing of the training, staff showed a strong and consistent preference for methods that allowed them to *do* rather than simply *listen* or *observe*. Activities such as hands-on exercises, demonstrations, and opportunities to apply NASC directly to real work tasks were consistently rated more valuable than abstract explanations, written materials, or generic presentations. Even when participants began to acknowledge additional formats, such as blended approaches, mentoring, or self-directed learning, these were typically seen as supplements rather than replacements for practical experience.

Within this broader picture, online learning gained some traction, particularly after training exposed staff to digital platforms as part of the learning process. This did not displace the desire for in-person, practice-based methods, but it did highlight the appeal of online tools as flexible, accessible complements, especially for reinforcing skills, catching up on missed content, or learning at one's own pace. In other words, training broadened the range of delivery methods staff recognised as useful, but it did not fundamentally shift their belief that effective learning depends on active participation and real-world application.

Questions 19 and 20 showed that perceptions of online training were mixed.

In Phase 1 before training, opinions on the general online training modules available in Revenue were mixed, with a clear divide between appreciation and indifference. Of the 31 participants, just under half (15 participants) described the modules as positive or good, but this optimism was tempered by pockets of disengagement. Four admitted they did not use online platforms at all, another four felt the training needed improvement, and three expressed a preference for classroom-based learning. The tone suggested that while some saw value in the modules, others were either disconnected from or unconvinced by the format.

Question 19: What do you think of the online training modules available to you through Revenue?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Beneficial, especially to refer to	—	1
Classroom is better	3	—
Don't use online learning platforms	4	—
Could include more soft skills	—	1
Difficult to navigate without help	—	1
Generic, needs to be Division specific	—	3
Need improvement	4	—
Like having several options	—	6
Like the flexibility	—	1
Positive or good	15	26
Need to be able to schedule time for training	—	1
Not enough courses available	—	2
Recordings need improvement	—	1
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Accessible	1	—
Effective	2	—
Dependant on style of module, some are boring	—	2
Little exposure to online training modules	6	—
Learner driven / tailored to higher grades	1	1
Negative or poor	5	—
Prefer more face-to-face modules	3	—
Missing the element of social networking and mentoring	—	2
Need to be able to schedule time for training	—	2
Needs proper resourcing	—	1
Never accessed / little time to access	—	2
Not beneficial	—	2
Not enough courses available	—	1
Not relevant to my role / need more relevant topics	1	2
Positive / relevant	28	24
Recordings need improvement	1	—
Very little experience	—	4

Table. 4-24 Question 19 Responses Coded

After training in Phase 1, the mood shifted more firmly in favour of the online modules. Out of 39 respondents, 28 described them positively, marking a notable increase in approval. However, the enthusiasm was not universal. Six participants had limited exposure to online training, and five were openly critical, labelling the modules as poor. Some questioned their relevance, particularly for those in lower grades, or noted that online resources were rarely used. A handful still preferred face-to-face training, signalling that digital delivery was far from a one-size-fits-all solution.

In Phase 2 before training, engagement with online training modules appeared somewhat stronger, and feedback became more specific. Of the 39 participants, 26 described the modules as positive, with six highlighting the flexibility and choice they offered. At the same time, three found the content too generic, one noted the absence of soft skills training, and another felt the platform was difficult to navigate without support. A few valued the modules as a useful reference tool rather than a primary source of learning, hinting at varied patterns of use.

Post-training in Phase 2, positivity remained, but cracks in satisfaction persisted. Twenty-four respondents still praised the modules, yet several recurring issues resurfaced. Two said the content was not beneficial, two more said it was irrelevant to their roles, and a few lamented the lack of mentoring or networking opportunities inherent in online formats. Others felt the recordings needed improvement or admitted to having very little experience with the modules. Some noted that limited time, lack of exposure, or role-specific irrelevance reduced their usefulness. While a majority maintained favourable views, a consistent minority continued to face barriers, whether through disengagement, access issues, or a mismatch between content and need.

Across both phases, participants' views of online training modules were mixed. While a majority found the modules valuable and relevant, a consistent minority remained sceptical or disengaged. Training increased overall approval, but it did not fully resolve concerns about the relevance of content, ease of access, or preferred learning formats. As a result, online modules were a flexible and useful resource for some staff, but for others they remained underutilised or peripheral to their learning.

Building on participants' perceptions of existing online modules, Question 20 asked staff to suggest ways in which Revenue's online training could be improved.

Before training in Phase 1, participants were quick to pinpoint areas where online training could be strengthened. Of the 31 respondents, eleven favoured blended and self-directed learning options, reflecting a desire for greater choice and autonomy. Five wanted the training to be more accessible, and another five stressed the need for more practical, real-world content.

After training in Phase 1, feedback became sharper and more targeted. Four participants called for stronger alignment between online and face-to-face sessions, while others pushed for richer practical elements and a broader range of topics. Some wanted training tailored to individual needs or better suited to varied learning styles, and there was growing interest in interactivity and flexibility. Seven respondents, however, declared no changes were needed, signalling that

satisfaction had grown in some quarters. Additional suggestions included introducing more challenging or interactive content, providing supportive materials such as handouts or short refresher courses, and allowing dedicated time during working hours for training, a clear nod to the reality that even the best resources need space in the schedule to be used effectively.

Question 20: In what ways could online training delivered by Revenue be improved?

Theme	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Better links to guidance	—	2
Blended and self-directed options	11	
Make more specific	—	3
More accessible	5	
Blended options	—	1
Include video	—	5
Look for participant feedback	—	1
More practical / more practicality	5	5
Make training mandatory	—	1
More breakout sessions	—	2
No improvement necessary	1	
More flexibility	—	8
Theme	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Archives of classes for reference	—	1
Aligned with face-to-face training	4	—
More accessible	3	—
More challenging and more interactive	3	—
More choice	3	—
More choice for people with additional needs / more tailored to needs	4	—
More support via handouts, refresher course, short courses to dip in and out of	4	—
Time to undertake during working hours	1	—
Include practical elements	5	—
More user friendly, more interactive functionality	—	7
No improvement necessary	7	3
Organisation needs to prioritise training	—	6
Replicate in person chemistry	—	4
Short, real-time, more frequent	—	7
Unsure	—	4

Table. 4-25 Question 20 Responses Coded

In Phase 2 before training, the ideas for improvement were more varied. Eight respondents asked for greater flexibility, while five sought more practical features. Video content was a popular request, also named by five participants, alongside calls for breakout sessions and more user-friendly designs. Several wanted training to be more tailored, either by division or by individual need, and a few went further, suggesting it be made mandatory. While some training in Revenue is

heavily encouraged, it is not mandatory. Two participants proposed stronger links to guidance materials, and others recommended shorter blended modules and a stronger role for participant feedback in shaping content.

Post-training in Phase 2, the emphasis shifted again, with usability and engagement taking centre stage. Seven participants said the training should be more user-friendly and interactive, and another seven asked for more frequent but shorter sessions to keep learning focused and manageable. Six argued for the organisation to prioritise training more formally, embedding it as a recognised part of work rather than an optional extra. A recurring theme was the desire to replicate the “chemistry” of in-person learning, suggesting that online formats still struggled to deliver the same relational or supportive atmosphere. Only three participants saw no need for change, underscoring that while satisfaction existed, it was far from universal.

Across both phases, the story is consistent: while participants broadly saw the value in online training, they repeatedly pushed for it to be more flexible, practical, and engaging. Training highlighted persistent gaps, particularly around interactivity, alignment with face-to-face formats, and the ability to recreate the human connection that makes in-person learning so effective.

Question 25 captures participants’ length of service in public service, providing context for understanding how experience levels might influence training needs and engagement with NASC.

Question 25: How many years do you have in public service?

	Phase 1 Pre (N=31)	Phase 2 Pre (N=38)
Less than 10 years	5	13
11 to 20 years	6	13
21 to 30 years	5	8
31 years or more	3	4
Blank	12	0
	Phase 1 Post (N=39)	Phase 2 Post (N=39)
Less than 10 years	13	11
11 to 20 years	11	11
21 to 30 years	9	7
31 years or more	6	10
Blank	0	0

Table. 4-26 Question 25 Responses Coded

The responses to Question 25 provide insight into the range of staff experience across both phases of the survey. In Phase one pre training, responses were somewhat limited by missing data, with 12 of 31 participants leaving the question blank. Among those who did respond, the distribution of

experience was relatively even across categories, with small groups in each bracket. In the post-phase, no responses were left blank, and the distribution shifted upward: more participants reported fewer than 10 years of service (13), while larger numbers also indicated longer service, particularly 11–20 years (11) and 21–30 years (9), with 6 reporting over 31 years.

In contrast to Phase 1, all participants in Phase 2 provided responses in both pre- and post-training surveys. Pre-training data in Phase 2 showed a broad spread, with the largest groups having less than 10 years (13) or 11–20 years (13) of service. Smaller numbers reported 21–30 years (8) or 31 years or more (4). Post-training Phase 2 results remained similarly distributed, though there was a slight increase in those with more than 31 years of service (10 compared to 4) and a reduction in the less than 10 years category (11 compared to 13).

The response patterns across both phases requires explanation. Both phases demonstrate a wide range of public service experience among participants. Phase 1 was limited by a high proportion of missing responses pre-phase, while Phase 2 data were more complete. Post-phase results in both groups suggest greater representation of longer-serving staff, though it is important to note that, due to the anonymous nature of the survey, it is not possible to determine whether the same individuals responded at both time points. The apparent shifts in experience brackets may therefore reflect differences in response patterns rather than actual changes in participant experience.

4.2.6 Evaluating Change Success

As outlined in the preceding sections, staff responses to a series of survey questions were collected to evaluate the impact of NASC training. For clarity, the questions themselves have already been presented in the tables above. The following discussion draws on participants' quantitative ratings and qualitative feedback across these items to examine patterns in clarity, confidence, perceived usefulness, skill development, engagement, and the application of NASC in practice. By referencing both the questions and the associated responses, this analysis integrates measurable outcomes with staff experiences to provide a comprehensive assessment of change success.

Evaluating the success of organisational change requires moving beyond surface-level adoption metrics to consider how staff experience and interpret new systems in practice (Beatty, 2015). While the survey data from both phases of NASC training, particularly responses to Question 1 (clarity of expectations), Question 3 (self-assessed skills), and Question 5 (perceived impact on work), indicated measurable improvements in clarity, confidence, and perceptions of usefulness, these gains were not unqualified. Persistent concerns about stress (Question 2), scepticism, and uneven

communication complicate the overall picture and point to the limits of relying solely on quantitative outcomes. This section therefore assesses the success of the NASC implementation not only by looking at measurable adoption rates but also by considering staff experiences, perceptions, and engagement, as captured in Questions 9, 17, 19, 20, and 23, providing a more comprehensive understanding of how change was received.

Across both phases, survey results demonstrated a clear upward shift in positive perceptions following training. Staff increasingly recognised NASC's potential for knowledge sharing, collaborative work, and improved efficiency, as reflected in Question 5 (perceived improvement in work) and Question 23 (intended application to work practices). This was reflected in higher levels of agreement on survey questions such as Question 3 (skills confidence) and a general strengthening of confidence in the system's value. On the surface, such findings suggest that the training achieved its core objectives: enhancing awareness, building competence, and positioning NASC as a useful tool in everyday work practices. From a traditional change management perspective, these outcomes would be considered markers of success.

However, a closer analysis of qualitative feedback reveals a more nuanced reality. Many participants described heightened stress when adapting to NASC (Question 2), a sense of exclusion from decision-making, or uncertainty about how the system aligned with their specific roles. In both phases, small but significant groups of staff reported feeling unconvinced about the system's benefits or resistant to adopting it in practice (Questions 9 and 23). These perspectives highlight that change success is not uniform across an organisation; rather, it is shaped by differences in communication quality, role relevance, and individual attitudes toward change.

Importantly, the discrepancy between quantitative improvements and qualitative reservations underscores the risk of over-relying on numerical indicators of adoption. While survey scales captured increases in clarity (Question 1) and confidence (Question 3), they did not adequately reflect the persistence of conditional acceptance, where staff recognised potential benefits but remained cautious about fully embracing NASC (Questions 2, 9, 17, 19, 20). In this respect, qualitative data adds critical depth, illustrating the underlying barriers, such as stress, perceived lack of consultation, uneven capacity building, or limitations in online training design, that may inhibit long-term and sustainable adoption.

When viewed collectively, the findings from Questions 1, 2, 3, 5, 9, 17, 19, 20, and 23 suggest that NASC training achieved partial but not complete change success. The system was broadly accepted and understood, yet staff experiences of the process were uneven, and engagement remained

fragile in certain contexts. This indicates that evaluating change success requires a holistic approach, one that integrates performance indicators with end-user perspectives. Only by acknowledging both the measurable outcomes and the lived experiences of staff can organisations gain an accurate understanding of whether change is embedded, sustainable, and aligned with broader cultural and operational goals.

Moreover, considering Question 25 (years of public service) highlights that staff experience levels varied widely, which may influence both confidence in using NASC and openness to adopting new ways of working. Recognising these demographic factors provides additional context for understanding the uneven patterns of engagement and adoption observed across the two phases.

4.2.7 Conclusion – general trends in end user findings

Across both phases, the end-user surveys revealed several consistent patterns in how staff engaged with NASC and its training. First, attitudes toward change and new systems were generally positive, though often tempered by apprehension, conditional acceptance, or uncertainty. Training was shown to play a crucial remedial role, strengthening confidence, clarifying the rationale behind NASC, and increasing awareness of its benefits, particularly in relation to information sharing and knowledge management. However, training alone did not eliminate resistance, with a small but persistent group of staff remaining sceptical or unconvinced.

Second, communication emerged as a recurring challenge. Many participants reported that the purpose and value of NASC had not been well explained prior to training, with significant reliance placed on the sessions themselves to fill in gaps. This reliance suggests that while training was broadly effective, it was often compensating for weaknesses in pre-implementation communication. Word-of-mouth feedback from colleagues further reinforced this dynamic: while training tended to amplify positive perceptions, silence, mixed views, and occasional negativity continued to shape staff expectations and experiences.

Finally, preferences for learning approaches remained strikingly stable across both phases. Staff consistently valued hands-on, participatory methods over passive standardised formats, even as exposure to different delivery modes, particularly online tools, broadened the mix of approaches they were willing to accept. This indicates both the enduring importance of practical application and the growing potential of blended or flexible learning strategies.

Collectively, these trends highlight how end users perceived NASC as a system with clear potential benefits, but one whose success was heavily dependent on effective communication, confidence-building through training, and the alignment of delivery methods with staff learning preferences.

These findings provide an essential backdrop for the trainer survey results that follow, which offer a complementary perspective on how NASC training was designed, delivered, and received from the standpoint of those responsible for its implementation.

4.3 Results from Trainer Surveys

The trainer surveys provided complementary insights into the implementation of NASC, offering perspectives grounded in the experiences of those responsible for delivering the training and observing participant engagement first-hand. The NASC training was delivered by the same group of 10 trainers in both Phase 1 and Phase 2. Because the surveys were anonymous, it is not possible to match individual trainers across phases. For clarity, trainers are referred to using codes based on the phase and response number (e.g., P1T1 for Phase 1 Trainer 1, P2T1 for Phase 2 Trainer 1), but these codes do not indicate that a trainer in Phase 1 is the same person as the same-numbered trainer in Phase 2. Full trainer responses are provided in Appendix K. Trainers provided their feedback approximately halfway through the NASC training sessions. Each training session lasted half a day, but multiple groups were trained across the overall schedule. For Phase 1, training was delivered in January 2022, with surveys completed around mid-January, corresponding to the midpoint of the training schedule. For Phase 2, training took place in March 2022, with surveys completed around mid-March, again at the midpoint of the overall training schedule.

4.3.1 Question 1: What is your assessment of the training delivered so far?

A total of 20 trainer survey responses were received for this question (10 in Phase 1 and 10 in Phase 2). Table 4-27 below summarises the key themes identified, together with the number of trainers who raised each point.

Trainer assessments indicated that, across the training schedule, there was a noticeable improvement in the quality and flexibility of NASC training from Phase 1 to Phase 2. While the same 10 trainers provided feedback in both phases, collectively they noted refinements in materials and resources (e.g., P1T1, P2T6). A related theme, raised by several trainers across both phases, was the accessibility of training through recorded sessions, step-by-step guides, and the use of Microsoft

Teams. It is important to note that, due to the anonymous survey design, it is not possible to determine whether these observations came from the same individual trainers in both phases.

Theme	Phase 1 (n=10)	Phase 2 (n=10)	Example trainer quotes
Improvement in training quality/materials over time	5	4	“The training has evolved significantly since the initial rollout... materials accommodate various learning styles” (P1T1)
Remote training: accessibility vs. challenges	4	3	“Remote training has been surprisingly effective for general users but significantly extended the site build process” (P2T3)
Issues with credibility/legacy of pilot phase	2	2	“The legacy of the problematic pilot continues to haunt implementation” (P2T7)
Training too generalised / not role-specific	3	3	“The generalized approach doesn’t always address specialised workflow concerns” (P1T10)
Inconsistency across trainers / need for standardisation	0	2	“The quality of our training varies considerably between trainers” (P2T4)
Accessibility and flexibility of resources (recorded sessions, Teams, guides)	4	5	“Our recorded sessions and self-service materials have actually improved accessibility” (P2T6)
Departmental variation in effectiveness	2	2	“Frontline and casework-based teams express concerns about FOI sensitivities and confidentiality issues” (P1T5)
Technical disruptions	0	1	“Technical issues still disrupt approximately 25% of sessions” (P2T9)
Support for varying technical proficiency	1	2	“We now offer foundation sessions for those needing extra support with basic concepts” (P2T10)

Table 4-27 Question 1 Trainer Surveys – Key themes identified

Remote delivery was viewed as both beneficial and problematic. While several trainers emphasised the accessibility benefits for general users (P1T9, P2T3), others reported that it hampered site-building efficiency due to last-minute preparation and technical issues (P1T3, P2T9). This was particularly relevant because separate NASC sites had to be built for each Division, adding complexity and time pressures to the training process when delivered remotely.

Persistent challenges were also raised. Six trainers across both phases criticised the overly generalised nature of the training, which did not always meet department-specific or advanced workflow needs (P1T10, P2T8). Concerns about credibility and negative perceptions stemming from the 2019 pilot were repeated by four trainers (P1T7, P2T7). In Phase 2, inconsistency across trainers (P2T4) and misalignment with frontline staff needs (P2T5) also emerged.

Despite the challenges, trainers generally observed that participants appeared more confident over time, particularly as materials and delivery methods were iteratively adapted in response to feedback (e.g., adjustments to resources, pacing, and hands-on exercises noted in Phase 1 and Phase 2 surveys).

4.3.2 Question 2: Has the informal feedback received been helpful?

Informal feedback was gathered throughout the training through a combination of conversations, emails, and brief check-ins with participants, providing trainers with real-time insights into how the sessions were being received.

A total of 20 trainer responses (10 in Phase 1 and 10 in Phase 2) were received for this question. The key themes are summarised in table 4-28 below.

Overall, trainers valued informal feedback as a crucial element of the training cycle. Ten trainers across both phases noted that it provided insights into real-world implementation challenges that would not otherwise have been visible (P1T1, P2T1). A related theme, raised by eight trainers, was that the most helpful feedback typically emerged after implementation, once users had time to apply their training in practice. As P2T10 put it, “the most revealing feedback comes 3–4 weeks after training when users have attempted real work in NASC.”

At the same time, four trainers across the two phases described feedback as vague or non-specific, offering general reassurance (“fine,” “good job”) but little actionable detail (P1T2, P2T2). A further four noted that some feedback focused on issues beyond the scope of training, such as staffing assignments or frustrations with system limitations (P1T3, P2T7).

Theme	Phase 1 (n=10)	Phase 2 (n=10)	Example trainer quotes
Informal feedback is helpful for identifying real-world challenges	5	5	“Informal feedback has been invaluable for understanding real-world implementation challenges” (P1T1)
Feedback useful after implementation when users gain hands-on experience	4	4	“The most revealing feedback comes 3–4 weeks after training when users have attempted real work” (P2T10)
Feedback often vague or non-specific	2	2	“Users say training was ‘fine’ but then struggle with implementation” (P2T2)
Feedback highlights issues unrelated to training (e.g. staffing, system limits)	2	2	“Much of the negative feedback relates to staffing decisions rather than the training itself” (P1T3)
Feedback highlights technical/terminology issues	2	2	“Informal feedback highlighted gaps... particularly around technical terminology” (P1T7)
Accessibility feedback valuable (hearing/visual impairments)	1	1	“Accessibility feedback has been particularly helpful” (P1T9, P2T9)

Table 4-28 Question 2 Trainer Surveys – Key themes identified

Several trainers highlighted that informal feedback was particularly effective in revealing hidden gaps in training materials. For example, technical terminology was found to be inaccessible for some staff (P1T7, P2T6), while accessibility-related feedback from hearing- or visually impaired colleagues prompted improvements in captioning and the provision of scripts for videos (P1T9, P2T9).

In summary, while informal feedback was inconsistent in quality, it was generally regarded as an essential driver of continuous improvement in training design, particularly when gathered after participants had practical exposure to NASC.

4.3.3 Question 3: Have you noted any barriers to learning?

Twenty trainer responses (10 in Phase 1 and 10 in Phase 2) were provided for this question, with the themes summarised in table 4-29 below.

Trainers identified barriers to learning at multiple levels, individual, technical, and organisational. Accessibility challenges were mentioned in both phases, particularly regarding support for staff with hearing and visual impairments (P1T1, P2T1). Variation in baseline IT skills was another prominent concern (P1T2, P2T2), as some staff struggled with basic functions while others had advanced expectations that NASC could not meet.

Theme	Phase 1 (n=10)	Phase 2 (n=10)	Example trainer quotes
Accessibility challenges (hearing/visual impairments)	1	1	“Supporting staff with disabilities has been challenging” (P2T1)
Variation in IT skills creates challenges	1	1	“The wide variation in baseline IT skills creates major challenges” (P1T2)
Technical disruptions (equipment, connectivity)	1	1	“Network issues, outdated equipment, and home distractions significantly impact learning” (P2T3)
Resistance to change / reliance on familiar systems	1	1	“Computer-averse staff are most resistant to adoption” (P1T4); “Resistance to change is our primary barrier” (P2T4)
Instructions/communications too text-heavy or unclear	1	1	“Important setup instructions get buried in dense emails” (P2T5)
Technical language/jargon as barrier	1	1	“Technical terminology is a significant barrier” (P1T6)
Lack of sufficient self-directed resources (video guides, captions)	2	1	“The lack of comprehensive video guides... limits self-directed learning” (P1T7, P2T9)
Inconsistent or distracting learning environments (esp. remote)	1	0	“The shift to remote work has created inconsistent learning environments” (P1T9)
Difficulty with conceptual shift from folders to NASC approach	1	0	“The conceptual leap from folder-based storage to NASC’s approach is difficult” (P1T10)
Timing/misalignment of training with actual implementation	0	1	“Sessions frequently occur weeks before departments actually implement NASC” (P2T7)
Department leadership or cultural resistance	0	1	“Department leaders who don’t fully support the transition create significant barriers” (P2T10)
Unrealistic preparation expectations from Site Owners	0	1	“Site Owners often arrive at build sessions without having organised their content” (P2T8)

Table 4-29 Question 3 Trainer Surveys – Key themes identified

Technical barriers such as connectivity issues and inadequate equipment were cited in both phases (P1T3, P2T3). Trainers also pointed to resistance to change, with some staff preferring familiar shared-drive systems or developing workarounds to avoid adopting NASC (P1T4, P2T4).

Communication methods presented further challenges: dense, text-heavy emails (P1T5, P2T5) and overuse of technical jargon (P1T6, P2T6) were described as alienating for many users.

In both phases, trainers highlighted the lack of comprehensive self-directed resources, such as video guides and captioned tutorials (P1T7, P2T9). The conceptual leap from folder-based storage to NASC's Smart Folder approach was also described as a persistent barrier for some staff (P1T10).

New issues emerged more strongly in Phase 2. These included the timing of training, with sessions often delivered weeks before implementation, leading to knowledge loss (P2T7); unrealistic preparation expectations from Site Owners, who sometimes arrived at build sessions unprepared (P2T8); and resistance at leadership level, where sceptical managers undermined adoption within their teams (P2T10).

Overall, these findings indicate that while technical and skill-related barriers were common, organisational and cultural factors also played a significant role in limiting the effectiveness of training. Trainers emphasised that overcoming these systemic barriers required not only improved instructional design but also stronger alignment with departmental contexts and leadership commitment.

4.3.4 Summary of Trainer Perspectives

Across the three survey questions, several overarching themes emerge from the 20 trainer responses (10 in each phase). Trainers widely acknowledged that NASC training had improved in quality, accessibility, and flexibility between Phase 1 and Phase 2. Trainers noted that iterative refinements, such as the introduction of recorded sessions, step-by-step guides, and foundational modules, appeared to increase participants' confidence over time. However, they also reported that negative perceptions of NASC stemming from the problematic 2019 pilot persisted across both phases, continuing to undermine credibility and limit user buy-in.

The shift to remote delivery was consistently framed by the trainers as both an opportunity and a challenge. Trainers noted that online sessions, recordings, and Microsoft Teams made training more accessible, particularly for those unable to attend live sessions. At the same time, remote training created technical disruptions, inconsistent learning environments, and inefficiencies in site building, suggesting that a hybrid model may offer the most sustainable approach.

A recurring concern of the trainers across all three questions was the extent to which training was generalised, failing to address the specific needs of different departments or operational contexts. Trainers highlighted the importance of tailoring content to frontline staff, casework teams, and users with limited IT skills. Informal feedback was most useful when it illuminated these gaps, pointing to the need for more role-specific and scenario-based training materials.

While technical and pedagogical challenges were evident, trainers also underscored organisational barriers that constrained training effectiveness. Resistance to change, unrealistic preparation from Site Owners, and scepticism from departmental leaders were all cited as obstacles. These cultural factors suggest that successful adoption of NASC depends not only on training design but also on leadership engagement and broader change management strategies.

In summary, trainers perceived NASC training as moving in the right direction, becoming more accessible, better resourced, and more adaptive to participant needs. Yet barriers at technical, instructional, and organisational levels remained, limiting its overall impact. Addressing these will require a dual focus: ongoing refinement of training methods and resources alongside stronger institutional support to overcome legacy perceptions and ensure leadership alignment.

While the trainer surveys provide valuable insights into the delivery and reception of NASC training from the perspective of those facilitating it, they represent only one dimension of the evaluation. To gain a more holistic view, it is important to consider the observations captured through researcher reflections, which document first-hand experiences of the training environment, participant interactions, and contextual factors influencing implementation. The following section therefore presents key themes from these reflections, offering an additional lens through which to interpret the survey findings.

4.4 Observations from Researcher Reflections

The researcher maintained reflective field notes throughout the NASC implementation process (January–May 2022), drawing on direct participation in Project Board meetings, training development workshops, staff information sessions, and informal staff conversations. These reflections, recorded systematically using Gibbs' Reflective Cycle, are included in full at Appendix C.

The purpose of including these reflections in the findings chapter is twofold. First, they provide a complementary lens to the survey data by capturing the *contextual dynamics* surrounding implementation, particularly the evolving interplay between leadership communication, training approaches, and staff perceptions. Second, they document the researcher's active involvement in the NASC project, which afforded unique opportunities to observe tensions between strategic decision-making and operational realities. These observations will be discussed in relation to what emerged from the findings of the end user and the trainer surveys in Chapter 5.

4.4.1 January–February 2022: Leadership framing and early risks

Early reflections reveal that Project Board meetings prioritised compliance and organisational efficiency over frontline user needs (Appendix C, Entry 1). Messaging positioned NASC as a compliance tool, raising concerns that staff might view it as a burden rather than a practical aid. A turning point occurred when training materials were reorganised around *daily tasks* rather than abstract features, with the intention of providing improved alignment with staff workflows and enhanced perceived relevance (Appendix C, Entry 2).

4.4.2 February–March 2022: Mixed staff reactions and peer-led innovation

During the February staff information session and March’s technical demonstration to department leads, communication remained feature focused. This generated mixed reactions: some staff valued NASC as a potential “knowledge hub,” while others worried about its usability and the impact on their routines (Appendix C, Entries 3 and 7). Department leads openly questioned how complex functionality could realistically be explained to their teams in limited time. In contrast, a peer-led pilot session in March proved highly effective. Staff were more comfortable asking “basic” questions and related strongly to practical, context-specific demonstrations, which improved engagement and trust (Appendix C, Entry 8).

4.4.3 March–April 2022: Informal dialogue and persistent scepticism

Reflections from informal conversations and intranet comments underscored persistent scepticism around data reliability and system trustworthiness. For example, one staff member remarked, “*It’s useful, but I still check with a colleague before I believe it*” (Appendix C, Entry 5). On the intranet, humorous posts compared NASC unfavourably with “Clippy,” Microsoft’s long-retired assistant (Appendix C, Entry 9), revealing frustration but also engagement. At the same time, trainers described promoting a system still “in flux” as “like hitting a moving target,” noting visible user disengagement during sessions (Appendix C, Entry 11).

4.4.4 April–May 2022: Leadership metrics vs. user experience

Subsequent Project Board meetings maintained a strong focus on technical metrics, such as usage statistics, while devoting little attention to user experience (Appendix C, Entry 10). A senior manager’s comment that it was now “staff’s responsibility to make the system work” signalled a shift of responsibility that overlooked unresolved usability concerns. In Q and A sessions, most questions were submitted anonymously, suggesting low psychological safety in voicing concerns directly (Appendix C

By May, tensions between IT and departmental representatives intensified. Some departments warned that if NASC could not accommodate their processes, they would be forced to maintain *parallel systems*, undermining leadership's promise of streamlined efficiency (Appendix C, Entry 13). Eventually, staff representatives began openly sharing user-generated workarounds in Project Board discussions, demonstrating both adaptive creativity and a disconnect between official design and practical use (Appendix C, Entry 14).

4.4.5 Post-implementation review: Competing perspectives

In planning the post-implementation review, diverging perspectives emerged. Some stakeholders, including the researcher, advocated for qualitative measures, such as staff satisfaction and integration into daily work, to capture the lived experience of using NASC. Others prioritised quantitative indicators such as usage statistics and error rates (Appendix C, Entry 15). Ultimately, leadership favoured the latter, raising concerns that evaluation would privilege technical compliance over meaningful insight into adoption and usability.

4.4.6 Summary

Researcher reflections highlight a persistent tension between leadership narratives of technical success and frontline experiences of usability, trust, and ownership. They reinforce survey findings that peer-led, task-based approaches improved training effectiveness, but also show that system limitations, communication gaps, and organisational culture significantly shaped adoption. By incorporating the researcher's reflections into the analysis, this study ensures that contextual insights and frontline realities are considered alongside formal compliance and performance metrics, providing a more nuanced understanding of NASC implementation.

4.5 Conclusion

This chapter has presented the detailed findings of a study examining staff and trainer perceptions of NASC, a new Knowledge Management System introduced by the Office of the Revenue Commissioners. Drawing on pre- and post-training surveys from two implementation phases, trainer feedback, and the researcher's reflective notes, the findings provided a comprehensive view of how the system and its training were experienced in practice.

Across these datasets, several themes consistently emerged. Clear and practical communication was identified as essential to fostering understanding and reducing uncertainty. Training played a pivotal role in building staff confidence and capability, while leadership engagement and responsiveness to

end-user experiences were highlighted as critical to sustaining adoption. Although many participants recognised NASC's potential to enhance collaboration and knowledge sharing, challenges persisted in areas such as usability, role relevance, and the consistency of change communication.

The following chapter will move beyond describing these findings to interpret them in light of existing literature and theoretical frameworks. It will explore how perceptions of usefulness and ease of use shaped attitudes toward NASC, assess the impact of communication strategies and training delivery on adoption, and examine the organisational dynamics that influenced the rollout's success. In doing so, it will seek to explain not only what the data revealed but also why these patterns emerged, providing a critical analysis of the factors that facilitated or hindered the integration of NASC into everyday working practices.

Chapter 5

Discussion

5.1 Introduction

The aim of this research was to explore staff's perceptions regarding the factors that influenced their decision to adopt the new Knowledge Management System (NASC) within the Office of the Revenue Commissioners in Ireland. To address this aim, two phases of data were collected from three complementary sources: end-user staff surveys, trainer surveys, and the researcher's diary. These multiple perspectives were systematically coded and thematically analysed, and the findings were presented in Chapter 4 to illustrate how different stakeholder groups experienced NASC's rollout and adoption.

This chapter moves beyond the presentation of discrete findings to offer a critical discussion focused on the main themes that emerged. By triangulating evidence from the three data sources, it explores the interconnections between themes that were initially presented separately in Chapter 4. The analysis is situated within the theoretical and empirical frameworks reviewed in Chapter 2, thereby linking the empirical results to existing research on organisational change, knowledge management, and technology adoption. In doing so, the discussion provides answers to the research questions underpinning this study.

The overarching research question guiding this research was **“What are the perceptions of staff regarding the factors that influence their decision to adopt the new Knowledge Management System, NASC, within the Office of the Revenue Commissioners in Ireland?”** In order to explore this central question in a structured manner, the study was further framed by three sub-questions and this chapter seeks to answer these three research sub-questions. Responses to these questions are structured through six interrelated themes: (1) purpose and drivers of change in the public sector, (2) leadership and communication, (3) top-down and bottom-up approaches to implementing and evaluating change, (4) training design, learning approaches, and capacity building, (5) resistance, engagement, and user adoption, and (6) evaluating change success. While presented separately for analytical clarity, the themes are closely interconnected in practice and map directly onto the research questions (see Table 5-1).

Sub-questions	Interrelated themes
How do staff perceive the purpose of change and what factors influence their adoption of NASC?	Purpose and drivers of change in the public sector Top-down bottom-up approaches to implementing and evaluating change
How do staff perceive management’s communication approaches in encouraging adoption behaviour during the implementation of NASC?	Leadership and Communication Resistance, engagement and user adoption
How do staff perceive the effectiveness of the training approaches employed during the implementation of NASC?	Training Design, learning approaches and capacity building

Table 5-1 Research Question and Interrelated Themes

Taken together, the findings across all three questions reinforce the centrality of perceived usefulness and perceived ease of use in adoption processes (Davis, 1987). Staff perceptions of NASC’s purpose, the clarity of communication, and the design of training were tightly interlinked rather than discrete factors. The findings underscore the interconnected roles of perceived usefulness, communication, and training in adoption, providing a foundation for examining staff perceptions of NASC’s purpose and the factors influencing engagement, and situating these insights within broader theories of change and technology acceptance.

5.2 Staff perceptions about the purpose of the introduction of NASC and the factors influencing their decision to use NASC

The first research question, *how do staff perceive the purpose of change within Revenue, and what factors influence their adoption of NASC*, is addressed primarily through the themes of purpose and drivers of change in the public sector, and top-down versus bottom-up approaches to implementing and evaluating change. Findings from Chapter 4 illustrate that, while the organisational rationale for NASC was broadly understood in terms of knowledge retention, efficiency, and collaboration, it was not consistently translated into role-specific terms that resonated with end-users. This disconnect highlights the importance of framing change not only in strategic language but also through concrete, operationally relevant examples that answer the “what’s in it for me?” question. This section, therefore, examines how staff interpreted the rationale for change, whether they perceived the system as relevant to their day-to-day work, and how implementation approaches influenced how they understood, valued, and ultimately responded to NASC.

5.2.1 Understanding the purpose of change

Survey data from both phases of the research indicated that although most staff could articulate

NASC's broad organisational aims of knowledge retention, efficiency, and collaboration, they often struggled to perceive its usefulness or ease of use in relation to their own work. Respondents described the system as "*knowledge management within the Department*" (P1Pre1), "*to improve collaboration and knowledge sharing*" (P2Pre12), and "*a way to stop losing files when people retire*" (P2Post7). What is interesting is the increase in reported understanding from 58% in Phase 1 to 72% in Phase 2, suggesting that messaging improved over time. However, across both phases before and after training, many struggled to see the personal relevance or perceived usefulness (Davis, 1987) of NASC. As one staff member explained: "*I don't see how it will make my job any easier*" (P1Pre9). A small number of participants in both phases remained unsure about the benefits, even after training, indicating that the organisational rationale had not been internalised in ways that shaped individual perception of the usefulness of NASC in relation to the day-to-day context of their work. This finding aligns with Davis (1987), who identifies perceived usefulness as a critical determinant of adoption, and with Wymer and Regan (2011), who stress the need to align organisational diffusion strategies with individual perceptions if adoption is to be sustained. This suggests that, as Wymer and Regan (2011) argue, even well-communicated organisational rationales will not lead to sustained adoption unless diffusion strategies are aligned with the perceptions and day-to-day contexts of individual users. Trainers confirmed this disconnect, noting the tension between "selling" NASC and providing practical training. As reflected by Trainer P1T2: "*We've struggled with the distinction between 'selling' NASC versus practical training. Many end users questioned why we were trying to convince them to use a system they were mandated to adopt.*" Trainer P2T1 similarly noted: "*The initial training suffered from poor planning and messaging. By focusing on promoting rather than practical application, we created unnecessary resistance.*" These insights suggest that while the organisational purpose was communicated, it was framed in abstract, system-wide terms that did not adequately address role-specific value.

The persistence of scepticism echoes Kuipers et al.'s (2014) observation that public sector reforms often prioritise strategic narratives at the expense of operational resonance, as well as Beatty's (2015) argument that resistance frequently emerges when staff fail to see clear personal or professional benefits in the change being promoted. Findings indicate that leadership's early emphasis on compliance and efficiency reinforced perceptions that NASC was primarily a management tool. This is evidenced by staff comments such as "*It's being imposed from above. We just have to go along with it*" (P1Pre6) and "*We weren't asked what would work best*" (P1Pre11), as well as trainer reflections noting that early communications focused heavily on organisational efficiency rather than role-specific benefits. As one trainer observed, "*The initial NASC training suffered from poor planning and messaging. By focusing on promoting rather than practical*

application, we created unnecessary resistance" (P2T1). This focus on compliance and efficiency contributed to unclear perceptions of usefulness, as staff struggled to see how NASC would improve their own day-to-day work. It also affected the perceived ease of use, as early messaging emphasised managerial priorities and organisational objectives rather than practical guidance, leaving users unsure of how to integrate the system into daily tasks. Together, these factors created a sense of top-down imposition and limited ownership, reinforcing scepticism and hindering early adoption.

In the early stages of the NASC rollout, the researcher's reflective notes had highlighted the issue of leadership communication that emphasised compliance and organisational efficiency, with limited focus on individual or team-level benefits, as *"messaging heavily focused on 'compliance' and 'efficiency' rather than user benefits"* (Appendix C – Researcher reflections). This imbalance appears to have reinforced staff perceptions that the system served management priorities rather than supporting their day-to-day work, as reflected in staff anxieties during information sessions where *"leadership communication focused primarily on features rather than practical benefits"* (Appendix C – Researcher reflections) and in informal conversations where one staff member remarked, *"It's useful, but I still check with [colleague] before I believe it"* (Appendix C – Researcher reflections). Such responses reflect the Technology Acceptance Model's emphasis on *perceived usefulness* and *perceived ease of use* as critical determinants of adoption (Davis, 1989; Venkatesh and Bala, 2008). Within the public sector, similar findings have been observed by Jurich et al. (2014), who argue that insufficient attention to end-user perspectives often results in staff viewing digital reforms as management-driven compliance exercises rather than tools that enhance their daily work. By prioritising compliance and efficiency narratives over practical benefits and usability, leadership communication in this case limited staff confidence in NASC's value while simultaneously heightening concerns about its accessibility in everyday workflows.

These findings align with wider research that highlights clarity of purpose as a precondition for change (Senge, 1999; Kuipers et al., 2014; Shannon, 2017), as well as O'Flynn's (2015) argument that an organisational rationale will not necessarily be internalised unless it is framed in ways that resonate with everyday roles. While strategic narratives provide necessary direction, adoption is sustained only when staff are given participatory spaces to translate change into their own operational realities (Shannon, 2017).

In the case of NASC, although the organisational drivers, knowledge retention, efficiency, and collaboration, were broadly understood, they were not consistently translated into language or

examples that resonated with end users. This highlights a critical communication gap and that future initiatives should frame purpose not only in strategic terms but also through concrete, role-specific scenarios that directly answer the “what’s in it for me?” question, supported by two-way channels of communication that flow both top-down and bottom-up.

Overall, these findings connect directly to the Technology Acceptance Model (Davis, 1987), which argues that adoption depends less on compliance pressures and more on staff perceptions of a system’s usefulness and ease of use. While staff could articulate NASC’s strategic purpose, their intention to adopt was not initiated or instigated as they could not see operational relevance to their daily tasks. Trainers’ concerns about the balance between promotion and practicality further reinforce this point: communication often failed to connect organisational priorities with operational realities, leaving end-users unable to see NASC as useful or usable in their day-to-day contexts. This gap aligns with the Technology Acceptance Model (Davis, 1987), which highlights that adoption depends on users’ perceptions of a system’s usefulness and ease of use, rather than on organisational mandates alone.

5.2.2 The role of top-down and bottom-up change implementation approaches

Perceptions of NASC’s purpose were also shaped by the introduction of a new knowledge management system into end-users’ work practices. In Phase 1, two-thirds of staff described NASC as being directed from higher levels with limited opportunity for frontline input. Comments such as *“Usually by email, but I don’t often have to communicate to them as it is above my grade”* (P1Pre25), *“Yes. I think senior managers are involved in deciding on the changes, sometimes clerical staff only hear about it ‘by the way’”* (P1Pre5), and *“At Assistant Principal level and above they can be aware of coming changes for a long time before other staff are informed”* (P1Pre26) illustrate a clear perception of exclusion from governance and decision-making.

The researcher’s reflective notes further highlighted that early governance structures lacked frontline representation, with project board meetings dominated by senior managers. This absence of end-user voices in the design and rollout decisions represented a missed opportunity for co-creation, limiting ownership and reinforcing the impression of top-down imposition. As one reflective entry observed, *“No frontline staff were present, creating a noticeable disconnect between decision-makers and end-users who would need to find the system useful and usable in their daily work”* (Appendix C – Researcher reflections). This governance gap reverberated throughout the implementation, with leadership communications often emphasising compliance, efficiency, and technical features rather than the system’s practical value to staff workflows. Subsequent researcher

reflections documented how frontline staff expressed anxiety about usability, resorted to peer-led learning networks, or even developed workarounds to make the system fit their needs Appendix C – Researcher reflections). These patterns suggest that the initial exclusion of end-user perspectives not only limited early co-creation but also contributed to ongoing trust and adoption challenges, as the system was experienced more as an imposed compliance tool than a collaboratively designed resource.

By Phase 2, however, bottom-up dynamics were more visible. Analysis suggests that this occurred as a result of a shift towards more open communication channels, the emergence of peer-to-peer learning and informal feedback loops and a growing user confidence. Staff reported having greater opportunities to ask questions, seek clarification, or provide feedback, even if these channels were informal or inconsistently applied. For example, one respondent noted there was an *“Open invitation for feedback”* (P1Post2), while another described how *“Management often ask for feedback on new processes to see how they're being received or if improvements in training can be made”* (P1Post7). Others commented that they could *“go back anytime to the team after training with any questions”* (P1Post13), suggesting that trainers created more space for interaction and problem-solving. Although not all feedback was perceived as meaningful, one participant remarked that *“Feedback is asked for and then ignored”* (P1Post8), the increased visibility of these mechanisms helped shift perceptions away from strictly top-down imposition. This suggests that it was the combination of improved communication, trainer responsiveness that created the appearance of bottom-up involvement rather than any substantive change in governance structures. These shifts in practice fostered new relational dynamics within teams, giving rise to mechanisms such as peer exchange and informal knowledge-sharing that reinforced the sense of participation. Peer-to-peer learning and informal feedback loops were highly valued, with 83% of respondents reporting that colleagues improved their understanding. As one commented: *“Watching someone in my section use it was better than any manual”* (P2Post3). Trainers acknowledged the value of such informal insights, which is reflective of the adaptive, emergent processes described by Armenakis and Bedeian (1999). These findings also echo Bandura’s (1977) social learning theory, which stresses the influence of relatable peer models, and confirm the views of Heyden et al. (2016) that participatory approaches strengthen ownership and acceptance of change initiatives. In this case, adoption and understanding were significantly reinforced not through formal directives or centrally designed training, but through peer-to-peer learning, role modelling, and local adaptation. Staff emphasised these practices as more useful for embedding the system into everyday work, enabling them to contextualise the tool within their own workflows rather than relying solely on abstract guidance in

manuals or training that was not connecting the organisational priorities for the implementation of NASC to their work contexts.

Nevertheless, hierarchical perceptions persisted even after training. One Phase 2 participant commented: *“It’s still very top-down, just with more emails now”* (P2Post9). This suggests that while participatory practices improved, the overarching framing of NASC remained heavily centralised. Moreover, trainers continued to observe the impact of the early pilot, which had cemented negative preconceptions and reinforced scepticism about leadership’s approach. Trainer P1T7 recalled: *“The initial pilot generated considerable antipathy toward NASC, which unfortunately spread to areas not involved in the pilot. We still receive questions about elements of NASC 1.0 that aren’t relevant to the current version.”* Trainer P2T7 similarly observed: *“The legacy of the problematic pilot continues to haunt implementation. Many users enter training with negative preconceptions.”*

The persistence of these dynamics suggests that although local, peer-driven mechanisms provided meaningful support for adoption and learning, their overall impact was limited by the enduring perception of NASC as a top-down initiative. As a result, the system was not widely experienced as a genuinely co-created or collaboratively sustained change effort. Importantly, trainers’ reflections did not directly reinforce staff scepticism. Instead, it was the combination of a hierarchical implementation approach, weak communication strategies, and the lingering legacy of the initial pilot that shaped and perpetuated negative perceptions of NASC’s usefulness and ease of use. These findings resonate with broader critiques of imposed public sector reforms identified by Kuipers et al. (2014).

Fernandez and Rainey (2006) argue that sustained adoption depends on broad-based involvement rather than passive compliance. In practice, this requires leaders to move beyond issuing directives and to actively build commitment across the organisation. Broad-based involvement is most effectively cultivated through the early engagement of stakeholders in shaping initiatives, supported by transparent communication of underlying purposes. This reflects Kotter’s (1996) emphasis on building a guiding coalition and articulating a clear vision to secure buy-in. Feedback mechanisms that acknowledge and integrate employee input resonate with Armenakis and Bedeian’s (1999) framing of readiness for change, where participation strengthens ownership and legitimacy. Moreover, consistent leadership endorsement, together with the provision of adequate training and resources, aligns with Lewin’s (1951) principle of “unfreezing” existing behaviours by equipping individuals to feel both confident and supported in their contributions. Collectively, these practices

embed participation not as symbolic consultation but as an integral process through which change initiatives gain credibility, resilience, and sustainability.

In the case of NASC, strategic direction from leadership was necessary to set goals and maintain consistency across the organisation, reflecting Kotter's (1996) argument that a clear vision anchors change and Yukl's (2013) view that strategic leadership is essential for aligning organisational objectives. However, the results suggest that without structured opportunities for early involvement, frontline staff interpreted the initiative as imposed rather than co-created. Future projects would benefit from combining clear leadership direction with deliberate mechanisms for user participation, such as frontline representation in governance structures, early pilot groups with diverse staff input, and systematic incorporation of feedback into system design and communication (Heyden et al., 2016). Staff understood NASC's strategic purpose in broad terms but did not consistently internalise it at a personal level. Adoption was influenced by two interrelated factors: first, whether communication addressed the "*what's in it for me?*" question (Davis, 1987; O'Flynn, 2015), and second, whether staff were given participatory opportunities to interpret the system in their own work context (Bandura, 1977; Heyden et al., 2016). This underscores the importance of aligning organisational drivers with role-specific value and balancing top-down direction with bottom-up engagement. By emphasising these dynamics, the research contributes new evidence to the literature on public sector change and knowledge management systems. It highlights that adoption is not simply a matter of technical fit or leadership messaging, but of enabling staff to co-construct meaning and relevance in their daily work. This extends Wymer and Regan's 2011 technology acceptance model by demonstrating that perceptions of usefulness are socially constructed through peer influence and participatory practices, not just individual assessments of system features.

5.3 Staff perceptions of management's communication approaches in encouraging adoption behaviour during the implementation of NASC

The second research question, which examined how staff perceived management's communication approaches in encouraging adoption behaviour during the implementation of NASC, is addressed through the themes of leadership and communication, as well as resistance, engagement and user adoption. Findings from Chapter 4 showed that staff frequently described leadership communication as top-down and compliance-driven. While messages about efficiency and organisational priorities were delivered consistently, many respondents reported that these communications did not connect to their everyday work, and staff often turned instead to colleagues or trainers for practical guidance. These results suggest a persistent gap between the organisational narrative and the

operational realities experienced by staff. When considered in this light, communication emerges not simply as a background factor but as a decisive influence on whether employees internalised or resisted the change associated with NASC.

5.3.1 Leadership and Communication

Results from both phases indicate that leadership communication around NASC was often experienced as high-level and compliance driven. Early governance structures were dominated by senior managers, with little representation from frontline staff, so communications emphasised efficiency, technical features, and adherence to procedures rather than practical relevance to daily workflows. Staff reported that while information was disseminated, it often failed to support understanding or trust at the operational level: *“They keep telling us it will be more efficient, but they don’t show us how it helps me”* (P1Pre8), and *“Emails are very general and don’t answer the questions we have”* (P1Post5). Once management had decided on the strategic importance of deploying NASC they thought their job was done. As one researcher reflection captured, *“One senior manager’s statement, ‘We’ve done all we can, now it’s up to staff,’ suggested leadership considered communication about the system was complete despite ongoing user adaptation challenges”* (Appendix C – Researcher reflections). This top-down framing fostered scepticism and limited early ownership, reflecting Kuipers et al.’s (2014) observation that public sector leaders often prioritise strategic narratives over operational resonance, and aligning with Lewis et al.’s (2006) argument that one-way communication is less effective than interactive approaches in supporting adoption. While management understood the usefulness of NASC it was very obvious that there was a glaring gap in relations to perceived usefulness and ease of use by the end-users of the knowledge management system.

Trainers highlighted issues with formal communications. Trainer P1T5 noted: *“Our standard email templates contain essential information but are text-heavy and uninviting. We need more engaging formats,”* while P2T5 observed: *“Important setup instructions get buried in dense emails that recipients don’t fully read, leading to preventable implementation problems.”* These limitations reinforced perceptions that the system was cumbersome and underscored the importance of localised, interactive learning.

The researcher’s diary also noted that formal briefings focused on compliance and organisational benefits, with limited opportunity for dialogue. Staff discomfort in raising questions, expressed as *“I wouldn’t put my name to a question in case it sounded stupid”* (P2Pre13), reflected only partial psychological safety, consistent with Edmondson’s (1999) insights. Trainers confirmed that informal

conversations after sessions frequently revealed concerns not raised in group settings (P2T4), demonstrating how peer networks became essential channels for clarification, reassurance, and knowledge sharing. Overall, these findings suggest that while leadership communication provided strategic clarity, it often failed to resonate with operational realities. Despite formal guidance through online training, and supporting resources, staff relied heavily on informal, peer-to-peer learning, role modelling, and local adaptations to understand and adopt the NASC system. Practical demonstrations by trusted colleagues were consistently valued: *“I learned more in a five-minute chat with my colleague than in the briefing”* (P2Pre10), and *“Seeing someone I trust use it in a real case made me confident I could do it too”* (P2Post6). These exchanges reflect Bandura’s (1977) social learning theory and Battilana and Casciaro’s (2012) concept of “change agents,” whereby colleagues bridge the gap between formal messages and practical realities. Adoption and confidence were strengthened through peer-to-peer supports, local adaptation, and small, visible successes, consistent with Kotter’s (1996) principle that short-term wins build credibility and Armenakis and Bedeian’s (1999) emphasis on participatory approaches. Future initiatives would benefit from communication strategies that combine clear strategic messaging with role-specific, two-way engagement, embedded within a culture that normalises questions and constructive feedback, thereby aligning top-down objectives with frontline understanding and fostering sustainable adoption. However, efforts to strengthen communication and alignment did not eliminate the practical and perceptual challenges experienced by staff.

5.3.2 Resistance, Engagement, and User Adoption of NASC

Understanding how resistance, engagement, and user adoption unfolded is crucial for interpreting the mixed reception of NASC. Resistance to NASC was widespread, especially in the early stages, and often linked to workload and usability concerns. Staff voiced frustration about the effort required to tag documents and doubts about the system’s design: *“So far I don’t think it’s very user friendly”* (P1Pre2); *“The tagging will slow me down”* (P2Pre8); *“It feels like extra work on top of my actual job”* (P1Post7). Trainers also recognised these barriers. Trainer P2T8 explained: *“The biggest barrier is unrealistic expectations about required preparation. Site Owners often arrive at build sessions without having organised their content, causing delays and frustration.”* Trainer P1T4 added that *“computer-averse staff are most resistant,”* pointing to baseline digital skills as a critical factor shaping adoption.

Resistance, however, was not always overt. Some staff complied superficially but reverted to familiar workarounds such as using the old shared drives, reflecting quiet disengagement rather than outright opposition. The researcher’s reflective diary noted that resistance frequently emerged as

low level grumblings (Appendix C – Researcher Reflections) in team conversations, signalling doubt rather than defiance.

At the same time, evidence from Phase 2 highlighted that engagement could be fostered when staff had opportunities to experiment with NASC in supportive environments. One participant recalled: *“We had a session in our team where we tried it together, that’s when it clicked”* (P2Pre15). Trainers confirmed the importance of these peer-led, practical moments. Trainer P1T6 remarked: *“The most helpful feedback comes from follow-up questions after users have had time to work with the system. These practical implementation questions have driven many of our training improvements.”* Such small-scale successes built momentum, especially when staff could see immediate benefits, as one Phase 2 user observed: *“It will save us time finding documents”* (P2Post11).

These findings mirror Oreg et al.’s (2011) argument that resistance should not be dismissed as negativity, but rather as feedback on usability, workload, and alignment with practice. The evidence supports Kotter’s (1996) view that visible, short-term wins are critical in overcoming scepticism. For example, Peer-to-peer supports can make individual successes more visible across the community. When colleagues witness peers achieving tangible improvements, whether in practice, confidence, or outcomes, these stories can act as early wins that validate the change effort. This shared visibility can help counter resistance and builds momentum by reinforcing a sense of collective progress (Oreg et al., 2011). In NASC, such wins were most evident in small team contexts rather than through top-level milestones, underscoring the value of localised engagement in sustaining adoption.

Resistance to change is not only common but expected. Xerri et al. (2015) note that resistance can arise from both employees and the organisation itself, while Beatty (2015) describes it as inevitable, given that change often provokes anxiety and uncooperative behaviours. Beatty further categorises resistance into cultural, personal, and intellectual domains, and identifies three distinct levels through which resistance can manifest (see Figure 2-1). In the public sector context, however, resistance cannot be understood solely through these general categories. It is also shaped by structural, cultural, and institutional factors specific to the environment in which change occurs. As illustrated, resistance to NASC often stemmed from practical and usability concerns rather than opposition to change per se. Engagement flourished where staff could explore the system in safe, team-based contexts and see clear benefits for their daily work

These perspectives reinforce that resistance should not be dismissed as simple opposition but recognised as valuable feedback about the conditions under which change is introduced. For future initiatives, Revenue could strengthen adoption by treating resistance as an important diagnostic

tool, designing interventions to lower usability barriers, and intentionally creating opportunities for team-level experimentation and visible short-term gains. What is critical to consider is that resistance cannot be disentangled from earlier themes: it was fuelled by vague purpose (Section 5.2), compliance-driven communication (Section 5.3), top-down implementation (Section 5.4), and gaps in training (Section 5.5). Conversely, engagement was enabled by peer-led learning and contextualised training. These dynamics shaped not only adoption but also the criteria by which staff evaluated success, a theme explored in the next section.

5.4 Staff perceptions of the effectiveness of the training approaches employed during the implementation of NASC

The third research question, *how do staff perceive the effectiveness of the training approaches employed during the implementation of NASC*, is addressed through the themes of training design, learning approaches, and capacity building as well as evaluating change success. Evidence from both phases highlights a mismatch between course content and operational needs, particularly in Phase 1, which compounded the broader issues of unclear communication and limited perceived usefulness. However, changes introduced after Phase 1, including more participatory design and work-related tasks, enhanced the relevance of training and supported greater staff engagement.

5.4.1 Training Design, Learning Approaches, and Capacity Building

Chapter 4 findings indicate that training both reinforced and reshaped staff perceptions of NASC. For many, it confirmed existing beliefs, boosting confidence in NASC as a tool for information sharing. Some staff who expected easier document sharing found their views affirmed, while a smaller group remained sceptical, with little attitudinal change or heightened concerns about usability and organisational support. Training also broadened appreciation of NASC's value, with participants increasingly recognising benefits such as collaboration, efficiency, and case work applications, uses rarely anticipated beforehand. Overall, training clarified NASC's purpose, improved communication, and increased confidence in its potential, though a persistent minority remained unconvinced.

Phase 1 training, which focused heavily on demonstrating system features in isolation, was frequently criticised for feeling abstract and disconnected from staff's day-to-day work. Some participants reported leaving sessions with little confidence, as one put it: *"I don't feel any more confident than before"* (P1Post6). Others described the sessions as too generic and insufficiently tailored to their roles. These shortcomings highlighted a critical misalignment between training design and the practical contexts in which staff expected to use NASC. This pattern reflects what

Knowles (1984) identifies in adult learning theory: training that is overly content-driven and theoretical fails to connect with learners' immediate, problem-centred needs.

Importantly, this feedback informed adjustments to the Phase 2 training, which placed greater emphasis on usability, contextualised examples, and applied learning. Phase 2 training was widely praised for its task-based structure, a shift that reinforces Knowles' principle that adults learn best when content is experiential and problem-focused (Knowles et al., 2015). Staff repeatedly highlighted the value of learning through realistic, workflow-based examples: *"Showing me how to file something I actually use was much better"* (P2Post2) and *"The training mirrored how I work day-to-day"* (P2Pre9). Participants also welcomed the blended learning format, which combined live demonstrations, online modules, and self-directed practice. As one Phase 2 user explained: *"I liked being able to go back to the online module afterwards"* (P2Post12). This directly aligns with Means et al.'s (2013) findings that blended learning not only accommodates diverse learner preferences but also strengthens retention by allowing staff to revisit material on their own terms.

Trainers confirmed this evolution, underscoring how the redesign embodied adult learning principles. Trainer P1T1 reflected: *"The training has evolved significantly since the initial rollout; our current materials accommodate various learning styles with step-by-step guides and videos."* Trainer P2T10 similarly observed: *"Our biggest success has been adapting training to accommodate varying levels of technical proficiency. We now offer foundation sessions for those needing extra support with basic concepts."* Such adjustments reflect Knowles' emphasis on recognising learners varied starting points and tailoring instruction accordingly, thereby making training more inclusive and effective.

Despite these improvements, gaps remained. Some participants continued to report limited confidence, with trainers acknowledging that the sessions often fell short of addressing more complex, role-specific needs. As P2T8 noted: *"Our training is adequate for basic functionality but doesn't address the more complex workflows some departments need."* Similarly, P1T10 explained: *"Our training is generally effective for creating awareness of NASC, but often falls short on specific detailed assistance that some departments require."* These findings echo Holmes' (2020) argument that making learning outcomes explicit is critical for sustaining learner motivation: without clear, role-specific outcomes, some staff felt underprepared. Moreover, the persistence of such gaps reflects Dhawan's (2020) point that digital transformation in the public sector often overlooks inclusive capacity building, leaving some groups less supported despite broader improvements.

In this sense, it was not training in itself that was decisive, but the way in which its design evolved in response to early staff concerns. The move from one-size-fits-all content in Phase 1 to a tailored,

multimodal, task-based approach in Phase 2 not only secured stronger buy-in but also illustrates the value of embedding established adult learning principles and blended learning research into practice (Holmes, 2020).

NASC's training journey showed progress but also highlighted persistent challenges. Training acted as the link between management's strategic goals and staff's day-to-day work. In this sense, the design of training was influenced by, and in turn influenced, broader issues of communication and implementation. Looking ahead, Revenue could strengthen future projects by applying appropriate learning principles from the start (Holmes, 2020). This would mean making training contextual (connected to real work tasks), inclusive (accessible to all staff), and outcome-focused (clearly linked to measurable results).

5.4.2 Evaluating Change Success

Building on the training findings in Chapter 4, this section examines how successfully NASC was adopted by staff. Success was assessed by whether users found the system useful and integrated it into their work. High engagement reflected effective implementation and reinforced the value highlighted during training, while resistance or low uptake exposed gaps in communication, training, or alignment with staff needs.

The evaluation of NASC's implementation in Chapter 4 revealed tensions in how success was defined, particularly between leadership and end users. Leadership emphasised usage statistics, yet staff consistently stressed that logins and activity rates did not equate to meaningful engagement. As one participant noted: *"Logging in doesn't mean I'm using it properly"* (P2Post14). Another explained: *"Just because it's open on my screen doesn't mean it's helping me"* (P1Post8). These reflections highlighted the limits of quantitative indicators, which demonstrated uptake but not whether the system was genuinely useful or embedded in practice. This resonated with Byeon et al.'s (2022) critique that public sector change evaluation often privileged numerical metrics while underestimating the value of user perspectives.

Staff themselves defined success less in terms of metrics and more in relation to trust, usability, and workflow integration. They considered NASC successful only if it enhanced their daily work: *"If I can trust the information, then it's a success"* (P2Pre6); *"Success will be if it saves me time, not just if I use it"* (P2Post10); *"I have heard from colleagues that NASC is easy to use"* (P1Pre3); *"I want to see it develop into the potentials of SharePoint with workflow, project management, and information hub rather than just records maintenance"* (P2Post31). This aligned with Berger's (2015) argument that

insider research could illuminate subtle cultural factors often overlooked in formal reporting, such as the implicit ways staff linked success to efficiency, trust in information, and integration with existing practices.

Trainers reinforced this perspective, emphasising that meaningful evaluation required moving beyond attendance or login rates. Trainer P2T10 reflected: *“The most revealing feedback comes 3–4 weeks after training when users have attempted real work in NASC. Their practical experience highlights gaps in our theoretical training approach.”* Trainer P1T4 added: *“Users often need time with the system before meaningful questions arise. Informal feedback after implementation has been crucial for identifying stumbling blocks.”* Again, Berger’s (2015) case was instructive: insider vantage points captured lived experiences that exposed cultural and practical dynamics easily missed by surface-level evaluation.

The researcher’s reflective diary further noted that reliance on numerical indicators risked masking persistent challenges, such as inconsistent tagging practices or scepticism about the system’s value. Informal, qualitative insights revealed cultural and behavioural dynamics invisible in usage statistics, for example, the reluctance to raise concerns openly. These findings align with Byeon et al. (2022), who argued that public sector change evaluations often emphasise quantitative measures while overlooking user perceptions. They also extended Berger’s (2015) case for insider research, demonstrating how subtle cultural factors could be surfaced through lived experience. By triangulating user feedback, trainer observations, and reflective insights, this study underscored the necessity of holistic, multi-source evaluation to capture not just compliance but meaningful adoption.

Ultimately, the evaluation of NASC showed that usage metrics alone provided an incomplete picture of success. Genuine adoption depended on whether the system was trusted, usable, and aligned with staff workflows. For future initiatives, Revenue should embed qualitative evaluation mechanisms alongside quantitative ones, ensuring that end-user perspectives were systematically captured and integrated into ongoing system improvements.

This study set out to examine the implementation and adoption of NASC, focusing on how staff perceptions, training, and engagement influenced its success. The sub-questions explored: staff attitudes before and after training, the impact of training on perceptions and usage, and factors shaping successful adoption. Findings indicate that training both reinforced existing beliefs and reshaped understanding of NASC’s value, particularly in supporting collaboration, efficiency, and case work. While most staff engaged positively and integrated the system into daily practice, a

persistent minority remained sceptical, highlighting gaps in communication, training, or alignment with organisational needs. Variations across implementation phases further showed that early enthusiasm could become conditional depending on visible outcomes and perceived effectiveness.

These findings suggest that NASC adoption was moderately successful: the system achieved practical use and enhanced information sharing, yet complete buy-in was limited by residual scepticism and uneven engagement. In addressing the main research question, it is evident that effective change relies not only on the functionality of the system itself but also on sustained support, clear communication, and alignment with user expectations.

The NASC implementation both reflects and extends key themes in the literature on public sector change. The clarity of purpose was partially achieved but inconsistently communicated in ways that resonated with end users. The change process involved in introducing a new knowledge management system (NASC) remained predominantly top-down, though participatory elements such as informal peer-led training improved engagement. Leadership communication was strategically focused on a 'one size fits all' approach, and often lacked operational relevance, while informal peer-to-peer exchanges provided practical value. Resistance persisted where ease of use and trust in the system were low, but engagement flourished in supportive, interactive settings as was evidenced by the results from chapter 4 (see section 4.2.4). The shift to task-based, blended training in Phase 2 improved perceived relevance, yet skill confidence gaps remained. The integration of qualitative end-user perspectives into the evaluation provided a richer, more actionable understanding of adoption than quantitative metrics alone.

The final section of this chapter reflects on Wymer and Regan's (2011) model of change, which was used to guide the analysis of the implementation and adoption of NASC. Drawing on the findings of this research, it critically examines the model's strengths and limitations as an analytical framework for this research, and proposes an updated version of the model to better account for the dynamic interplay between user attitudes, organisational support, and practical system use.

5.5 Integrating Theory and Findings: A Synthesis of Change and Adoption

This section revisits Wymer and Regan's (2011) model of change (figure 2-4), which was used as the guiding analytical framework for this study. As explained in Chapter Two, the model outlines key elements of organisational change, including the role of leadership, communication, staff engagement, training, and the alignment of systems with organisational goals. It provides a

structured way to examine how these factors interact to influence the adoption and successful implementation of new initiatives.

The findings of this study highlight that organisational clarity of purpose, clear communication, and targeted training are essential prerequisites for successful NASC adoption. Across both implementation phases, staff consistently struggled to translate organisational narratives into meaningful relevance for their own roles when these supports were lacking. Even when technical features were well understood or use of the system was actively modelled in the peer network, adoption remained limited if staff did not first grasp why the system was necessary and how it was intended to support their work. So while the Wymer and Regan's (2011) model provides a useful framework for understanding change adoption, the NASC case study indicates areas where it could be extended. The NASC findings clearly demonstrate that adoption is not solely driven by user engagement or social influence, as suggested by Wymer and Regan (2011), but also depends on how leadership communicates the rationale for change and how training translates that purpose into actionable understanding. Without these organisational supports, staff struggled to see the relevance of the system for their roles, limiting uptake even when other factors aligned. Consequently, the model would benefit from explicitly incorporating organisational mechanisms that shape adoption, such as leadership framing of clarity of purpose, clear communication strategies, and training designed to enable practical application. Integrating these elements would enhance the model's explanatory power by capturing the multi-layered dynamics observed in practice.

By incorporating these organisational dimensions, an updated version of Wymer and Regan's model can more accurately reflect the factors that enable or hinder adoption in complex public sector contexts, providing a more comprehensive framework for analysing and guiding change initiatives. Accordingly, this study positions clarity of purpose, clear communication and training not as peripheral conditions but as core mechanisms through which leadership intent is translated into user adoption. This conceptual refinement recognises that successful adoption requires more than exposure to information or persuasion through peers; it depends on an organisational environment where purpose is unambiguous, communication is iterative and role-specific, and training equips staff with the confidence and capability to engage with change. As illustrated in Figure 5-1, these organisational supports form an essential bridging layer between leadership strategy and the processes of perception and diffusion as described in the combination of the TAM and DOI frameworks in the Wymer and Regan (2011) model. By embedding clarity of purpose, clear communication, and targeted training within the adoption framework, the model highlights the centrality of organisational framing and capacity-building in shaping user readiness, thereby

enhancing the applicability of Wymer and Regan’s (2011) model in public sector contexts where compliance narratives alone often fail to resonate with end-users.

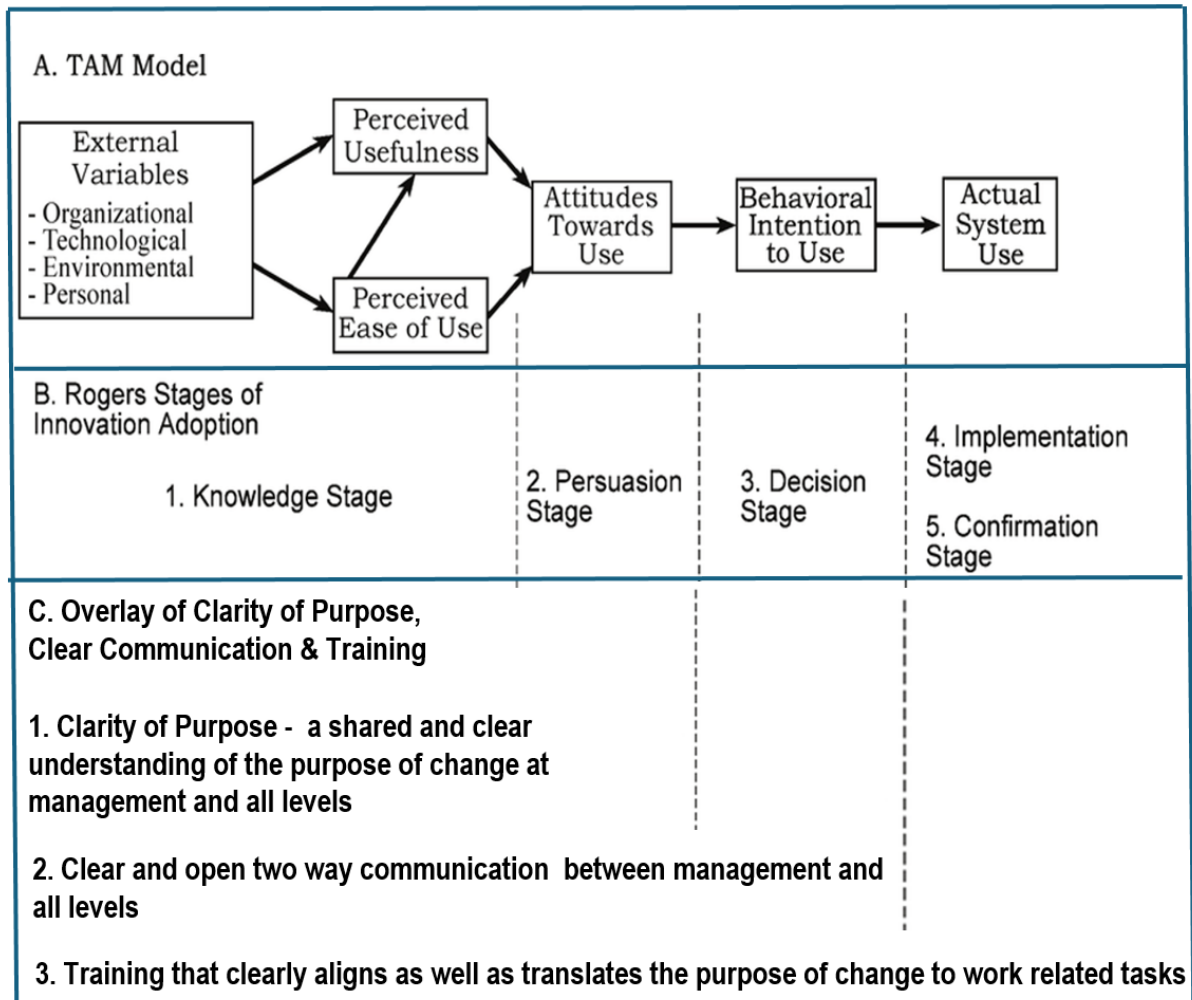


Figure 5-1 NASC Adoption Model

As illustrated in Figure 5-1, leadership and communication are central in connecting purpose to action and building trust while resistance is best managed through genuine engagement and by making change role-specific and relevant. Training and capacity building further support adoption by equipping staff with technical, adaptive, and collaborative skills through accessible, tailored learning approaches. Together, these elements reinforce one another: leadership sets purpose, communication builds understanding, engagement reduces resistance, and training sustains capacity, creating an environment where staff are motivated, capable, and confident in delivering lasting public value.

5.6 Conclusion

This chapter sought to answer the research questions that framed the basis for this research, *“What are the perceptions of staff regarding the factors that influence their decision to adopt the new Knowledge Management System, NASC, within the Office of the Revenue Commissioners in Ireland?”* Building on these findings, an updated model of NASC adoption was presented. The chapter that follows presents the conclusions to the study by outlining the contributions, recommendations and limitations of the study.

The end-user voice reinforces the results of this research. From scepticism (*“What’s the point? It’s the way forward”*, P1Pre1) to optimism (*“It will save us time finding documents”*, P2Post11), the data reveal the contested terrain of digital transformation in hierarchical public organisations. Trainers’ reflections further reinforce these results. From admissions that *“initial training suffered from poor planning and messaging”* (Trainer P2T1) to recognition that *“informal feedback has been invaluable for understanding real-world challenges”* (Trainer P1T1), the trainer perspective highlights both the progress and persistent challenges in embedding NASC. Change in the public sector is driven by external pressures such as policy reforms, technology, and citizen expectations, alongside internal goals like efficiency, transparency, and service quality REFS. As demonstrated in this study, successful transformation requires a balance of top-down direction, which provides vision, resources, and alignment, and bottom-up engagement, which fosters ownership, innovation, and practical solutions.

Chapter 6

Conclusions and Recommendations

6.1 Introduction

The purpose of this research was to investigate staff perceptions of the introduction of the Knowledge Management System (NASC) within the Office of the Revenue Commissioners in Ireland. The study focused on how staff understood the purpose of this change, how leadership and communication shaped adoption behaviour, and how training design, peer learning, and organisational culture influenced implementation. In doing so, the research sought to contribute empirical evidence from an under-researched context, the Irish public service, and to develop theoretical insights that advance understanding of how technology-driven change is adopted in complex public organisations. This final chapter presents an overview of research, followed by a summary of key findings. The contributions of this study are then outlined. Next, limitations of the study are identified, followed by recommendations for practice, policy and future research. The chapter concludes with a final reflection by the researcher.

6.1.1 Research Questions and Approach to Research

The study was guided by the overarching research question: *What are the perceptions of staff regarding the factors that influence their decision to adopt the new Knowledge Management System, NASC, within the Office of the Revenue Commissioners in Ireland?* Three sub-questions provided a more detailed framework for inquiry:

- (i) how staff perceived the purpose of change and the factors influencing their adoption of NASC;
- (ii) how they interpreted management's communication approaches during the implementation process; and
- (iii) how they evaluated the effectiveness of the training and learning design provided.

These questions were examined through an in-depth analysis of data collected from two key participant groups: Revenue staff who used NASC and the trainers responsible for its delivery. End-user participants were drawn from two separate Divisions within Revenue and engaged at two distinct stages of implementation, the first in January 2022 and the second in March 2022. The trainers surveyed were the same individuals across both phases, allowing for continuity and comparative insight.

The primary dataset consisted of survey responses that captured participants' perceptions of NASC's usefulness, ease of integration into daily work, training effectiveness, and organisational readiness. Both closed and open-ended questions were included, enabling a combination of descriptive statistical analysis and thematic interpretation. In addition, reflective field notes kept by the researcher throughout both phases provided contextual insights into participant attitudes, organisational dynamics, and the practical realities of implementation.

Quantitative survey items were analysed to identify trends in engagement, confidence, and perceived value across phases, while qualitative responses and researcher reflections were coded thematically to trace how communication, leadership framing, and training shaped adoption. Together, these data sources enabled a nuanced examination of how staff experiences aligned with, reinforced, or challenged the assumptions of the change model guiding the study.

6.2 Summary of Key Findings

The findings of this study demonstrate that staff perceptions of NASC were shaped by the interaction of three core dynamics: clarity of purpose, clear communication, and training. Adoption was not a passive consequence of system introduction but a socially and organisationally mediated process, reflecting earlier claims that technological change in the public sector requires more than procedural compliance (O'Flynn, 2015; Kuipers et al., 2014). While participants broadly accepted the organisational rationale underpinning NASC, sustained engagement depended on whether the change was communicated clearly, contextualised to local roles, and reinforced through relevant training. The findings in relation to each sub-research question are summarised below.

6.2.1 Staff perceptions of the purpose of change within Revenue and the factors that influence their adoption of NASC

Staff perceptions of the purpose of change within Revenue reveal both alignment with organisational objectives and challenges in translating strategic intent into practical understanding.

Across both phases, participants articulated a consistent understanding of NASC's organisational purpose, citing knowledge retention, collaboration, and efficiency as key drivers. This reflects wider public service narratives around modernisation and safeguarding institutional memory (O'Flynn, 2015). In Phase 1, staff associated NASC with the improvement of work processes, while Phase 2 participants increasingly framed its purpose in terms of preserving organisational knowledge. However, participants generally struggled to translate strategic messaging into role-specific

meaning, echoing Kuipers et al.'s (2014) critique that change narratives in the public sector often lack operational resonance.

This disconnect aligns with Davis's (1987) emphasis on perceived usefulness as a determinant of adoption. Staff who did not see how NASC supported their work were less likely to engage, despite acknowledging its organisational merits. Trainers also observed and reported on this tension between promoting the system at a strategic level and demonstrating its applicability to everyday tasks. This indicates that purpose alone was an insufficient driver of adoption unless paired with mechanisms that translated intent into practice.

6.2.2 Staff perceptions of management's communication approaches in encouraging adoption behaviour during the implementation of NASC?

Staff perceptions of management's communication approaches during NASC implementation highlight a tension between strategic intent and employee engagement.

Communication emerged as a critical influence on adoption. Participants frequently described messaging about NASC as top-down, compliance-oriented, and disconnected from their operational realities. Messages were often delivered as definitive instructions rather than part of a two-way process, reflecting the pattern identified by Kuipers et al. (2014), in which strategic communication dominates at the expense of staff-level resonance. Staff responses suggest that one-way communication limited engagement, consistent with Lewis et al.'s (2006) assertion that reciprocal communication is more effective for building support during change.

By contrast, informal communication channels played a vital role in shaping understanding and confidence. Peer discussion, local demonstrations, and the role of trainers as mediators were perceived as more credible and practical. This aligns with Rogers' (2003) emphasis on opinion leaders and social influence, and Bandura's (1977) view that modelling behaviour supports learning. Staff reported that seeing colleagues use NASC effectively was more influential than official guidance. Negative messaging arising from the pilot phase also affected ease of use perceptions, suggesting that communication actively shaped both confidence and adoption behaviour.

6.2.3 Staff perceptions of the effectiveness of the training approaches employed during the implementation of NASC?

Staff perceptions of the training approaches employed during NASC implementation reveal mixed views on their effectiveness, particularly regarding the balance between awareness-raising and practical applicability.

Training was consistently identified as foundational to adoption. Participants acknowledged that formal sessions provided necessary awareness of the proposed new knowledge management system, but impact varied depending on whether training demonstrated practical relevance. Early sessions were criticised for overemphasising promotion rather than application, a challenge also noted by trainers. Staff reported that role-specific examples and hands-on demonstrations were more effective, reflecting TAM's emphasis on perceived usefulness and DOI's concept of trialability (Rogers, 2003).

Informal and peer-supported learning complemented formal provision. Many staff emphasised that they learned more from observing colleagues than from structured sessions, aligning with Senge's (1999) view that learning is embedded in practice. The findings also echo Kotter's (1996) assertion that reinforcement and continuity support sustained behaviour change. Where training enabled staff to work with the system in realistic scenarios and revisit content as needed, adoption was strengthened. Engagement was weaker where practical support or follow-up opportunities were absent.

6.2.4 Towards the NASC Adoption Model

When viewed collectively, the findings indicate that NASC adoption was shaped by how clearly its purpose was framed, how communication was experienced, and how training enabled staff to act on organisational intent. While staff recognised the strategic justification for NASC, adoption was strongest when purpose was translated into operational relevance. Communication influenced both confidence and interpretation, with informal and peer-led exchanges often compensating for limitations in top-down messaging. Training was most effective when it developed skills, demonstrated practical application, and allowed for ongoing engagement.

These findings suggest that adoption in public sector contexts cannot be fully explained by user attitudes or diffusion mechanisms alone. Instead, they underline the centrality of organisational framing, iterative communication, and targeted capacity-building in supporting change. In response, this study adapted the Wymer and Regan's (2011) model to align it more closely to the requirements of the public service and in particular the rollout of the new knowledge management system, NASC. While Wymer and Regan's (2011) adaptation of the Technology Acceptance Model (TAM) emphasises perceived usefulness, perceived ease of use, and attitudinal readiness as central determinants of adoption, the Diffusion of Innovations (DOI) framework extends this understanding by highlighting the influence of communication channels, opinion leaders, and social systems on how innovations spread. Building on these foundations, the NASC Adoption Model (see Figure 5-1)

reconceptualises adoption within a public sector context by positioning clarity of purpose, effective communication, and targeted training as interdependent and structurally embedded drivers of implementation. This adaptation advances existing models by reframing these elements not as peripheral supports but as core components of adoption, particularly in organisational environments where compliance-driven change alone is insufficient to foster genuine engagement.

6.3 Contribution to Knowledge

This study contributes to knowledge in two principal ways: empirical and theoretical. Empirically, it provides novel insights into staff perceptions of technological change within the Irish public service, a context under-represented in the literature. Theoretically, it advances understanding by applying Wymer and Regan's 2011 model to interpret adoption behaviours.

6.3.1 Empirical contributions

The study contributes to a deeper understanding of the conditions under which knowledge management systems are successfully adopted in the public service. It also provides empirical insight into how staff in the Irish public service perceive the introduction of a knowledge management system. While international research on technology adoption and organisational change is extensive (e.g. Kuipers et al., 2014; Fernandez and Rainey, 2006; O'Flynn, 2015), there is limited empirical work set within the Irish public sector context. Much of the literature focuses on reforms at the policy level or on broader efficiency and governance agendas (MacCarthaigh, 2017), with fewer studies examining how frontline staff actually experience and interpret specific reforms. By focusing on staff perceptions of NASC, this research fills an important gap in understanding how technological change is mediated through communication, training, and culture in a large Irish public organisation.

The empirical contribution is also significant in terms of subject matter. Knowledge management systems are increasingly positioned as central to organisational resilience and efficiency (Alavi and Leidner, 2001; Nonaka and Takeuchi, 1995), particularly in the public sector where knowledge retention is critical due to staff turnover and the complexity of regulatory work. Yet adoption of such systems is often uneven. This study documents how adoption unfolds in practice, demonstrating the interplay between formal and informal mechanisms of communication and learning, and illustrating how organisational narratives of efficiency intersect with staff concerns about usability and relevance.

6.3.2 Theoretical contributions

The research advances understanding of Wymer and Regan's (2011) adoption model, which combines the Technology Acceptance Model (TAM) and the Diffusion of Innovation (DOI) framework. While TAM explains how perceptions of usefulness and ease of use influence adoption, DOI highlights the role of communication channels, opinion leaders, and social systems in shaping diffusion. These constructs provided a lens through which staff perceptions of NASC could be interpreted, highlighting the gap between strategic rationales and operational realities. At the same time, the study drew on theories of organisational change (Kotter, 1996; Armenakis and Bedeian, 1999; Kuipers et al., 2014) to understand how top-down versus bottom-up approaches, leadership communication, and readiness for change shaped staff experiences.

However, findings from this study indicated that Wymer and Regan's model (2011) does not adequately capture the dynamics of change within a public service office, where adoption is not only about individual perceptions or social diffusion but also about organisational alignment and collective practice. To address this gap, the research proposes an adapted NASC adoption model (see figure 5-1) that further extends TAM and DOI by incorporating three interdependent dynamics: clarity of purpose, clear communication, and training. The model demonstrates that adoption is most successful when strategic purpose is translated into operationally meaningful terms, when communication is inclusive and unambiguous, and when training is practical and contextualised.

This theoretical extension contributes in two important ways. First, it highlights the interdependence of organisational, communicative, and individual learning factors in shaping adoption. Second, it shows that successful adoption in public service contexts emerges not simply from individual acceptance or innovation diffusion, but from the alignment of purpose, communication, and capacity-building. In this way, the study advances adoption theory beyond the limits of existing models by foregrounding the processual and relational nature of change in complex organisational environments.

The research also contributes to debates on change management in the public sector. Kuipers et al. (2014) highlight that reforms are often experienced as imposed and compliance-driven, leading to resistance. This study provides concrete evidence of that dynamic in the Irish context, while also indicating how participatory mechanisms, even when partial, can reduce scepticism and build engagement. It demonstrates the importance of aligning top-down strategic direction with bottom-up involvement, echoing Fernandez and Rainey's (2006) argument that successful change requires both clear vision and broad-based participation.

6.4 Implications and Recommendations for Practice

The findings of this study carry significant implications for the management of technological and organisational change within Revenue and, more broadly, across the public service. They also hold direct significance for the researcher's professional practice, particularly in recognising how strategic goals can be translated into operationally meaningful terms and in appreciating the importance of designing interventions that are participatory, involve two-way discourse, and grounded in the realities of everyday work.

6.4.1 Bridging organisational narratives and operational realities

One of the clearest implications is the need to bridge the gap between the strategic narrative of change and the operational realities experienced by staff. Leaders frequently presented NASC as a mechanism for improving efficiency and retaining knowledge, yet staff often struggled to see how it related to their specific responsibilities. This disconnect limited engagement and encouraged scepticism. Future change initiatives must therefore be framed in ways that explicitly link organisational objectives with role-specific benefits. Achieving this requires tailoring communication to different staff groups, using concrete workflow-based examples, and ensuring that messages are iterative and dialogic rather than top-down and one-off (Lewis et al., 2006).

6.4.2 Communication as reciprocal dialogue

The study also revealed that communication should not be viewed as a one-way transfer of information but as a process of ongoing dialogue. Staff valued opportunities to give feedback, to see their concerns addressed, and to engage in exchanges with peers. This suggests that organisations should embed two-way communication channels into implementation strategies and support informal interactions, such as peer-to-peer exchanges, communities of practice, or local champions. By encouraging reciprocal communication, organisations can strengthen legitimacy, improve ownership, and create conditions in which staff feel part of the change rather than subjects of it (Armenakis and Bedeian, 1999).

6.4.3 Rethinking training and capacity-building

The design of training carries equally important implications. Staff consistently reported that they valued practical demonstrations and role-specific examples far more than abstract or promotional content. This highlights the need to move beyond awareness-raising sessions toward immersive, context-specific training (Holmes, 2020). Blended approaches that include workshops, webinars, e-learning modules, and peer-led sessions can better accommodate diverse learning preferences

(Holmes, 2020). Since adoption is an ongoing process rather than a discrete event, refresher courses, advanced modules, and continuous learning opportunities are also required to sustain engagement as the system evolves (Holmes, 2020). Trainers should be supported to act as facilitators of learning who can contextualise the material, respond to feedback, and bridge the gap between strategic messaging and everyday practice.

6.4.4 Supporting informal learning and peer networks

The findings further underscore the role of informal learning. Many staff reported that they gained as much, if not more, from colleagues and trainers in informal settings as they did from formal training programmes. Rather than treating such exchanges as incidental, organisations should recognise them as a legitimate component of change management (Bates, 2005). Mechanisms such as peer mentoring schemes, the designation of local champions, and the creation of knowledge-sharing forums could help formalise and sustain these dynamics, embedding learning within the social fabric of the workplace and ensuring that adoption is supported by the collective rather than left to individuals alone (Carwile, 2007).

6.4.5 Cultural alignment and leadership modelling

Cultural alignment and leadership behaviour also emerged as critical factors. Resistance was strongest when change was experienced as imposed and compliance-driven, whereas engagement was enhanced when leaders and peers visibly modelled the desired behaviours. Leadership must therefore play an active role not only in advocating for change but also in demonstrating it through consistent use of the system and by showcasing examples of effective adoption. Celebrating early successes and embedding new practices within organisational routines can further strengthen legitimacy and help normalise the change, consistent with Kotter's (1996) emphasis on embedding reform into organisational culture.

6.4.6 Monitoring, evaluation, and continuous adaptation

Another implication concerns the need for systematic monitoring, evaluation, and adaptation. Adoption is not a fixed outcome but a process that evolves as staff gain experience and as organisational priorities shift. It is therefore essential to establish robust mechanisms that assess not only technical usage but also staff perceptions and experiences. Regular surveys, focus groups, and feedback loops provide insights into how staff are engaging with the system and where challenges lie. Responsiveness to this feedback allows organisations to adapt strategies, ensuring that the system remains aligned with staff needs and organisational goals over time.

6.4.7 Broader implications for the public service

Public service organisations are under increasing pressure to modernise while retaining trust and legitimacy (MacCarthaigh, 2017). While these findings are directly relevant to Revenue, they also have wider significance for the Irish public service and, possibly, for public administrations in other jurisdictions. The evidence from this study demonstrates that technical implementation alone is insufficient to ensure adoption. Instead, successful digital transformation depends on a combination of inclusive communication, contextualised training, peer learning, cultural alignment, and continuous monitoring. By embedding these practices into future change initiatives, public organisations can build stronger capacity for digital transformation and create a more adaptive, resilient public service.

6.4.8 Implications for professional practice

Finally, the findings of this research have direct implications for the researcher's professional practice. They highlight the importance of adopting a holistic approach to change management, one that integrates technical, organisational, and relational dimensions. The findings illustrate the value of framing communication in ways that connect strategic objectives to operational realities, of creating genuine opportunities for dialogue in which staff can voice concerns and contribute to shaping implementation, and of designing training that is contextual, iterative, and responsive to real needs. Equally, there is emphasis on the need to actively support informal peer networks, to model change through one's own behaviours, and to embed continuous monitoring and evaluation into every stage of implementation. These lessons will shape the researcher's future practice, ensuring that the approach to change is not simply as a matter of technical system rollout but as a process of alignment between organisational purpose, staff experience, and learning.

6.5 Limitations and Future Research

As with all research, this study has certain limitations that must be acknowledged. These limitations do not undermine the value of the findings but provide important context for interpreting them and suggest avenues for future research.

The first limitation relates to scope. The study focused on two Divisions of the Office of the Revenue Commissioners, with a sample of approximately 100 participants. While this provided rich insights into staff perceptions, the findings cannot be generalised to the organisation as a whole or to the wider Irish public service without caution. Different Divisions may have distinct cultures, work practices, and leadership styles that shape adoption differently. Future research could expand the

scope to include additional Divisions or adopt a cross-organisational perspective, comparing experiences across multiple government departments.

A second limitation concerns the data collection method. Surveys were used to gather staff and trainer perspectives, supported by researcher reflections. While surveys provided breadth and anonymity, they offered limited depth compared to interviews or ethnographic methods. Moreover, the voluntary nature of participation meant that self-selection bias is possible, with those most engaged or opinionated more likely to respond. Additionally, because responses were anonymous, it was not possible to track individual changes in perception across the pre- and post-training surveys. Nor was it possible to identify the grade level of respondents, which limited the ability to explore how perceptions may have varied across different staff cohorts. Longitudinal research that follows the same individuals over time, while also accounting for grade-level distinctions, would provide richer insights into how perceptions and behaviours evolve. Longitudinal research that follows the same individuals over time would provide richer insights into how perceptions and behaviours evolve.

Third, the research was conducted during the early stages of NASC's rollout. As a result, the findings reflect initial adoption dynamics but do not capture long-term patterns of use or sustainability. Future studies should examine how adoption evolves over several years, whether initial scepticism diminishes, and whether NASC becomes embedded into organisational routines. This would help test Kotter's (1996) argument that change must be consolidated and institutionalised to be sustained.

Finally, the research did not incorporate external perspectives. While the focus on staff and trainers provided valuable internal insights, additional perspectives, for example, from managers, system designers, or external stakeholders, would provide a more comprehensive picture of the implementation process. Comparative studies across different countries or public sector organisations could also illuminate how contextual factors shape adoption.

Future research could therefore build on this study in several ways: expanding the scope across Divisions and departments; adopting longitudinal methods to track change over time; incorporating qualitative methods such as interviews and focus groups to capture depth; and conducting cross-national comparisons to test the transferability of findings. It would also be valuable to explore the integration of emerging technologies such as artificial intelligence and machine learning into knowledge management systems, and to assess how such tools might further enhance efficiency, collaboration, and knowledge retention in the public sector.

6.6 Conclusion

The rollout of NASC within the Office of the Revenue Commissioners demonstrates that the adoption of technological change in the public service cannot be understood through a single lens. Staff perceptions were shaped by the alignment, or misalignment, of purpose, communication, and training. Where purpose was clearly communicated in role-specific terms, communication was interactive rather than compliance-driven, and training was practical and contextualised, staff reported greater engagement and confidence. Where these elements were fragmented, scepticism and resistance persisted.

By building on Wymer and Regan's model (2011), and then adapting this model to incorporate clarity of purpose, clear communication, and training, this research demonstrates that adoption is not only shaped by individual and social factors but is an organisation-wide process. It depends on the alignment of strategic purpose with operational relevance, the provision of inclusive and interactive communication, and the design of practical and continuous training.

For Revenue, the lesson is clear: sustainable adoption of NASC requires ongoing alignment of clarity of purpose, clear communication, and training, supported by inclusive leadership and responsive feedback mechanisms. For the wider public service, the study highlights the need to move beyond top-down narratives of efficiency towards participatory, context-sensitive approaches that build ownership and legitimacy. In this way, NASC serves not only as a case study of the challenges of adoption but also as a foundation for rethinking how digital reforms are communicated, supported, and embedded across the public sector.

The completion of this research has highlighted both the complexity and the necessity of examining how change initiatives are experienced within large public sector organisations. While the study was framed around the implementation and adoption of NASC, it also illuminated broader themes of communication, leadership, participation, and organisational culture. The findings suggest that the success of organisational change cannot be reduced to the introduction of new systems or processes alone; rather, it depends on how such initiatives are understood, owned, and enacted by the individuals whose daily work they are designed to shape.

The study illustrates that while leadership sets the direction, change ultimately depends on how staff interpret and apply it in their work. While leadership narratives and top-down strategies establish direction, the momentum of change ultimately rests on the everyday practices and interpretations of staff. This insight extends beyond the specific case of NASC to the wider study of

public sector reform, where sustainable adoption is contingent on the alignment between strategic ambition and local meaning-making.

Finally, the research illustrates that change is rarely linear or uniform. Instead, it unfolds unevenly, shaped by diverse perspectives, competing priorities, and shifting contexts. Rather than being a limitation, this complexity offers valuable lessons: clarity of purpose, opportunities for dialogue, and genuine attention to user perspectives are critical in ensuring that change initiatives achieve their intended outcomes. In this respect, the study not only contributes to understanding NASC but also offers insights relevant to the wider literature on organisational change in the public sector.

References

Alavi, M. and Leidner, D.E. (2001) 'Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues', *MIS Quarterly*, 25(1), pp. 107–136.

Alharbi, S. and Drew, S. (2014) 'Using the Technology Acceptance Model in Understanding Academics' Behavioural Intention to Use Learning Management Systems', *International Journal of Advanced Computer Science and Applications*, 5(1), pp. 143-155.

Anderson, D. and Anderson, L.A. (2010) *Beyond change management: How to achieve breakthrough results through conscious change leadership* (Vol. 36). John Wiley & Sons.

Armenakis, A. A. and Bedeian, A. G. (1999) 'Organizational Change: A Review of Theory and Research in the 1990s', *Journal of Management*, 25(3), pp. 293-315.

Association of Chartered Certified Accountants (ACCA) (2016) *Professional accountants – the future: 50 drivers of change in the public sector*. Available at https://www.accaglobal.com/content/dam/ACCA_Global/Technical/Future/drivers-of-change-in-the-public-sector.pdf (Accessed 04/02/2025)

Association of Chartered Certified Accountants (ACCA) (2023) *Global Talent Trends Survey*. Available at https://www.accaglobal.com/content/dam/ACCA_Global/professional-insights/talenttrends2023/PI-GLOBAL-TALENT-TRENDS-2023-SUMMARY.pdf. (Accessed 23/05/24).

Avanade (2020) *NASC Project Review*, Office of the Revenue Commissioners, (unpublished).

Babbie, E. (2020) *The Practice of Social Research*. 15th ed. London: Cengage Learning.

Bandura, A. (1977) 'Self-efficacy: toward a unifying theory of behavioural change', *Psychological Review*, V84, Pp191–215.

Bates, A. W. (2005) *Technology, e-learning and distance education*. New York: Routledge

- Beatty, C., Dr. (2015) *The Easy, Hard and Tough Work of Managing Change*. Queen's University IRC.
- Berger, R. (2015) 'Now I see it, now I don't: Researcher's position and reflexivity in qualitative research', *Qualitative Research*, 15(2), 219–234. <https://doi.org/10.1177/1468794112468475>
- Bissett, A.F. (1994) 'Designing a questionnaire: Send a personal covering letter', *British Medical Journal* 308.
- Boyle, R., Humphreys, P.C. (2001) 'A New Change Agenda for the Irish Public Service' *Committee for Public Management Research*, CPMR Discussion Paper 17, pp. 1-90.
- Bransford, J. D., Brown, A. L., Cocking, R. R. (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
- Braun, V., and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative research in psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Braun, V. and Clarke, V. (2013) *Successful Qualitative Research: A Practical Guide for Beginners*. SAGE Publication, London.
- Braun, V., and Clarke, V. (2021) *Thematic Analysis: A Practical Guide*. SAGE Publications.
- By, R.T. and Macleod, C. (2009) *Managing Organizational Change in Public Services. International Issues, Challenges and Cases*. London, New York: Routledge.
- Byeon, H.J., Lee, C., Lee, J. and Oh, U. (2022) 'A voice that suits the situation: Understanding the needs and challenges for supporting end-user voice customization', In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems* (pp. 1-10).
- Caldwell, R. (2009) *Leadership and learning: A critical re-examination of Senge's learning organization*. London: Routledge.
- Carwile, C. (2007) 'A constructivist approach to online teaching and learning', *Inquiry*, 12(2), 68–73 <http://files.eric.ed.gov/fulltext/EJ833907.pdf>. [Accessed 12/02/21].

Charlesworth, K., Cook, P. and Crozier, G. (2003) 'Leading Change in the Public Sector: Making the Difference', *Management Services*, 47(11), pp. 12-5.

Christensen, M. (2005) 'The "Third Hand": Private Sector Consultants in Public Sector Accounting Change', *European Accounting Review*, 14(3), pp. 447-74.

Civil Service Employee Engagement Survey, (2020) chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.cso.ie/en/media/csoie/about-us-new/csees/CSEES_2020_-_Civil_Service_Report.pdf, (Accessed 14/1/2023)

Cohen, L., Manion, L. and Morrison, K. (2007) *Research Methods in Education*. London: Routledge.

Creswell, J.W. (2002) *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Merrill Prentice Hall.

Creswell, J. W. (2013) *Qualitative Inquiry and Research Design: Choosing among Five Approaches* (3rd ed.). Thousand Oaks, CA: SAGE.

Creswell, J. W. and Creswell, J. D. (2018) *Research design: qualitative, quantitative, and mixed methods approaches*. Fifth edition. Los Angeles: SAGE.

Creswell, J. W. and Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications

Czerkawski, B.C. and Lyman, E.W. (2016) 'An Instructional Design Framework for Fostering Student Engagement in Online Learning Environments', *TechTrends* Vol 60, 532–539, <https://doi.org/10.1007/s11528-016-0110-z> [Accessed 12/04/2021].

Davis, F., (1987) *User Acceptance of Information Systems: The Technology Acceptance Model (TAM)*. 1st ed. [ebook] Ann Arbor: University of Michigan.

Davis, F. D. (1989) 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly*, 13(3), 319-340.

Davis, F. D. and Venkatesh, V. (1996) 'A critical assessment of potential measurement biases in the technology acceptance model: three experiments', *International Journal of Human-Computer Studies*, 45(1), pp. 19–45. Doi: 10.1006/ijhc.1996.0040.

Day, G. and Shannon, E.A. (2015) *Leading and Managing Change, Leading and Managing Health Services: An Australasian Perspective*, Melbourne: Cambridge University Press. pp. 295–304.

DCU Business School and The Department of Public Expenditure and Reform (DPER) (2020) *Shaping the Future of Work in the Civil Service in Ireland: Enriching Involvement, Innovation, Performance, and Citizen Impact: Supplementary Grade Analysis*. Available at:
https://www.google.com/url?sa=i&url=https%3A%2F%2Fassets.gov.ie%2F46038%2F32fdf98bb5f844bd849defb966b5d6e0.pdf&psig=AOvVaw0hxAdrEAz9Q1wxAZTuSGFJandust=1722804420597000&source=images&cd=vfe&opi=89978449&ved=0CAQQn5wMahcKEwilsO_a2NmHaxUAAAAAHQAAAAAQBA (Accessed 24 January 2024)

Deloitte, (2023) *Impact Report 2023: Business*. Available at:
<https://www.deloitte.com/ie/en/about/governance/impact-report-2023/business.html> (Accessed 26 July 2025).

Demircioglu, M. A. (2020) 'Sources of Innovation, Autonomy, and Employee Job Satisfaction in Public Organizations', *Public Performance and Management Review*, 44(1), pp. 155–186. doi: 10.1080/15309576.2020.1820350.

Denzin, N. and Lincoln, Y. (2000) *The Discipline and Practice of Qualitative Research*. In: Denzin, N.K. and Lincoln, Y.S., Eds., *Handbook of Qualitative Research*, Sage, Thousand Oaks, pp. 1-32.

Department of Public Expenditure and Reform (2017) *eGovernment strategy 2017-2020*. Available at: <https://egovstrategy.gov.ie/actions/> (Accessed 27 March 2019).

Department of Public Expenditure and Reform (2020) *Gov.ie* Available at:
<https://www.gov.ie/pdf/?file=https://assets.gov.ie/135125/1dc104a6-3085-4a13-be8b-444524fa5e20.pdf#page=null> (Accessed 6 April 2023).

Department of Public Expenditure and Reform (2022) *Gov.ie*. Available at:
<https://www.gov.ie/en/publication/136b9-connecting-government-2030-a-digital-and-ict-strategy-for-irelands-public-service/> (Accessed 6 April 2023).

Department of Public Expenditure, NDP Delivery and Reform (2023) *Better Public Services – Public Service Transformation 2030 Strategy*. Available at:
<https://www.gov.ie/pdf/?file=https://assets.gov.ie/255872/e6feb71e-0199-4061-894e-6f8e80bafad1.pdf#page=null> (Accessed 8 February 2024).

Dhawan, S. (2020) 'Online Learning: A Panacea in the Times of COVID-19 Crisis', *Journal of Educational Technology Systems*, 49(1), pp. 5-22, <https://doi.org/10.1177/0047239520934018> [accessed 17/04/2021].

Dul, J. and Hak, T. (2008) *Case study methodology in business research*. Amsterdam: Elsevier.

Dwyer, J., Liang, Z., Thiessen, V. and Martini, A. (2013) *Why Project Management, Project Management in Health and Community Services*. 2nd ed. Crow's Nest, NSW: Allen and Unwin.

Eduventures, (2017) 'Higher Education Technology Landscape Report', *National Research Center for College and University Admissions*.

Errida A, Lotfi B. (2021) 'The determinants of organizational change management success: Literature review and case study', *International Journal of Engineering Business Management*, 2021;13. doi:10.1177/18479790211016273.

Fernandez, S., Rainey, H.G. (2006) 'Managing Successful Organizational Change in the Public Sector', *Public Administration Review*, 66(2), pp. 168-76.

Gibbs, G. (1988) *Learning by doing: A guide to teaching and learning methods*. Further Education Unit.

Greenhalgh, T., Stramer, K., Bratan, T., Byrne, E., Mohammad and Russell, J. (2008) 'Introduction of Shared Electronic Records: Multi-Site Case Study Using Diffusion of Innovation Theory', *BMJ: British Medical Journal*, 337(7677), pp. 1040–1044.

Hak, T. and Dul, J. (2009) *Pattern matching* In Albert J. Mills, Gabrielle Durepos and Elden Wiebe (Eds.), *Encyclopaedia of case study research* (pp.663-665). Thousand Oaks, CA: Sage.

Halim, M.A., Foozy, C., Rahmi, I. and Mustapha, A. (2018) 'A Review of Live Survey Application: SurveyMonkey and SurveyGizmo', *International Journal on Informatics Visualization*. 2(4-2).

Hayes, J. (2002) *The Theory and Practice of Change Management*. Hampshire, Palgrave.

Herman, J. H. (2012) 'Faculty development programs: The frequency and variety of professional development programs available to online instructors', *Journal of Asynchronous Learning Networks*, 16(5), 87–106 <http://files.eric.ed.gov/fulltext/EJ1000093.pdf>. [Accessed 12/02/2021].

Hermansen, E.A.T. and Sundqvist, G. (2022) 'Top-down or bottom-up? Norwegian climate mitigation policy as a contested hybrid of policy approaches', *Climatic Change* 171(26), pp. 2-5.
<https://doi.org/10.1007/s10584-022-03309-y>

Heyden, M., Fourné, S., Koene, B., Werkman, R. and Ansari, S. (2016) 'Rethinking 'Top-Down' and 'Bottom-Up' Roles of Top and Middle Managers in Organizational Change: Implications for Employee Support', *Journal of Management Studies*. 54. 10.1111/joms.12258.

Heyden, M.L.M., Sidhu, J.S., and Volberda, H.W. (2016) 'The convergence of change management and technology acceptance: Reviewing TAM through the lens of organizational change', *Journal of Organizational Change Management*, 29(6), pp. 977–1002.

Higgs, M., Rowland, D. (2005) 'All Changes Great and Small: Exploring Approaches to Change and its Leadership', *Journal of Change Management*, 5(2), pp.121–151.

Hill, M., Hupe, P. (2009) *Implementing Public Policy. An introduction to the study of operational governance*, 2nd edn. London: Sage.

Holmes, A. G. D. (2020) 'Researcher positionality: A consideration of its influence and place in qualitative research', *Shanlax International Journal of Education*, 8(4), pp. 1–10.
<https://doi.org/10.34293/education.v8i4.3232>.

Holland, A.A. (2019) 'Effective principles of informal online learning design: A theory-building meta synthesis of qualitative research' *Computers and Education*, V 128, Pp. 214-226, ISSN 0360-1315,
<https://doi.org/10.1016/j.compedu.2018.09.026> (Accessed 06/01/2022).

Howe, K. R. (1985) 'Two Dogmas of Educational Research', *Educational Researcher* 14(8), pp 10-18.

Institute of Public Administration (IPA) (2006) 'Ageing in the Irish Civil Service: A Human Resource Management Response'
https://www.ipa.ie/_fileUpload/Documents/CPMR_DP_36_Ageing_inthe_CivilService_HR_Management_Response.pdf (Accessed 20 November 2024).

Institute of Public Administration (IPA) (2015) *Organisational Culture and the Public Service*, State of the Public Service Series. Available at:
https://www.ipa.ie/_fileUpload/Documents/Organisational_Culture.pdf (Accessed 16 April 2024).

Jansen, H. (2010) 'The Logic of Qualitative Survey Research and its Position in the Field of Social Research Methods', *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 11(2), Art. 11, <http://nbn-resolving.de/urn:nbn:de:0114-fqs1002110>.

Jeyaraj, A., Rottman, J. W. and Lacity, M. C. (2006) 'A review of the predictors, linkages, and biases in IT innovation adoption research', *Journal of Information Technology*, 21(1), pp. 1–23. Doi: 10.1057/palgrave.jit.2000056.

Jootun, D., McGhee, G. and Marland, G.R. (2009) 'Reflexivity: Promoting rigour in qualitative research', *Nursing Standard*, 23(23), pp. 42–46.

Jurisch, M. C., Ikaš C., Wolf P. and Krcmar H. (2014) 'Key Differences of Private and Public Sector Business Process Change', *e-Service Journal* 9(1), pp. 3–27.

- Jurich, S., Rickert, J. and Vogl, T.M. (2014) 'Managing digital reforms in the public sector: Opportunities and pitfalls', *Government Information Quarterly*, 31(2), pp. 270–280.
- Kaili, L., Harrison, H. Y., Yinghui, S. and Xuan, W. (2021) 'Examining the key influencing factors on college students' higher-order thinking skills in the smart classroom environment', *International Journal of Educational Technology in Higher Education* (18)1.
- Kaplan, B., Maxwell, J.A. (1994) 'Qualitative Research Methods for Evaluating Computer Information Systems', *Evaluating Health Care Information Systems; Methods and Applications*, Anderson, J.G., Aydin, C.E., Jay, S.J., (eds.), Sage, Thousand Oaks, CA, pp. 45-68.
- Keller, J. and Katsuaki S. (2004) 'Learner motivation and E-learning design: a multinationally validated process', *Journal of Educational Media*, 29(3).
- Kitsios, F. and Kamariotou, M. (2019) 'Service innovation process digitization: areas for exploitation and exploration', *Journal of Hospitality and Tourism Technology*, <https://doi.org/10.1108/jhtt02-2019-0041>.
- Kohei, S. and Hyunkang, H. (2020) 'Bureaucratic structures and organizational commitment: findings from a comparative study of 20 European countries', *Public Management Review*, 22(6), pp. 877-907, DOI: 10.1080/14719037.2019.1619813 [accessed 20/04/2021].
- Kotter, J.P. (1996) *Leading change*. Boston, MA: Harvard Business School Press.
- Kuipers, B.S., Higgs, M.J., Kickert, W.J.M., Tummers, L.G., Grandia, J. and Van der Voet, J. (2014) 'The management of change in public organisations: A literature review', *Public Administration*, 92(1), pp. 1-20. DOI 10.1111/padm.12040 (Accessed: 29 September 2020).
- Laing, I.F. (2021) The impact of training and development on worker performance and productivity in public sector organizations: A case study of Ghana Ports and Harbours Authority. *International Research Journal of Business and Strategic Management*, 2(2).
- Lewin, K. (1951) *Field theory in social science*. New York: Harper and Brothers.

Lewis, L.K., Schmisser, A.M., Stephens, K.K. and Weir, K.E. (2006) 'Advice on communicating during organizational change: The content of popular press books', *Management Communication Quarterly*, 20(2), pp. 209–236.

Lincoln, Y. and Guba, E. (1985) *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications Inc.

Lor, P. (2011) 'Preparing for research: metatheoretical considerations', Retrieved from <http://pjl.lor.files.wordpress.com/2010/06/chapter-3-draft-2011-04-152.pdf> (Accessed 2/12/2021).

MacCarthaigh, M. (2017) *Public sector reform in Ireland: Countering crisis*. Basingstoke: Palgrave Macmillan.

Mangan C. and Lawrence-Pietroni C. (2019) 'More Rave Than Waltz—Why the Complexity of Public Service Means the End for Hero Leadership'. In: Dickinson H., Needham C., Mangan C., Sullivan H. (eds) *Reimagining the Future Public Service Workforce. Springer Briefs in Political Science*. Springer, Singapore. https://doi.org/10.1007/978-81-13-1480-3_6.

Maxwell, J. A. (2005) *Qualitative research design. An interactive approach*. Thousand Oaks, CA: Sage.

McNeal, R. B. J. (2015) 'Institutional environment(s) for online course development and delivery', *Universal Journal of Educational Research*, 3(1), pp. 46–54.

Mehall, S. (2020) 'Purposeful Interpersonal Interaction in Online Learning: What Is It and How Is It Measured?', *Online Learning*, 24(1), pp. 182-204.

Merriam, S.B. (1998) *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass Publishers.

Merriam, S.B. and Tisdell, E.J. (2016) *Qualitative Research: A Guide to Design and Implementation*. 4th ed. San Francisco: Jossey-Bass.

Microsoft Support (2022) Available at: <https://support.microsoft.com/en-us/office/what-is-sharepoint-97b915e6-651b-43b2-827d-fb25777f446f> (Accessed 15/03/2023).

Miles, M. and Huberman, A. (1984) *Qualitative data analysis*. Newbury Park: Sage

Miles, M. and Huberman, A. (1994) *Qualitative data analysis. An expanded source book* (2nd edition), Thousand Oaks, CA: Sage.

Morley, M., Moore, S., Hearty, N., Linehan, M., and MacCurtain, S. (2004) *Principles of Organisational Behaviour: An Irish Text*, 2nd Ed. Gill and MacMillan.

Murdoch, M., Simon, A. B., Polusny, M. A., Bangerter, A. K. and Grill, J. P. (2014) 'Impact of different privacy conditions and incentives on survey response rate, participant representativeness, and disclosure of sensitive information: a randomized controlled trial', *BMC Med Res Methodol*. doi:10.1186/1471-2288.

Neal, J.W., Neal, Z.P., VanDyke, E. and Kornbluh, M. (2008) 'Expediting the analysis of sociometric data: A multiple-matrix approach to social network analysis', *Field Methods*, 20(2), pp. 159–185.

Nonaka, I. and Takeuchi, H. (1995) *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford: Oxford University Press.

O'Donnell, O. and Boyle, R., (2004) *E-Government and Organisation Development*. Dublin: Institute of Public Administration. Available at: <https://www.ipa.ie/research-reports/e-government-and-organisation-development.1242.html> (Accessed 26 July 2025).

OECD (2017) 'Fostering Innovation in the Public Sector', *OECD Publishing, Paris*. <http://dx.doi.org/10.1787/9789264270879-en> (Accessed 09 September 2021).

O'Flynn, J. (2015) 'Public Sector Reform: The Puzzle We Can Never Solve?' *Australian Journal of Public Administration* 74(1), pp. 19–22.

Onwuegbuzie, A. J. (2000) 'Positivist, post-positivist, post-structuralists, and post-modernists: Why can't we all get along? Towards a framework for unifying research paradigms', *Paper presented at the Annual Meeting of the Association for the Advancement of Education research*. ED 452 110 SO 032 489.

Orazi, D. C., Turrini, A., Valotti, G. (2013) 'Public Sector Leadership: New Perspectives for Research and Practice', *International Review of Administrative Sciences*, 79(3), pp. 486–504.

Oreg, S., Vakola, M. and Armenakis, A. (2011) 'Change recipients' reactions to organizational change: A 60-year review of quantitative studies', *The Journal of Applied Behavioral Science*, 47(4), pp. 461–524.

Ortlipp, M. (2008) 'Keeping and Using Reflective Journals in the Qualitative Research Process', *The Qualitative Report*, 13(4), 695-705. <https://doi.org/10.46743/2160-3715/2008.1579>

Ostroff, F. (2006) 'Change Management in Government', *Harvard Business Review*, 05(06) Available at: <https://hbr.org/2006/05/change-management-in-government> (Accessed: 29 September 2020).

Parry, W., Kirsch, C., Carey, P. and Shaw, D. (2014) 'Empirical Development of a Model of Performance Drivers in Organizational Change Projects', *Journal of Change Management* 14(1), pp.99–125.

Patton, M. Q. (1999) 'Enhancing the Quality and Credibility of Qualitative Analysis', *Health Services Research*, 34, 1189-1208.

Patton M.Q. (2002) *Qualitative Research and Evaluation Methods*. 3rd ed. Thousand Oaks, CA: Sage.

Patton, M.Q. (2015) *Qualitative Research and Evaluation Methods*. 4th ed. Thousand Oaks, CA: Sage.

Pender, J. and Chambers, Á., (2018) 'Projected Retirements From the Civil Service from 2019 to 2028'. Irish Government Economic and Evaluation Service (IGEES), Department of Public Expenditure, NDP Delivery and Reform.

Pettigrew, A. M., Woodman, R. W. and Cameron, K. S. (2001) 'Studying organizational change and development: Challenges for future research', *Academy of Management Journal*, 44(4), pp. 697-713.

Pike, A., Rodriguez-Pose, A., and Tomaney, J. (2006) *Local and regional development*. Abingdon: Routledge.

Raithatha, Y. (2017) *Understanding the economic impact terrorism has on the destination decision making: Northern Irish tourists*. Doctoral dissertation. Dublin Business School. Available at <https://esource.dbs.ie/server/api/core/bitstreams/9be141ce-beb5-4e16-9e4c-40fd758206e8/content> (Accessed 14 January 2019).

Rieg, N. A., Gatersleben, B. and Christie, I. (2021). Organizational Change Management for Sustainability in Higher Education Institutions: A Systematic Quantitative Literature Review. *Sustainability*, 13(13), pp. 72-99. <https://doi.org/10.3390/su13137299>

Revenue Commissioners (2020) *NASC 2019 Project Plan*. Internal Revenue Report. Unpublished.

Revenue Commissioners (2021) *Annual Report*. Available at: <https://www.revenue.ie/en/corporate/press-office/annual-report/2021/ar-2021.pdf> (Accessed 6 April 2023).

Revenue Commissioners (2022) *Annual Report*. Available at: <https://www.revenue.ie/en/corporate/press-office/annual-report/2022/ar-2022.pdf> (Accessed 6 April 2023).

Revenue Commissioners (2024) *Annual Report*. Available at: <https://www.revenue.ie/en/corporate/press-office/annual-report/index.aspx> (Accessed 10 September, 2025)

Revenue Commissioners (2025) Mission Statement. Available at <https://www.revenue.ie/en/corporate/information-about-revenue/role-of-revenue/index.aspx#:~:text=The%20Mission%20Statement%20of%20Revenue,> (Accessed 24 February, 2025).

Richey, R., Klein, J., and Tracey, M. (2011) *The Instructional Design Knowledge Base: Theory, Research, and Practice*, New York, NY: Routledge, Taylor and Francis Group.

Ridder, H. G., Bruns H. J. and Spier, F. (2005) 'Analysis of Public Management Change Processes: The Case of Local Government Accounting Reforms in Germany', *Public Administration*, 83(2), pp. 443-71.

Rogers, E.M. (1995) *Diffusion of Innovations*, 4th edition, New York: The Free Press.

Rogers, E. M. (2003) *Diffusion of innovations*, 5th edition, New York: The Free Press.

Ryan, B. A. (2006) *Post-positivist approach to research*. In S. B. Gilligan (Ed.), *Researching and writing your thesis: a guide for postgraduate students*, Maynooth, Ireland: Mace, pp. 12-26.

Ryan, N., Williams, T., Charles, M. and Waterhouse, J. (2008) 'Top-down organizational change in an Australian Government agency', *International Journal of Public Sector Management*, 21(1), pp. 26–44. <https://doi-org.dcu.idm.oclc.org/10.1108/09513550810846096>. (Accessed 04 October 2020).

Saleh, A. and Bista, K. (2017) 'Examining Factors Impacting Online Survey Response Rates in Educational Research: Perceptions of Graduate Students', *Journal of Multi-Disciplinary Evaluation*, 13, 29.

Saunders, M., Lewis, P. and Thornhill, A. (2016) *Research Methods for Business Students*. England: Pearson Education Limited.

Senge, P. (1999) *The dance of change: the challenges of sustaining momentum in learning organizations*, Nicholas Brealey, London.

Senge, P., Hamilton, H. and Kania, J. (2015) *The dawn of system leadership*, *Stanford Social Innovation Review*, 13(1), pp.27–33.

Shannon, E.A. (2017) 'Beyond Public Sector Reform – The Persistence of Change', *Australian Journal of Public Administration*, 76, pp. 470-479. doi:10.1111/1467-8500.12235 (Accessed 05 October 2020).

Shannon, L. and Van Egeraat, C. (2013) 'Regional governance and bottom-up regional development in the Border Region and County Cavan', *Administration*, 61(3,) pp. 75-99.

Shaver, D. (2107) 'The Added Value of Conducting Learning Design Meeting to the Online Course Development Process', *TechTrends* 61, 438–443. <https://doi.org/10.1007/s11528-017-0205-1> (accessed 07/04/2021).

Shenton, A.K. (2004) 'Strategies for ensuring trustworthiness in qualitative research projects', *Education for Information*, 22(2), pp.63–75.

Sounman, H. (2020) 'Representative bureaucracy and hierarchy: interactions among leadership, middle-level, and street-level bureaucracy', *Public Management Review*, DOI: 10.1080/14719037.2020.1743346. (Accessed 20 October 2021).

Stangor, C. and Walinga, J. (2019) 3.5 *psychologists use descriptive, correlational, and experimental research designs to understand behaviour*. Introduction to Psychology, BCcampus Open Education.

Stouten, J., Rousseau, D.M. and DeCremer, D. (2018) 'Successful Organisational Change: Integrating the Management Practice and Scholarly Literatures', *Academy of Management Annals*, <https://doi.org/10.5465/annals.2016.0095> . (Accessed 08 September 2021).

Suri, H. (2011) 'Purposeful Sampling in Qualitative Research Synthesis', *Qualitative Research Journal*, 11(2), <https://doi.org/10.3316/QRJ1102063>.

Taherdoost, H. (2017) 'A review of technology acceptance and adoption models and theories', *11th International Conference Interdisciplinarity in Engineering, INTER-ENG 2017, 5-6 October, Tirgu-Mures, Romania*. Available at www.sciencedirect.com. (Accessed 08 September 2021).

Tekin, A.K. and Kotaman, H. (2013) 'The Epistemological Perspectives on Action Research', *Journal of Educational and Social Research*, 3(1), pp.81-91.

Toro-Troconis, M., Alexander, J. and Frutos-Perez, M. (2019) 'Assessing Student Engagement in Online Programmes: Using Learning Design and Learning Analytics' *International Journal of Higher Education*, V8 (6) Pp171-183 2019.

Tsoukas, H., and Papoulias, D. (2005) 'Managing third-order change: the case of the Public Power Corporation (Greece)', *Long Range Planning*, 38(1), pp. 79–95.

United Nations, (2015), 'Transforming our World: The 2030 Agenda for Sustainable Development' <https://sdgs.un.org/2030agenda>. (Accessed 20 January 2024).

United Nations, (2023), 'Political Declaration adopted at the High-level Political Forum on Sustainable Development (HLPF) under the auspices of the General Assembly in September 2023' <https://documents.un.org/doc/undoc/gen/n23/306/65/pdf/n2330665.pdf> (Accessed 19 November 2024).

Unluer, S. (2012) 'Being an insider researcher while conducting case study research', *Qualitative Report*, 17(58), pp. 1–14. <https://doi.org/10.46743/2160-3715/2012.1752>

Verschuren, P. and Doorewaard, H. (1999). *Designing a research project*. Utrecht: Lemma.

Weissert, C. S. and Goggin, M.L. (2002) 'Nonincremental Policy Change: Lessons from Michigan's Medicaid Managed Care Initiative', *Public Administration Review*, 62(2), pp. 206-16.

Wiggins, G.P. and McTighe, J. (2005) *Understanding by design (Expanded 2nd ed.)* Alexandria: Association for Supervision and Curriculum Development, <http://catdir.loc.gov/catdir/toc/ecip0422/2004021131.html> (Accessed 12/02/2021).

Wladis, C., Wladis, K. and Hachey, A. C. (2014) The role of enrolment choice in online education: Course selection rationale and course difficulty as factors affecting retention. *Online Learning*, 18(3). <http://files.eric.ed.gov/fulltext/EJ833907.pdf>. (Accessed 12/02/2021).

Wright, K. B. (2005) 'Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages and Web Survey Services', *Journal of Computer-Mediated Communication*, 10.

Wymer, S. A. and Regan, E.'A. (2011) 'Influential Factors in the Adoption and Use of E-Business and E-Commerce Information Technology (EEIT) by Small and Medium Businesses', *Journal of Electronic Commerce in Organizations*. 9(1), pp. 56-82. 10.4018/jeco.2011010104.

Xerri, M., Nelson, S., Brunetto, Y. and Reid, S. (2015) 'NPM and change management in asset management organisations', *Journal of Organizational Change Management*, 28. Pp. 641-655. 10.1108/JOCM-11-2013-0222. (Accessed on 09/10/2020).

Yin, R. K. (2014) *Case Study Research Design and Methods* (5th ed.). Thousand Oaks, CA: Sage.

Yin, R. K. (2018) *Case Study Research and Applications: Design and Methods* (6th ed.). Thousand Oaks, CA: Sage.

Yu, C.S. and Tao, Y.H. (2009) 'Understanding business-level innovation technology adoption', *Technovation*, 29(2), pp. 92-109. Doi: 10.1016/j.technovation.2008.07.007.

Yukl, G. (2013) *Leadership in Organizations* (8th ed.), Pearson Education.

Appendix A

NASC End User Surveys

Pre-Training Survey

Plain Language Statement

Research Study Title: An assessment of the implementation of NASC (knowledge management system) within the Office of the Revenue Commissioner.

Introduction

This study is being completed by Maura Corry as part of her EdD studies. The research is being carried out under the supervision of Professor Deirdre Butler and Dr. Margaret Leahy. Maura Corry is currently completing a Doctor of Education in Digital Learning at Dublin City University.

This is a small-scale anonymous research project that will engage with a cohort of staff from the Office of the Revenue Commissioners. The research study will examine the perceptions of staff on change management practices, and online learning as part of the rollout of NASC.

If you agree to participate in this research, you will be asked to complete an anonymous online survey where you will be asked about your experiences of change management, and online learning practices within Revenue. The survey will take approximately 30 minutes to complete.

Surveys will be carried anonymously through Qualtrics an online survey tool licensed to DCU. Qualtrics uses Transport Layer Security (TLS) encryption (also known as HTTPS) for all transmitted data, so there is a guarantee of your anonymity. All data collected will be secured on the researcher's password protected, encrypted DCU Drive.

This research will give you an opportunity to reflect on your experiences of online training and change management practices within your work environment and will give you an opportunity to anonymously offer feedback to Revenue.

You are not obliged to take part in this research, and you can withdraw any time up to the point of submission of your survey. Once you submit your survey it will not be possible for you to withdraw your participation as the anonymity of the data collection method will not allow for individual participants responses to be identified. This research is low risk research. However, In the unlikely event of adverse or unexpected outcomes such as heightened emotions your CSEAS rep is available to assist you.

All data collected as part of the study will be destroyed two years after completion of the EdD. All the data collected as part of this study will be protected within the limitations of the law. Confidentiality of information provided cannot always be guaranteed by the researcher and can only be protected within the limitations of the law – i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. All data collected will only be used for the purpose of this study only and will not be shared with any third party. For your information the DCU Data Protection Officer is Mr. Martin Ward (data.protection@dcu.ie, ph.: 7005118/7008257). It is the right of all individuals to lodge a complaint in relation to Data Protection with the Irish Data Protection Commission.

If you have concerns about this study and wish to contact an independent person please contact: The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000, e-mail rec@dcu.ie.

I have read the Plain Language Statement (or had it read to me)

- yes
- No

I understand the information provided

- Yes
- No

I have had an opportunity to ask questions and discuss this study

- Yes
- No

I understand the data provided in relation to data protection

- Yes
- No

I have received satisfactory answers to all my questions

- Yes
- No

I understand that I may withdraw from the research at any point up to submission of this survey

- Yes
- No

I have read and understand the arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

- Yes
- No

I consent to participate in this research study

- Yes
- No

Q1. Do you think that you have clear expectations for the NASC training course??

- Yes
- No

Q2. When I am informed of a change of plans, I tense up a bit.

- Strongly Agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q3. I have the skills that are needed to make NASC work

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q4. Is the opinion of staff members asked when change is communicated?

- Yes
- No

Q5. Do you feel that your work will be limited or improved by NASC? Why?

Q6. What do you think is the purpose of change?

Q7. How do you feel when you are informed that there's going to be a significant change regarding the way things are done at work?

Q8. What expectations do you have for NASC?

Q9. Which skills would you like to improve upon during NASC training?

Q10. In what way has the importance of NASC been explained to you?

Q11. What are your expectations of the NASC training

Q12. How do you communicate change to your colleagues?

Q13. In your experience is change communicated differently to people in different grades within Revenue?

Explain.

Q14. How are change concepts and terms explained to staff members?

Q15. Do you think change is good for Revenue staff members? Explain

Q16. How is the opinion of staff members queried when change is communicated?

Q17. What is the best way for you to learn a new skill?

Q18. How would you want change to be communicated to you?

Q19. What do you think of the online training modules available to you through Revenue?

Q20. In what ways could online training delivered by Revenue be improved?

Q21. What do you think will be the benefits of NASC?

Q22. What do you think will be the limitations of NASC?

Q23. How will you apply NASC to your work?

Q24. What have you heard from colleagues about NASC?

Q25. How long have you worked in the Public Service

We thank you for your time spent taking this survey.

Your response has been recorded.

Post Training Survey

Plain Language Statement

Research Study Title: An assessment of the implementation of NASC (knowledge management system) within the Office of the Revenue Commissioner.

Introduction

This study is being completed by Maura Corry as part of her EdD studies. The research is being carried out under the supervision of Professor Deirdre Butler and Dr. Margaret Leahy. Maura Corry is currently completing a Doctor of Education in Digital Learning at Dublin City University.

This is a small-scale anonymous research project that will engage with a cohort of staff from the Office of the Revenue Commissioners. The research study will examine the perceptions of staff on change management practices, and online learning as part of the rollout of NASC.

If you agree to participate in this research, you will be asked to complete an anonymous online survey where you will be asked about your experiences of change management, and online learning practices within Revenue. The survey will take approximately 30 minutes to complete.

Surveys will be carried anonymously through Qualtrics an online survey tool licensed to DCU. Qualtrics uses Transport Layer Security (TLS) encryption (also known as HTTPS) for all transmitted data, so there is a guarantee of your anonymity. All data collected will be secured on the researcher's password protected, encrypted DCU Drive.

This research will give you an opportunity to reflect on your experiences of online training and change management practices within your work environment and will give you an opportunity to anonymously offer feedback to Revenue.

You are not obliged to take part in this research, and you can withdraw any time up to the point of submission of your survey. Once you submit your survey it will not be possible for you to withdraw your participation as the anonymity of the data collection method will not allow for individual participants responses to be identified. This research is low risk research. However, In the unlikely event of adverse or unexpected outcomes such as heightened emotions your CSEAS rep is available to assist you.

All data collected as part of the study will be destroyed two years after completion of the EdD. All the data collected as part of this study will be protected within the limitations of the law. Confidentiality of information provided cannot always be guaranteed by the researcher and can only be protected within the limitations of the law – i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. All data collected will only be used for the purpose of this study only and will not be shared with any third party. For your information the DCU Data Protection Officer is Mr. Martin Ward (data.protection@dcu.ie, ph.: 7005118/7008257). It is the right of all individuals to lodge a complaint in relation to Data Protection with the Irish Data Protection Commission.

If you have concerns about this study and wish to contact an independent person please contact: The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000, e-mail rec@dcu.ie.

I have read the Plain Language Statement (or had it read to me)

- yes
- No

I understand the information provided

- Yes
- No

I have had an opportunity to ask questions and discuss this study

- Yes
- No

I understand the data provided in relation to data protection

- Yes
- No

I have received satisfactory answers to all my questions

- Yes
- No

I understand that I may withdraw from the research at any point up to submission of this survey

- Yes
- No

I have read and understand the arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

- Yes
- No

I consent to participate in this research study

- Yes
- No

Q1. Following training do you have clear expectations for how you can use NASC?

- Yes
- No

Q2. When I use NASC I feel stress.

- Strongly Agree
- Somewhat agree
- Neither agree nor disagree

- Somewhat disagree
- Strongly disagree

Q3. I have the skills that are needed to make NASC work

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Q4. Is the opinion of staff members asked when change is communicated?

- Yes
- No

Q5. Do you feel that your work will be limited or improved by NASC? Why?

Q6. What do you think is the purpose of change?

Q7. How do you feel when you are informed that there's going to be a significant change regarding the way things are done at work?

Q8. What expectations do you have for NASC?

Q9. Which skills did you improve upon during NASC training?

Q10. In what way has the importance of NASC been explained to you?

Q11. Did NASC training meet your expectations? In what way?

Q12. How do you communicate change to your colleagues?

Q13. In your experience is change communicated differently to people in different grades within Revenue?

Explain.

Q14. How are change concepts and terms explained to staff members?

Q15. Do you think change is good for Revenue staff members? Explain

Q16. How is the opinion of staff members queried when change is communicated?

Q17. What is the best way for you to learn a new skill?

Q18. How would you want change to be communicated to you?

Q19. What do you think of the online training modules available to you through Revenue?

Q20. In what ways could online training delivered by Revenue be improved?

Q21. What do you think will be the benefits of NASC?

Q22. What do you think will be the limitations of NASC?

Q23. How will you apply NASC to your work?

Q24. What have you heard from colleagues about NASC?

Q25. How long have you worked in the Public Service

We thank you for your time spent taking this survey.

Your response has been recorded.

Appendix B

Trainer Survey

Plain Language Statement

Research Study Title: An assessment of the implementation of NASC (knowledge management system) within the Office of the Revenue Commissioner.

Introduction

This study is being completed by Maura Corry as part of her EdD studies. The research is being carried out under the supervision of Professor Deirdre Butler and Dr. Margaret Leahy. Maura Corry is currently completing a Doctor of Education in Digital Learning at Dublin City University.

This is a small-scale anonymous research project that will engage with a cohort of staff from the Office of the Revenue Commissioners. The research study will examine the perceptions of staff on change management practices, and online learning as part of the rollout of NASC.

If you agree to participate in this research, you will be asked to complete an anonymous online survey where you will be asked about your experiences of change management, and online learning practices within Revenue. The survey will take approximately 30 minutes to complete.

Surveys will be carried anonymously through Qualtrics an online survey tool licensed to DCU. Qualtrics uses Transport Layer Security (TLS) encryption (also known as HTTPS) for all transmitted data, so there is a guarantee of your anonymity. All data collected will be secured on the researcher's password protected, encrypted DCU Drive.

This research will give you an opportunity to reflect on your experiences of online training and change management practices within your work environment and will give you an opportunity to anonymously offer feedback to Revenue.

You are not obliged to take part in this research, and you can withdraw any time up to the point of submission of your survey. Once you submit your survey it will not be possible for you to withdraw your participation as the anonymity of the data collection method will not allow for individual participants responses to be identified. This research is low risk research. However, In the unlikely event of adverse or unexpected outcomes such as heightened emotions your CSEAS rep is available to assist you.

All data collected as part of the study will be destroyed two years after completion of the EdD. All the data collected as part of this study will be protected within the limitations of the law. Confidentiality of information provided cannot always be guaranteed by the researcher and can only be protected within the limitations of the law – i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. All data collected will only be used for the purpose of this study only and will not be shared with any third party. For your information the DCU Data Protection Officer is Mr. Martin Ward (data.protection@dcu.ie, ph.: 7005118/7008257). It is the right of all individuals to lodge a complaint in relation to Data Protection with the Irish Data Protection Commission.

If you have concerns about this study and wish to contact an independent person please contact: The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City

University, Dublin 9. Tel 01-7008000, e-mail rec@dcu.ie.

I have read the Plain Language Statement (or had it read to me)

- yes
- No

I understand the information provided

- Yes
- No

I have had an opportunity to ask questions and discuss this study

- Yes
- No

I understand the data provided in relation to data protection

- Yes
- No

I have received satisfactory answers to all my questions

- Yes
- No

I understand that I may withdraw from the research at any point up to submission of this survey

- Yes
- No

I have read and understand the arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

- Yes
- No

I consent to participate in this research study

- Yes
- No

Question 1: What is your assessment of the training delivered so far?

Question 2: Has the informal feedback received been helpful?

Question 3: Have you noted any barriers to learning?

Appendix C

Researcher Reflective Entries on NASC Implementation Using Gibbs' Reflective Cycle Framework

Entry 1: Project Board Meeting (January, 2022)

Description

Today I attended a Project Board Briefing for NASC implementation. The meeting revealed significant gaps in leadership communication, with messaging heavily focused on "compliance" and "efficiency" rather than user benefits. No frontline staff were present, creating a noticeable disconnect between decision-makers and end-users who would need to find the system useful and usable in their daily work.

Feelings

I felt concerned about the leadership communication approach that emphasised technical compliance over conveying how NASC would be useful to staff in their daily work. The absence of staff representation suggested potential challenges for system adoption and perceived usefulness.

Evaluation

The leadership communication was effective in outlining technical requirements but failed to address how NASC would improve staff workflows or be made accessible to users with varying technical abilities. The messaging focused on organisational benefits rather than communicating how the system would be designed for ease of use.

Analysis

This situation highlights how leadership communication can significantly impact technology adoption. The emphasis on compliance rather than usefulness reflects communication priorities that may undermine user acceptance. Without messaging that addresses ease of use and practical benefits, staff are likely to perceive NASC as an imposed burden rather than a helpful tool.

Conclusion

Leadership communication appears focused on technical implementation rather than conveying NASC's usefulness or ease of use. This communication gap poses a significant risk that staff will

perceive NASC as a compliance requirement rather than a beneficial resource that enhances their work.

Action Plan

I will document this leadership communication gap as a key focus area. I'll track how messaging evolves regarding NASC's usefulness and ease of use, and whether leadership begins to incorporate more user-centered communication strategies.

Entry 2: NASC Project Board Meeting - Training Materials Development Session (January, 2022)

Description

I observed a collaborative session developing training materials for NASC. A significant breakthrough occurred when a subject matter expert suggested organising materials by daily tasks rather than system features - essentially reframing the content to emphasise NASC's usefulness within existing workflows rather than focusing on technical capabilities.

Feelings

I felt optimistic seeing this shift toward communicating NASC's usefulness in practical contexts. The task-based approach directly addressed ease of use by aligning training with familiar work processes rather than abstract system features.

Evaluation

The session demonstrated how framing NASC through the lens of daily tasks significantly improved perceived usefulness. This approach to communication made the system's benefits more tangible and accessible to users with varying technical comfort levels.

Analysis

The enthusiasm generated by the task-based reorganisation shows how strongly ease of use and perceived usefulness are tied to alignment with existing work practices. Leadership communications that emphasise practical applications rather than technical features are more likely to generate positive engagement.

Conclusion

Framing NASC in terms of how it supports daily tasks rather than its technical features significantly enhances perceived usefulness and ease of use. This approach to leadership communication creates more relevant engagement opportunities and addresses user concerns more effectively.

Action Plan

I will track how these task-oriented materials impact user perceptions of NASC's usefulness compared to the more feature-focused communications. I'll investigate whether this communication approach improves adoption rates and user satisfaction with the system's ease of use.

Entry 3: Staff Info Session (February, 2022)

Description

Today's all-staff information session about NASC revealed mixed reactions regarding the system's perceived usefulness. Some staff expressed enthusiasm about having a "centralised knowledge source," while others voiced concerns about usability and how the system would impact their workflows. Leadership communication focused primarily on features rather than practical benefits.

Feelings

I noticed leadership's communication emphasised system capabilities without adequately addressing usability concerns or demonstrating NASC's usefulness in everyday scenarios, creating noticeable anxiety among staff.

Evaluation

The session revealed a significant gap in leadership communication regarding NASC's ease of use and practical benefits. The QandA exposed concerns about usability and usefulness that weren't addressed through the formal presentation, suggesting leadership hadn't anticipated or prepared for these fundamental user concerns.

Analysis

Staff questions revealed concerns primarily centered around ease of use and perceived usefulness rather than technical capabilities. Leadership communication failed to address psychological barriers to adoption by focusing on features rather than demonstrating how NASC would simplify or enhance existing workflows.

Conclusion

Effective leadership communication needs to directly address concerns about NASC's ease of use and demonstrate its usefulness in practical scenarios. The current feature-focused messaging doesn't adequately address the human factors that will determine adoption success.

Action Plan

I'll focus on documenting the gap between leadership's communication about NASC's capabilities and staff concerns about its usefulness and usability. I'll explore how communication strategies might better address these fundamental adoption factors.

Entry 4: NASC Project Board Meeting - Mid-Rollout Check-In (February, 2022)

Description

During today's midpoint progress meeting, trainers reported that NASC's perceived usefulness and ease of use improved significantly when sessions were interactive with peers assisting each other. This peer-led approach appeared to make NASC more accessible and demonstrated its practical value more effectively than standard training.

Feelings

I felt encouraged by the emergence of peer-led approaches that effectively communicated NASC's usefulness through practical demonstrations. This suggested that informal communication channels were filling gaps left by official leadership messaging.

Evaluation

The meeting revealed that leadership's original communication and training approach struggled to convey NASC's usefulness and ease of use. In contrast, peer-led sessions that focused on practical applications significantly improved engagement and perceived value.

Analysis

The success of peer-led learning suggests that demonstrating NASC's usefulness in context is more effective than abstract descriptions of features. Leadership communication could benefit from incorporating these peer-based approaches that naturally emphasise practical applications and address usability concerns directly.

Conclusion

Peer-based communication about NASC's usefulness appears more effective than formal leadership messaging. When users see the system demonstrated by colleagues in familiar contexts, both perceived usefulness and ease of use improve significantly.

Action Plan

I will explore how leadership might incorporate peer-based communication strategies to better convey NASC's usefulness and address ease of use concerns. I'll develop questions that compare the effectiveness of formal communication versus peer demonstrations in shaping perceptions of the system.

Entry 5: Informal Staff Conversations (February, 2022)

Description

During lunch conversations, I observed staff referring to NASC as "the new system" or "that thing" rather than by name, indicating limited ownership. One staff member notably commented, "It's useful, but I still check with [colleague] before I believe it," suggesting challenges with trusting NASC's usefulness despite leadership assurances.

Feelings

I was intrigued by how staff language revealed underlying perceptions about NASC's usefulness and ease of use despite formal leadership communications promoting the system.

Evaluation

These casual conversations exposed a disconnect between leadership messaging about NASC's usefulness and actual user trust in the system. The reliance on colleague verification rather than system information indicated that leadership communication had not successfully established NASC's credibility or demonstrated its ease of use.

Analysis

The persistent use of distancing language suggests leadership communication has not yet fostered psychological ownership of NASC. The practice of validating system information through colleagues indicates that leadership messages about NASC's usefulness haven't created sufficient trust in the system itself.

Conclusion

Leadership communication about NASC's usefulness has not yet transformed user perceptions, as evidenced by language patterns and verification behaviours. Trust in the system's usefulness appears to be socially negotiated through peer networks rather than established through formal messaging.

Action Plan

I will track how language patterns evolve as an indicator of changing perceptions about NASC's usefulness and ease of use. I'll explore how leadership might better leverage social networks to enhance communications about the system's practical benefits.

Entry 6: NASC Project Board Meeting (February, 2022)

Description

At today's Implementation Debrief meeting, leadership communication focused almost exclusively on technical metrics while giving minimal attention to user feedback about NASC's usefulness or ease of use. One senior manager's statement, "We've done all we can, now it's up to staff," suggested leadership considered communication about the system complete despite ongoing user adaptation challenges.

Feelings

I felt concerned that leadership communication was prematurely shifting responsibility to users without addressing fundamental concerns about NASC's usefulness and ease of use in various departmental contexts.

Evaluation

The meeting revealed a significant communication gap between how leadership defined implementation success (technical completion) versus what matters to users (usefulness and usability). Leadership messaging framed implementation as complete without adequately addressing ongoing usability challenges or demonstrating the system's value across different workflows.

Analysis

This leadership approach reflects a narrow definition of success that prioritises technical metrics over user experience. The framing of responsibility as "now belonging to staff" creates a concerning communication pattern where adoption failures might be attributed to user resistance rather than unaddressed usability issues or unclear system benefits.

Conclusion

Leadership communication appears disconnected from staff concerns about NASC's ease of use and practical benefits. This disconnect in messaging could significantly impact how adoption challenges are interpreted and addressed moving forward.

Action Plan

I will explicitly compare leadership messaging about successful implementation versus staff definitions focused on usefulness and usability. I'll explore how this communication gap might influence ongoing adoption and support strategies.

Entry 7: NASC Technical Demonstration to Department Leads (March, 2022)

Description

Today's technical walkthrough for department leads revealed significant concerns about communicating NASC's complex functionality to staff within limited timeframes. One manager explicitly commented, "It looks powerful, but how will we explain this in 15 minutes to our teams?" - highlighting the challenge of conveying both usefulness and ease of use within operational constraints.

Feelings

I felt concerned that leadership expectations for cascading information about NASC's functionality didn't align with the reality of demonstrating its usefulness and ease of use within departmental time constraints.

Evaluation

While the technical demonstration was comprehensive, leadership communication failed to address the practical challenges department leads would face in conveying NASC's usefulness and ease of use to their teams. The concern about the 15-minute training window highlighted a significant disconnect between system complexity and realistic user adoption processes.

Analysis

This session revealed how leadership communication about NASC's usefulness was hampered by unrealistic expectations about knowledge transfer. Department leads were being positioned to communicate complex functionality without adequate support or time to demonstrate practical benefits or address ease of use concerns.

Conclusion

Leadership communication about NASC's usefulness and ease of use is being compressed into unrealistic timeframes. This approach risks superficial adoption as department leads lack adequate resources to effectively demonstrate the system's value or address usability concerns.

Action Plan

I will track how department leads attempt to communicate NASC's usefulness within these constraints and what impact this has on user perceptions of the system's value and accessibility. I'll explore whether compression of training undermines effective communication about ease of use.

Entry 8: Peer Learning Pilot Group Session (March, 2022)

Description

I observed a voluntary peer-led training session where staff demonstrated NASC's practical applications to colleagues. The session featured hands-on practice with frequent questions about ease of use and usefulness in specific work scenarios. Participants asked "basic" questions more freely than in formal training, and peers effectively communicated NASC's practical benefits through relatable examples.

Feelings

I felt encouraged seeing how peer communication naturally emphasised NASC's usefulness in specific contexts and addressed practical usability concerns that formal leadership messaging had overlooked.

Evaluation

The session demonstrated remarkable effectiveness in communicating both NASC's usefulness and addressing ease of use concerns. Peer trainers' shared context with learners created credibility that formal leadership communications sometimes lacked, resulting in more positive attitudes toward the system's practical value.

Analysis

This peer learning approach demonstrated how communication about NASC's usefulness benefits from social context and psychological safety. The effectiveness of this approach suggests that perceptions of ease of use and usefulness are significantly influenced by who delivers the message and how relatable the examples are to daily work.

Conclusion

Peer-based communication about NASC's usefulness and ease of use appears significantly more effective than formal leadership messaging. The psychological safety created through peer relationships allows for more authentic engagement with usability challenges and practical applications.

Action Plan

I will explore whether leadership might formally incorporate peer-based communication strategies to better convey NASC's usefulness and address ease of use concerns. I'll track the impact of peer learning on perceptions of the system's value and accessibility.

Entry 9: Informal Feedback via Intranet Comments (April, 2022)

Description

The NASC intranet comment thread has become an unofficial feedback channel where staff use humour and sarcasm to express usability frustrations, e.g. 'it's as bad as having 'clippy' to help us'. Despite the humorous tone, substantial feedback emerged about specific ease-of-use issues, particularly confusion regarding tagging conventions and search term inconsistencies that impact NASC's usefulness.

Feelings

I recognised how this informal communication channel revealed authentic perceptions about NASC's ease of use and usefulness that weren't being captured through official leadership feedback mechanisms.

Evaluation

This unofficial communication channel provided valuable insights into specific usability issues impacting NASC's perceived usefulness. The humour and sarcasm suggested users were engaged enough to provide feedback but frustrated by limitations in the system's ease of use that formal leadership communications hadn't acknowledged.

Analysis

The emergence of this informal feedback channel suggests leadership communication about NASC has not created adequate space for authentic discussion of usability challenges. Rather than interpreting humorous comments as resistance, they represent engagement through frustration—users want NASC to be useful but are experiencing usability barriers that hinder its value.

Conclusion

These informal communications reveal important insights about NASC's ease of use that may not be captured in formal feedback channels. The specific usability issues identified directly impact the system's perceived usefulness, which leadership communications should address more explicitly.

Action Plan

I will analyse these comments for specific patterns regarding ease of use and perceived usefulness, considering how leadership communication might better acknowledge and address these practical concerns rather than focusing primarily on adoption metrics.

Entry 10: NASC Project Board Update (April, 2022)

Description

Today's project board meeting revealed leadership's continued emphasis on adoption metrics rather than user experiences with NASC's usefulness or ease of use. User satisfaction was mentioned only briefly through aggregate survey scores. When specific usability challenges were raised, leadership communication framed these as training issues rather than potential limitations in the system's design or usefulness.

Feelings

I felt concerned that leadership communication continued to prioritise quantitative metrics over qualitative user experiences with NASC's ease of use and practical value in various workflows.

Evaluation

Leadership communication effectively presented implementation progress in technical terms but provided limited visibility into actual user experiences with NASC's usefulness or usability challenges. The tendency to reframe usability issues as training deficiencies rather than potential system limitations reflected a communication pattern that could undermine addressing root causes.

Analysis

This meeting exemplified how leadership communication tends to construct implementation success through metrics that align with technical priorities while marginalising user experiences with the system's ease of use and practical value. This communication approach risks missing critical insights about how NASC's usefulness could be improved through design adjustments rather than additional training.

Conclusion

Leadership communication continues to emphasise quantitative adoption metrics over qualitative user experiences with NASC's ease of use and usefulness. This communication pattern may limit how resources are allocated to address usability challenges that directly impact the system's practical value.

Action Plan

I will note this communication pattern in my analysis and explore how it might influence decisions about improving NASC's usefulness and ease of use. I'll ensure my research documents qualitative user experiences that might not be reflected in leadership's quantitative framing.

Entry 11: Informal Conversation with a NASC Trainer (April, 2022)

Description

In an off-record conversation, a NASC trainer expressed significant concerns about communicating the system's usefulness amid ongoing changes, stating, "It feels like we're trying to hit a moving target." They also shared observations about staff who "just gave up" mid-training, appearing overwhelmed by the system's complexity despite leadership assurances about its ease of use.

Feelings

I felt concerned about the disconnect between leadership communications about NASC's ease of use and the reality experienced by both trainers and end-users struggling with the system's complexity.

Evaluation

This conversation revealed important insights about challenges in communicating NASC's usefulness and ease of use that weren't being acknowledged in formal leadership messaging. The trainer's exhaustion and observations about staff disengagement suggested systemic issues with how the system's value and accessibility were being presented.

Analysis

The trainer's experience highlights how ongoing system changes complicated efforts to communicate NASC's usefulness and ease of use effectively. The "moving target" metaphor suggests leadership communications about the system's stability and readiness may have been premature, creating additional challenges for those trying to demonstrate its practical value.

Conclusion

Those responsible for communicating NASC's usefulness and ease of use to end-users are experiencing significant challenges that aren't being acknowledged in formal leadership messaging. The disconnect between official communications about the system's readiness and the reality experienced in training sessions poses risks for successful adoption.

Action Plan

I will expand my research to include more perspectives from those tasked with communicating NASC's usefulness and ease of use to end-users. I'll explore how the gap between leadership messaging and training reality impacts perceptions of the system's value and accessibility.

Entry 12: Staff Feedback Session (April, 2022)

Description

Today's QandA session between staff and the Implementation Team revealed ongoing concerns about NASC's ease of use and practical value. Despite generally constructive communication, most questions came through anonymous submission rather than being asked directly, suggesting hesitation to publicly voice concerns about the system's usefulness or usability challenges.

Feelings

I was intrigued by staff's preference for anonymous communication about NASC despite leadership efforts to encourage open dialogue about the system's usefulness and ease of use.

Evaluation

The session provided valuable feedback opportunities, with anonymity clearly facilitating more honest communication about NASC's usefulness and usability challenges. Leadership responses sometimes appeared defensive rather than solution-focused when addressing concerns about the system's ease of use or practical limitations.

Analysis

The preference for anonymity despite constructive content suggests low psychological safety when communicating about NASC's limitations. This indicates that leadership messaging may have created an environment where expressing concerns about the system's usefulness or ease of use carries perceived risks.

Conclusion

Despite leadership efforts to encourage feedback, staff appear hesitant to openly communicate concerns about NASC's usefulness or ease of use. Creating psychological safety emerges as a critical factor in gathering authentic feedback that could improve the system's practical value and accessibility.

Action Plan

I will explore differences between anonymous and identified feedback about NASC's usefulness and ease of use to better understand communication patterns and psychological safety factors. I'll consider recommendations for creating more open dialogue about usability challenges.

Entry 13: NASC Project Group (May, 2022)

Description

Today's meeting between IT specialists and departmental representatives revealed significant tensions regarding NASC's usefulness in specific workflow contexts. Technical limitations preventing certain customisations prompted one department representative to state: "If we can't configure it to match our process, we'll end up with two parallel systems" - directly challenging leadership assurances about the system's flexibility and usefulness.

Feelings

I felt concerned about the growing gap between leadership communications about NASC's adaptability and the technical realities limiting its usefulness in specific departmental contexts.

Evaluation

The meeting effectively clarified technical boundaries but revealed significant concerns about NASC's usefulness when it couldn't adapt to established workflows. Leadership communication had apparently created expectations about system flexibility that weren't aligned with technical realities, creating tension between operational needs and system limitations.

Analysis

This meeting highlighted a fundamental communication challenge: leadership had promoted NASC's usefulness without adequately addressing its limitations in accommodating diverse workflows. The concern about "parallel systems" reflected legitimate worries that NASC's limited adaptability would reduce its practical value and force workarounds - directly contradicting messaging about streamlined processes.

Conclusion

Leadership communication about NASC's usefulness appears to have created expectations that exceed the system's actual capabilities in some contexts. This misalignment poses significant risks for adoption, potentially leading to parallel systems that undermine the very efficiency NASC was meant to create.

Action Plan

I will track how these conflicts between expected and actual usefulness are resolved, and how leadership communication evolves to address the gap between promoted benefits and experienced limitations. I'll explore how departments adapt when system capabilities don't align with their workflow needs.

Entry 14: Project Board Meeting (May, 2022)

Description

Today's meeting brought together designated NASC experts from various departments. Initially, participants hesitated to share challenges until one senior staff member openly discussed workarounds, they had developed to improve NASC's usefulness in their specific context, which prompted others to share similar experiences adapting the system for better ease of use.

Feelings

I felt encouraged seeing peer communication about practical approaches to enhancing NASC's usefulness despite its limitations. The initial hesitation suggested concerns about acknowledging workarounds that didn't align with official leadership messaging about the system's out-of-the-box usefulness.

Evaluation

The meeting successfully established connections between users actively working to maximise NASC's usefulness through adaptive approaches. The breakthrough in communication when participants began sharing workarounds demonstrated the value of honest dialogue about the system's practical limitations and creative solutions to improve its ease of use.

Analysis

The meeting revealed how users were actively enhancing NASC's usefulness through workarounds that bridged gaps between designed functionality and actual work requirements. The initial reluctance to share these adaptations suggests leadership communication may have inadvertently discouraged acknowledgment of the system's limitations.

Conclusion

User-developed workarounds represent valuable insights into how NASC's usefulness could be enhanced through design improvements. Creating psychological safety for sharing these adaptive approaches could generate important knowledge for improving the system's ease of use and practical value.

Action Plan

I will analyse the workarounds shared for patterns that might inform system improvements to enhance NASC's usefulness and ease of use. I'll explore how leadership communication might better acknowledge and leverage user adaptations to improve the system's practical value.

Entry 15: Post-Implementation Review Planning (May, 2022)

Description

Today's planning session for NASC's post-implementation review revealed competing perspectives on evaluating the system's success. Some advocated primarily for quantitative metrics (usage statistics, error rates) while others argued for qualitative measures (user satisfaction, workflow integration) that would better assess NASC's usefulness and ease of use. Despite debate, resources were allocated heavily toward quantitative data collection.

Feelings

I felt concerned that the evaluation approach would prioritise usage metrics over meaningful assessment of NASC's actual usefulness and ease of use in different contexts.

Evaluation

While the framework included both quantitative and qualitative elements, resource allocation suggested leadership continued to prioritise measurement of system usage over deeper understanding of NASC's practical value and usability challenges in real work contexts.

Analysis

This planning session revealed how leadership's approach to evaluation reflected underlying assumptions about what constitutes success - technical adoption versus practical usefulness. The characterisation of qualitative user experience data as more "subjective" reflected a limited understanding of how ease of use and perceived usefulness actually drive sustainable adoption.

Conclusion

How leadership chooses to evaluate NASC will significantly influence organisational learning about effective implementation. The current emphasis on quantitative metrics risks missing critical insights about the system's actual usefulness and usability challenges that could inform both current improvements and future implementations.

Action Plan

I will document how evaluation priorities may shape the official narrative about NASC's success despite potential gaps in understanding its practical usefulness and ease of use. I'll ensure my

research addresses qualitative aspects of user experience that might be underrepresented in the official evaluation approach.

Appendix D

Survey Questions Mapping Grid

Theme	Element	Question	Type of question
Public Sector	Change Implementation Approaches: Top-down versus bottom-up	Q. 10 In what way has the importance of NASC been explained to you?	qualitative
		Q. 12 How do you communicate change to your colleagues?	qualitative
		Q. 16 How is the opinion of staff members queried when change is communicated?	qualitative
		Q. 4 Is the opinion of staff members asked when change is communicated	Quantitative
		Q. 13 In your experience is change communicated differently to people in different grades within Revenue? Explain.	qualitative
	Constraints on change	Q. 8 What expectations do you have for NASC?	qualitative
		Q. 15 Do you think change is good for Revenue staff members? Explain	qualitative
		Q. 22 What do you think will be the limitations of NASC?	qualitative
		Q. 5 Do you feel that your work will be limited or improved by NASC? Why?	qualitative
	Purpose and Drivers of change	Q. 10 In what way has the importance of NASC been explained to you?	qualitative
		Q. 9 Which skills would you like to improve upon during NASC training?	qualitative
		Q. 6 What do you think is the purpose of change?	qualitative

		Q. 22 What do you think will be the limitations of NASC?	qualitative
		Q. 5 Do you feel that your work will be limited or improved by NASC? Why?	qualitative
	Factors that affect success: Engagement and User Adoption	Q. 23 How will you apply NASC to your work?	qualitative
		Q. 3 I have the skills that are needed to make NASC work	quantitative
		Q. 5 Do you feel that your work will be limited or improved by NASC? Why?	qualitative
		Q. 21 What do you think will be the benefits of NASC?	qualitative
		Q. 22 What do you think will be the limitations of NASC?	qualitative
	Resistance to change (Cultural, Personal, Intellectual)	Q.2 When I am informed of a change of plans, I tense up a bit.	quantitative
		Q. 7 How do you feel when you are informed that there's going to be a significant change regarding the way things are done at work?	qualitative
		Q. 5 Do you feel that your work will be limited or improved by NASC? Why?	qualitative
		Q. 22 What do you think will be the limitations of NASC?	qualitative
		Q. 15 Do you think change is good for Revenue staff members? Explain	qualitative
	Communication strategies	Q. 24 What have you heard from colleagues about NASC?	qualitative
		Q. 12 How do you communicate change to your colleagues?	qualitative

		Q. 21 What do you think will be the benefits of NASC?	qualitative
		Q. 4 Is the opinion of staff members asked when change is communicated	quantitative
		Q.13 In your experience is change communicated differently to people in different grades within Revenue? Explain.	qualitative
	Leadership	Q. 16 How is the opinion of staff members queried when change is communicated?	qualitative
		Q. 21 What do you think will be the benefits of NASC?	qualitative
		Q. 4 Is the opinion of staff members asked when change is communicated	quantitative
Change Management Theory	What is the purpose of Change (Planned vs Emergent)	Q. 6 What do you think is the purpose of change?	qualitative
		Q. 18 How would you want change to be communicated to you?	qualitative
	Why is change necessary	Q. 15 Do you think change is good for Revenue staff members? Explain	qualitative
		Q. 6 What do you think is the purpose of change?	qualitative
		Q. 21 What do you think will be the benefits of NASC?	qualitative
		Q. 4 Is the opinion of staff members asked when change is communicated	quantitative
	How does change work (Developmental/ Transitional/ Transformative)	Q. 12 How do you communicate change to your colleagues?	qualitative

		Q. 13 In your experience is change communicated differently to people in different grades within Revenue? Explain.	qualitative
		26 How would you want change to be communicated to you?	qualitative
	Types of Change (Diffusions of Innovations, Rogers, E. M. (2003)/ Technology Acceptance Model (TAM) (Davis, 1987).	Q. 13 In your experience is change communicated differently to people in different grades within Revenue? Explain.	qualitative
		Q. 18 How would you want change to be communicated to you?	qualitative
Training Design	Capacity Building	Q. 9 Which skills would you like to improve upon during NASC training	qualitative
		Q. 17 What is the best way for you to learn a new skill?	qualitative
		Q. 21 What do you think will be the benefits of NASC?	qualitative
	Learning Approaches Learner's social environment impacts their learning. If learner view is positive, they are more likely to engage. Behaviour resulting from reward/ punishment	Q.24 What have you heard from colleagues about NASC?	qualitative
		Q. 16 How is the opinion of staff members queried when change is communicated?	qualitative

		Q.13 In your experience is change communicated differently to people in different grades within Revenue? Explain.	qualitative
	Learning Approaches: supporting learning with data, content driven by users. Content: learners' perceptions about their online learning skills, their level of confidence in using the online learning software, feelings of being overwhelmed and other problems with confidence and relevance	Q. 1 Do you think that you have clear expectations for the NASC training course?	quantitative
		Q. 11 What are your expectations of the NASC training	qualitative
		Q. 9 Which skills would you like to improve upon during NASC training?	qualitative
	Learning Approaches designing learning conditions that are suitable for different learning styles. Content: Gaining learner attention, establishing significance of type of teaching to learner goals and learning styles. Developing	Q. 20 In what ways could online training delivered by Revenue be improved?	qualitative

	enjoyable learning situations. Building learner confidence. Satisfaction.		
		Q.21 What do you think will be the benefits of NASC?	qualitative
		Q. 5 Do you feel that your work will be limited or improved by NASC? Why?	qualitative
	<p>Learning Approaches: making the conditions for optimal learning explicit.</p> <p>Content: learning design will incorporate a variety of approaches relevant to learner. Learner goals in relation to the organisation's goals can be extrinsic to the learning in that it is essential that staff are retaining knowledge to benefit the organisation, but the goal of this research is to examine if a stronger, or more intrinsic, level of motivation to learn is achieved when the learner is involved in learning that is personally stimulating</p>	Q. 11 What are your expectations of the NASC training	qualitative

		Q. 9 Which skills would you like to improve upon during NASC training?	qualitative
		Q. 17 What is the best way for you to learn a new skill?	qualitative
	Evaluating Change Success	Q. 19 What do you think of the online training modules available to you through Revenue?	qualitative
		Q. 9 Which skills would you like to improve upon during NASC training?	qualitative
		Q. 25 How long have you worked in the Public Service	quantitative

Appendix E

Pilot Study Report: NASC Implementation Survey

Executive Summary

This report analyses the pilot test of a survey instrument designed to assess the implementation of NASC (knowledge management system) within the Office of the Revenue Commissioner. The pilot revealed several technical issues, structure problems, and content concerns that need to be addressed before full deployment. Recommended modifications include resolving access issues, clarifying question language, reconsidering question structures, and adapting the survey's scope to maximise response rates.

Background

The pilot survey was conducted as part of Maura Corry's EdD studies in Digital Learning at Dublin City University, under the supervision of Professor Deirdre Butler and Dr. Margaret Leahy. The research aims to examine staff perceptions of change management practices and online learning during the NASC rollout within the Office of the Revenue Commissioners.

Technical Issues Identified

1. Access Barriers:

- The primary access link was blocked by organisational access policies.
- System categorised the survey platform as "SaaS and B2B," which is restricted under current organisational policies.
- Action required: ICTL needs to whitelist this domain for all staff for the duration of the survey.

2. Survey Platform:

- Survey is being conducted through Qualtrics, which uses TLS encryption for data security.
- The platform appears functional, but organisational access restrictions must be resolved.

Content and Structure Feedback

Plain Language Statement

- Feedback indicates the Plain Language Statement needs clarification.
- Recommendation to explicitly state that the research is being conducted independently of the NASC team.
- Need to clarify that findings will be available (but anonymised) in a public dissertation.
- *Add 'I have had an opportunity to ask questions, and I have received answers to all my questions'
-

Question Design Issues

1. Technical Errors:

- Question about skills needed for NASC implementation has formatting errors - answer options are set to preference order when they should be single-selection.

2. Question Clarity:

- Several questions identified as unclear or requiring context:
 - "Do you feel your work in your role will be limited or improved by NASC? Why?" - recommendation to simplify to "Do you feel your work will be limited or improved?"
 - "What words come to mind when you think about change?" - lacks context on whether this refers to change in general or this specific NASC change.
 - "How do you communicate change?" - too broad and non-specific to respondents' roles.

3. Wording Concerns:

- "How is the opinion of staff members questioned when change is communicated?" - noted as potentially aggressive tone.
- "Do you think change is good for Revenue staff members?" - suggestion to make more open-ended by adding "Explain" prompt.

4. Scope and Focus:

- Question about "Is the opinion of staff members asked when NASC change is communicated?" requires modification to acknowledge this is only the initial wave of NASC implementation.
- Recommendation to generalise to "Is the opinion of staff members asked when change is communicated?"

5. Duplicate Questions:

- Q5 and Q30 ask the same thing in slightly different ways.
- Q8 and Q9 both ask about expectations for NASC/training.
- Q22 and Q23 both refer to opinions of online training.
-

Response Rate Concerns

A significant concern raised during the pilot was the potential for low completion rates due to:

- High number of open-ended questions requiring detailed text responses
- Survey length and time commitment (estimated at 30 minutes)
- Recommendation to remove "superfluous questions" specifically those relating to:
 - Purpose of NASC
 - Purpose of online training

Ethical and Data Protection Considerations

The pilot confirmed the survey addresses key ethical requirements:

- Informed consent process is incorporated
- Data protection information is provided
- Anonymity guaranteed through TLS encryption
- Right to withdraw (up to point of submission) is explained
- Contact information for DCU Research Ethics Committee is provided
- Mention of CSEAS support for participants experiencing adverse effects

Recommendations for Final Survey Implementation

Based on the pilot findings, the following modifications are recommended before full deployment:

1. **Technical Access:**

- Coordinate with ICTL to whitelist the Qualtrics domain for all staff for the survey duration
- Test access from typical staff workstations before launch

2. **Plain Language Statement:**

- Clarify independence from NASC team
- Add information about public availability of anonymised findings
- Simplify language for better comprehension

3. **Question Modifications:**

- Correct technical issues with response formats
- Revise unclear questions as specifically noted in feedback
- Consider reducing number of open-ended questions
- Reword questions with potentially leading or negative connotations

4. **Survey Length:**

- Reduce overall survey length to improve completion rates
- Consider converting some open-ended questions to multiple choice
- Remove identified superfluous questions
- Reassess estimated completion time after modifications

5. **Final Testing:**

- Conduct a final review with a small sample to verify all issues have been addressed
- Verify timing estimates are accurate after modifications

Conclusion

The pilot study revealed important technical, structural, and content issues that need to be addressed before the survey can be effectively deployed to the target population. By implementing the recommended changes, the researcher can improve the clarity, accessibility, and completion rate of the survey, ultimately gathering more reliable data on staff perceptions of the NASC implementation process.

NASC End User Survey Instrument

Plain Language Statement

Research Title: *An assessment of the implementation of NASC (knowledge management system) within the Office of the Revenue Commissioner*

Researcher: Maura Corry, Doctoral candidate in Digital Learning at Dublin City University, supervised by Professor Deirdre Butler and Dr. Margaret Leahy.

This research is part of a small-scale anonymous study engaging staff from the Office of the Revenue Commissioners. The purpose is to understand staff perceptions of change management and online learning practices during the rollout of the NASC system.

Participation involves completing this anonymous survey, estimated to take **10 to 15 minutes**. The survey is administered via **Qualtrics**, which uses TLS encryption to ensure anonymity. All data will be stored securely on a password-protected, encrypted DCU Drive and destroyed two years after the completion of the study.

You are free to withdraw at any point before submitting your responses. After submission, your answers cannot be withdrawn due to the anonymous nature of the survey. If needed, support is available through the **CSEAS**. For concerns, contact the **DCU Research Ethics Committee** (rec@dcu.ie).

Consent

Please tick:

- I have read and understood the Plain Language Statement Yes No
- I understand the information about this research Yes No
- I understand that my participation is voluntary Yes No
- I give consent to participate in this research Yes No

Survey Questions

Q1. Do you think that you have clear expectations for the NASC training course?

Yes No

Q2. When I am informed of a change of plans, I tense up a bit. /When I use NASC I feel stress

Strongly Agree Somewhat Agree Neither Agree nor Disagree Somewhat Disagree Strongly Disagree

Q3. I have the skills that are needed to make NASC work.

Strongly Agree Somewhat Agree Neither Agree nor Disagree Somewhat Disagree Strongly Disagree

Q4. Is the opinion of staff members asked when change is communicated?

Yes No

- Q5.** Do you feel that your work will be limited or improved by NASC? Why?
- Q6.** What is the purpose of change?
- Q7.** How do you feel when there's going to be a significant change?
- Q8.** What expectations do you have for NASC?
- Q9.** What are your expectations of the NASC training?
- Q10.** What are the skills you would like to improve upon in the NASC training?
- Q11.** In what way has the importance of NASC been explained to you?
- Q12.** In what way has NASC been described to you so far?
- Q13.** How do you communicate change to your colleagues?
- Q14.** How is the opinion of staff members questioned when change is communicated?
- Q15.** Do you think change is good for Revenue staff members?
- Q16.** Do you think change is a good or a bad thing in general?
- Q17.** How is change usually communicated to you?
- Q18.** How would you want change to be communicated to you?
- Q19.** How are change concepts and terms explained to staff members?
- Q20.** What have you heard about NASC from colleagues?
- Q21.** What is the best way for you to learn a new skill?
- Q22.** What do you think of the online training modules available to you through Revenue?
- Q23.** What do you think about the online training courses in general?
- Q24.** In what ways could online training delivered by Revenue be improved?
- Q25.** What is the purpose of online training in Revenue?
- Q26.** What do you think will be the benefits of NASC?
- Q27.** What do you think will be the limitations of NASC?
- Q28.** How will you apply NASC to your work?
- Q29.** What words come to mind when you think about change?

Q30. Do you believe your work in your role will be limited or improved by NASC? Why?

Q31. How do you usually feel when change is announced at work?

Q32. In your experience, is change communicated differently to people in different grades within Revenue? Explain.

Q33. How long have you worked in the Public Service?

Less than 1 year

1–5 years

6–10 years

Over 10 years

Thank You

Your responses have been recorded. Thank you for taking the time to complete this survey.

Appendix F

Detailed matrix comparing themes across qualitative datasets.

Question 6

	A : Phase 1 Pre	B : Phase 1 Post
1 : Do you feel that your work will be limited or improved by NASC? Why?	31	39
2 : easier to share info	0	5
3 : find information more easily	3	7
4 : Improved	17	19
5 : Improved Communications	14	9
6 : limited	4	0
7 : neither	0	2
8 : unsure	0	1

	B : Phase 2 Pre	A : Phase 2 Post
1 : Do you feel that your work will be limited or improved by NASC? Why?	39	39
2 : don't know what NASC is	0	1
3 : improved once trained properly	0	4
4 : improved, easier to find and share information and knowledge	32	23
5 : limited, difficult to navigate	0	3
6 : limited, does not allow for case working	0	2
7 : Limited, it's slow and cumbersome	0	3
8 : limited unnecessary system	2	0
9 : neither limited nor improved no change	1	6
10 : not sure	5	0

Question 7

	A : Phase 1 Pre	B : Phase 1 Post
1 : What do you think is the purpose of change?	31	39
2 : improved way of working	24	21
3 : maintenance of knowledge	0	5
4 : no purpose	0	2
5 : progress and efficiency	0	14
6 : status quo needs to be shaken up	1	0
7 : unsure	0	1

	B : Phase 2 Pre	A : Phase 2 Post
1 : What do you think is the purpose of change	38	39
2 : facilitate effective working practices	19	0
3 : improvement progress	12	19
4 : maintenance of organisational knowledge	6	21
5 : no purpose just introduction of new product	0	1

Question 8

	A : Phase 1 Pre	B : Phase 1 Post
1 : How do you feel when you are informed that there is going to be a significant change regarding the way things are done at work?	31	39
2 : apprehensive	10	17
3 : initially negative but in the end positive	7	0
4 : negative	4	0
5 : no feeling	0	4
6 : positive	13	18

	A : Phase 2 Pre	B : Phase 2 Post
1 : How do you feel when you are informed that there is going to be a significant change regarding the way things are done at work	38	39
2 : Ambivalent	0	1
3 : anxious disheartened	9	5
4 : apathetic	3	0
5 : change is good	0	4
6 : depends on if I agree with the change	9	0
7 : depends on situation	0	4
8 : fine - if change is explained clearly well implemented	0	10
9 : hesitant but committed	0	2
10 : Hopeful	1	0
11 : interested in what change will do for me and my organisation	0	6
12 : no issues	0	8
13 : positive	19	0

Question 9

	A : Phase 1 Pre	B : Phase 1 Post
1 : What are your expectations of the NASC training/Did NASC training meet your expectations? In what way?	31	39
2 : difficulty learning	3	0
3 : more efficient working	13	0
4 : no - poor explanation of rational or NASC	0	1
5 : no expectations	0	5
6 : yes - better understanding of reasons behind introduction of NASC	4	17
7 : yes - training was effective	0	16
8 : yes, but needed more practical	0	2

	A : Phase 2 Pre	B : Phase 2 Post
1 : What are your expectations of the NASC training/Did NASC training meet your expectations? In what way?	38	39
2 : better understanding of data management and manipulation	1	0
3 : Haven't had training yet	0	4
4 : improved understanding of NASC	22	0
5 : limited expectations	9	0
6 : No, needs to be more practical	0	2
7 : somewhat, still not confident	0	3
8 : somewhat, training was good but had to self-learn a lot	0	1
9 : thorough and easy to follow training	6	0
10 : to benefit my work	2	0
11 : yes, multiple ways to learn	0	2
12 : yes, practical, demonstrative, clear and informative	0	24

Question 10

	A : Phase 1 Pre	B : Phase 1 Post
1 : Which skills would you like to improve upon, or did you improve upon during NASC training?	31	39
2 : Better IT skills	3	10
3 : better understanding of NASC	15	12
4 : none	0	16

	B : Phase 2 Pre	A : Phase 2 Post
1 : Which skills would you like to improve upon or did you improve upon during NASC training	38	39
2 : better organisational skills	10	0
3 : Better understanding of NASC	8	8
4 : change management communication	0	2
5 : didn't receive training	0	3
6 : ease of data manipulation	4	0
7 : knowledge	1	0
8 : no need to improve skills	2	16
9 : patience, mindset improvement	0	2
10 : search function, IT skills	7	6
11 : understanding of Revenue	0	1

Question 11

	A : Phase 1 Pre	B : Phase 1 Post
1 : In what way has the importance of NASC been explained?	31	39
2 : benefits explained	0	15
3 : good communication	16	0
4 : in a clear manner	0	4
5 : no explanation	0	6
6 : poor communication	5	0
7 : team meetings from manager	0	5
8 : through training	0	10
9 : top-down communication	0	2

	A : Phase 2 Pre	B : Phase 2 Post
1 : In what way has the importance of NASC been explained to you	38	39
2 : emails and meetings	0	5
3 : formal explanation	5	0
4 : good explanation	2	2
5 : high level	1	0
6 : how it can benefit individual	0	1
7 : information forums	2	0
8 : information storage	1	0
9 : initially problematic but ultimately valuable	1	0
10 : it hasn't gotten buy in	0	2
11 : knowledge retention, sharing and group work	9	0
12 : no little explanation	7	11
13 : response to knowledge management info sharing issue	0	10
14 : through training info session	5	10
15 : verbally	4	1
16 : very important	3	0

Question 12

	A : Phase 1 Pre	B : Phase 1 Post
1 : What expectations do you have for NASC?	31	39
2 : better collaboration and teamwork	0	3
3 : easier access to knowledge and information	11	16
4 : easier to share info	0	16
5 : more efficient working	13	12
6 : no expectations	0	8
7 : poor expectations	0	3
8 : Replace old systems	1	0
9 : security of data	1	0
10 : will require buy in from staff	3	0

	A : Phase 2 Pre	B : Phase 2 Post
1 : What expectations do you have for NASC	38	39
2 : doubtful it will be used as much as anticipated	1	0
3 : easy to share info	12	9
4 : extra steps involved in tagging documents while saving	1	0
5 : high expectations	2	0
6 : improvement in working practices	0	22
7 : improvement on previous system	2	0
8 : more efficiency	8	0
9 : no expectations	6	4
10 : positive	0	3
11 : useful for group projects and team working	8	0

Question 13

	A : Phase 1 Pre	B : Phase 1 Post
1 : How do you communicate change to your colleagues?	31	39
2 : benefits of change	6	0
3 : clear language	0	3
4 : collaboratively	0	3
5 : formally	20	22
6 : informally	10	6
7 : no communication	0	2
8 : positively	0	2
9 : practically	0	4
10 : respectfully	0	2

	A : Phase 2 Pre	B : Phase 2 Post
1 : How do you communicate change to your colleagues?	38	39
2 : clearly	1	0
3 : electronically	8	0
4 : explanation of benefits	0	8
5 : in advance	0	1
6 : informally	1	0
7 : look for feedback	5	0
8 : multiple communication channels	13	0
9 : positively, explain benefits	12	0
10 : practically	0	2
11 : provide support	0	3
12 : reassuringly	0	1
13 : seek feedback for upward feedback	0	2
14 : through training	1	0
15 : unit meetings	7	0
16 : verbally, email and meetings	9	23

Question 14

	A : Phase 1 Pre	B : Phase 1 Post
1 : In your experience is change communicated differently to people in different grades within Revenue? Explain.	31	39
2 : change is communicated across all levels equally	4	0
3 : no	0	13
4 : yes, more information given to higher grades	0	3
5 : yes, communication is tailored	0	8
6 : yes, high level at top, specifics lower down	0	7
7 : yes, more input required from higher grades	0	1
8 : yes, top down	15	4

	A : Phase 2 Pre	B : Phase 2 Post
1 : In your experience is change communicated differently to people in different grades within Revenue. Explain	38	39
2 : no	10	11
3 : no, strategic disconnect	0	1
4 : sometimes, not all grades included in communication process	0	2
5 : yes	0	7
6 : yes, depending on complexity of change	1	0
7 : yes, different communication styles	1	0
8 : yes, different for different grades	14	0
9 : yes, top down	8	17

Question 15

	A : Phase 1 pre	B : Phase 1 Post
1 : How are change concepts and terms explained to staff members?	31	39
2 : bottom-up communication	0	1
3 : clearly	0	6
4 : filters down informally	5	0
5 : formal structure	15	17
6 : poorly	0	5
7 : tailored based on need to know	0	4
8 : Top-down communication	8	3

	A : Phase 2 Pre	B : Phase 2 Post
1 : How are change concepts and terms explained to staff members	38	39
2 : continual updates	0	2
3 : depends on staff member	1	0
4 : descriptively	0	1
5 : don't know/not sure	0	5
6 : electronically	9	7
7 : in large groups, seminars, presentations	0	6
8 : meetings and presentations	7	0
9 : multiple communication channels	5	0
10 : not explained, badly explained	10	6
11 : QandA sessions	0	1
12 : Theoretically	0	2
13 : top down, explanation of impact, dissenters not tolerated	0	7
14 : very well, simply, and clearly	7	3
15 : via team meetings	0	4
16 : via training	1	9

Question 16

	A : Phase 1 Pre	B : Phase 1 Post
1 : Do you think change is good for Revenue staff members? Explain?	31	39
2 : if it's done properly and not rushed	0	3
3 : Change causes stress	5	0
4 : change equals more efficient service	15	0
5 : Change is good for Revenue staff	30	0
6 : should be required, not just done just for sake of change	0	6
7 : yes, leads to better organisation	0	3
8 : yes, helps us work better	9	23
9 : yes, leads to innovation	0	4
10 : yes, necessary for progress	0	1

	A : Phase 2 Pre	B : Phase 2 Post
1 : Do you think change is good for Revenue staff members Explain	38	39
2 : depends on change, some is good, some is bad, change is good if it adds value otherwise no.	0	10
3 : not always, needs to work	6	0
4 : yes, changing and evolving keeps the organisation modernised	36	22
5 : yes, if the change is implemented properly	0	7

Question 17

	A : Phase 1 Pre	B : Phase 1 Post
1 : How is the opinion of staff members queried when change is communicated?	31	39
2 : feedback invited after change is implemented	0	3
3 : older staff resistant, younger staff more open	0	1
4 : open invitation for feedback	0	7
5 : opinion not queried	6	5
6 : opinion queried but ignored	0	4
7 : request for queries re change	0	14
8 : staff opinion queried	15	0

	A : Phase 2 Pre	B : Phase 2 Post
1 : How is the opinion of staff members queried when change is communicated	38	39
2 : bottom-up feedback	5	0
3 : by discussing in teams, some fear of belittlement when questioning management	0	9
4 : by email	0	2
5 : by time change is implemented it's too late to query opinions	0	1
6 : depends on change	2	0
7 : discussion	2	0
8 : don't know, not sure	0	2
9 : electronic survey/questionnaire	5	0
10 : not queried	6	1
11 : QandA Sessions, surveys, Feedback sessions	17	21
12 : queries inbox	0	1
13 : staff that query change seen as disrupters	1	0
14 : townhalls	1	0

Question 18

	A : Phase 1 Pre	B : Phase 1 Post
1 : What is the best way for you to learn a new skill?	31	39
2 : demonstration	0	5
3 : having interest in skill	0	2
4 : mentoring	6	4
5 : online	1	0
6 : practical	21	26
7 : reference guide	0	1
8 : step by step clear instructions	3	0
9 : teacher led	5	0
10 : training	0	12

	A : Phase 2 Pre	B : Phase 2 Post
1 : What is the best way for you to learn a new skill	38	39
2 : demo	2	5
3 : depends on skill, different skills require different methods	0	1
4 : interactive presentations	0	1
5 : post training support	7	0
6 : practice and self-learning	26	26
7 : training _face to face, online, mentoring	27	16

Question 19

	A : Phase 1 Pre	B : Phase 1 Post
1 : How would you want change to be communicated to you?	31	39
2 : demo	5	0
3 : effective communication offering rationale	0	14
4 : formally	0	19
5 : impactfully	6	0
6 : individually	0	4
7 : involved from the beginning	10	0
8 : promptly	0	8
9 : training	2	0

	A : Phase 2 Pre	B : Phase 2 Post
1 : How would you want change to be communicated to you	38	39
2 : Combination of communication channels	3	0
3 : depends on the change	2	0
4 : electronically	7	0
5 : explanation of benefits and requirements of change	0	9
6 : face to face	0	3
7 : in advance, clearly and concisely	8	4
8 : involving dialogue	0	7
9 : involving my input	7	0
10 : positively	2	0
11 : practically	4	0
12 : presentation, email, online forum	0	5
13 : timely	0	6
14 : top down	5	6
15 : training, demonstration	5	10
16 : verbally	11	3

Question 20

	A : Phase 1 Pre	B : Phase 1 Post
1 : What do you think of the online training modules available to you through Revenue?	31	39
2 : accessible	0	1
3 : Classroom is better	3	0
4 : don't use online learning platforms	4	0
5 : effective	0	2
6 : little exposure to online training modules	0	6
7 : little time to access	0	1
8 : need improvement	4	0
9 : need more relevant topics	0	1
10 : negative or poor	0	5
11 : positive or good	15	27
12 : prefer more face-to-face modules	0	3
13 : relevant	0	1
14 : tailored to higher grades	0	1

	A : Phase 2 Pre	B : Phase 2 Post
1 : What do you think of the online training modules available to you through Revenue	39	39
2 : beneficial, especially to refer to	1	0
3 : could include more soft skills	1	0
4 : dependant on style of module, some are boring	0	2
5 : difficult to navigate without help	1	0
6 : generic, needs to be division specific	3	0
7 : learner driven	0	1
8 : like having several options	6	0
9 : like the flexibility	1	0
10 : missing the element of social networking and mentoring	0	2
11 : need to be able to schedule time for training	1	2
12 : needs proper resourcing	0	1
13 : never accessed	1	2

14 : not beneficial	0	2
15 : not enough courses available	2	1
16 : not relevant to my role	0	2
17 : positive	26	24
18 : recordings need improvement	1	0
19 : very little experience	0	4

Question 21

	A: Phase 1 Pre	B : Phase 1 Post
1 : In what ways could online training delivered by Revenue be improved?	31	39
2 : aligned with face-to-face training	0	4
3 : Blended and self-directed options	11	0
4 : include practical elements	0	5
5 : more accessible	5	3
6 : more challenging and more interactive	0	3
7 : More choice	0	3
8 : more choice for people with additional needs	0	1
9 : more practical	5	0
10 : more support via handouts, refresher course, short courses to dip in and out of, etc.	0	4
11 : more tailored to needs	0	3
12 : no improvement necessary	1	7
13 : time to undertake during working hours	0	1

	A : Phase 2 Pre	B : Phase 2 Post
1 : In what ways could online training delivered by Revenue be improved?	38	39
2 : archives of classes for reference	0	1
3 : better links to guidance	2	0
4 : blended options	1	0
5 : include video	5	0
6 : look for participant feedback	1	0
7 : make more specific	3	0
8 : make training mandatory	1	0
9 : more breakout sessions	2	0
10 : more flexibility	8	0
11 : more practicality	5	0
12 : more user friendly, more interactive functionality	0	7

13 : no improvement necessary	0	3
14 : Organisation needs to prioritise training	0	6
15 : replicate in person chemistry	2	4
16 : short, real-time, more frequent	0	7
17 : unsure	0	4

Question 22

	A : Phase 1 Pre	B : Phase 1 Post
1 : What do you think will be the benefits of NASC?	31	39
2 : better communication	0	2
3 : better knowledge maintenance and sharing of information	17	33
4 : easier working methods	10	0
5 : no benefit	0	1
6 : transparency	0	1

	A : Phase 2 Pre	B : Phase 2 Post
1 : What do you think will be the benefits of NASC	38	39
2 : awareness of issues	0	1
3 : central repository for information and knowledge	13	0
4 : ease of use	6	0
5 : easier information sharing and group collaboration	22	29
6 : more efficient working	0	6
7 : no benefit, old system was better	0	1
8 : no time lost travelling to training	0	1

Question 23

	A : Phase 1 Pre	B : Phase 1 Post
1 : What do you think will be the limitations of NASC	31	39
2 : Depends on user skill	11	0
3 : no limitations	2	4
4 : not suitable for all information types	4	0
5 : not suitable for sharing all file types leading to inconsistency in use	0	6
6 : not user friendly	4	0
7 : resistance to change - staff will continue to use older systems	0	8
8 : restrictions such as GDPR limit sharing of info and utilisation of system	0	7
9 : too difficult and cumbersome to use	0	11

	A : Phase 2 Pre	B : Phase 2 Post
1 : What do you think will be the limitations of NASC	38	39
2 : compatibility issues with other systems and programmes	6	0
3 : functionality issues	11	6
4 : lack of training	0	1
5 : learning from other cases will not be available	0	1
6 : no limitations	4	4
7 : privacy and security	0	2
8 : that the same issues will occur with large folders and libraries and a new solution will have to be sought	1	0
9 : too resource intensive	0	2
10 : unsure	0	5
11 : user ability and intention to use, buy in	11	16

Question 24

	A : Phase 1 Pre	B : Phase 1 Post
1 : How will you apply NASC to your work?	31	39
2 : carefully once I understand it.	0	2
3 : collaboration	0	9
4 : easier to share and find information	22	23
5 : security of sensitive material	0	1
6 : storage	0	1
7 : will not apply NASC	2	3

	A : Phase 2 Pre	B : Phase 2 Post
1 : How will you apply NASC to your work	38	39
2 : daily	3	0
3 : file storage	0	2
4 : for case working	0	1
5 : group collaboration	0	10
6 : improve skills	3	0
7 : information and document sharing	23	0
8 : no application	0	3
9 : no impact, not suitable for case working	6	0
10 : not sure, will decide as I get more familiar with NASC	0	3
11 : Research	0	4
12 : saving my documents for sharing	0	25
13 : unsure	4	0

Question 25

	A : Phase 1 Pre	B : Phase 1 Post
1 : What have you heard from colleagues about NASC	31	39
2 : negativity - difficult to use	7	9
3 : no choice, must adapt to it	4	0
4 : no feedback received	6	7
5 : positivity - easy to use	9	19
6 : uncertainty	0	8
7 : useful	4	0

	A : Phase 2 Pre	B : Phase 2 Post
1 : What have you heard from colleagues about NASC	38	39
2 : difficult to use, negative	5	5
3 : initial difficulty, now improved	0	2
4 : it's a new file storage system	3	0
5 : it's beneficial, positive	13	9
6 : mixed response	0	4
7 : neutral	1	0
8 : no different from shared drive	0	3
9 : not much	16	11

Appendix G

Trainer Survey Thematic Analysis Using Braun and Clarke (2006)

Step 1: Familiarisation with the Data

All 60 trainer responses (10 trainers × 3 questions × 2 phases) were read multiple times to gain a deep understanding of recurring patterns, concerns, and suggestions. Initial observations highlighted the evolving nature of the training, strong emphasis on user diversity, feedback loops, and resistance to system adoption.

Step 2: Generating Initial Codes

Codes were generated across the dataset using NVivo. These included:

- Training variation (across trainers, departments, and sessions)
- Technical barriers (terminology, access, tools)
- Communication failures (overly complex instructions, jargon, email overload)
- Accessibility challenges (for users with hearing/visual impairments)
- Mismatch between training and real-world needs
- Peer learning and informal feedback
- Resistance to change
- Workarounds and avoidance strategies
- Feedback timing and specificity

Step 3: Searching for Themes

Initial codes were reviewed and grouped into broader categories. These developed into the following preliminary themes:

1. Training Inconsistency and Adaptation Over Time
2. Practical Gaps Between Training Content and Real-World Needs
3. The Value and Limits of Informal Feedback
4. Barriers to Learning: Technical, Organisational, and Cultural
5. The Role of Communication in Shaping Training Outcomes

Step 4: Reviewing Themes

Each theme was checked against the raw data to ensure it was well supported and distinct. Subthemes were identified where appropriate. The themes were refined to reflect the full scope of trainer experiences across both phases.

Step 5: Defining and Naming Themes

Theme 1: Training Inconsistency and Adaptation Over Time

- *Subtheme 1.1: Evolution from pilot to present*
Trainers noted significant improvement in materials and delivery since the pilot, though early flaws created lasting negative perceptions.
- *Subtheme 1.2: Variability between trainers and sessions*
Some sessions were described as excellent, while others were “bare minimum.” A call for standardisation and quality control was frequent.

Theme 2: Practical Gaps Between Training and Real-World Use

- *Subtheme 2.1: Generalised training vs. specific workflows*
Trainers acknowledged that standardised content failed to meet the needs of frontline or specialised staff, especially in case-sensitive roles.
- *Subtheme 2.2: Training timing misalignment*
Sessions were often scheduled too far in advance of rollout, causing knowledge decay.
- *Subtheme 2.3: Lack of advanced modules*
Trainers identified the need for more targeted training, e.g., for complex tasks like version control or Smart Folders.

Theme 3: The Value and Limits of Informal Feedback

- *Subtheme 3.1: Post-training feedback as a key improvement driver*
Follow-up queries and informal conversations were considered far more insightful than in-session responses.
- *Subtheme 3.2: Vague or non-actionable feedback*
Some trainers expressed frustration at unhelpful praise or complaints unrelated to training quality (e.g., system resistance).
- *Subtheme 3.3: Feedback exposes trainer blind spots*
Trainers realised that their deep familiarity with NASC caused them to overlook basic usability issues unfamiliar to staff.

Theme 4: Barriers to Learning

- *Subtheme 4.1: Technical barriers and inconsistent digital skills*
Staff digital literacy varied widely. Older staff struggled with basics; younger staff were frustrated by limitations.

- *Subtheme 4.2: Accessibility and remote learning constraints*
Trainers noted challenges in supporting hearing/visually impaired users and those working from home with poor connectivity.
- *Subtheme 4.3: Resistance to change and cultural blockers*
Some users were resistant due to being “volunteered” or due to scepticism from leadership.
- *Subtheme 4.4: Training delivery format*
Long email instructions, technical language, and limited video content were cited as barriers.

Theme 5: Communication Challenges

- *Subtheme 5.1: Jargon and complex instructions*
Terms like “user acceptance testing” or “file migration” were unclear to many users.
- *Subtheme 5.2: Communication gaps from leadership*
Managers’ negative attitudes toward NASC discouraged staff buy-in.
- *Subtheme 5.3: Ineffective pre-training communication*
Setup instructions were often buried in unread emails, undermining session preparedness.

Step 6: Writing Up

Summary of Key Insights:

Thematic analysis revealed that training delivery evolved positively, but early mistakes in planning and communication created long-term credibility challenges. Trainers emphasised that informal feedback, especially after real system use, was crucial in identifying what the training had missed.

Despite improvements, training often failed to meet the needs of diverse departments and user groups, with standardised content falling short of the realities of specialised workflows.

Multiple barriers to learning were identified:

- Technical issues
- Accessibility challenges
- Resistance due to cultural or organisational dynamics
- Lack of tailored, engaging, or well-timed communication

Trainers recognised the importance of clear, jargon-free messaging and advocated for more self-service resources, better timing of sessions, and ongoing post-training support.

Final Themes Summary Table

Theme	Key Insight
Training Inconsistency and Adaptation	Training improved over time, but early flaws caused lasting reputational damage.
Practical Gaps in Content	Training content was too generalised and often mistimed or not workflow specific.
Value of Informal Feedback	Post-training feedback revealed user confusion and informed better training design.
Barriers to Learning	Technical skills, accessibility, remote settings, and change resistance all contributed.
Communication Challenges	Complex jargon, leadership tone, and poor pre-session communication undermined readiness.

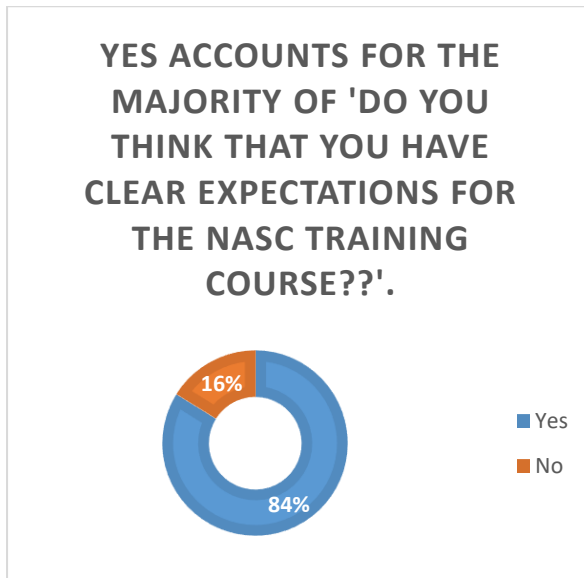
Table G-1 Final Themes Summary Table

Appendix H

Closed Questions Analysis

Question 1:

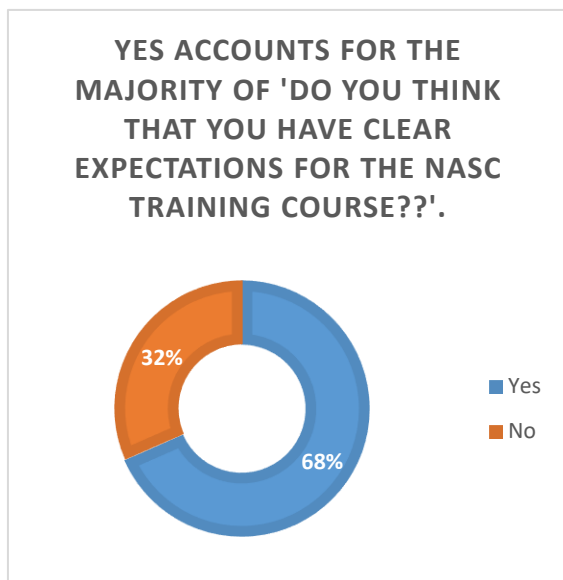
Phase 1: Pre Training



Phase 1: Post Training



Phase 2: Pre Training

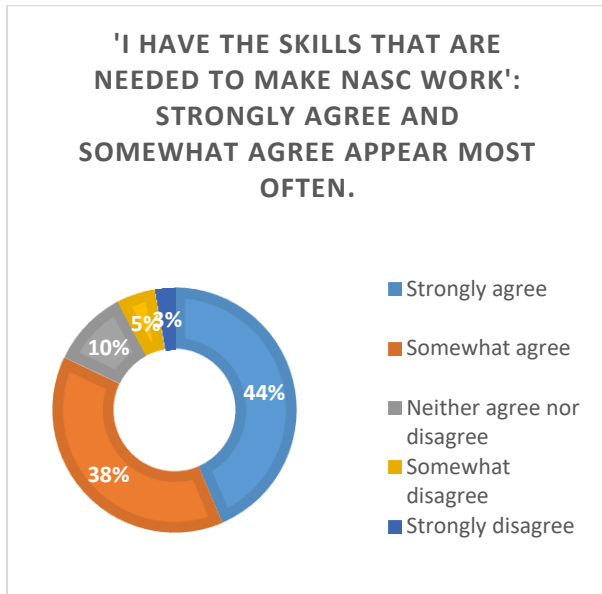


Phase 2: Post Training

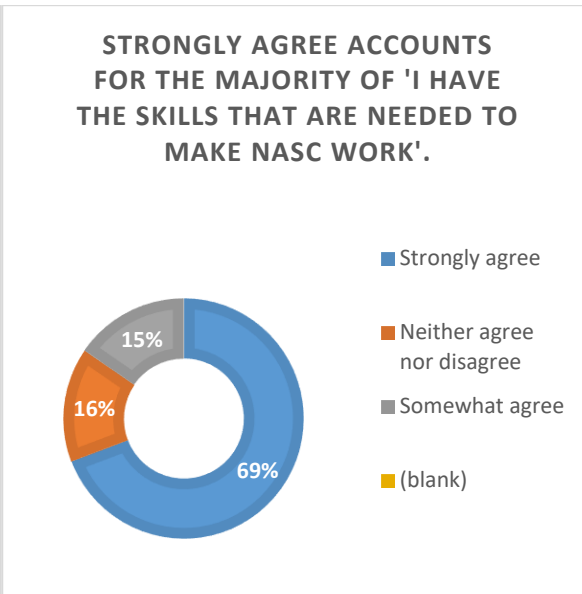


Question 2:

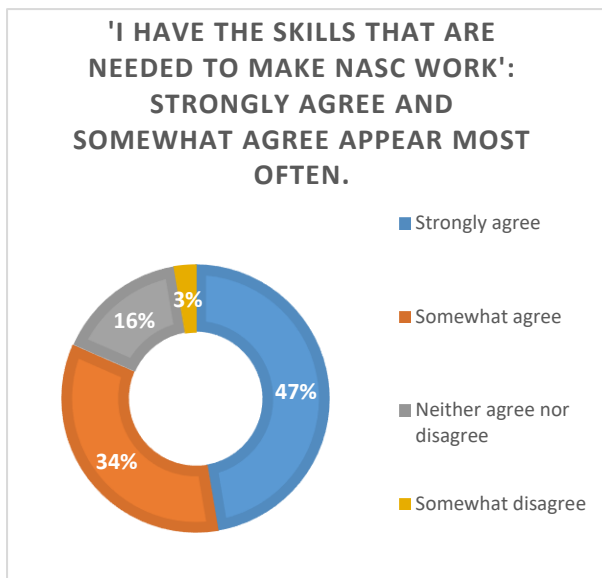
Phase 1: Pre Training



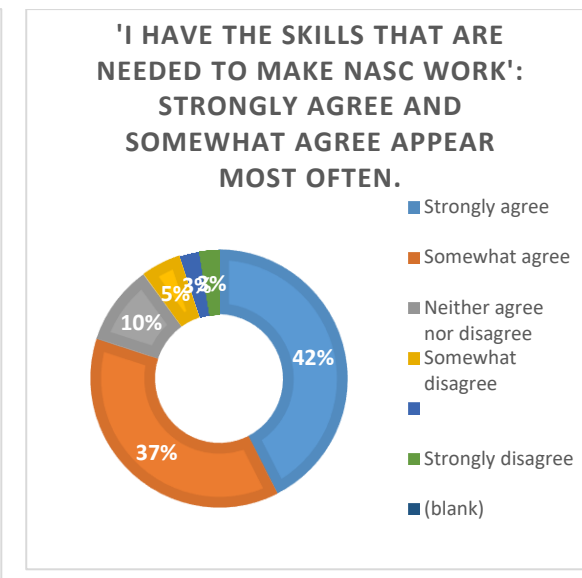
Phase 1: Post Training



Phase 2: Pre Training

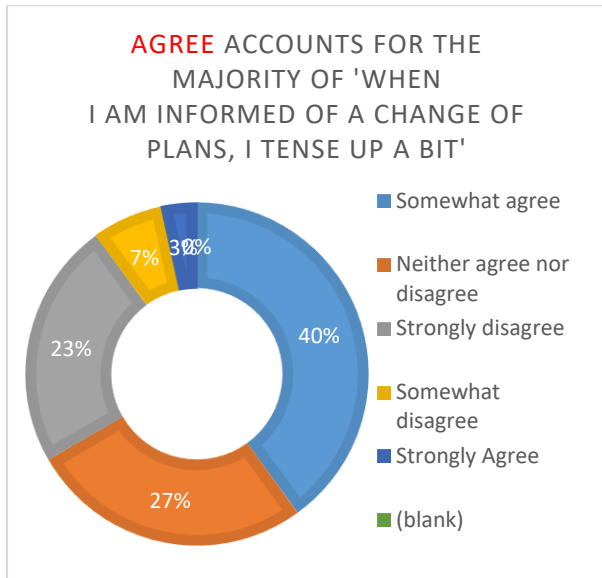


Phase 2: Post Training

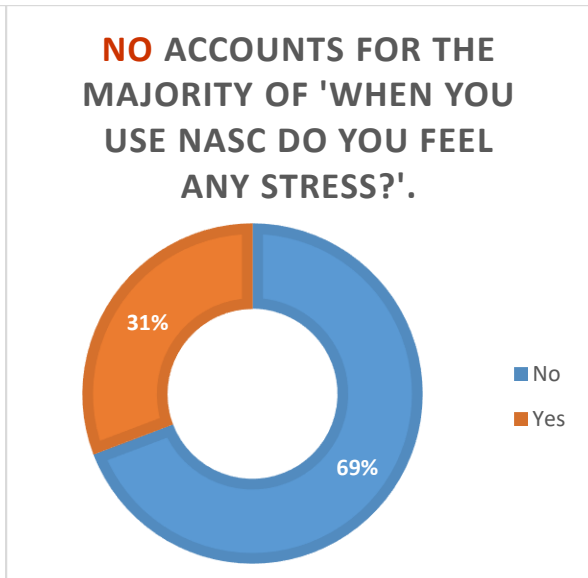


Question 3

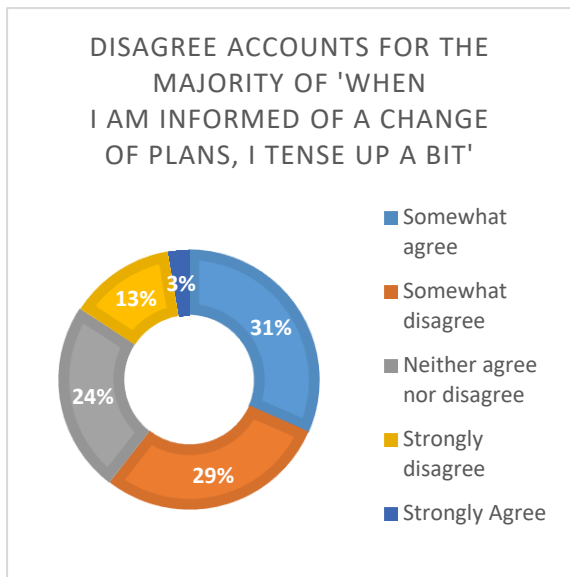
Phase 1: Pre Training



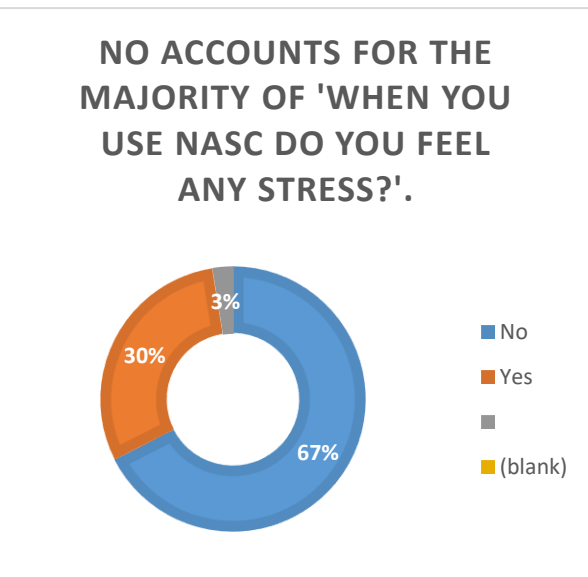
Phase 1: Post Training



Phase 2: Pre Training

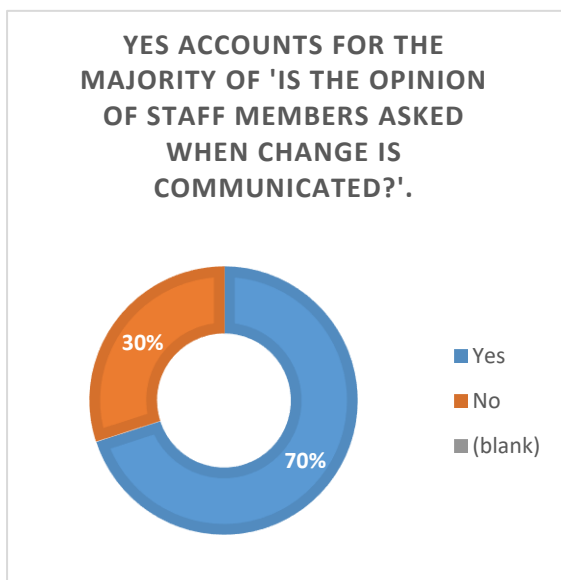


Phase 2: Post Training

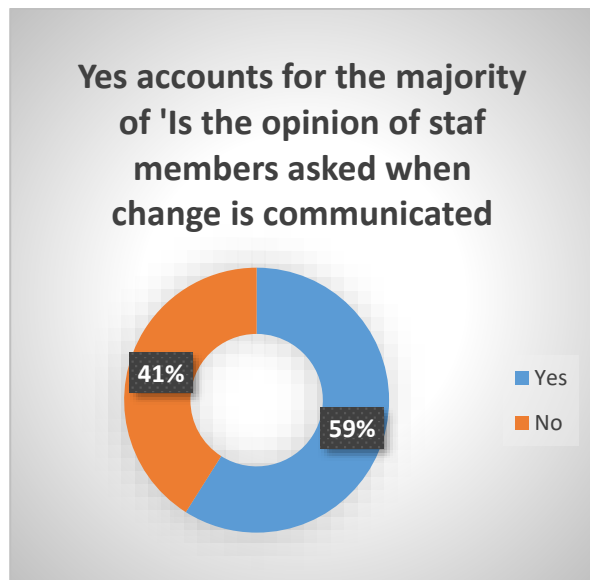


Question 4

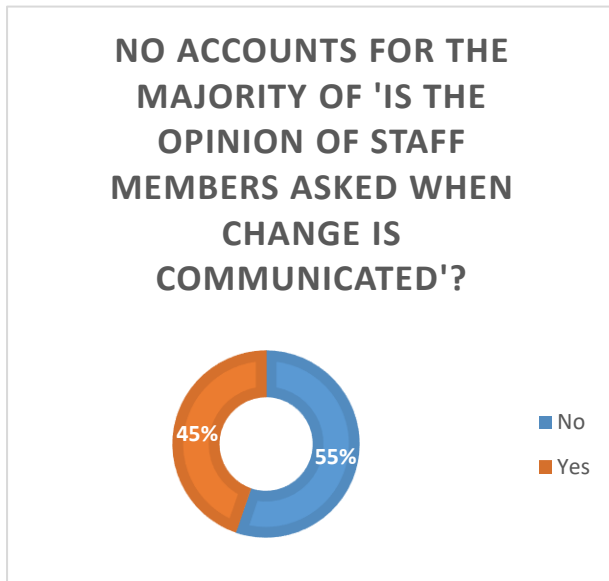
Phase 1: Pre Training



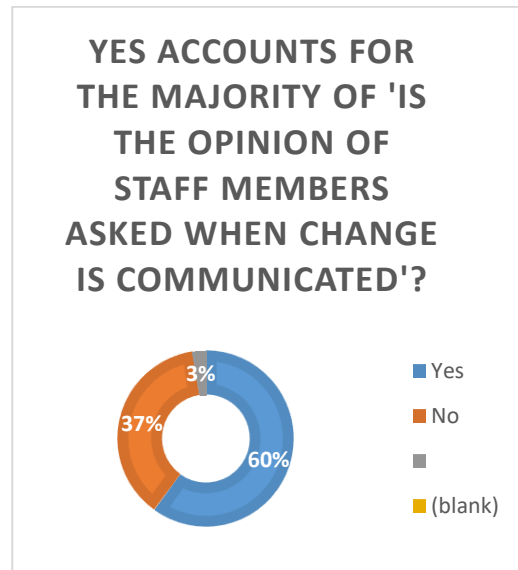
Phase 1: Post Training



Phase 2: Pre Training

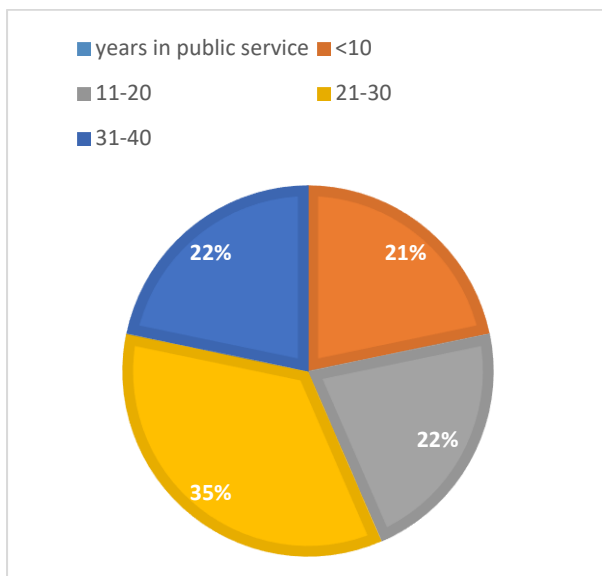


Phase 2: Post Training

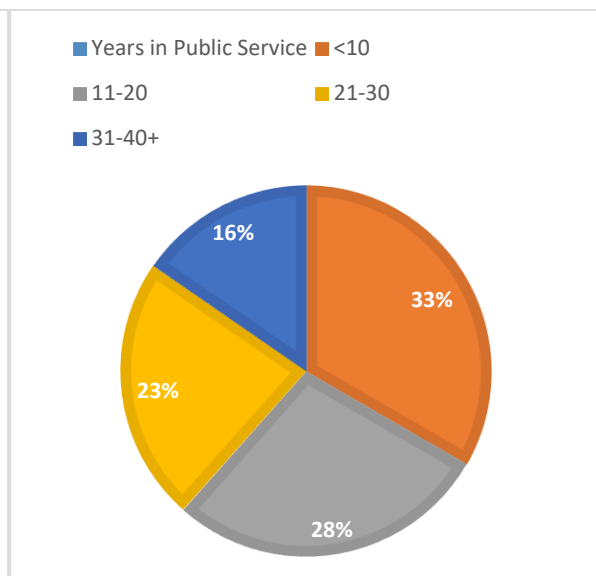


Question 5

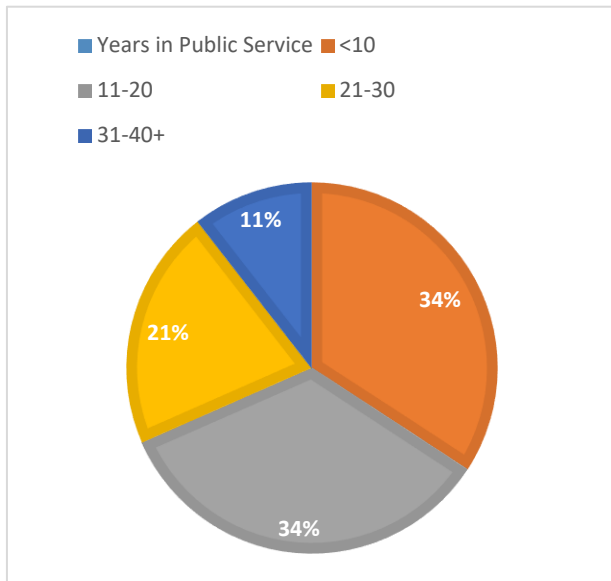
Phase 1: Pre Training



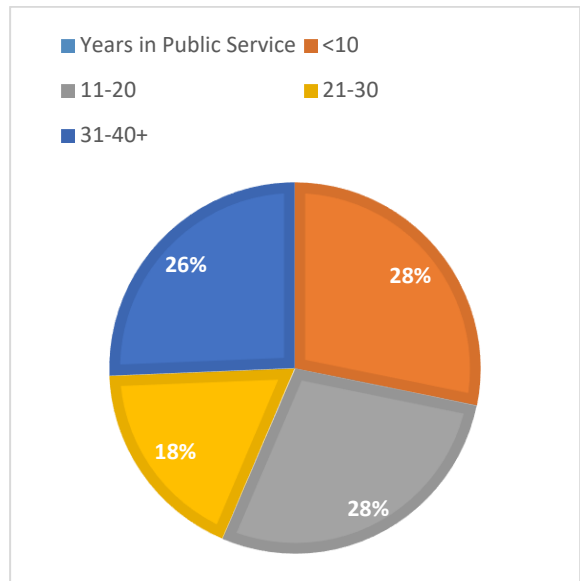
Phase 1: Post Training



Phase 2: Pre Training



Phase 2: Post Training



Appendix I

Closed Questions Datasets

How long have you worked in the Public Service	When I am informed of a change of plans, I tense up a bit.	Do you think that you have clear expectations for the NASC training course?	I have the skills that are needed to make NASC work	Is the opinion of staff members asked when change is communicated?
	Strongly disagree	Yes	Strongly agree	Yes
	Strongly disagree	Yes		No
	Somewhat agree	Yes		No
	Somewhat disagree	Yes	Strongly agree	Yes
	Somewhat agree	Yes	Strongly agree	No
		Yes	Strongly agree	Yes
	Neither agree nor disagree	Yes		Yes
	Strongly Agree	Yes	Strongly agree	Yes
	Strongly disagree	Yes	Strongly agree	No
	Somewhat agree	Yes		No
	Neither agree nor disagree	Yes	Somewhat agree	Yes
	Somewhat agree	Yes	Neither agree nor disagree	Yes
3 Years	Somewhat agree	Yes	Strongly agree	Yes
6 Years	Strongly disagree	Yes	Strongly agree	Yes
3 Years	Strongly disagree	No	Strongly agree	Yes
10 Years	Somewhat agree	No	Somewhat agree	No
6 Years	Neither agree nor disagree	Yes	Somewhat agree	Yes
20 Years	Neither agree nor disagree	Yes	Strongly agree	No
20 Years	Neither agree nor disagree	Yes	Strongly agree	Yes
18 Years	Somewhat disagree	Yes	Somewhat agree	Yes
15 Years	Somewhat agree	No	Neither agree nor disagree	Yes

15 Years	Somewhat agree	Yes	Strongly agree	Yes
20 Years	Neither agree nor disagree	Yes	Strongly agree	Yes
28 Years	Neither agree nor disagree	No	Strongly agree	No
30 Years	Somewhat agree	Yes		Yes
22 Years	Somewhat agree	Yes	Strongly agree	Yes
21 Years	Neither agree nor disagree	Yes	Strongly agree	Yes
25 Years	Strongly disagree	Yes	Neither agree nor disagree	Yes
41 Years	Strongly disagree	No	Neither agree nor disagree	
35 Years	Somewhat agree	Yes	Strongly agree	No
37 Years	Somewhat agree	Yes	Strongly agree	Yes

Table I-1: Phase 1 Pre-Training Survey closed question data set - How long have you worked in the Public Service

How long have you worked in the Public Service	Following training do you have clear expectations for how you can use NASC?	When you use NASC do you feel any stress?	I have the skills that are needed to make NASC work	Is the opinion of staff members asked when change is communicated?
7 years	Yes	No	Strongly agree	Yes
1 years	No	No	Neither agree nor disagree	Yes
9 years	Yes	No	Strongly agree	Yes
3 years	Yes	No	Somewhat agree	Yes
6 years	Yes	No	Strongly agree	No
4 years	Yes	No	Strongly agree	Yes
4 yeas	Yes	Yes	Somewhat agree	Yes
4 years	Yes	No	Strongly agree	Yes
6 years	No	Yes	Neither agree nor disagree	No

1 years	Yes	No	Somewhat agree	No
6 years	Yes	Yes	Somewhat agree	No
6.5 years	Yes	No	Strongly agree	No
7 years	Yes	No	Strongly agree	No
16 years	No	No	Neither agree nor disagree	No
15 years	Yes	No	Somewhat agree	Yes
20 years	Yes	No	Strongly agree	No
16 years	Yes	No	Strongly agree	Yes
17 years	Yes	No	Somewhat agree	No
18 years	Yes	No	Strongly agree	Yes
20 years	Yes	Yes	Somewhat agree	No
11 years	Yes	No	Strongly agree	Yes
12 years	Yes	No	Somewhat agree	Yes
20 years	Yes	Yes	Strongly agree	Yes
18 years	Yes	No	Strongly agree	Yes
23 years	Yes	No	Strongly agree	Yes
21 years	Yes	No	Somewhat disagree	No
27 years	Yes	Yes	Somewhat agree	Yes
30 years	Yes	Yes	Strongly agree	Yes
27 years	Yes	No	Strongly agree	Yes
30 years	Yes	Yes	Somewhat agree	No
30 years	No	Yes	Strongly disagree	No
22 years	Yes	No	Somewhat agree	No
25 years	No	Yes	Somewhat disagree	No
41 years	Yes	No	Strongly agree	Yes
39 years	Yes	Yes	Somewhat agree	Yes
41 years	Yes	No	Neither agree nor disagree	Yes
35 years	Yes	No	Somewhat agree	Yes
35 years	Yes	Yes	Somewhat agree	No
38 years	Yes	No	Somewhat agree	Yes

Table I-2: Phase 1 Post Training Survey closed question data set - How long have you worked in the Public Service

Do you think that you have clear expectations for the NASC training course?	When I am informed of a change of plans, I tense up a bit.	I have the skills that are needed to make NASC work	Is the opinion of staff members asked when change is communicated?
No	Strongly disagree	Strongly agree	Yes
No	Strongly disagree	Strongly agree	No
Yes	Somewhat agree	Somewhat agree	Yes
Yes	Somewhat disagree	Strongly agree	No
No	Somewhat disagree	Neither agree nor disagree	No
No	Somewhat agree	Neither agree nor disagree	Yes
Yes	Somewhat disagree	Strongly agree	Yes
No	Neither agree nor disagree	Somewhat agree	No
Yes	Somewhat disagree	Somewhat agree	Yes
Yes	Neither agree nor disagree	Somewhat agree	No
No	Somewhat agree	Neither agree nor disagree	No
Yes	Neither agree nor disagree	Somewhat agree	Yes
Yes	Somewhat disagree	Strongly agree	No
No	Somewhat agree	Somewhat agree	No
Yes	Neither agree nor disagree	Strongly agree	No
Yes	Somewhat disagree	Strongly agree	Yes
No	Strongly disagree	Strongly agree	No
Yes	Neither agree nor disagree	Strongly agree	No
Yes	Neither agree nor disagree	Strongly agree	No
No	Somewhat agree	Neither agree nor disagree	No
Yes	Neither agree nor disagree	Strongly agree	No
Yes	Somewhat agree	Neither agree nor disagree	No
Yes	Somewhat agree	Strongly agree	No
Yes	Somewhat agree	Somewhat agree	Yes
Yes	Somewhat agree	Strongly agree	No
Yes	Somewhat disagree	Somewhat agree	Yes

Yes	Neither agree nor disagree	Somewhat agree	Yes
Yes	Somewhat disagree	Strongly agree	Yes
Yes	Somewhat agree	Somewhat agree	Yes
Yes	Somewhat agree	Strongly agree	No
Yes	Strongly disagree	Strongly agree	Yes
No	Strongly Agree	Neither agree nor disagree	No
Yes	Strongly disagree	Strongly agree	Yes
Yes	Somewhat disagree	Somewhat agree	No
No	Neither agree nor disagree	Somewhat agree	Yes
Yes	Somewhat disagree	Somewhat agree	Yes
No	Somewhat agree	Somewhat disagree	No
Yes	Somewhat disagree	Strongly agree	Yes

Table I-3: Phase 2 Pre-Training Survey closed question data set - How long have you worked in the Public Service

How long have you worked in the Public Service	Following training do you have clear expectations for how you can use NASC?	When you use NASC do you feel any stress?	I have the skills that are needed to make NASC work	Is the opinion of staff members asked when change is communicated?
7 years	No	Yes	Somewhat agree	No
6 years	No	Yes	Somewhat agree	Yes
3 years	Yes	No	Strongly agree	Yes
4 years	Yes	No	Strongly agree	No
4 years	Yes	No	Strongly agree	Yes
2.5 years	Yes	No	Strongly agree	Yes
6 years	Yes	No	Somewhat agree	Yes
6 years	Yes	No	Strongly agree	Yes
3 years	No	Yes	Strongly disagree	No
5 years	No	No	Somewhat disagree	No
3 years	Yes	No	Neither agree nor disagree	No
20 years	No	Yes	Strongly agree	Yes

14 years	Yes	No	Somewhat agree	Yes
15 years.	Yes	No	Somewhat agree	No
18 years	Yes	No	Somewhat agree	Yes
15 years.	Yes	No	Somewhat agree	No
14 years	No	Yes	Strongly agree	No
11 years	Yes	No	Strongly agree	Yes
16 years	No	No	Neither agree nor disagree	Yes
13 years	Yes	No	Strongly agree	No
18 years	Yes	No	Strongly agree	Yes
20 years	Yes	No	Strongly agree	Yes
25 years	No	No	Somewhat agree	Yes
25 years	Yes	No	Somewhat agree	Yes
27 years	Yes	No	Strongly agree	No
23 years	Yes	Yes	Somewhat agree	No
22 years	No	Yes	Strongly agree	No
27 years	Yes	No	Strongly agree	Yes
27 years	Yes	Yes	Somewhat agree	Yes
35 years	No	Yes	Somewhat disagree	No
39 years	Yes	No	Strongly agree	Yes
40 years	Yes	No	Neither agree nor disagree	Yes
34 years	Yes	No	Neither agree nor disagree	Yes
40 years	Yes	Yes	Strongly agree	Yes
42 years	Yes	No	Strongly agree	Yes
32 years	Yes	Yes	Somewhat agree	Yes
34 years	No	No	Somewhat agree	No
46 years	Yes	Yes	Somewhat agree	No
40 years	Yes	No	Somewhat agree	Yes

Table I-4: Phase 2 Post Training Survey closed question data set - How long have you worked in the Public Service

How long have you worked in the Public Service	Count of How long have you worked in the Public Service
26 years	8
27 years	5
35 Years	4
30 Years	4
25 Years	3
40 years	3
39 years	3
41 Years	3
22 Years	3
23 years	2
38 years	2
21 Years	2
34 years	2
46 years	1
36 years	1
25 years	1
37 Years	1
42 years	1
32 years	1
37 years	1
28 Years	1
Grand Total	52

Table I-5: staff with more than 20 years' service

when I am informed of a change of plans, I tense up a bit.	Count of when I am informed of a change of plans, I tense up a bit.
Yes	35
No	9
Somewhat agree	4
Neither agree nor disagree	2
Strongly disagree	2
Grand Total	52

Table I-6: Response of staff with more than 20 years' service to question on change and stress

Do you think that you have clear expectations for the NASC training course?	Count of Do you think that you have clear expectations for the NASC training course?
No	20
Yes	20
Somewhat disagree	4
Somewhat agree	3
Strongly disagree	2
Neither agree nor disagree	2
Strongly Agree	1
Grand Total	52

Table I-7 Response of staff with more than 20 years' service to question on NASC training expectations

I have the skills that are needed to make NASC work	Count of I have the skills that are needed to make NASC work
Strongly agree	20
Somewhat agree	20
Neither agree nor disagree	6
Somewhat disagree	4
Strongly disagree	1
(blank)	1
Grand Total	51

Table I-8 Response of staff with more than 20 years' service to question on skills necessary for NASC

Is the opinion of staff members asked when change is communicated?	Count of Is the opinion of staff members asked when change is communicated?
Yes	33
No	18
(blank)	1
Grand Total	51

Table I-9 Response of staff with more than 20 years' service to question on change communication with staff

How long have you worked in the Public Service	Count of How long have you worked in the Public Service
20 Years	13
3 Years	8
18 Years	7
6 Years	6
7 years	6
1 years	5

11 years	4
16 years	4
9 years	4
12 years	3
15 Years	3
4 years	2
15 years.	2
17 years	2
6 Years	2
4 years	2
14 years	2
10 Years	2
5 years	1
6.5 years	1
13 years	1
4 years	1
2.5 years	1
Grand Total	82

Table I-10 staff with 20 or less years' service

when I am informed of a change of plans, I tense up a bit.	Count of when I am informed of a change of plans, I tense up a bit.
Yes	53
No	19
Neither agree nor disagree	4
Somewhat agree	3
Strongly disagree	2
Somewhat disagree	1
Grand Total	82

Table I-11: Response of staff with 20 or less years' service to question on change and stress

Do you think that you have clear expectations for the NASC training course?	Count of Do you think that you have clear expectations for the NASC training course?
No	39
Yes	17
Somewhat agree	9
Somewhat disagree	7
Neither agree nor disagree	7
Strongly disagree	3
Grand Total	82

Table I-12: Response of staff with 20 or less years' service to question on NASC training expectations

I have the skills that are needed to make NASC work	Count of I have the skills that are needed to make NASC work
Strongly agree	43
Somewhat agree	26
Neither agree nor disagree	11
Strongly disagree	1
Somewhat disagree	1
Grand Total	82

Table I-13 Response of staff with 20 or less years' service to question on skills necessary for NASC

Is the opinion of staff members asked when change is communicated?	Count of Is the opinion of staff members asked when change is communicated?
Yes	44
No	38
Grand Total	82

Table I-14 Response of staff with 20 or less years' service to question on change communication with staff

Appendix J

DCU Research Ethics Committee Approval

Ollscoil Chathair Bhaile Átha Cliath
Dublin City University



Maura Corry
School of STEM Education, Innovation & Global Studies

Dr. Margaret Leahy
School of STEM Education, Innovation & Global Studies

Prof. Deirdre Butler
School of STEM Education, Innovation & Global Studies

31st May 2021

REC Reference: DCUREC/2021/127

Proposal Title: An assessment of the implementation of NASC (knowledge management system) within the Office of the Revenue Commissioner.

Applicant(s): Maura Corry, Dr. Margaret Leahy, Prof. Deirdre Butler

Dear Colleagues,

This research proposal qualifies under our Notification Procedure, as a low risk social research project. Therefore, the DCU Research Ethics Committee approves this project.

Materials used to recruit participants should state that ethical approval for this project has been obtained from the Dublin City University Research Ethics Committee.

Should substantial modifications to the research protocol be required at a later stage, a further amendment submission should be made to the REC.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Geraldine Scanlon'.

Dr Geraldine Scanlon
Chairperson
DCU Research Ethics Committee



Taighde & Nuálaíocht Tacaíocht
Ollscoil Chathair Bhaile Átha Cliath,
Baile Átha Cliath, Éire

Research & Innovation Support
Dublin City University,
Dublin 9, Ireland

T +353 1 700 8000
F +353 1 700 8002
E research@dcu.ie
www.dcu.ie

Appendix K

Trainer Survey Data

Phase 1:

Question 1: What is your assessment of the training delivered so far?

Trainer P1T1: "The training has evolved significantly since the initial rollout. While the pilot of NASC created some resistance, our current materials accommodate various learning styles with step-by-step guides and videos. The shift to remote delivery during COVID was challenging but ultimately led to more flexible options for participants."

Trainer P1T2: "I believe we've struggled with the distinction between 'selling' NASC versus practical training. Many Site Owners and NASC Officers questioned why we were trying to convince them to use a system they were mandated to adopt. We've since refined our approach to focus on practical implementation."

Trainer P1T3: "Remote training has been a double-edged sword. While it's convenient for general users, the site build process would have been more efficient face-to-face. Many Site Owners wait until the last minute to prepare materials when working remotely, extending the build timeline substantially."

Trainer P1T4: "Our training is delivered to a high standard and is appropriately flexible. We've developed a good mix of background information, demonstrations, and practical learning that serves different learning styles. The comprehensive library of guides and videos supports self-directed learning."

Trainer P1T5: "The utility of our training varies significantly based on the department. Divisional Office and Legislation-focused areas find NASC valuable, while frontline and casework-based teams express concerns about Freedom of Information sensitivities and confidentiality issues."

Trainer P1T6: "The shift to Microsoft Teams has improved accessibility for most users, making it easier to schedule and attend sessions. Our training materials have improved through continuous refinement, and the video resources have been particularly valuable for those who can't attend live sessions."

Trainer P1T7: "The initial pilot generated considerable antipathy toward NASC, which unfortunately spread to departments not involved in the pilot. We still receive questions about elements of NASC 1.0 that aren't relevant to the current version."

Trainer P1T8: "The training approach has adapted well over time. Initially, our materials were created on the fly with basic software by people with limited training experience. However, this gave us better insight into user needs, which improved later iterations."

Trainer P1T9: "Working from home has made it easier for users to attend training sessions, especially on short notice. The recorded sessions and supplementary materials are valuable for those who need refreshers or miss the original training."

Trainer P1T10: "Our training is generally effective for creating awareness of NASC, but often falls short on specific detailed assistance that some departments require. The generalized approach doesn't always address specialized workflow concerns."

Question 2: Has the informal feedback received been helpful?

Trainer P1T11: "Informal feedback has been invaluable for understanding real-world implementation challenges. Many users don't ask questions during training but contact us later when actually using the system, providing insights we wouldn't otherwise get."

Trainer P1T12: "The feedback tends to be generally positive but lacks specificity that would help improve presentations or support materials. It's nice to hear 'good job,' but doesn't guide enhancements."

Trainer P1T13: "Much of the negative feedback relates to staffing decisions rather than the training itself. Some people resent being 'volunteered' for NASC roles, which may result in a perfunctory approach to site building."

Trainer P1T14: "Users often need time with the system before meaningful questions arise. Informal feedback after implementation has been crucial for identifying common stumbling blocks that weren't apparent during training."

Trainer P1T15: "After working with NASC for so long, we sometimes miss obvious user issues because we've developed workarounds or simply don't notice them anymore. User feedback about the toolbar confusion at levels 1 and 2 was eye-opening."

Trainer P1T16: "The most helpful feedback comes from follow-up questions after users have had time to work with the system. These practical implementation questions have driven many of our training improvements."

Trainer P1T17: "Informal feedback has highlighted gaps in our training approach, particularly around technical terminology that isn't accessible to all users. This has prompted us to revise our language."

Trainer P1T18: "The most valuable feedback comes from users who aren't afraid to admit confusion. Their questions often reveal assumptions we've made about basic knowledge that some users don't possess."

Trainer P1T19: "Feedback about accessibility issues has been particularly helpful. We now know to provide scripts with videos and use Teams for live captioning to support hearing-impaired staff."

Trainer P1T10: "Users rarely provide detailed constructive criticism. Most feedback is either broadly positive or focused on issues outside our control, like the decision to implement NASC in the first place."

Question 3: Have you noted any barriers to learning?

Trainer P1T1: "We've encountered significant challenges in supporting hearing and visually impaired staff. The switch to Microsoft Teams has helped somewhat with live caption functionality, but we need more accessible training options."

Trainer P1T2: "The wide variation in baseline IT skills creates major challenges. Some older staff struggle with basic computer functions, while younger colleagues have unrealistically high expectations of system capabilities based on consumer technology."

Trainer P1T3: "Technical issues during remote sessions have been problematic. Some users lack proper equipment, experience connectivity problems, or face temporary glitches that exclude them from training."

Trainer P1T4: "Computer-averse staff are most resistant to adoption. We've had to emphasize the N: drive access method despite its limitations because it's more familiar to users accustomed to shared drives."

Trainer P1T5: "Many users don't read instructions thoroughly. Our standard email templates contain essential information but are text-heavy and uninviting. We need more engaging communication formats."

Trainer P1T6: "Technical terminology is a significant barrier. We've had to simplify language around concepts like 'user acceptance testing' and 'file migration' to make training accessible."

Trainer P1T7: "The lack of comprehensive video guides for all NASC functions limits self-directed learning options. We also need to improve video accessibility with captions."

Trainer P1T8: "Users with limited IT experience who are nominated as NASC Officers based on their institutional knowledge face particular challenges. They often need additional support beyond standard training."

Trainer P1T9: "The shift to remote work has created inconsistent learning environments. Some users face distractions at home or lack adequate workspace for focused learning."

Trainer P1T10: "The conceptual leap from folder-based storage to NASC's approach is difficult for many users. Concepts like Smart Folders particularly confuse those with established file management habits."

Phase 2:

Question 1: What is your assessment of the training delivered so far?

Trainer P2T1: "The initial NASC training suffered from poor planning and messaging. By focusing on promoting rather than practical application, we created unnecessary resistance. We've since improved, but some damage to credibility remains."

Trainer P2T2: "Our training materials were created hastily with minimal instructional design expertise. While we've improved through trial and error, a more systematic approach from the beginning would have yielded better results."

Trainer P2T3: "Remote training has been surprisingly effective for general users but has significantly extended the site build process. The hybrid approach we're developing now combines the best of both methods."

Trainer P2T4: "The quality of our training varies considerably between trainers. Some sessions are excellent, while others barely cover the basics. We need more standardization and quality control."

Trainer P2T5: "Our training is fundamentally misaligned with how different departments actually work. What's efficient for administrative teams is burdensome for frontline staff managing sensitive cases."

Trainer P2T6: "We've done remarkably well adapting to remote delivery during the pandemic. Our recorded sessions and self-service materials have actually improved accessibility compared to the original in-person plan."

Trainer P2T7: "The legacy of the problematic pilot continues to haunt implementation. Many departments enter training with negative preconceptions based on second hand accounts from pilot participants."

Trainer P2T8: "Our training is adequate for basic functionality but doesn't address the more complex workflows some departments need. We're working to develop more specialized modules for different use cases."

Trainer P2T9: "The shift to Microsoft Teams has improved session delivery, but technical issues still disrupt approximately 25% of sessions. We need better technical support during live training."

Trainer P2T10: "Our biggest success has been adapting training to accommodate varying levels of technical proficiency. We now offer foundation sessions for those needing extra support with basic concepts."

Question 2: Has the informal feedback received been helpful?

Trainer P2T1: "Informal feedback has revealed fundamental misunderstandings about NASC we wouldn't have identified otherwise. Users often struggle with concepts we consider obvious, highlighting gaps in our training approach."

Trainer P2T2: "Feedback tends to be vague and unhelpful. Users say training was 'fine' but then struggle with implementation, suggesting they didn't fully grasp the content but were reluctant to admit confusion."

Trainer P2T3: "The most useful feedback has come from unexpected sources - administrative staff often identify practical issues that technical teams overlook. They've become our most valuable informal testers."

Trainer P2T4: "Informal conversations after training sessions frequently reveal concerns users weren't comfortable raising in group settings. These insights have driven significant improvements to our materials."

Trainer P2T5: "Our familiarity with NASC creates blind spots. User feedback about the confusing toolbar at levels 1 and 2 highlighted a major usability issue we'd completely overlooked because we're so accustomed to it."

Trainer P2T6: "Department-specific feedback has been essential for developing targeted materials. What works for Finance differs dramatically from what Legal or Customer Service teams need."

Trainer P2T7: "Negative feedback often focuses on system limitations rather than training quality. Users expect capabilities NASC doesn't offer, leading to disappointment no training could address."

Trainer P2T8: "Follow-up questions have revealed widespread confusion about certain NASC features, particularly version control and document sharing. We've since developed dedicated modules on these topics."

Trainer P2T9: "Accessibility feedback has been particularly valuable. Staff with hearing or visual impairments have helped us identify and address barriers our standard approach created."

Trainer P2T10: "The most revealing feedback comes 3-4 weeks after training when users have attempted real work in NASC. Their practical experience highlights gaps in our theoretical training approach."

Question 3: Have you noted any barriers to learning?

Trainer P2T1: "Supporting staff with disabilities has been challenging with remote training. Screen readers interact poorly with some NASC features, and video captions don't adequately convey visual demonstrations."

Trainer P2T2: "The generational technology gap is our biggest challenge. Some senior staff struggle with basic computing concepts while younger colleagues find NASC frustratingly limited compared to consumer applications."

Trainer P2T3: "Remote training creates inconsistent experiences. Network issues, outdated equipment, and home distractions significantly impact learning outcomes for some participants."

Trainer P2T4: "Resistance to change is our primary barrier. Some departments have developed complex workarounds to avoid fully adopting NASC, undermining the system's benefits."

Trainer P2T5: "Our communication approach is failing. Important setup instructions get buried in dense emails that recipients don't fully read, leading to preventable implementation problems."

Trainer P2T6: "Technical jargon alienates many users. We're developing a glossary and simplifying language, but the learning curve remains steep for non-technical staff."

Trainer P2T7: "Training timing is problematic. Sessions frequently occur weeks before departments actually implement NASC, so knowledge fades before application."

Trainer P2T8: "The biggest barrier is unrealistic expectations about required preparation. Site Owners often arrive at build sessions without having organized their content, causing delays and frustration."

Trainer P2T9: "Limited self-service resources create bottlenecks. We need comprehensive video guides for all functions to reduce reliance on trainers for routine questions."

Trainer P2T10: "Department leaders who don't fully support the transition create significant barriers. When managers express scepticism about NASC, their teams inevitably struggle with adoption regardless of training quality."