



# Critical success factors in inter-institutional project collaborations

Cath Fraser, Judith Honeyfield, Fiona Breen,  
Mervyn Protheroe and Victor Fester

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*Ehara taku toa i te toa takitahi, ēngari he toa takitini - Success is not the work of one but the work of many*



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Fiona Breen, Mervyn Protheroe and  
Victor Fester**



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### **Authors:**

Cath Fraser, Judith Honeyfield, Fiona Breen, Mervyn Protheroe & Victor Fester

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PO Box 756, Wellington 6140

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## EXECUTIVE SUMMARY

Since its establishment in 2007, Ako Aotearoa: National Centre for Tertiary Teaching Excellence has funded over 150 projects focused on changing practice and improving learner outcomes through the three Regional Hub Project Funds (RHPF): Northern Region, Central Region and Southern. Project teams are encouraged to consult and collaborate with others leveraging what Huxham (1996) calls the 'collaborative advantage', achieved when something new is produced - perhaps an objective is met - that no single organisation could have produced. By mid-2014, the total number of completed projects supported by the Regional Hub Project Fund and published on Ako Aotearoa's website which had involved inter-institutional project teams had reached 44.

This report outlines an evaluation of the collaboration experience within these multi-organisation projects with the purpose of determining the factors which contribute to a successful project team and sustainable community of practice. The two overarching objectives were first, to address gaps in both organisational knowledge and the literature about inter-institutional collaborations and what makes them reach, exceed, or fail their potential to deliver long term value and benefits to participants; and second, to summarise the learnings from project teams' experience of collaborative work to produce a resource for future teams. This investigation, from its inception, was intended to be both applied and practicable in its outcomes, with a high relevance to the wider tertiary education community; this ethos has guided all aspects of the project design and reporting.

A four-phase enquiry was conducted, comprising 1) a document analysis of all completed RHPF projects to determine those which had involved inter-institutional project teams (n=44); 2) a literature review; 3) an online survey (n=41, representing a 34% response rate), and 4) interviews with invited participants (n=18). In addition, the report also recounts the research team's own experience of establishing a good inter-institutional collaborative process, placing the researchers within the project as participants themselves: a deliberate and conscious approach to generate insights into useful tools, techniques and timing.

The survey was adapted from an existing instrument for measuring collaboration effectiveness, the Wilder Collaboration Factors Inventory (n.d.) which generated a series of ranked responses per factor for each project (see Appendix A). By assigning a numerical value to these responses, high, medium and low-scoring projects were identified, enabling the team to ensure a cross-section of experiences were selected for follow-up interviews. Although this comparison was undertaken as part of the team's decision-making, rather than for any external reporting, one important outcome can be shared: all 22 projects represented in the sample scored positively (between 1 and 79) within a range of -100 to +100.

The final stage of survey data analysis was to aggregate individual factor scores across projects to identify the overall weighting for each of the 24 factors.

Next, the 18 candidates for the semi-structured interviews identified from the survey responses were invited to share their experiences of inter-institutional collaborative project work. Ten question prompts (Appendix B) covered four stages in the collaboration: the precondition, or relationship-building period; the beginning, when the work is planned; the process-interaction stage; and the outcomes period of reflection, evaluation and change (Gray, 1989). These interviews were transcribed and coded for emerging themes.

Survey results are presented as a brief discussion of the highest and lowest scoring factors, while interview results are collated under ten topic areas, with interview participants' voice included throughout to allow readers a sense of the variety of experiences encompassed, and the impact these have had on those involved. A key finding was that 10 of the 18 interviewees were still collaborating with some or all members

of the original team in activities such as research, resource development, co-authoring, co-teaching and co-presenting, meaning that just over half the collaborative networks developed through RHPF projects were sustainable and had led to long-term significant and tangible benefits for team members. Other findings discussed in this report relate to the 'trickle-down effect' where informants described the way practitioner involvement in collaborative change projects led to learner benefits, and to specific approaches, issues and circumstances which either enabled or restricted the success of the collaboration.

Results from all phases of the project were mined to identify the most important elements that make a collaboration work, again using the adapted Wilder Collaboration Factors Inventory (n.d.), and Gray's (1989) collaboration stages as a framework. These elements then inform the main (and separate) output from this project: "*Getting on: A Guide to Good Practice in Inter-Institutional Collaborative Projects*". This guide is available at <https://akoatearoa.ac.nz/research-register/list/critical-success-factors-inter-institutional-project-collaborations> and is intended to assist teams who are embarking on a new collaborative project.

## 1. INTRODUCTION

Collaboration is a key mechanism for linking distributed knowledge and competencies into novel ideas and research avenues (Robertson, 2013) which can produce significant changes in practice, and stimulate substantive growth in individual, team and organisational capability. The need for effective inter-institutional knowledge flow is of particular importance in New Zealand's current economy, where every government dollar invested in the tertiary education sector needs to stretch as far as possible.

Approximately a third of the projects (44 from a total of 122 completed projects published on the website in April 2014) funded through Ako Aotearoa's three Regional Hub Project Funds involve team members from two or more organisations. Inter-institutional collaboration in tertiary education has far-reaching potential as a means to shift thinking about teaching and learning, to share good practice and investigate new directions across the sector. Yet as Wolff (2002) notes, "those who work closely with collaborations on a regular basis know that the effectiveness in operations and outcomes...varies widely" (p. 1). The design and implementation of the collaboration process is a subtle and nuanced factor often overlooked in reporting or evaluation, yet it is one which has the potential to either derail or enhance a project, and in the right climate, with the right nurturing, can develop a shelf-life well beyond its original term expectancy. In other words, the wins and losses of a collaboration can be long-lasting, so that attention to how the team works, as well as what it is doing, needs to be an integral part of any initiative designed to change practice.

## 2. BACKGROUND

Since 2009, the different members of this project team have taken part in six separate inter-institutional research collaborations supported by Ako Aotearoa's Regional Hub Project Fund. Team members have participated as contributors, partners and leaders, and have worked, together and separately, with colleagues from a range of organisations, including universities, Institutes of Technology and Polytechnics (ITPs), Private Training Education providers (PTEs) and wānanga. This earlier work has assisted the authors to build an extensive community of practice, and a valuable network of colleagues for assistance with other projects – further research, but also peer-review and quality assurance, specialist expertise and oversight, as workshop facilitators and guest speakers and as a source of literature and institutional benchmarking in our fields. Others often comment on the strengths and rigour of these professional networks, highlighting that for many, the relationships established during a project do not automatically extend beyond its completion. These observations and considerations led to this project proposal.

The team of five researchers, representing three ITPs, developed an application which sought to evaluate the collaborative process and synthesise the learnings from inter-institutional projects funded by each of the three Regional Hubs. The rationale was that while Ako Aotearoa monitors quality and outcomes of each project, there has been little reporting of the work behind the scenes, and the processes by which the work took place. The experience of having been involved in a number of collaborative projects suggested that it was highly likely that the shelf-life of the newly forged professional community, and the ongoing value to members, was largely due to the relationships and interactions within the collaboration itself. We therefore sought to explore the various practices and outcomes of other inter-institutional collaborations, to identify the factors which contribute to immediate, and longer-term success and sustainability of these collaborative, collegial partnerships.

Accordingly, we developed a series of specific research questions:



- What makes inter-institutional collaborations successful and how is success best measured?
- How many collaborative projects have led to successful and on-going professional communities, and do participants see this as a desirable outcome?
- What are the uses and benefits to members of successful collaborations/communities, and to their organisations?
- What factors account for the sustainability of inter-institutional collaborations, and how can these be built into projects and fostered?
- How do successful project collaborations lead to improvements in teaching and learning, and directly contribute to learner benefit?

The primary objective of the project was to explore and synthesise learnings from project teams about what assisted and deterred their collaborative process, and then to produce a good practice guide as a stand-alone resource designed to assist new collaborative teams to successfully build, foster and sustain successful inter-institutional collaborations. The resource is titled: *Getting on: A Guide to Good Practice in Inter-Institutional Collaborative Projects*. A second objective was to compile a review of recent literature on the collaborative process. This review which follows is specific to the context of higher education and, in addition to shaping the design of this project, is intended to provide a starting point for readers interested in this area.

### 3. LITERATURE REVIEW

A review of the literature reveals a wealth of studies and discussion about education-based collaborations of all shapes and sizes: internal and external, pan-institutional and interdisciplinary, some informal and serendipitous, others highly structured with formal contracts or memorandums of understanding. Some disappear once the finish line is crossed, others cover a stipulated time period, and some are “multi-generational” with team members passing the collaboration role onto their replacement so that the organisation’s place at the table is assured. The following review selects learnings and observations pertinent to the New Zealand higher education context, to offer a thematic overview of recent thinking and scholarship in this field.

#### The nature of collaborations

##### *Terms and categories*

The best type of collaborative process, conducted with deliberation and forethought, creates “genuine partnerships, characterized by respectful and critical dialogue” (Gewirtz, Shapiro, Maguire, Mahony & Cribb, 2009, p. 567) to make outcomes meaningful and productive for all participants. Mattessich, Murray-Close and Monsey (2001a) describe collaboration, as “a mutually beneficial and well defined relationship entered into by two or more organisations to achieve common goals” (p. 39). Or, as Wood and Gray (1991) put it “[collaboration] occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain” (cited in Czajkowski, 2007, p.3). This creates what Huxham (1996) calls the “collaborative advantage”, achieved when something unusually creative is produced - perhaps an objective is met - that no single organisation could have produced.

For other authors, collaboration is a branch of professional relationships, and needs to be singled out from lesser forms of teamwork. Wolff (2002) for example, references “coalitions, collaborations and partnerships” (p. 1), while Hogue (1993) offers five levels of engagement: “networking, cooperation, coordination, coalitions, or collaboration”, according to the purpose, structure, and process involved. At the entry level of the spectrum, relationships typically display low key leadership, minimal decision making, little conflict and

informal communication. In contrast, collaboration, he says, is defined by a higher degree of formality in time, resourcing and budgets, strong leadership high level trust and productivity with ideas and decisions equally shared through well-developed communication systems. This is the type of professional relationship our project seeks to identify in work conducted throughout the Regional Hubs, with shared authority and responsibility for planning, implementation, and evaluation of a joint effort (Moxley, 2005).

### *Purposes*

The design and delivery of systems for learning and teaching requires diverse skills and knowledge, which are only rarely held by a single individual. The purpose of collaboration is therefore to address this through exchange of information, experience, and mutual consultation, cooperative development, adaptation, and the evaluation of learning materials and sharing or spreading the costs of course development and equipment (Moran, 1990). Inter-institutional sharing of resources and outcomes creates efficiencies, may provide collegial networks such as communities of practice, and enhance individual and institutional capacity and capability. Such collaboration may also allow for more ambitious projects, completed to a higher level than might be achieved by individuals (Honeyfield & Fraser, 2012). Inter-institutional collaborations are also more likely to ensure that the resources developed have application across the tertiary sector. Indeed, Phillips, Orrell and Millea (2007) of Australia's former Carrick Institute for Learning and Teaching in Higher Education, describe how reciprocal national and international arrangements for the purpose of sharing and benchmarking learning and teaching processes has saved multiple client organisations from "reinventing the wheel" which translates into savings in time, money and effort.

### *Collaboration success factors*

A key aspect of collaboration is that all participants must feel the personal value and have a belief that they have skills to offer the project. The collaborative approach also puts all participants on an equal footing, with each member being able to offer their specialised knowledge for the benefit of the entire project (Kristoff, 2005; Lucas, 2005). Studies on collaboration success factors seem to indicate that there is no single factor responsible for ensuring successful outcomes; rather that institutions need to align several factors to suit the context (Mattessich, Murray-Close and Monsey (2001b). In 2006, Czajkowski conducted studies of 52 American tertiary institutions, including community colleges and universities, which were at that time involved in collaborative partnerships. The outcome from her research was the delineation of six widely applied key collaboration success factors: trust and partner compatibility; common and unique purpose; shared governance and joint decision making; clear understanding of roles and responsibilities; open and frequent communication; and adequate financial and human resources.

Moxley (2005) notes that motivation to succeed is high, as "Collaborations that lead to inter-institutional academic [initiatives] generally begin with an impetus resulting from an identified but unmet need" (p. 1). The search for solutions, via participants thinking about purpose, desired outcomes, troubling obstacles, vexing problems and promising possibilities, allows for divergent positions, shared vision and cooperatively achieved outcomes. Moxley echoes other writers in observing that an "alliance" culture must be egalitarian and participatory. While such collaboration must accommodate difference, generally "alike" institutions (size, sector and relatively equal power and/or prestige) find collaboration easiest.

### *Distributed leadership*

Leadership which is shared among team members respects individual strengths and expertise and allows collegial synergies and camaraderie by sharing the "load" as members in inter-institutional collaborations manage competing responsibilities within and outside the project. In most evaluation tools for assessing the strength of collaboration within a multi-organisational project, issues around leadership roles, tasks and responsibilities and delegation processes are high on the list of critical features.

Educational leadership has traditionally been seen as the practical and everyday process of supporting, managing, developing and inspiring academic colleagues (Ramsden, 1998). Assisting new managers to develop leadership knowledge and skills is often the subject of professional development workshops and seminars, and a field of study in its own right. In contrast, Gronn (2000) offers another model, that of distributed leadership, which he describes as a “new architecture for leadership”, different from both traits/behaviours (agency) theories that focus on the individual leaders and structural theories that focus on systemic properties and role structures. Over the last decade, there has been considerable support for this model of shared and devolved leadership. Jones (2010) cites Woods, Bennett, Harvey and Wise’s (2004) summary of the characteristics of distributed leadership:

Distributed leadership is an extension of collegiality often associated with academia that is characterised by three elements, concertive action, movable boundaries and a broader spread of expertise. Concertive action ... is achieved by a process in which a group or networks of individuals interact in conjoint activity through the pooling and aggregation of individual initiative and expertise rather than by the linear addition of individual activity (p. 441).

Jones (2010) concludes that distributed leadership is made up of five main variables: context (internal and external); culture (of academic autonomy); change and development from many sources (top-down and bottom-up); activity that is collaborative, multiple and complementary by teams of people sharing responsibility for a successful outcome; and effective conflict resolution processes (to assist the multiple people contributing across a broad arena of activity). Essentially, then, distributed leadership is vested in groups of people, not individuals. It has aspects of facilitation and turn-taking, and is synonymous with the concept of leading from the front, from the side, and from behind.

### Communities of practice

In 1991, theorists Jean Lave and Etienne Wenger wrote about the social learning that occurs when practitioners with a common interest or domain meet and collaborate regularly to share ideas, resources, solutions and support (Smith, 2009). In 2000, Wenger further defined his vision of a ‘community of practice’ as being bounded by joint enterprise, mutual engagement and a shared repertoire of communal resources. One of the most significant implications of his concept was that learning is not just something individuals do, with a measurable beginning and end, but rather, it comes from participation and interaction with like-minded others, providing opportunities to learn how to do things better through shared enterprise (Learning Theories Knowledge base, 2009).

As Cumming (2008) noted, members of a community of practice work with colleagues in collaborative and meaningful activities that are embedded in socio-cultural-historical contexts, for example, in higher education. Cumming further notes that it is not surprising that the concept resonates with many, especially those involved in learning and teaching development, given their shared understanding and purpose. Teachers are already used to engaging in professional conversations as an occasion for learning (Haigh, 2006); a community of practice is just a further step of conscious participation.

This type of community of practice is something that many tertiary teachers, support services staff, academics and managers have already established a foundation for, built over several years of annual conferences and online discussion, and membership of various professional groups. Therefore, many of the project teams this enquiry will be examining have already established relationships and trust, significant factors in cooperating to achieve synergies on more complex projects. For other teams, participation in a first inter-institutional research collaboration may have introduced this possibility and been the catalyst for a community of practice which outlasts the original purpose for coming together.

### Benefits: the value of the intangible

Borrowing from the field of knowledge management is the concept of intellectual property, or as Sveiby and Simons (2002) put it, “the art of creating value from intangible assets” (p. 3). Sveiby and Simon’s intangible

assets are divided into three families, all of which are interrelated. The first, where everything begins, is the competence of people. With that competence, in a corporate environment, people produce products or services. This is then delivered to the outer world, or the second family, known as the External Structure. The infrastructure supporting this transfer is the Internal Structure. The most important inter-relation, say the authors, is the way we inter-react with one other, as knowledge is created from relationships. Given the right circumstances, the right environment and the right motivation people can always create knowledge.

For Sveiby and Simons, there is really no limit to what people can create. So knowledge is actually a resource which is potentially in abundance. He contrasts this to traditional business assets which deteriorate and depreciate when used. Intangibles do not. In fact, knowledge grows when used. The issue, they say, is what is it that makes some knowledge transfer and creation processes more effective in creating value than others? Careful design and state-of-the-art Information Technology do not help if the willingness to share with each other is not there. This is where the discussion of knowledge management aligns with that of inter-institutional educational research, in the need for a culture of trust and collaboration.

A failure to recognise what Sveiby and Simons call “a collaborative climate” (p. 5) not only stymies business growth, but fails to address staff turnover. A critical issue today, staff turnover is almost triple what it was only 15 years ago, he says, and “every time somebody walks out the door they are taking an amount of expertise with them” (p. 5). Hence, say the authors, by helping to retain that expertise, or promoting opportunities to share information knowledge, organisations will have more motivated, fulfilled and productive employees.

### Longer term sustainability

The three stages of collaboration identified in by Gray (1989) provide an underpinning framework for reporting a collaboration experience. Gray’s three stages of collaboration include: firstly, the precondition stage where collaborators come together to form the relationship; secondly, the process stage where collaborators interact and make decisions; and thirdly, the outcomes stage where collaborators assess the effectiveness of their efforts and adapt to change. Once data collection began, the project team inserted an extra stage after the precondition period to cover the early days of a collaboration when the work is planned and operational structures agreed.

### Barriers/issues

With the educational, fiscal, social, and political advantages benefits of collaboration extolled in the literature, why then are inter-institutional collaborations not more widespread? Unfortunately, even well-conceived projects do not automatically guarantee a successful outcome. Moran (1990) summarises the challenges, including: approaches which may result in a lack of trust; institutional autonomy; geographic distance; inadequate funds; lack of clarity in agreements or of real commitment; and ineffective handling of technical and human problems. Rigby, O’Donovan and Searle (2006) note the demands placed on participants: “flexibility, innovation, the ability to do a lot on a limited budget and commitment to reach a common goal” (p.2).

On a personal level, collaborations are about self-interest, goodwill and energy, and can be a challenge to coordinate in any circumstances, but particularly so when the participants come from several institutions, each with their own culture and imperatives. Various commentators draw a connection between poor collaborative practice and limited success, or loss of momentum restricting longer term gains. Doz (1996) for example, discusses the typical feature of inertia in failing projects, with little learning or behavioural adjustment, and frustrated expectations. There is clearly a need to understand what limits inter-institutional endeavours, just as much as what enables them.

Then too, there is the very real presence of competition, and a number of writers who argue that the current tertiary climate actually works against inter-institutional collaborations. A recent article published on the

Ministry website “Education Counts” by Smart, Smyth, & Hendy (2013) states “Concerns have been raised that the Performance-Based Research Fund (PBRF) Quality Evaluation has had a negative impact on research collaboration between researchers in New Zealand universities” (p. 1). The authors speculate that issues of academic competition may be undermining some collaborations which don’t perform well.

Moxley (2005) also notes that the realities of collaboration among higher education providers include that often, the partners in the collaboration will remain competitors. This, she says, can be accommodated if the people in the collaboration also remain friends, and if their behaviours toward each other and on behalf of the alliance demonstrate generosity and good will. She counsels that “alliance participants cannot skip the hard parts of alliance building—the disagreements, the divergent policies, the engagement of other functional entities at the partner institutions, who may perceive the alliance to be a burden rather than an asset” (p. 9).

### The inter-institutional dimension: gaps in the literature

Over the past three decades, funding agencies in a number of domains, and in several countries, have increasingly supported large-scale, centralized, “block” research projects that often span multiple disciplines and institutions (Corley, Boardman & Bozeman, 2006). Corley et al. argue that this trend has developed at such a rate that research focused on understanding the management of these new collaborative models has largely not kept pace. The focus is often on outputs, rather than how these are achieved. This confirms Doz’s (1996) extensive literature review of what he refers to as inter-organisational strategic alliances. While his study is situated in the world of management and commerce, there are numerous parallels with educational endeavours. He finds that most researchers are focussing on conceptual development and failing to capture the process dynamics of the collaboration. Determinants of the cooperative project and any formal mechanisms agreed, such as contractual or relational agreements, are only a small part of the story, says Doz, and it’s the evolution of the collaboration which leads to the most substantive learning: in both the contextual skills and knowledge of the participants, and in “process learning” (p. 56) about managing the collaboration itself.

Both authors have identified features which they believe are indicative of success, or a more lack lustre performance, in multiple organisational initiatives. For Doz (1996) there must be a sequence of interactive cycles of learning, re-evaluation and readjustment – items which will be measured in this project by the Wilders Inventory factors “Multiple layers of participation”, “Flexibility”, “Adaptability” and “Appropriate pace and development”. For Corley et al. (2006), the telling points are a relatively high level of development in either the epistemic development of the partners around the nature and scope of knowledge related to the topic involved in the collaboration or the organisational structure of the collaboration. Again, a number of the Wilders Inventory factors will also allow us to address these points: “Development of clear rules and policy guidelines”, “Appropriate pace and development” and “Sufficient funds, staff, materials, and time” for example.

### Evaluation approaches

The survey this project will use as a first data-gathering tool is based on the Wilders Collaboration Factors Inventory (Mattessich et al., 2001a, b; Wilder Collaboration Factors Inventory, n.d.). This widely used inventory provides 20 indices by which to gauge participants’ engagement in the collaboration and allows calculation of mean rating for each factor, creating a sound measure by which to compare projects. The tool has been used in a previous Ako Aotearoa-funded project (Honeyfield & Fraser, 2012). A preliminary overview by the project designers prior to drafting the proposal considered alternative instruments, such as used by Bearman, Lawson, Lindley, Kiegaldie, Jolly and Kotsanas (2010) or Whaley and Weaver (2010). The latter authors’ study “Approaches to Measuring More Collaboration in Communities” provided a particularly useful comparison of a number of different approaches to evaluation of collaborative projects:

- Group Satisfaction Survey
- Assessing the Group including:

- Clarity of coalition’s vision and goals
- Effectiveness of outreach & communication
- Opportunities for responsibility/growth for members
- Effectiveness in doing projects
- Use of research and external sources
- Sense of community within group
- Relationship of group with elected officials, and other external leaders
- Climate Diagnostic Tool: The Six R’s of Participation (recognition, respect, role, relationship, reward, results)
- Inclusivity Checklist
- Sustainability Benchmarks (p. 23).

These authors concluded that The Wilder Collaboration Factors Inventory is an effective tool which falls mostly within the second category above, and measures collaboration at the three critical waypoints of process, outcome and impact, at the following levels:

- The effectiveness of a group, including leadership, decision-making ability and ability to achieve goals
- The level of collaboration achieved within the group
- The group members’ belief in the credibility and image of the collaborative within the greater community (p. 24)

Also pertinent to the current study are two of their key conclusions: “Self-assessment tools seem to be the approach used most often for measuring collaboration” and “The final list of indicators should be a balanced mix of quantitative and qualitative measures so that a more realistic picture of what has happened is described” (p. 30).

Based on the above, the team confirmed their preference for using the Wilders Collaboration Factors Inventory as the tool for the online survey phase of the research, just as others have done before us (Townsend & Shelley (2008). An added attraction was the way in which the tool can be easily adapted and expanded to suit a particular context, as will be explained in the following section describing our methodology.

A final point discussed in the literature about the evaluation ethos which also informed the way in which we proceeded to collect and analyse our data is represented by McCormack’s (2012) call for using qualitative pretesting techniques for increasing the validity of questionnaires returning quantitative data. She calls this a “blind spot” in educational surveying which can affect validity, and argues for pretesting which is not only statistically relevant, but considers the questionnaire from the respondent’s perspective, and how instructions, layout, section order and question wording might impact on the types of responses received. For McCormack, a useful protocol before administering a large-scale survey is the cognitive interview, in which the respondent is asked to think aloud as they attempt to complete the questionnaire. Another suggested solution is a systematic piloting of the tool with colleague-volunteers, who are then de-briefed as to amendments and possible improvements.

## 4. METHODOLOGY

The rationale for undertaking the research was both general and specific: 1) to evaluate the quality of the collaboration in as many completed inter-institutional changing-practice projects as possible and the impact

this had on the ongoing relationship of the project team; and 2) to gather evidence of the strategies used by a variety of successful and on-going professional communities of practice. Our methodology draws on a range of theoretical perspectives and approaches.

### Case studies

First, as each project team and each inter-institutional collaborative experience necessarily differs from all others, a case study approach was selected as a highly appropriate conceptual framework. One of the early proponents of case study research was Robert K. Yin (1989) who defines the case study research method as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context” (p. 23). Cousin (2005) says simply that case study research “aims to explore and depict a setting with a view to advancing understanding” (p. 427). In the current study, a series of situational case studies allowed the presentation, examination and interpretation of the specific experiences of team members within defined projects. The collation of participants' viewpoints therefore provides a starting point for understanding and interpreting the less tangible inter-personal elements in a successful collaboration. While a limitation of case study research is that it is inevitably sited in a fixed context, it is hoped that by including broad results from as many eligible projects as possible (that is, those completed Regional Hub-funded projects which are published on the Ako Aotearoa website and which include team members from multiple organisations), and a good number of more in-depth examples (from the 18 interviews described in Section 5), that many of the findings about good practice strategies will be broadly generalisable beyond the immediate cases to future teaching and learning research partnerships from multiple organisations.

### Researcher participants

A second perspective which applies to this project is the concept of researchers as participants, a well-documented and widely used approach in interpretive social science research (Denzin, 2009). As noted above, the different team members have been participants in several previous inter-institutional Regional Hub research collaborations in various roles. The researchers for this study were always going to be involved and embedded in the research itself, interrogating the team's own practice as well as that of others. This does not mean any loss of rigour, credibility, or relevance. As Denzin (2009) notes, the field of qualitative research is a broad one, and research concerned with human beings is always an interference of some kind, and so long as the researcher-participant relationship is overt, an ethos of trust and transparency can be maintained. He says it is rather a question of “who has the power to control the definition of evidence, who defines the kinds of materials that count as evidence, who determines what methods best produce the best forms of evidence, whose criteria and standards are used to evaluate quality evidence?” (p. 142). This study has addressed these issues by firstly limiting direct input as participants to the collaborations in which team members have been personally involved, and secondly, by using an externally validated tool as a basis for evaluating the collaborations.

### Ethnographic fieldwork

A third tradition informing our project is that of ethnographic fieldwork. Willis and Trondman (2000) define ethnography as “a family of methods involving direct and sustained social contact with agents, and of richly writing up the encounter...the disciplined and deliberate witness-cum-recording of human events” (p. 5). Willis and Trondman note that ethnography is an established practice within a variety of disciplines, and at its best, can assume an “active centred agency in charge of its own history-making” (p. 6). Ethnography, they believe, can address an over-functionalist, over-structuralist and over-theorised view of social research, allowing instead a voice to those who “live their conditions of existence” (p. 7). Typically data is extracted from stories, narratives and excerpts from interviews. This project seeks to include elements of life experiences, or what Denzin (2009) calls “ethno-dramas” by inviting participants to contribute their thoughts about the inter-disciplinary collaborations they have engaged in, in order partly to compensate for, and

partly to complement, the more rigid application of a set measurement tool in the survey phase of our research design.

## 5. PROJECT DESIGN

Drawing on these various lenses: case-study research, an embedded researcher-participant positioning and an ethnographic self-reporting focus, the research team adopted a mixed method research design in order to address the project's focus questions.

### Ethics approval

Once data collection tools were agreed (the online survey and the interview questions), ethics approval was sought and received from BoPP as host organisation, with the application and approval correspondence then passed to, and reviewed by, the other two partner organisations. As the team had adopted a researcher-as-participant stance, with researchers included in the potential participant pool, particular attention was paid to ensuring that all data collection and analysis processes were open and transparent. The team were noting congruencies, anomalies and interesting examples throughout the study, and it was important that the evidence and reporting was not distorted (Denzin, 2009). All informants, for both survey and interviews, were able to contact the research team at any time and view results or withdraw part or all of their contribution. All interviewees were asked to verify the transcripts of their contribution, and indeed, six participants did take advantage of this offer and made revisions where they felt they had not quite conveyed their experience accurately.

### Literature scan

There were four phases to the project, beginning with a literature review to inform the research, to guide our own collaborative practice as we carried out the evaluation, to examine work and commentary around the use of the selected survey tool and ensure any identified flaws or features were addressed in our own application. The review (Section 3 of this report) was also designed to serve as an introduction to the topic as it relates to the tertiary sector, for potential use by colleagues engaged in similar projects.

### Document analysis

Second was a document analysis of 122 completed Regional Hub Project Fund reports and/or outputs listed on the Ako website in April 2014 when the evaluation commenced, to determine those which included inter-institutional collaborations, and so would be eligible for this study. This process proved a little more challenging than originally anticipated, as reading beyond the opening web page for each project revealed a range of levels of contribution. Many teams developed resources which were piloted with a few volunteers from other organisations, but who were hardly partners in a collaboration. In other cases colleagues were recruited to drive a survey in their own institutes but weren't part of the collation, analysis or reporting etc. Consequently the team decided to use joint authorship as a screening criteria, where contributors were affiliated to two or more organisations at the time of publication. Under the Regional Hub Project Fund repository on the Ako Aotearoa website, each project description introducing the linked report and/or output(s) was reviewed, and then the link opened and the title, acknowledgements and Executive Summary sections (where applicable) scanned for evidence of multi-organisational collaboration. Finally, a table of eligible projects for each regional hub was developed, and these were sent to the relevant hub managers for confirmation. Our final tally was 44 inter-institutional collaboration projects: 21 from a total of 41 completed projects in the Northern Hub; 11 from 39 Central Hub projects; and 12 from 42 Southern Hub projects.



## Online survey

The third phase was an anonymous online survey of team members from the 44 projects included in this study. The survey was based on the Wilders Collaboration Factors Inventory (Mattessich et al., 2001a), which some team members had used in a previous Ako Aotearoa project (Honeyfield & Fraser, 2012), when it had been found to provide insightful responses. This widely used inventory provides 20 indices by which to gauge participants' engagement in the collaboration and allows calculation of mean rating for each factor, and creating a sound measure by which to compare projects (see Appendix A: Adapted Wilder Collaboration Factors Inventory). The developers of the tool have made it freely available to any organisation or collective wishing to evaluate the strengths and shortcomings of their collaboration and teamwork, with customization allowed to suit the context (<http://wilderresearch.org/tools/cfi/index.php>). The project team did consider alternative tools (briefly described in the literature review) but agreed that the Wilders Inventory was a good fit for our objectives relating to measuring participants' perceptions of their inter-institutional collaboration experience. However, our proposal also required us to examine the longer-term effects and sustainability of the collaboration beyond the end-point of the research study itself. Accordingly we developed an additional 10 questions over four new factor domains: Post-research benefits; Learner benefits; Retention/workplace satisfaction; and Personal value (Factors 21-24, Appendix A). The inclusion of personal benefits, as a separate consideration from shifts in professional skills and capability, was a way of gauging the significance of some of the benefits described in the literature, such as networking opportunities, social interactions and shared activities (Cumming, 2008; Learning Theories Knowledge base, 2009). In another change, the term "tertiary sector" was also substituted for "community" for clarity. The completed survey was piloted with three volunteers from the host organisation, BoPP, who had some experience of Regional Hub Project Fund projects, in keeping with McCormack's (2012) advice; no significant issues were identified and no further adjustments were made.

Introductory emails were written to the named authors of relevant project reports/outputs to explain our project and request their input via the survey link. The document analysis had identified 44 RHPF projects which fit the inter-institutional eligibility criteria, that is, a project report and/or output where authors from more than one organisation were credited on the title page. Half a dozen of these included organisations which no longer existed and about the same number named authors who no longer worked there. Following a second reminder email, 121 contacts prompted 41 survey responses (34%), with 22 projects (50%) represented: 10 from the Northern Hub, three from the Central Hub and nine from the Southern Hub.

## Semi-structured interviews

The fourth and final phase of the research was a series of 18 semi-structured interviews with a representative sample of participants from different projects across all three regional Hubs. Using a series of prompt questions (Appendix B: Interview questions) the interviews served to extend understanding about individuals' experiences, both positive and negative, as well as associated strategies, longevity, and outcomes.

## Interview participants

The original intention had been to present 18 case studies drawn equally from each of the three regional hubs. However reflection on the survey responses suggested to the team that it would be more useful to focus on a range of inter-institutional collaboration experiences than a geographical range. The sample of projects included those with high and low collaborative rankings, as well as those from the mid-range. An equally important consideration was to include projects which included participants from a range of organisations: universities, ITPs, PTEs and ITOs, and which covered projects with a Māori and Pasifika focus, eLearning, staff development as well as classroom initiatives, and industry partnerships. At the end of this selection process, ten of our interviewees came from the Northern hub, three from Central and five from the Southern hub.

Interviews were generally face-to-face, with one conducted by email, and three by telephone when this suited the informants better. The interviews, averaging 45 minutes, were recorded and transcribed, then sent to the interviewee for verification.

### Survey data analysis

The research team were already using Microsoft OneDrive, a cloud based storage system, for sharing and editing documents as well as file management. OneDrive was also used to create the on-line survey; a useful feature is that respondent data automatically uploads into Microsoft Excel, thus making the analysis more efficient.

The survey (Appendix A) contained 50 questions, each of which was ranked by the respondents as they reported on their particular research collaboration experience. By assigning each ranking value a numerical score, it was possible to aggregate and quantify the scores by project, and by factor. “Strongly Disagree” responses were given a score of -2; “Disagree” -1; “Neutral” 0; “Agree” +1; and “Strongly Agree” +2. The majority of factors contained multiple questions, which were then averaged. Analysing the rating of the factors highlighted that those with a high score showed a positive response and were present in each of the collaborative projects that responded to the survey.

The group then used the project scores to identify high, medium and low scoring projects which would make useful case studies, and targeted these for follow-up interviews. This was, however, only ever going to be an indicative measure, firstly because the data collection approach was relying on subjective self-reporting, and secondly because some projects were scored by more than one participant and some by only one representative. It was clear by comparing responses from multiple participants reporting on a single project, that scores were not identical, and that variation in ratings was especially apparent in the projects where the collaboration was seen as less effective, and in some cases, different group members had different impressions of how well their group had worked. The analysis and comparison was useful for progressing our own processes, rather than for any external reporting, therefore, but one important outcome can be shared: all 22 projects represented in the sample scored positively (between 1 and 79) within a range of -100 to +100.

The factors scores were used to identify common strengths and weaknesses in the collaboration experience, and assisted us to develop the interview questions and the Good Practice Guide resource.

### Interview analysis

It became immediately apparent that the sheer volume of data collected from the interviews would mean that separate reporting of 18 individual case studies of the inter-institutional collaborative experience would be an exhausting and weighty reading task: not the vision the team had for the intended Good Practice guide. It was decided, therefore, that while we had used a case study approach to inquire about participants’ contextualised experience of what worked well, and what didn’t, we would combine these narratives for the analysis phase of the research. The team believed this was a better way to synthesise the learning from multiple RHPF projects and extract key principles and examples for sharing in the final resource.

A grounded theory approach was used to construct a framework for ideas about what constitutes good practice in inter-institutional collaborations through analysis of the data – following a suggestion from one of our team who had recently completed doctoral studies using this methodology, and was prepared to coach the rest of the team with examples and explanations. As the team read and re-read the data collected, repeated ideas and concepts were identified, and finally tagged these with codes to identify the emerging themes. This general research method was a good fit for this project, the team felt, as it is not associated with any one field or discipline, and in fact has been advocated by others as ideal for studying interdisciplinary teams (McCallin, 2007).

Transcript responses were separated out under each of the ten interview questions (Appendix B), so that each question document had 18 sections of comments, pasted into a table. Three additional columns were added, allowing us to refine the comments through “Initial coding” to “Intermediate coding” to arrive at a “Theme”.

Finally, themes were collated and a selection of representative quotes to support each theme were assembled to allow us to include participant voice to cement their status as partners in the research process, to add authenticity, and to provide interest to reporting in various fora.

### Researcher group process

Given the focus on inter-institutional collaborations and the objective of creating a good practice guide to assist others with their own project partnerships, it was vitally important to the team as a group of researchers that the inquiry process was managed in an exemplary fashion. The researcher-participant positioning likewise required the project team to monitor and reflect on our own group process, with documentation shared through the team’s OneDrive online repository. First, the team tried to make sure that a high level of trust and respect was established from the beginning. All discussions throughout the proposal development were copied to all partners, and input was invited from each. The project leaders ensured that all budget items, timelines and responsibilities were understood by not just the team members, but also by the research managers in the three organisations as well as the three Ako Regional Hub managers. In addition, face-to-face meetings were convened as an important mechanism to build a personal and professional relationship.

A second emphasis was a sense of balance and shared ownership, so that the team ensured provision in the budget for all members to be able to travel to each other’s organisation for these meetings, and hosting duties were shared as well. Three meetings were scheduled: one for planning and scoping once project approval was in place, a second to review the survey results and agree the interview phase of the project, and a third to determine analysis protocols for the interview transcripts. All meetings followed an agenda circulated in advance for feedback, each of which included provision for discussion about the team’s own collaboration and what current challenges and issues were presenting at any particular point. Finally, all meetings were documented with minutes, which the group agreed upon.

A third consideration in team process was recognising one another’s strengths when allocating roles, tasks and responsibilities, and building in opportunities for different members to take the lead at different stages of the project: big picture planning and management, online tool development, statistical analysis, grounded theory coding techniques, writing and reporting. The team also made sure that discussion and dissemination activities showcased different strengths, and that all members shared lead presenter/author status across the various outputs we planned.

## 6. RESULTS

### Survey results

The OneDrive survey tool and the linked Excel spreadsheet automatically collated participant responses to produce a ranked list of factors which participants identified as having been present in their inter-institutional collaboration experience, on a project-by-project basis. However, the intention was not to “score” individual project experiences, but rather to synthesise learning from across the full sample of the 44 projects represented. By allocating numerical values (from +2 to -2) to the values ‘strongly agree’, ‘agree’,

‘disagree’, and ‘strongly disagree’, a score for each of the 50 factors, from the 24 ‘domains’ of collaboration (see Appendix A) was reached. Each factor, therefore, scored somewhere in the range between the highest possible allocation of points, +100, and the lowest: -100. The top-scoring five factors are shown in Table 1, the lowest five in Table 2.

Two further points relating to the scoring representations need to be mentioned: First, the survey sample was 41, however on the odd occasion, participants missed rating an item. Therefore in some cases the score for each factor may represent the aggregated ratings for 39 or 40 respondents, rather than the full complement of 41. Second, while the factors are numbered 1-24, some have two or three supporting statements for participants to respond to: there are a total of 50 response items (Appendix A). Factor 23, ‘retention/workplace satisfaction’ (Table 2), for example, comprises three statements which expand on the topic, allowing for some differentiation in responses, if a deeper level of analysis was sought. In this study, the larger descriptor was deemed sufficient by the team, so that the factor score comprises the average response for each grading, across the one-three sub-statements.

Table 1: *Top ranked factors (n=41)*

<b>Ranked</b>	<b>#</b>	<b>Factor</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Total score</b>
<b>1</b>	20	Skilled leadership	50	13.0	-1.0	0.0	<b>62.0</b>
<b>2</b>	24	Personal value	58	7.0	0.0	-4.0	<b>61.0</b>
<b>3</b>	4	Mutual respect, understanding & trust	50	12.5	-2.0	0.0	<b>60.5</b>
<b>4</b>	15	Establish informal relationships and communication links	44	16.5	-0.5	0.0	<b>60.0</b>
<b>5</b>	16	Concrete, attainable goals and objectives	44	16.0	-1.0	-2.0	<b>57.0</b>

The factor ranked the highest, ‘skilled leadership’ which received a score of 62, related to just one question which asked whether leaders in the project possessed good skills for working with people and organisations. There were fifty responses which strongly agreed with this comment and thirteen which agreed, with only respondent disagreeing.

The ‘personal value’ factor was not an original factor present in the Wilders Collaboration Factors Inventory; this was added later by the project team. As part of the study it seemed fitting to identify whether involvement in the collaborative project was a personally rewarding experience and whether this contributed to a successful collaboration. Twenty-nine respondents strongly agreed with the statement (a score of 58) and seven agreed (a score of 7), with two registering strong disagreement (-4), meaning that a total score of 61 made this previously unassessed factor the second most significant outcome for participants overall.

‘Mutual respect, trust and understanding’ is a factor that according to the literature is prevalent within collaborations, coming in just behind the second highest factor by half a point. Thirty-seven of the forty one respondents had a positive response for this factor (scores of 50 and 12.5, adjusted by -2 for two respondents who disagreed).

The difference between the first and fourth placed ranking factor was minimal. The findings illustrate that there were fewer ‘strongly agree’ responses, but an increased number of ‘agree’. This suggests that

establishing informal relationships and communication links was overall, important to most (thirty-one) of our sample.

The fifth place high scoring ‘attainable goals and objectives’ appears to indicate that this is a focussing point for most, if not all collaborations.

Table 2: *Bottom ranked factors (n=41)*

<b>Ranked</b>	<b>#</b>	<b>Factor</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>Total score</b>
<b>20</b>	23	Retention/workplace satisfaction	21.3	13.3	-4.3	-2.0	<b>28.3</b>
<b>21</b>	19	Sufficient funds, staff, materials, and time	19.0	17.5	-9.0	0.0	<b>27.5</b>
<b>22</b>	2	Collaborative group seen as a legitimate leader in the tertiary sector	14.0	18.5	-3.5	-2.0	<b>27.0</b>
<b>23</b>	1	History of collaboration or cooperation in the tertiary sector	10.0	15.0	-7.5	-2.0	<b>15.5</b>
<b>24</b>	9	Multiple layers of participation	16.0	0.0	-7.0	-8.0	<b>15.0</b>

Most of the factors which ranked towards the bottom of the list appeared to reflect aspects of practitioners’ relationships with their home organisation. The retention/workplace satisfaction score, for example, was made up of responses as to whether participation in a collaborative project had spilled over into their work role, whether they felt their participation had been valued by the organisation, and whether it had affected their commitment to remain there. Similarly the lowest scoring factor, ‘multiple layers of participation’ indicated that participants did not feel that they could represent their whole organisation, and in some instances they felt that they did not have enough time to confer with colleagues outside of the project group to inform their decision(s).

Many of these points are picked up in the interview results, as well as some of the other factors which were not ranked as high as expected. The survey responses indicate that factors such as flexibility, ability to compromise and communication were not as prevalent as the literature would suggest. The researchers speculated that this may have been because while the projects were still completed successfully (they had all been approved and published by Ako Aotearoa), they may not have resulted in a longer shelf-life, or sustained community of practice, or with participants continuing with collaborative research and change projects. These qualities may be more important to longer term communities of practice than to groups which formed to complete a single initiative, and then disbanded. Many of the interviewees made comments which shed light on some of the lower ranking factors.

## Interview results

The 18 collaborative experiences described by interviewees were gathered as individual case studies, prior to collation and analysis which sought recurrent themes and transferable success strategies. It was noteworthy that this phase of the study was particularly streamlined and unproblematic, with the project team encountering only a single refusal to participate (and that due to scheduling unavailability). Representatives of the RHPF projects targeted for closer scrutiny through this process were enthusiastic about the work they had been part of through Ako Aotearoa funding, whether or not they felt the collaborative team had worked together as effectively as they might have. Participants were keen to share

their ideas of what worked, what didn't and their recommendations for how others might approach a similar collaborative endeavour in the future. Some even endorsed the concept of a good practice guide to successful collaborations which we had described in our Participant Information Sheet, attached to the email requesting their availability for an interview. This interest in research about collaborations and a resource to facilitate them supports Doz's (1996) call for a focus on the process dynamics of the project, rather than just what it achieved.

This section of the results is reported under 10 topic areas discussed during the interviews (Appendix B). In keeping with the semi-structured interview approach, often commentary ranged across the topics as interviewees told their story and shared anecdotes and examples. No attempt was made to pigeonhole contributions to match separate survey factors, so that this fairly fluid and flexible data collection method provided a good complement for the more bounded survey framework. Participant comments from the 18 interviewees, in italics, are identified with the code A - R.

### *Drivers for involvement*

Participants were asked first about the background to their collaborative project and how they had personally become involved. Results here were pretty evenly split, with about half the interviewees reflecting that their project had come about because they saw a need for the research or the resource which eventuated, while the remaining half were motivated more by wanting to work with a particular partner(s) or to undertake a project in general, rather than a specific topic. Representative comments from those with a 'need for research' driver included:

*I/we have always been keen on demonstrating tangible evidence for the effectiveness of the work that [we do] so the project seemed like a good, manageable thing to do when the Ako call for projects came up. (H)*

*Because I think once you understand there's a problem, you have some responsibility to find out more, at least (P).*

*I asked if anyone had any [resources], they said "No, but if you've got any, we'd like a copy!" (E)*

Those more motivated by the 'collaboration opportunity' offered responses such as:

*Initially they didn't really know what they wanted to do – they just wanted to do a research project. (A)*

*This evolved from work that I had done previously with the same person. We have researched together, we were working in similar areas. We thought that this would be a really good project that we could do...She is from the South Island and I am from the North, so we thought that we could cover the whole country together between us. (L)*

### *Allocating roles, tasks and responsibilities*

Recurring comments here were about leadership, and about having appropriate team members with their own expertise. Most interviewees acknowledged the importance of having a designated leader within the project, such as B and E, who said "I took the lead, I was really pretty bossy" and "[I was] the mother hen, the champion". However, several participants also credited external leadership with a role in the success and completion of their project, "Close relationships with the hub Southern Ako... [was] very helpful in encouraging and guiding, clearly, research, packaging and proofing" (E). Two less successful collaborations

(based on both their project score from the survey and the interviewee's own evaluation), identified uncertainty and lack of communication around leadership as an issue, for example:

*From the very first meeting when I went along to the meeting, I guess in their mind it was decided that I was going to lead it. I didn't realise that at the time until a bit further down the track. (A)*

There were a large number of responses which reflected one of the key advantages of collaboration, with each member being able to offer their specialised knowledge for the benefit of the entire project (Kristoff, 2005; Lucas, 2005):

*My colleague was more involved with hands-on delivery using the activities so in this project I wrote up/documentated the process. This worked well because when you are very familiar with an activity, you're not always able to explain it to someone who is unfamiliar with it, so I was potentially better able to do this than my colleague may have been. We brought different knowledge to the project so there was a good complementary approach. (I)*

*[X] is the technical one. So she did anything with the computer. She's also got a very logical mind, so when we were doing surveys it was her logical mind that was really good. I tend to go off on tangents, which is also good, as I'll come up with ideas here there and everywhere... I think that's why it worked so well actually. Different skills, different personality, different everything, but we get on really well... And then putting it all together... we'd prepare the draft and [both] come up with ideas. So that the finished project was not divided up in anyway at all. We both did everything really, except the computer stuff. (N)*

### *Collaboration enablers*

The question "What aspects of the collaboration worked well?" drew the lengthiest commentary of any topic in the interview, and the collated responses from the 18 interview participants which were analysed for emerging themes ran to 13 pages. More than three quarters of the themes reflected findings from various studies of collaboration discussed in the literature review, albeit with details and examples distinct to the Ako Aotearoa context and the RHPF. The 'bundled' themes identified in this section often represent several of the survey factors which the interviewees had grouped together. These themes (with representative participant quotes for the top five), in order of frequency, were:

- Mutual trust, respect and understanding. Personal value and mutual respect and understanding. Equality.  
*We have a lot of mutual respect and understanding for each other. Research is lonely and isolating, so the social aspect plays a big part and enables me to be more productive (L)*
- Belief that collaboration achieves a better product  
*[We] are convinced that working in collaboration with someone else results in a far better product. Both X and I are capable of doing projects on our own but we know that that result would not be nearly as good as when we work together and can bounce ideas off each other, stimulate each other's thinking, and give each other honest feedback. (N)*
- Communication, especially face to face  
*Skype worked well. [But] The best bits were when we were actually together...we decided to use the funding to travel to join each other's campus and ... gathering the data together. Putting the publication together, this was necessary ... We used our times when we visited centres to plan meetings too, which worked well. (L)*

- Clear guidelines and objectives. Clear direction. Task focussed  
*Clear milestones!* (E)
- Combination of skill sets, compatible skills to get the job done  
*We each complemented one another well – X had a good contribution about how we publish and what’s needed – and for a workbook that’s really important – if I’d tried to do this on my own, it may not have had the same quality. I think I added clarity around the purpose and process; another colleague added visual clarity* (I)

There were also a number of other collaboration enablers referred to by three or fewer participants:

- Relationships, team work, social engagement
- Established leader
- Related to own work. Similar solo roles. Passionate and belief about the project.
- External motivation
- Working efficiently and effectively
- Available resources
- Previous experience
- Engagement from learners and industry
- Institutional buy in

### *What didn’t work so well*

Ten recurring themes were noted in this section, and are listed here in order of frequency. The value of these to the team is somewhat important in understanding what went wrong with the collaborative relationships in a particular project, but more valuable, perhaps, in suggesting some pre-emptive measures in the guidelines resource which accompanies this report.

- Responsibilities not shared equally
- Lack of detailed strategic planning
- Lack of clear goals, objectives and standard of work
- Knowledge of processes
- Time issues
- Lack of face to face meetings
- Poor leadership
- Lack of survey responses
- Cultural difference between institutions (i.e. universities, ITPs, PTEs, and ITOs)
- Organisational constraints, lack of support and commitment from the organisation’s leadership team

While the final two of these barriers and difficulties are related to organisational strictures, it is worth noting that almost three quarters are about group processes and activities (or their lack) and therefore easily within the aegis of the team itself to manage.

### *Collaboration benefits to individuals and organisations*

The 18 interviewees were asked to reflect on the benefits they had experienced or observed from being part of an inter-institutional collaboration, for themselves, for their organisation, and in the next section, for their students. Only one person felt that they had not gained from the experience; all others were positive about the benefits, regardless of how well they thought the collaboration had gone. The strongest category of



responses here was the personal gain: building capability, learning and confidence, and a strong sense of satisfaction:

*...helped lift my game and gave me some professional development of what and how she is writing is great for my reports (G)*

*I learnt a lot. I have a much better sense about which areas to stick to as a practical researcher – as against areas that are more covered by ... specialists. Where best to research and publish, and where it's not worth going. (C)*

*...had lots of positive feedback both nationally and internationally. (L)*

Individuals also told us they gained professionally: they had developed practical and fit-for-purpose resources for their own workplace use, had achieved professional outputs (conference presentations and invitations, publications and subsequent funding grants), and had developed or extended valuable professional networks and communities of practice:

*It's been a useful resource for my job – I use it and share it with staff. I've run workshops ...here and at other organisations (B)*

*Invited overseas to present our work at conferences; we have colleagues that we collaborate with worldwide. I am on the board of our International Association, we've been invited to do plenary sessions (O)*

*Developed a research whānau with the people we were working with (P)*

Organisational benefits included learning from both the project itself, and from working alongside other institutions:

*One [participating institution] in particular I remember having their EER right in the middle of the project, so they took their summary of the focus group, showed it to the evaluators (A)*

*We have made massive changes... importantly time has been put aside for this to happen (F)*

*If you've been exposed to other different types of processes, then we can perhaps become more efficient within our own organisations (R)*

Other organisational benefits included: showcasing the organisation (“gave us some credibility ...adds to the portfolio of projects we've been successful with” (A) and “the organisation came to be seen as a regional leader” (D)); building longer term inter-institutional relationships “Some of the people that we met were amazing, doing incredible work in institutions that were almost next door... several people in Wellington doing amazing work that didn't know each other.... Some people in Auckland that didn't know each other” (P)); and generating income (“The organisation does very well out of it, 'cos we've produced lots. We've got publications, we were both ranked with PBRF. We're both C rankings, so we're bringing money into the organisation” (N)).

### *Benefits to learners*

Many of the inter-institutional project collaborations had a focus on developing teachers' skills, and/or providing resources and kits. Nonetheless, almost all those interviewed felt strongly that students had benefitted – either directly or through the “trickle-down effect” – which participant D explained “If the tutors are gaining experience, surely it will impact back on the learners.” Some participants spoke about how the

collaborative project had shifted their own and others' practice, leading to learners benefitting; others referenced the outcomes for students from the particular collaboration and change project they had been involved in.

Key themes here were:

- Reflection as part of learning cycle for organisational improvement in supporting students  
*Just participating... required people to think about – How do we support our learners? What are the things we do? How do we know what works? ... They really wanted to know, not just the things they were doing well that their learners were telling them, but what were the things their learners were saying they needed to improve? (A)*

*Providing people with a rigorous process of exploring their teaching and learning ... people can see the need for major improvements in their practice as a result of having to think and write about it. So students get the gains of this reflection (B)*

- Students as partners in research; allowed voice to be heard; student voice from project used to inform reporting and decision-making  
*Students taken seriously ... to be acknowledged and validated in the way the (researchers) did in research collection really important in itself (J)*  
*Being singled out and identified as someone who was contributing more and differently was really personally significant to many of those learners (M)*
- Improved teaching and learning pedagogy  
*[Did your students gain?] Yes. Definitely. Because I became more knowledgeable in what I was doing. It was a complete eye opener to me just how the strategies and techniques that you can use, and how you use them, and how you deal with the problem (N)*

*I have refined my practice as far as group work goes, I use interactive and group work techniques (O)*

- Consistency, equitability of student experience  
*Happy teachers make happy students ... We saw stressed tutors who felt unprepared and how this caused student dissatisfaction ... tutors all get the same experience now - step by step more consistence, not such big difference from experienced and new tutors (F)*
- The broader the project, the broader the potential impact on learners  
*Our organisation uses the activities with 1000+ learners each year... Learners benefit from better quality resources and educators from having greater confidence to use new activities (I)*
- Changes to organisational systems and curriculum leading to improved employability for learners, better work-readiness  
*We ... made changes quite dramatically –now we have forms to fill in for salons to tell us what their expectations are for our students ... have doubled the work experience days we do – we have also created a temp agency... so from all this research we have ... another way of managing work experience..... just us looking at our data (G)*
- Growing community relationships and networks; concrete opportunities for learners; strengthened cultural identity

*Since then that group of students have graduated... they've really grown through strong Māori business networks that they've been introduced to ...they've taken on a number of projects, they've got several grants and funding (P)*

- Changes to service provision, new materials and learner support provision  
*I set up a speaking corner in the centre and I made materials for speaking ... as well helped students to use these resources (K)*

*...some practices and tools and strategies that could help broaden design educators to better understand how to work with Māori students, and ... I have implemented these. ... We now have a 100% Māori retention and success and increasing numbers of Māori students joining the Bachelor ... programme. (P)*

- Better student experiences = better results

*They get a better and richer output because different people have brought different skills and expertise to creating the resource and the activities have been enhanced by input from a range of educators (I)*

### *Sustainability of collaborative team*

The 18 interviewees were divided almost equally into two camps: those who were still collaborating with some or all members of the original team (10), and those who weren't. Those participants who had kept up a professional working relationship with team members and/or the team project offered a range of experiences and variations, including co-authoring, co-teaching and co-presenting. Sometimes the collaborative partners created new projects together; other times opportunities came about because of the profile they had established:

*The number of projects we have done since that first project, we just continued. What shall we do this year? We make plans ...We were both elected to become the new convenors of an international [association] ... Our task is to network with people, all over the world... We're sort of the spider in the net. Also we're going to plan for the symposium at the next congress at Rio in 2017. That would never have happened if we weren't working so well together (K)*

*This one [collaboration with a government agency] is entirely due to starting off with our collaborative project...running workshops.... I've been invited to speak at a conference they had, all sorts of things. It's certainly been a marvellous relationship (Q)*

### *Enthusiasm for other inter-institutional/interdisciplinary collaborative projects*

Every participant interviewed expressed an enthusiasm for collaborative work in general, and many, for inter-institutional projects in particular – even those for whom the particular collaborative project they were discussing for this research had been less satisfying. However, several did set out provisos around time, team members and team process. Many thought that working in teams was a natural fit for most people working in education. Comments included:

*I think the perspectives from different sectors of the community and of education are enriching and motivating. It was always fascinating to see ... how different sectors viewed education ... our values and what we viewed as important were often very different (M)*

*My attitude towards the inter-institutional collaboration has definitely changed because of the experience. I think it's critical for the success of research that these endeavours do take place because of the expertise that lies outside of your own institution that you need to be able to tap into, so that you can produce better outputs and you can just give back to society in a more rapid fashion (R)*

### *Workplace satisfaction*

In this section, the focus was on whether participants' involvement with external partners in a significant change project or study had impacted their job satisfaction, and even perhaps rekindled their enthusiasm for a higher education career. Two of the 18 respondents felt that being a part of their particular inter-institutional collaboration had been negative and stressful; both attributed this to the frustration of working with partners who were less committed to the project's success and completion. However, the remaining 16 interviewees offered a rich testimony to their satisfaction as practitioners, with the learning which resulted. The themes identified across their responses were:

- Positive contribution and community benefit  
*If you look at our strategic direction, there's definitely always been stuff in those statements that's about connecting and working with the community and applied research of relevance to the community. So in terms of meeting strategic goals the polytech has, I think that project was an example of doing that (A)*
- Satisfaction from positive outcomes for others  
*Satisfying. I enjoy researching. More rewarding when you are working with others too. When you can see others gaining from the project (O)*
- Valued outcome via positive feedback  
*It acts as credentialing with staff here – they can see: "You wrote that book, you must know about this" (B)*  
*My directors are really proud and so are the staff in what we have done (G)*
- Collaborate to keep up to date, access to new expertise  
*The topic means that individuals find it very difficult to get support within their own institutions to change, so they have to seek to collaborate with others to see what they have been doing, because it's new for everyone (D)*  
*...genius ideas out there and not start from scratch (F)*
- Intrinsic satisfaction and extrinsic reward/recognition  
*If I think very specifically about how good I feel coming to work every day, having projects that are going on that take me out meeting people and doing things where I feel there's a benefit – not just to me but to other people - that gives me satisfaction. If I wasn't able to do research, and projects, I think I'd leave. It's that important to me.... Keeps you going through the tough times (A)*
- Increased opportunities and new capabilities  
*It probably has given me opportunities that I wouldn't have found at the polytechnic... it also affirmed that I can take a leadership role in collaborations... knowing strengths and when to call on others (P)*

### *Added value in collaborative project work*

Ako Aotearoa is committed to supporting projects and initiatives which bring about change to improve learner outcomes, and the research team was aware that establishing tangible and demonstrable evidence of shifts in practice can be extremely nebulous. We deliberately included our question about shifts in personal and organisational practice as the last topic in the interviews. The intention was that the interviewee had had ample time to reflect on and remember various elements within their inter-institutional collaborative experience; while the interviewer had gained some insight into the project and was likely to be as well-informed about the project as possible by this point, in order to prompt useful insights and examples.

Several of the themes here echoed earlier points (building and consolidating networks with other providers; collaboration as a natural fit for teachers; critical reflection; enhanced learning and capability; a focus on student feedback; and tactics, strategies and resources for success).

New themes were:

- Professional development for teaching through involvement and practical modelling  
*It's not just the resources but the experience of producing them which is a rich professional development experience... One way of extending the shelf life of research projects is by making people think about them (B)*  
  
*Showed the gaps ... impact in having tutor trainer using collaborative approaches and platform – more blended learning - has been huge even for existing staff who use more traditional approaches (F)*
- Transferability  
*As an organisation, we recently used the same framework to develop a set of activities around social justice – so the value of the project to us has lived on, being able to develop the existing model in another context (I)*
- Enacting findings and sharing ideas, implementing evidence based change  
*My teaching changed completely, as a result of the research I was doing ... when there's group work that isn't working we point our fingers at the students, and we say – oh they're cheating – they're not pulling their weight – they're giving it to one person in the group to do – but it all comes back on the tutor. That if you know as a tutor how to design assignments properly, if you know how to assess properly, if you know prepare students for groups, if you know just elementary things like the appropriate size for groups. If you know all that sort of stuff, then your group work's successful (N)*

### **Limitations**

Two limitations relating to the online survey need to be acknowledged. First, the survey adapted an existing online tool, the Wilder Collaboration Factors Inventory (Appendix A). This is a quantitative tool designed to provide numerical results for statistical analysis - it is concerned with respondents' ranking of elements of their experience, but not with any explanatory details. The team hoped that the follow-up interviews would allow us to address this gap, but are aware that some of the survey participants would have liked the option of comment boxes to augment their entries. Perhaps here the survey could have included an area for respondents to include their email address if they wanted to be contacted directly to provide further feedback.

Second, as with any large online survey, it took a considerable effort to prompt the level of responses received, with follow up emails in which the team attempted to personalise the request to the email

recipient's own project. This was time consuming as we had no way of knowing who had already responded (since the OneDrive survey tool uses an anonymous submission). The team were reluctant to pester people to increase the response rate, at 34% a respectable return for a survey, but still below what was hoped for, given the target population had all received funding and support for their involvement and might be presumed to have an interest in the project and its outcomes. Perhaps channelling the request through teaching and learning developers, or 'champions' in some institutions where several staff had been involved in collaborations, might have improved the level of participation.

A third potential limitation to the study is that by focussing on ensuring that the 18 interview candidates represented a range of high-to-low scoring projects, as well as a range of organisations, the sample did not provide a balanced representation of the inter-institutional collaborative work taking place in the three regional hubs. No attempt was made to consider any impact that geographic location might have on the number and size of multi-organisational partnerships, but with a more evenly spread sample, this might be an area for future inquiry.

## 7. DISCUSSION

The 18 contributions from participants who had been involved in one or more RHPF inter-institutional collaborative projects represent a cross-section of experiences, according to project ratings from our survey. By approaching people who had been a part of a collaboration which produced a low score on our adapted Wilder Collaboration Factors Inventory tool, we were able to collect stories which indicated where most difficulties lie. In general, comments from these participants highlighted difficulties within the group's internal processes and practice, rather than always being caused by external issues over which members would have had no control. Participants' narratives of collaborative experiences which fell within the mid-range of ratings contributed to our understanding of what a typical collaborative experience might be like, and the learning that those participants felt they had gained. In this group there was a wide consensus around items like increased capability and skill sets, and an appreciation of what effective leadership entails. And speaking to informants from high rating projects provided a valuable trove of tips and techniques for ways in which the collaboration's work could be safeguarded, and enhanced. Above all, participants enjoyed recounting their experiences and learning, often not gathered in any formal evaluation of the project, confirming the need for a more explicit focus on the evolution of the collaboration, and the resulting "process learning" (Doz, 1996, p. 56).

From the considerable data produced, and analysis of the results, there were three key observations which stood out strongly.

First was the value that every participant ascribed to being part of an inter-institutional collaboration regardless of whether they considered their particular partnership to have been a success. This is evidenced by the survey results, in which all 22 projects represented in the sample scored positively (between 1 and 79) within a range of -100 to +100. It is also reinforced by the 18 interviews and 18 positive responses to a question about the benefits of collaboration, echoing the claims made in the literature (for example Corley et al., 2006; Czajkowski, 2007). For some, the involvement of project partners from external organisations came about entirely because of a desire to strengthen the funding application, and a number of informants described how they came to see this as one of the highlights of their experience. They enjoyed professional conversations (Haigh, 2006) with new networks of colleagues, and engagement with professional communities of practice (Wenger, 2000).

A second point was that most of the factors which participants named as important to ensuring effective collaborations need to be addressed and implemented before the group's work proper actually begins. That is, the determination of how the group will operate, who will do what, and how control and benefits will be shared, all need to be discussed openly by the team, rather than hoping that assumptions are shared and that all will go to plan (Bearman et al., 2010; Mattessich, 2001a, b). Most educational practitioners spend their working career in teams, but may have given very little thought to what makes some work well, and others fail. The existence of a concise resource which can be shared with new RHPF collaborative teams might help raise some important discussion areas and pre-empt potential misunderstandings.

A third notable feature relates to the wealth of testimony about shifts in practice which occurred during and after participants' involvement in their inter-institutional collaborative project. New learnings and understandings were valued, shared and applied in the classrooms, in teachers' uptake of further professional development opportunities, in dissemination of project outputs, and in new collaborative ventures. Participants spoke about personal enrichment and a renewed satisfaction with their work role and environment (Cumming, 2008; Ramsden, 1998), sometimes taking up leadership roles where they would have felt unprepared in the past (Jones, 2010). The results from this study indicate that the opportunities created through collaborative projects are enriching and reinvigorating the working lives of educators who may otherwise be limited by the confines of their job description, and that everyone is benefitting: the individuals themselves, the organisation, and especially the learners.

## 8. GOOD PRACTICE GUIDE

The primary objective of this research project was to conduct a study of inter-institutional collaborations to identify features which contributed to an extended shelf-life and longer term value for participants, and to use the findings to develop a new resource to guide future project teams. The research team discussed the audience, purpose, contents and structure; referring to existing Ako Aotearoa publications and resources, such as *Signposts*, *Goalposts* and the *Induction Pack for Trainers*. The conclusion was that the material we presented needed to be guided by a similar ethos: simple, accessible language; content restricted to just-in-time practical suggestions; and a focus on relatable and transferable strategies which could be adapted to a range of contexts and projects. Four mini scenarios based on selected interviewees' narratives were developed to address specific points that the team deemed important, to add some personalisation to each stage of the process, and as an activity to allow for group discussion. A summary table was included to cross reference the 24 factors which formed the basis of our survey (adapted from Wilder Collaboration Factors Inventory, n.d.), and the four stages of the collaboration (precondition/learning about each other; getting set up/establishing processes; during the collaboration/interaction, decision-making, self-monitoring; and after the project/sustainability), loosely based on the work of Gray (1989).

The result of these decisions is the resource *Getting on: A Guide to Good Practice in Inter-Institutional Collaborative Projects*.

## 9. CONCLUSION

This research has confirmed much of what many practitioners already know: working collaboratively can be a rewarding and empowering experience, and provide a synergy and impetus that individuals would likely

have struggled to achieve on their own. Even where the actual project collaboration may have been less than satisfactory, participants remain undeterred about the potential of working collegially and cultivating professional networks beyond their own organisation.

Participants were open and generous with sharing their stories and reflections about their inter-institutional collaborative experiences, allowing the project team to synthesise learnings from a wide range of successful change-projects, conducted across the tertiary sector. Overall, this evaluation confirmed the important elements of effective collaborations described in the literature: trust and partner compatibility; common and unique purpose; shared governance and joint decision making; clear understanding of roles and responsibilities; open and frequent communication; and adequate financial and human resources (Czajkowski, 2006; Moxley, 2005).

Tellingly, five of these six success factors are about the interpersonal connection between team members, reinforcing the very individual and subjective nature of collaborative engagement; that is, team members all need to share a common vision and commitment to the project, and need to feel that their contribution is valued and they are equal and important partners in the process. And while there is ample commentary from a host of local and international studies about what these items include and look like, there appear to be few guidelines about how and when these need to be established. The good practice guide that accompanies this report suggests that as so many of these elements are about personal perceptions, and will impact on the team's practice, at least half of the business of establishing an effective and constructive collaborative environment needs to occur before the project work commences.

The four phases of data and information collection (document analysis, literature review, survey and interviews) generated a great deal of quantitative and qualitative data. The survey results which ranked the various factors relating to the collaborative process highlighted what was generally working well in the majority of funded inter-institutional research projects, and usefully, which areas needed more focus – from organisations, leaders and team members. And while the individual project rankings are not reported here, the results did enable the team to make strategic decisions about which projects to target to find out more about, and who to invite to share their narratives in interviews.

The interviews testified to experiences which traversed the spectrum of collaborative practice and project undertakings – from career highlights to moments of extreme frustration. A highly methodical approach to coding and data analysis paid dividends as the project team were able to identify a multitude of themes across these experiences, and in many cases, document specific examples of evidence to support participants' stories. It was particularly pleasing to collect and present strong confirmation of the learner benefit and changes to practice which participants reported had resulted from inter-institutional collaborations.

In conclusion, the team feels that this evaluation has captured the essential ingredients of good practice in collaborative teams and indicated a number of ways in which the "shelf-life" of the collaboration can be extended in ongoing professional relationships and endeavours. Hopefully this account of the collaborative process within so many projects will inspire and assist others with their future inter-institutional collaborations, so that they may find for themselves the professional satisfaction and growth that accompanies a successful and shared adventure!



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## APPENDICES

### Appendix A: Revised Wilder Collaboration Factors Inventory

Factor	Original Statement	Our Revised Statement
1. History of collaboration or cooperation in the community tertiary sector	<ol style="list-style-type: none"> <li>1. Agencies in our community have a history of working together.</li> <li>2. Trying to solve problems through collaboration has been common in this community. It's been done a lot before.</li> </ol>	<ol style="list-style-type: none"> <li>1. Colleagues in the tertiary sector have a history of working together.</li> <li>2. Trying to solve problems through collaboration has been common in the tertiary sector. It's been done a lot before.</li> </ol>
2. Collaborative group seen as a legitimate leader in the community tertiary sector	<ol style="list-style-type: none"> <li>3. Leaders in this community who are not part of our collaborative group seem hopeful about what we can accomplish.</li> <li>4. Others (in this community) who are not part of this collaboration would generally agree that the organisations involved in this collaborative project are the "right" organisations to make this work.</li> </ol>	<ol style="list-style-type: none"> <li>3. Leaders in the tertiary sector who are not part of our collaborative group seem hopeful about what we can accomplish.</li> <li>4. Others (in the tertiary sector) who are not part of this collaboration would generally agree that the organisations involved in this collaborative project are the "right" organisations to make this work.</li> </ol>
3. Favorable political and social climate	<ol style="list-style-type: none"> <li>5. The political and social climate seems to be "right" for starting a collaborative project like this one.</li> <li>6. The time is right for this collaborative project.</li> </ol>	<ol style="list-style-type: none"> <li>5. The political and social climate seemed to be "right" for starting a collaborative project like ours.</li> <li>6. The time was right for our collaborative project.</li> </ol>
4. Mutual respect, understanding, and trust	<ol style="list-style-type: none"> <li>7. People involved in our collaboration always trust one another.</li> <li>8. I have a lot of respect for the other people involved in this collaboration.</li> </ol>	<ol style="list-style-type: none"> <li>7. People involved in our collaboration always trusted one another.</li> <li>8. I have a lot of respect for the other people involved in our collaboration.</li> </ol>
5. Appropriate cross section of members	<ol style="list-style-type: none"> <li>9. The people involved in our collaboration represent a cross section of those who have a stake in what we are trying to accomplish.</li> <li>10. All the organisations that we need to be members of this collaborative group have become members of the group.</li> </ol>	<ol style="list-style-type: none"> <li>9. The people involved in our collaboration represent a cross section of those who have a stake in what we were trying to accomplish.</li> <li>10. All the organisations that we needed to be members of this collaborative group have become members of the group.</li> </ol>
6. Members see collaboration as in their self-interest	<ol style="list-style-type: none"> <li>11. My organisation will benefit from being involved in this collaboration.</li> </ol>	<ol style="list-style-type: none"> <li>11. My organisation has benefitted from being involved in this collaboration.</li> </ol>
7. Ability to compromise	<ol style="list-style-type: none"> <li>12. People involved in our collaboration are willing to</li> </ol>	<ol style="list-style-type: none"> <li>12. People involved in our collaboration were willing to compromise on important</li> </ol>

	compromise on important aspects of our project.	aspects of our project.
8.Members share a stake in both process and outcome	<p>13. The organisations that belong to our collaborative group invest the right amount of time in our collaborative efforts.</p> <p>14. Everyone who is a member of our collaborative group wants this project to succeed.</p> <p>15. The level of commitment among the collaboration partners is high.</p>	<p>13. The organisations that belonged to our collaborative group invested the right amount of time in our collaborative efforts.</p> <p>14. Everyone who is a member of our collaborative group wanted this project to succeed.</p> <p>15. The level of commitment among the collaboration partners was high.</p>
9.Multiple layers of participation	<p>16. When the collaborative group makes major decisions, there is always enough time for members to take information back to their organisations to confer with colleagues about what the decision should be.</p> <p>17. Each of the people who participate in decisions in this collaborative group can speak for the entire organisation they represent, not just a part.</p>	<p>16. When the collaborative group made major decisions, there was always enough time for members to take information back to their organisations to confer with colleagues about what the decision should be.</p> <p>17. Each of the people who participated in decisions in this collaborative group could speak for the entire organisation they represented, not just a part.</p>
10.Flexibility	<p>18. There is a lot of flexibility when decisions are made; people are open to discussing different options.</p> <p>19. People in this collaborative group are open to different approaches to how we can do our work. They are willing to consider different ways of working.</p>	<p>18. There was a lot of flexibility when decisions were made; people are open to discussing different options.</p> <p>19. People in this collaborative group were open to different approaches to how we could do our work. They were willing to consider different ways of working.</p>
11.Development of clear roles and policy guidelines	<p>20. People in this collaborative group have a clear sense of their roles and responsibilities.</p> <p>21. There is a clear process for making decisions among the partners in this collaboration.</p>	<p>20. People in this collaborative group had a clear sense of their roles and responsibilities.</p> <p>21. There was a clear process for making decisions among the partners in this collaboration.</p>
12.Adaptability	<p>22. This collaboration is able to adapt to changing conditions, such as fewer funds than expected, changing political climate, or change in leadership.</p> <p>23. This group has the ability to survive even if it had to make major changes in its plans or add some new members in order to reach its goals.</p>	<p>22. This collaboration was able to adapt to changing conditions, such as fewer funds than expected, changing political climate, or change in leadership.</p> <p>23. This group had the ability to survive even if it had to make major changes in its plans or add some new members in order to reach its goals.</p>

13.Appropriate pace and development	<p>24. This collaborative group has tried to take on the right amount of work at the right pace.</p> <p>25. We are currently able to keep up with the work necessary to coordinate all the people, organisations, and activities related to this collaborative project.</p>	<p>24. This collaborative group tried to take on the right amount of work at the right pace.</p> <p>25. We were able to keep up with the work necessary to coordinate all the people, organisations, and activities related to our collaborative project.</p>
14.Open and frequent communication	<p>26. People in this collaboration communicate openly with one another.</p> <p>27. I am informed as often as I should be about what goes on in the collaboration.</p> <p>28. The people who lead this collaborative group communicate well with the members.</p>	<p>26. People in this collaboration communicated openly with one another.</p> <p>27. I was informed as often as I would be about what went on in the collaboration.</p> <p>28. The people who led this collaborative group communicated well with the members.</p>
15.Establish informal relationships and communication links	<p>29. Communication among the people in this collaborative group happens both at formal meetings and in informal ways.</p> <p>30. I personally have informal conversations about the project with others who are involved in this collaborative group.</p>	<p>29. Communication among the people in our collaborative group happened both at formal meetings and in informal ways.</p> <p>30. I personally had informal conversations about the project with others who were involved in this collaborative group.</p>
16.Concrete, attainable goals and objectives	<p>31. I have a clear understanding of what our collaboration is trying to accomplish.</p> <p>32. People in our collaborative group know and understand our goals.</p> <p>33. People in our collaborative group have established reasonable goals.</p>	<p>31. I had a clear understanding of what our collaboration was trying to accomplish.</p> <p>32. People in our collaborative group knew and understood our goals.</p> <p>33. People in our collaborative group had established reasonable goals.</p>
17.Shared vision	<p>34. The people in this collaborative group are dedicated to the idea that we can make this project work.</p> <p>35. My ideas about what we want to accomplish with this collaboration seem to be the same as the ideas of others.</p>	<p>34. The people in our collaborative group were dedicated to the idea that we could make this project work.</p> <p>35. My ideas about what we wanted to accomplish with this collaboration seem to be the same as the ideas of others.</p>
18.Unique purpose	<p>36. What we are trying to accomplish with our collaborative project would be difficult for any single organisation to accomplish by itself.</p> <p>37. No other organisation in the community is trying to do exactly what we are trying to do.</p>	<p>36. What we were trying to accomplish with our collaborative project would be difficult for any single organisation to accomplish by itself.</p> <p>37. No other organisation in the community was trying to do exactly what we were trying to do.</p>

19.Sufficient funds, staff, materials, and time	38. Our collaborative group had adequate funds to do what it wants to accomplish. 39. Our collaborative group has adequate “people power” to do what it wants to accomplish.	38. Our collaborative group had adequate funds to do what it wanted to accomplish. 39. Our collaborative group had adequate “people power” to do what it wanted to accomplish.
20.Skilled leadership	40. The people in the leadership positions for this collaboration have good skills for working with other people and organisations.	40. The people in the leadership positions for this collaboration had good skills for working with other people and organisations.
<b><i>New questions</i></b>		
21.Post-research benefits		41. I have continued to work with members of the original collaborative group in new areas/activities. 42. Involvement in our collaborative project has led to other personal or professional opportunities. 43. Participation in the original collaborative project has encouraged me to join other collaborative groups.
22.Learner benefits		44. My students have benefitted from my involvement in our collaborative project. 45. Students in my organisation have benefitted from the outcomes of our collaborative project. 46. My teaching/professional practice has been enhanced through my involvement in our collaborative project.
23.Retention/workplace satisfaction		47. My involvement in our collaborative project has contributed towards my workplace satisfaction. 48. My organisation has valued my participation in our collaborative project. 49. My involvement in this collaborative project has contributed to my desire to remain with my current organisation.
24.Personal value		50. Involvement in our collaborative project was a rewarding experience.

## Appendix B: Interview questions

First please identify which collaborative project you are responding to (may be more than one – interviewer to clarify)

1. Tell me about how you became involved in your collaborative projects?  
*Prompts: Invited/shoulder tapped/selected to participate*
2. What was your role /tasks and responsibilities in the collaboration?  
*Prompts: leadership – who lead the project, how was the project led, shared responsibilities/tasks etc.*
3. What aspects of the collaboration worked well?  
*Prompt: Why do you think so?*
4. What aspects of the collaboration didn't work so well?  
*Prompt: Why do you think so?*
5. How have the following benefited from participating in this collaboration?  
a. Personally b. Organisation c. Learners
6. Have you continued to work with members of the group, after this project?  
a. Please explain what you did together b. If not, then why not?
7. Has being part of this collaborative group encouraged you to participate in other inter - institutional/interdisciplinary collaborative projects?  
a. If yes, then how? b. If no, why not?
8. How has being part of this collaborative project added to your workplace satisfaction?  
*Prompts: How? Why do you think so?*
9. Tell me about any benefits you believe your students have gained from you being part of this collaborative project? **Explore as much as possible: Key Ako focus - learner benefit and practitioner change.**
10. How has participation in this collaboration led to changes in your practice? Within your organisation? For learners at you institute? **Explore as much as possible: Key Ako focus - learner benefit and practitioner change.**