The Influence of Embedded Researchers in Policy, Industry or Commercial Settings: A Protocol for a Systematic Evidence and Gap Map.

SYSTEMATIC MAP PROTOCOL

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1. Background

Introduction

Reviews of research use in public health decision-making suggest that evidence plays a limited role in decision-making processes at local level (Kneale et al. 2017, Orton et al. 2011). Several potential barriers and facilitators to research use in decision-making have been identified (Oliver et al. 2014). However, understanding how these can be addressed is challenging as we often lack detailed understandings of current practice and process models which identify evidence needs at different stages of decision-making for different types of decisions being made. Similarly, many of the identified barriers to research use are predicated on the assumption that research is used in an instrumental way, and the contribution of research evidence to enlightenment is often poorly understood and undervalued (Weiss 1979). Finally, the salience of research is a known determinant in its perceived value among public health decision-makers (Kneale et al. 2019), and many of the issues surrounding the perceived underutilisation of research evidence may be as much a reflection of the 'supply' side and ensuring that research is produced in a way that can be used either instrumentally or for enlightenment, as much as a reflection of the 'demand' side and the need to stimulate engagement with research evidence among policy-makers.
Collaborative approaches between researchers and local government, including knowledge transfer partnerships and embedded researchers, are gaining traction as promising ways to bridge the gap between research and practice (Cheetham et al. 2019, Van Der Graaf et al. 2020). While dependent on a number of factors to succeed (Coates and Mickan 2020), embedded researchers have been evidenced to act as catalysts for change in research cultures through shared, mutually beneficial, learning processes .

An embedded researcher model is of increased interest to decision-makers across public health bodies. The Academy of Medical Sciences has outlined a 'need [for] re-engagement between researchers and practitioners' and have stressed the value of 'co-production of individual and societal health' (AMS 2016). Similarly, a recent letter by the UK Strategic Co-ordinating Body for Health of the Public Research recommended that 'research on the health of the public where appropriate should be co-produced with local authorities, devolved administrations and the public. This is to ensure that questions addressed are relevant, provide actionable evidence, and are better connected with practice' (SCHOPR 2019). This protocol was developed in the context of the development of the UKPRP and renewed commitment into public health research, with funding being targeted toward supporting Local Authorities in decision-making (NIHR 2020a), and an exploration of possibilities for different models of research production and engagement (NIHR 2020b).

In order to ensure that commissioners, universities and local government facilitate mutually beneficial relationships, and to optimize the outcomes and potential impact of embedded researchers, it is useful to systematically review the existing evidence on current models of embedded researchers. As a pre-cursor for an in-depth review, we will map the evidence on evaluations of embedded researchers within policy, commercial or industry settings relating to public health and beyond. The systematic

map will allow us to develop typologies of embedded research, highlight gaps in the evidence, and help to determine the parameters for a subsequent systematic review.

What is an embedded researcher?

McGinity and Salokangas (2014) define embedded researchers as:

"*individuals or teams who are either university-based or employed undertaking explicit research roles within […] other organizations with the purpose of identifying and implementing a collaborative research agenda.*"

Meanwhile, they define embedded research as: *"a mutually beneficial relationship between academics and their host organizations whether they are public, private or third sector"* (McGinity and Salokangas 2014, p3).

While the above definitions have been commonly adopted in studies looking at embedded researchers (Cheetham et al. 2019, Vindrola-Padros et al. 2017) the extent to which this definition captures the plurality of models of embedded research is unclear, and the extent to which some of the models of placement where researchers may not feel, or may not be recognised as having, dual affiliation is unknown. Similarly, models involving representatives from policy or practice being embedded as researchers within academic settings may be overlooked by this definition (e.g. research practitioner roles), although the aims of these activities may be similar.

We will therefore take an inclusive approach and aim to capture the full range of interventions looking to improve the salience of research and evidence at different stages of decision-making processes. While McGinty and Salokangas' (2014) work focuses primarily on educational research we will include all policy, commercial and industry settings, with a view to ultimately applying our findings in the area of embedded researchers working in public health within local government settings.

Why is this systematic map needed in light of existing systematic maps?

To our knowledge, there are no existing systematic maps that aim to assess the breadth of the evidence on embedded researcher evaluation activity. Related studies are discussed below.

Hock and colleagues at ScHARR (2020) conducted a rapid review exploring Local Authority research systems (including a partial focus on embedded research). The work provided a useful typology of different collaborative research systems within Local Authorities (with a UK focus), with an emphasis on the configuration/structure of the research systems and a distinction between instrumental and symbolic models. There was no direct emphasis on the embedded researchers (or allied models e.g. researcher-in-residence) and their 'implementation' and impact, and only one study was cited was a focus on embedded researchers.

Cheetham and colleagues (LACoR) (2019) conducted relevant and extensive research considering the role of embedded researchers as part of broader efforts in embedding

research cultures in Local Government public health teams, including conducting interviews and workshops with relevant stakeholders, a survey and a rapid literature review. The rapid review component was restricted to recent research from UK Local Government settings (and most of the included articles focussed on public health), and given the context and depth of literature, there is merit in casting a wider net to other settings and other disciplines to further understand models, impacts and implementation of embedded researchers.

Vindrola-Padros and colleagues (2017) explored models of embedded research in a narrative review, with searches conducted in 2015. This study demonstrated the value of looking beyond the UK and beyond public health alone. Since this study was conducted, a number of initiatives have been conducted and published that have taken place in UK public health settings and beyond. The review provides a valuable starting point, but did not focus in depth on different levels of embeddedness which can help to understand the impacts and implementation (Bowen et al. 2019). In addition, there may be scope to expand on the depth of the search and the concepts included in the search – for example 'secondment' of researchers was not in the scope of the search but is a term that has been used to describe embedded researcher activity in other settings and other studies (Hill et al. 2001, Pitayarangsarit and Tangcharoensathien 2009).

This map will build on the work described above through:

i. Focussing on embedded research models and allied models (e.g. researcher in residence)
ii. Drawing on evidence beyond public health to consider the potential of more innovative or radical models of embedded researcher which could be adopted
iii. Drawing on evidence beyond the UK to consider the impacts/implementation of embedded researchers – this appears a timely moment to consider evidence beyond the UK given that the UK/English public health system is in transition currently, and to draw on evidence globally and consider its applicability (e.g. from Canada (Cassidy et al. 2019)).
iv. Identifying typologies of embedded researcher model, and use these to consider the impacts/implementation of different models.
v. Expanding on the concepts incorporated in the search strategy
vi. Presenting the results visually to communicate the evidence

A logic model will be developed to support the production of the map. This will be a synthesis of a logic model created within Cheetham et al. (2019) as well as a logic model developed in Hock et al. (2020) and other relevant conceptual frameworks.

2. Objectives of the map and research questions

Objectives:

1. *To generate a systematic map of evidence on evaluations of embedding researchers into policy, commercial or industry settings.*
2. *To identify areas where systematic reviews are needed (and feasible).*
3. *To identify gaps in evidence where further primary research is needed.*

The map can be used to address the following research questions:

- *What change do embedded researcher interventions seek to effect within public health and other settings?*
- *What form do embedded researcher interventions take within health and public health settings?*
  - *What is known about the different models of embedding researchers in policy, commercial or industry settings, and how do these differ from public health settings?*
  - *How can we understand the plurality of embedded researcher models as a typology of interventions?*

3. Methods

3.1 Ethics approval

This map has been approved by the UCL IOE Research Ethics Committee (REC 1485).

3.2 Information sources

The search strategy is developed by an Information Scientist (CS) in conjunction with other review team members. The search aims to identify a wide range of approaches across policy, industry and commercial sectors, and to identify a comprehensive collection of research from the spheres of health and public health. Box 1 lists the sources.

Box 1: Information sources used to identify relevant research

Bibliographic Databases Health research: PubMed, CINAHL (EBSCO), Psycinfo (OVID)
Social science and Social Policy: Social Science Citation Index (WoS), ASSIA (Proquest), Social Policy and Practice (OVID), Health Management Information Consortium (OVID), Sociological Abstracts (Proquest)
Business/Science: ABI inform (Proquest), Business Source Premier (EBSCO), Econlit (EBSCO), Science Citation Index (WoS), Emerging Sources Citation Index (WoS)

Journals: Evidence and Policy, Research for All,

Websites: Alliance for Useful Evidence, CanChild, CAPE, CLARHC/ ARC, UK PRP, Fuse, Transforming Evidence, Evaluation Support Scotland, Michael Smith Foundation for Health Research, KT Pathways, Universities Policy Engagement Network (UPEN), WT Grant Foundation, KTDRR, Rethinking Research Collaborative

Other: Google, Google Scholar, Microsoft Academic

We will also identify additional records from relevant systematic reviews and elicit advice from the advisory group.

Other databases searches will be adapted, based on this search. This search strategy was developed after screening the results of scoping searches undertaken within Web of Science, PubMed and Google Scholar, and selective searching and browsing of research published in the following journals: Evidence and Policy, Research for All, Implementation Science and Health Research Policy and Systems. This scoping work was used to inform both the search and study selection phases of the review.

3.3 Inclusion/exclusion criteria

To be included in the systematic map, studies will have to:

- Focus on embedded research/ embedder researcher(s) (ER) or allied models. Allied models will need to adhere to the principles of the intervention involving a researcher with an affiliation (including a specific funding stream) with an academic institution or research organization who is embedded within another team on a meaningful basis to enhance research capacity.
- Embeddedness must involve a meaningful placement – one that is of sufficient length to enact change (typically over a month) although one that is also time bound (i.e. embedded researchers differ from permanent members of staff).
- Directly evaluate the process and/or outcomes of the intervention using quantitative, qualitative or mixed methods evaluation studies.
- Other types of study including commentary studies, editorials, systematic reviews and literature reviews will not be included (unless they present novel empirical data) although reviews in particular will be used to locate additional studies where possible.
- Be published in English.

3.4 Search strategy

The search terms reflect concepts expected to be a focus in the included studies:

1) **Embeddeness: partnerships, physical co-location, research integration**.
2) **Outcomes:** (not used as an inclusion/exclusion criteria) around mobilizing research, knowledge transfer, capacity building, technology transfer
3) **Study design:** quantitative, qualitative and mixed methods evaluation studies that measure implementation processes or outcomes.

The Appendix shows the example search strategy for searching Web of Science databases.

3.5 Study records

We will export search records to EPPI-Reviewer (Thomas et al. 2020) and begin with de-duplicating the records. Reviewers will examine, independently and in duplicate, each title and abstract for relevance and possible inclusion in the map, having first piloted the inclusion/exclusion criteria. Other members of the broader review team will be consulted in the case of disagreements on inclusion/exclusion.

Priority screening (text mining) will also be utilised to identify relevant titles and abstracts, after two researchers achieve a sufficiently high agreement rate. Priority screening is a text mining process increasingly used in systematic reviews. Text mining is a type of machine learning whereby reviewing software 'learns' to recognise citations that are likely to be included and excluded based on how researchers apply screening criteria (Brunton et al. 2017, Thomas et al. 2011). Citations are then sorted iteratively so that those most likely to be included are screened first, prioritising these to significantly speed up the screening process (O'Mara-Eves et al. 2015, Shemilt et al. 2014).

An initial sample of abstracts will be screened independently by three reviewers and differences resolved by discussion. If agreement at this stage is over 90% remaining abstracts will be screened by a single reviewer (SL/DK/RG).
The full texts of all references meeting the eligibility criteria will be retrieved. Those references meeting the eligibility criteria will be coded using the coding tool described below. Depending on the nature and volume of the evidence located at abstract screening stage, we may adopt further inclusion criteria at this stage (e.g. possible additional inclusion criteria may include a focus on public policy-making environments). As we are looking to build up understanding of the different aims and outcomes of embedded research interventions, we will not exclude studies on account of the outcomes assessed at this stage.

3.6 Coding and Quality Assessment

A coding framework will be developed based on elements of importance in the logic model that will be produced alongside the map (note due to heterogeneity in the model aims, implementation and outcome it is unclear whether a single logic model is sufficient to represent these activities).

A draft coding framework is presented below, and the coding framework will be trialled on a subset of included studies and will be further refined before being applied across all studies. Coding will reflect:

- Setting where researcher is placed (policy/industry/ commercial)
- Country
- Nature of placement
- Type of placement (individual/multiple researchers/team or unit)
- Type of hosting organisation (policy/practice/commercial setting)
- Aim(s) of embedding researcher in setting (explicitly stated or inferred)
- Activities to support creation of a research active culture: evidence generation, research facilitation or knowledge transfer

No quality assessment criteria will be adopted for inclusion within the map, although included studies may be quality assessed (potential candidate tools included a recently developed mixed methods appraisal tool (Hong et al. 2018)).

3.7 Study mapping synthesis and visualisation

Once we have carried out the initial coding, and if we have sufficient data, we will undertake Latent Class Analysis (LCA), a novel method applied to a systematic map, in

order to identify different typologies of embedded researcher interventions. We will report our findings back to the advisory group to establish which typologies are deemed to be most relevant to focus on for an in-depth systematic review.

The map will be presented graphically with two dimensions with additional dimensions and filters added. A descriptive report of the evidence will also be developed.

3.8 Stakeholder involvement

We will convene a small advisory group comprising people with direct experience of conducting embedded research, those who have evaluated the intervention, as well as those who have commissioned these models. The group will meet at the beginning of the project to help set the parameters from the map, and then periodically afterwards in order to discuss emerging findings.

4. Products

The purpose of the map will be to build different typologies of embedded researcher. It will help us to identify where gaps exist in the evidence. It will also determine the parameters for the in-depth systematic review focusing on typologies of embedded researcher models which are most relevant to public health in local government.

5. References

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6. Appendices

Appendix 1. Example Search strategy: Web of Science

20/5/2021
Indexes=Science Citation Index, Social Science Citation Index, Emerging Sources Citation Index, Book Citation Indexes (Science, Social Science and Humanities)
Date limits 1991-2021
4,648 records

34	(#33) *AND* **LANGUAGE:** (English)
# 33	#32 AND #31
# 32	TS=("impact" OR effective* OR evaluat* OR "lesson learned" OR "case study" OR " case studies" OR "feasibility study" OR "pilot study" OR "feasibility studies" OR "p ilot studies" OR "experiences" OR "qualitative*" OR "perspective*" OR "interviews " OR "findings" OR "focus group" OR "focus groups" OR "outcome*" OR "performan ce measure*" OR "performance assessment" OR "mixed methods" OR "proof of c oncept" OR (critical NEAR/2 (examination* OR apprais* OR reflect*)) OR "programme effect*" OR "program effect*" OR "observed effects" OR "observational study" OR "programme impact*" OR "program impact*" OR "ob served effect*" OR "observations" OR "survey" OR "surveys" OR "questionnaire*" O

R "feedback" OR "model" OR "models" OR framework OR frameworks) OR TI=("a nalysis" OR study*)

31 #30 OR #29

30 #27 AND (#26 OR #25) AND (#1 OR #2)

29 #28 AND #24

28 (#27 AND #26) OR #25

27 (TS=((((policy OR practice OR evidence) NEAR/2 interface*) OR ((evidence OR policy) NEAR/1 practice) OR ("evidence informed decision*" OR EIDM OR "evidence-based decision*" OR EBM OR "evidence-based medicine" OR "Evidence-Based Practice*" OR "Evidence-informed Practice" OR "Evidence based policy*" OR "Evidence informed policy*" OR "policy and practice" OR "Policy Making" OR "Policymaking") OR (("evidence" OR "knowledge") NEAR/3 (utilis* OR utiliz* OR uptake) AND (decision* OR policy*))) OR ("knowledge to action" OR "research use" OR "evidence use" OR "use research" OR "use evidence" OR (diffusion NEAR/1 innovation) OR (evidence NEAR/2 (diffusing or diffusion or exchange or implement* OR transfer* OR translat* OR uptak* OR utiliz* OR mobil* OR broker*)) OR (implementation NEAR/3 research) OR "implementation science" OR (innovation* NEAR/2 (adopt* OR diffusion OR implement*)) OR "integrated knowledge transfer" OR "integrated knowledge tr ansformation" OR "integrated knowledge translation" OR (Knowledge NEAR/2 (adopt* OR broker* OR diffusion OR integration OR mobil* OR exchang* OR transform* OR transfer* OR translat* OR uptak* OR utiliz* OR engag*)) OR (("Mode two knowledge" or "Mode II knowledge" or "Mode 2 knowledge") NEAR/2 (produc* OR generat* OR creat* OR develop*)) OR (("Mode two research" or "Mode II research" or "Mode 2 research") NEAR/2 (produc* OR generat* OR creat* OR develop*)) OR (research NEAR/2 (broker* OR diffusion OR integration OR mobil* OR exchang* OR transfer* OR translat* OR uptak* OR utiliz* OR transformation OR implement*)) OR (science NEAR/2 (implement* OR utilizat*)) OR (technology NEAR/2 transfer))))

26 (TS=("regional authority" OR "regional government" OR "local authority" OR "local authorities" OR "service organisation*" OR "service organization*" OR "local government*" OR ((government* OR community OR policy OR "non academic") NEAR/2 organisation) OR ((government* OR community OR policy OR "non academic") NEAR/2 organisations) OR ((government* OR community OR policy OR "non academic") NEAR/2 organization) OR ((government* OR community OR policy OR "non academic") NEAR/2 organizations) OR ((government* OR community OR policy OR "non academic") NEAR/2 service) OR ((government* OR community OR policy OR "non academic") NEAR/2 setting) OR ((government* OR community OR policy OR "non academic") NEAR/2 agency) OR "non governmental" OR "third sector" OR "non ac ademic setting" OR "government department" OR "government unit" OR (profess ional NEAR/2 association) OR (professional NEAR/2 body) OR (professional NEAR/2 institut*) OR "commercial partner*" OR "commercial organi*" OR "private partne

r*" OR "private organi*" OR "trade association*" OR "research association" OR "res earch associations" OR "technical information service*" OR (technical NEAR/2 (centre OR centres OR center OR centers)) OR industry OR (service* NEAR/2 provider*)))

25 (TS=((health* NEAR/2 service*) OR (health* NEAR/2 system) OR (health* NEAR/2 delivery) OR (practitioner* OR commissioner*) OR (health* NEAR/2 worker*) OR (health* NEAR/2 workforce) OR (health* NEAR/2 "work force") OR (health* NEAR/2 systems) OR (public NEAR/2 health*) OR (health NEAR/2 promot*) OR (health NEAR/2 educat*) OR (health* NEAR/2 intervention*) OR "primary prevention" OR " preventive care" OR "preventive he alth*" OR "primary health*" OR "primary care" OR "preventive medicine" OR "co mmunity health*" OR "healthcare" OR "health care" OR "social care" OR "social s ervice*" OR "social work*" OR (care NEAR/2 (system OR systems OR service* OR community OR integrated OR setting* OR centre OR center OR centres OR centers)) OR "healthcare trust" OR "health care trust" OR NHS OR "secondary ca re trust" OR CLAHRC OR (health* NEAR/2 department) OR (health* NEAR/2 government)))

24 #23 OR #22 OR #21 OR #20 OR #19 OR #18 OR #17 OR #16 OR #15 OR #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3

23 TS=(("co-creat*" OR cocreat* OR "co-produc*" OR coproduc*) NEAR/2 (evidence OR knowledge OR research)) OR TS=((cocreat* OR coproduc* OR "co-creat*" OR "co-produc*" OR "roles") NEAR/10 ("technical assistance" OR "technical support" OR (change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*))))

22 TS=(("intermediary organisation*" OR "intermediary organization*") NEAR/3 (pra ctice OR policy OR practice OR evidence OR decision* OR EIDM OR EBM OR "Policymaking" OR innovation OR (technology NEAR/2 transfer)))

21 TS=("co-locate" OR "co-location" OR "co-locating" OR secondment* OR ("boundary" NEAR/2 ("span" OR "spanning" OR "spanner" OR "spanners" OR "bridging" OR "bridger*")) OR "Liaison research*")

20 TS=((broker* OR exchange* OR translation OR mobilis* OR mobiliz*) NEAR/2 (res earch* OR academic*) NEAR/3 (practice OR policy OR practice OR evidence OR decision* OR EIDM OR EBM OR "Policymaking" OR innovation Or (technology NEAR/2 transfer)))

19 TS=(((Partner* OR broker* OR intermediaries OR "technical support" OR "technic al assistance" OR collaborator* OR "collaborative working" OR "roles") NEAR/10 ((change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*)) OR "knowledge exchange*" OR "knowledge broker*" OR "knowledge t ransfer*" OR "knowledge mobilis*" OR "knowledge mobiliz*" OR "implementation scien*" OR "implementation research" OR mentor* OR coach*)) NEAR/10 (practic e OR policy OR practice OR evidence OR decision* OR EIDM OR EBM OR "Policymaking" OR innovation OR (technology NEAR/2 transfer)))

18 TS=((program* OR initiativ* OR strategy OR strategies* OR infrastruct*) NEAR/10 ((change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*)) OR "knowledge exchange*" OR "knowledge broker*" OR "knowledge t

ransfer*" OR "knowledge mobilis*" OR "knowledge mobiliz*" OR "implementation scien*" OR "implementation research" OR mentor OR coach*) NEAR/10 (practice OR policy OR practice OR evidence OR decision* OR EIDM OR EBM OR "Policymaking" OR innovation OR (technology NEAR/2 transfer)))

17 TS=((research* OR university* OR academic* OR academia*) NEAR/5 (partner*) N EAR/5 (broker*))

16 TS=(("co-locate" OR "co-location" OR "co-locating" OR secondment*) NEAR/3 research*)

15 TS=((policy* NEAR/1 fellow*) OR (policy* NEAR/2 research* NEAR/2 fellow*))

14 TS=((embedded* OR collaborative* OR intermediaries* OR roles) NEAR/5 (evide nce OR knowledge) NEAR/3 (broker* OR exchange* OR transfer* OR translation OR mobilis* OR mobiliz* OR transform*)) OR TS=((embedded* OR collaborativ* OR intermediar*) NEAR/5 ("i mplementation research*" OR "implementation scien*"))

13 TS=("integrated knowledge exchange" OR "integrated knowledge mobili*" OR "in tegrated knowledge translation" OR "integrated knowledge transfer*") OR TS=(" knowledge intermediaries")

12 TS=(("researcher*" OR "research team" OR "research group" OR "research groups" OR professor* OR "doctoral student" OR "research fellow" OR "research fellows" OR "postdoctoral fellow" OR "postdoctoral fellows" OR "research associate" OR "r esearch associates" OR "research staff" OR "scholar" OR "scholars" OR "academic s" OR "academic fellow" OR "academic staff") NEAR/3 (embedded* OR secondm ent* OR "seconded" OR "liaison" OR "adjunct" OR intermediar* OR "brokers" OR " broker" OR mediator* OR "co-locate" OR "co-location" OR "co-locating"))

11 TS=((academic* OR "researcher*" OR "research team" OR "research group" OR "re search groups" OR professor* OR "doctoral student" OR "research fellow" OR "res earch fellows" OR "postdoctoral fellow" OR "postdoctoral fellows" OR "research associate" OR "research associates" OR "research staff" OR "scholar" OR "scholars " OR "academics" OR "academic fellow" OR "academic staff")) AND TS=(("policy p lacement*")OR("project placement*"))

10 TS=(("researcher*" OR "research team" OR "research group" OR "research groups" OR professor* OR "doctoral student" OR "research fellow" OR "research fellows" OR "doctoral fellow" OR "doctoral fellows" OR "postdoctoral fellow" OR "postdoc toral fellows" OR "post doctoral fellow" OR "post doctoral fellows" OR "research associate" OR "research associates" OR "research staff" OR "scholar" OR "scholars " OR "academics" OR "academic fellow" OR "academic staff") NEAR/5 (role OR roles)) AND TS=((change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*)) OR "knowledge exchange*" OR "knowledge broker*" OR "knowledge t ransfer*" OR "knowledge mobilis*" OR "knowledge mobiliz*" OR "implementation scien*" OR "implementation research" OR mentor* OR coach*)

9 TS=(("researcher" OR "scholar" OR "scholars" OR "academic" OR "academics" or "p rofessor*") NEAR/2 ("residence" OR "resident" OR "broker" OR "brokers"))

8 TS=(("champion" OR "champions" or "broker" OR "brokers") NEAR/1 (research or academic))

7 TS=(("co-locate" OR "co-location" OR "co-locating" OR encultur* OR "credible insider" OR "credible insiders" OR secondment*) NEAR/10 ((change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*)) OR "knowledge exchange*" OR "knowledge broker*" OR "knowledge transfer*" OR "knowledge mobilis*" OR "knowledge mobiliz*" OR "implementation scien*" OR "implementation research" OR mentor* OR coach*))

6 TS=(("boundary" NEAR/2 ("span" OR "spanning" OR "spanner" OR "spanners" OR "bridging" OR "bridger*")) OR "Liaison research*")

5 TS=((organisation* OR organization* OR institution*) NEAR/2 (program* OR initiativ* OR strategy OR strategies* OR infrastruct* OR mentor* OR coach*)) AND TS=(((change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*)) OR "knowledge exchange*" OR "knowledge broker*" OR "knowledge transfer*" OR "knowledge mobilis*" OR "knowledge mobiliz*" OR "implementation scien*" OR "implementation research"))

4 TS=(("researcher*" OR "research team" OR "research group" OR "research groups" OR professor* OR "doctoral student" OR "research fellow" OR "research fellows" OR "doctoral fellow" OR "doctoral fellows" OR "postdoctoral fellow" OR "postdoctoral fellows" OR "post doctoral fellow" OR "post doctoral fellows" OR "research associate" OR "research associates" OR "research staff" OR "scholar" OR "scholars" OR "academics" OR "academic fellow" OR "academic staff") NEAR/3 ((change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*)) OR "knowledge exchange*" OR "knowledge broker*" OR "knowledge transfer*" OR "knowledge mobilis*" OR "knowledge mobiliz*" OR "implementation scien*" OR "implementation research" OR mentor* OR coach*))

3 TS=(("researcher*" OR "research team" OR "research group" OR "research groups" OR professor* OR "doctoral student" OR "research fellow" OR "research fellows" OR "doctoral fellow" OR "doctoral fellows" OR "postdoctoral fellow" OR "postdoctoral fellows" OR "post doctoral fellow" OR "post doctoral fellows" OR "research associate" OR "research associates" OR "research staff" OR "scholar" OR "scholars" OR "academics" OR "academic fellow" OR "academic staff") AND ("co-locate" OR "co-location" OR "co-locating" OR encultur* OR "credible insider" OR "credible insiders" OR secondment*))

2 TS=((Partner* OR broker* OR "intermediaries" OR "technical support" OR" technical assistance" OR collaborator* OR "collaborative working" OR "roles") NEAR/5 (("change facilitator" OR mentor* OR (change NEAR/1 facilita*) OR (change NEAR/1 agent*) OR (capacity NEAR/2 (build* OR strength* OR develop*)) OR coach* OR "knowledge exchange*" OR "knowledge broker*" OR "knowledge transfer*" OR "knowledge mobilis*" OR "knowledge mobiliz*" OR "implementation scien*" OR "implementation research")))

1 TS=(("researcher*" OR "research team" OR "research group" OR "research groups" OR professor* OR "doctoral student" OR "research fellow" OR "research fellows" OR "doctoral fellow" OR "doctoral fellows" OR "post-doctoral fellow" OR "post-doctoral fellows" OR "postdoctoral fellow" OR "postdoctoral fellows" OR "research associate" OR "research associates" OR "research staff" OR "scholar" OR "schola

rs" OR "academics" OR "academic") NEAR/2 (Partner* OR broker* OR intermediaries OR "technical support" OR "technical assistance" OR collaborator* OR "collaborative working"))