Michigan School Program Information Project

North East Pilot Preliminary Report

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Executive Summary

A substantial literature documents the existence of a research-practice gap in the field of education. **Although educators have few opportunities to *directly* access research, they often *indirectly* access research through their social networks.** In particular, past work has found that brokers are responsible for transferring research to educators. Leveraging these brokers, who already exist, may be critical for closing the research-practice gap in education.
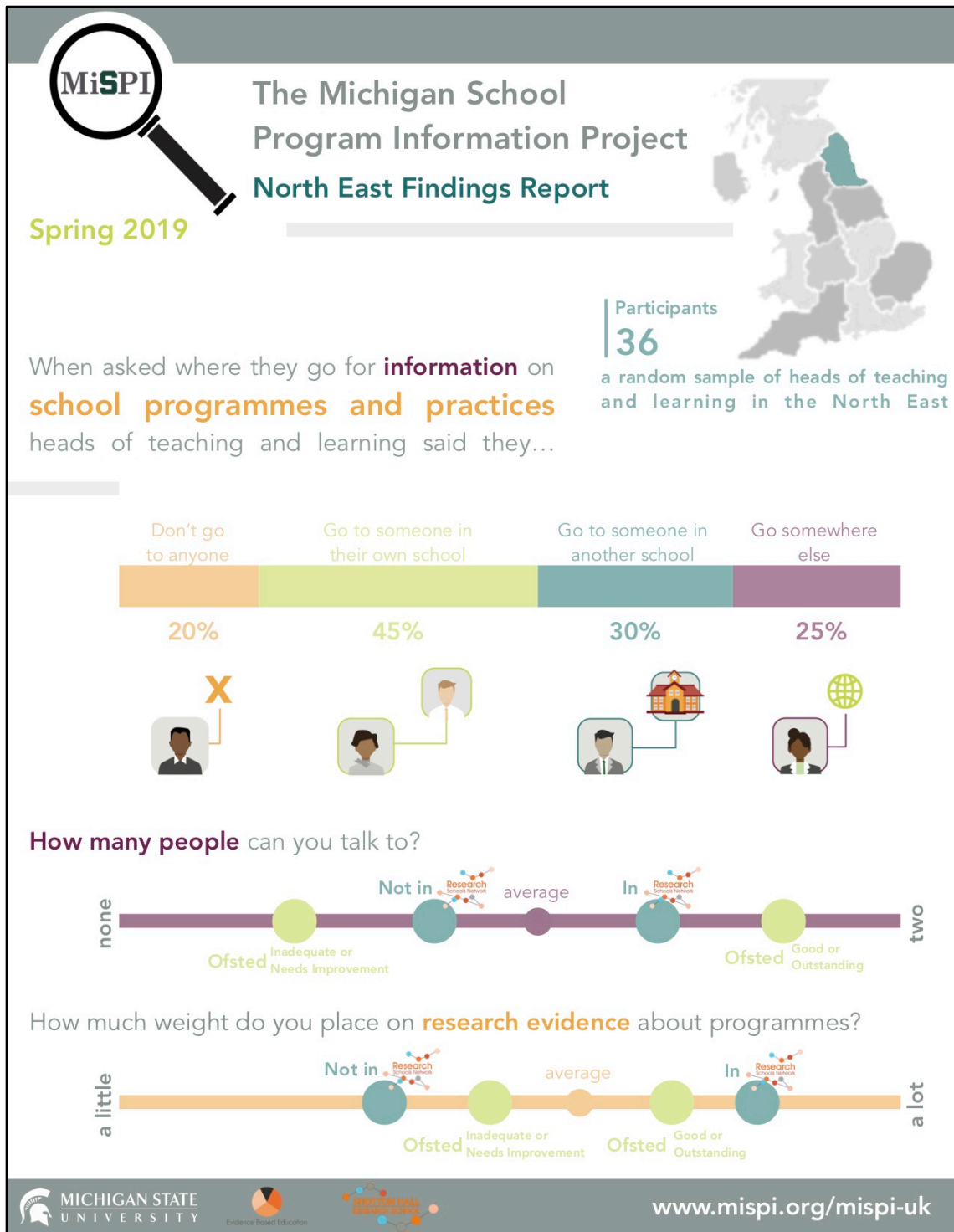
To understand how Heads of Teaching and Learning (HOTLs) use brokers and their social networks to access research, researchers at Michigan State University (USA) partnered with Evidence-Based Education and Shotton Hall Research School to conduct a pilot survey in the North East. From October 2018 to April 2019 they collected data from 36 HOTLs and 46 brokers. They noted a number of similarities with educators in their earlier US-based research:

1. Some HOTLs (19%) have no one to go to for information about school programmes, while many others (55%) seek this information from colleagues in their own or another school.

2. Efforts to locate research about school programmes using their networks is often hampered by *dead ends* and *echo chambers*.

3. HOTLs who seek information from multiple brokers, and from brokers outside schools, are more likely to access research that can inform decisions about school programmes.

These findings suggest that **key non-school brokers (e.g. the Education Endowment Foundation) and HOTLs' existing social networks are critical for closing the research-practice gap**. But, efficiently using these brokers and networks requires thinking strategically about how to search for information.

Infographic Summary

The Michigan School Program Information Project

North East Findings Report

Spring 2019

Participants
36
a random sample of heads of teaching and learning in the North East

When asked where they go for **information** on **school programmes and practices** heads of teaching and learning said they…

Don't go to anyone	Go to someone in their own school	Go to someone in another school	Go somewhere else
20%	45%	30%	25%

How many people can you talk to?

none ——— Not in Research Schools Network ——— average ——— In Research Schools Network ——— two

Ofsted Inadequate or Needs Improvement

Ofsted Good or Outstanding

How much weight do you place on **research evidence** about programmes?

a little ——— Not in Research Schools Network ——— average ——— In Research Schools Network ——— a lot

Ofsted Inadequate or Needs Improvement

Ofsted Good or Outstanding

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Evidence Based Education

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MICHIGAN STATE
UNIVERSITY

How do **heads of teaching and learning** look for **information about school programmes** and practices?

A Head of Teaching & Learning	A Head of Teaching & Learning	A Head of Teaching & Learning

A Person at Research Schools Network

A Person at North East Learning Trust

A Person at the same School

The National Literacy Trust

A Person at a School

A Person at Great North Maths Hub

A Professor at a Edgehill University

What works...

Sometimes they use a broad network of contacts, and get information from **multiple research-based sources**.

Or they rely on a **series of brokers** who connect them with the **research** they need.

A Head of Teaching & Learning	A Person at Fischer Family Trust	Person at Educ. Endowment Foundation	Person at Educ. Endowment Foundation	A Professor at University of Sussex

What doesn't work...

A Head of Teaching & Learning	A Head of Teaching & Learning	A Head of Teaching & Learning

A Person at the same School

A Person at North East Learning Trust

A Person at North East Learning Trust

A Person at a School

But, sometimes they just **talk to each other**, never finding what they are looking for.

So what?

These findings mean...

Heads of Teaching and Learning are using their **networks** to find **research**, but the process could be more efficient.

Research Network schools and top-scoring Ofsted schools could serve as models.

Want more?

Visit **www.mispi.org/mispi-uk** to download the complete report and contact us with questions!

Background

A substantial literature documents the existence of a research-practice gap in the field of education[1]. Educators describe a lack of access to research as a major barrier to using research, and they often struggle to interpret research then integrate it into their daily practice[2]. Attempts to improve educators' access to and use of research have often focused on gathering and synthesizing study results in accessible formats (e.g., the Sutton Trust-EEF Teaching and Learning Toolkit). However, educators' social networks may also provide a promising, pre-existing infrastructure for improving educators' access to and use of research[3].

Although educators have few opportunities to *directly* access research, they often *indirectly* access research through their social networks. In particular, past work has found that key *brokers* are responsible for transferring research to educators[4]. These brokers can be individuals (e.g., colleagues in the same school, colleagues in other schools, consultants) or organizations (e.g., professional associations, foundations). **Leveraging these naturally-occurring brokers may be critical for closing the research-practice gap in education.**

The Michigan School Programme Information (MiSPI) Project
With funding from the National Institutes for Health and the William T. Grant Foundation, the MiSPI project examined how educators in the U.S. state of Michigan access information, including research, through their social networks. We conducted in-depth qualitative interviews with 90 educators in 6 school districts across 2 Michigan counties, and with 45 brokers nationwide. We also collected survey data from a statewide random sample of 382 educational leaders, and from 394 brokers nationwide.

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[1] Dagenais et al. (2012); Farley-Ripple et al (2018).
[2] Honig & Coburn (2008); Tseng (2012); Williams & Coles (2007).
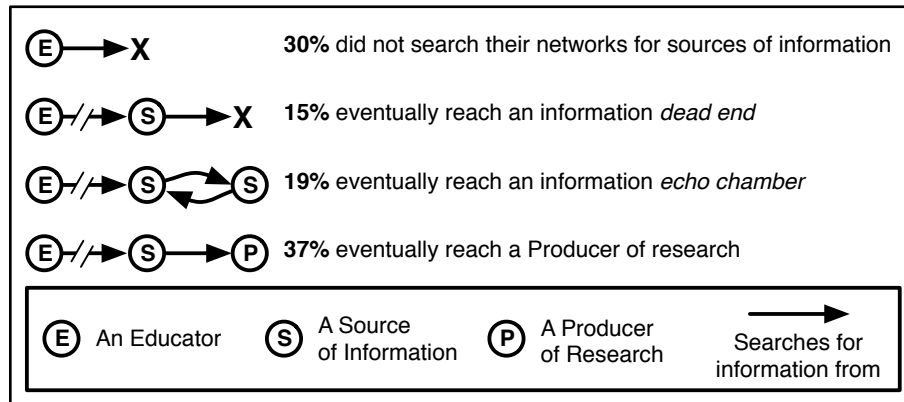[3] Finnigan et al. (2013), Neal et al. (2015a), Neal et al. (2015b)
[4] Daly & Finnigan (2012); Finnigan et al. (2013), Penuel et al. (2017)

In this study, we found that research is frequently transferred through complex network chains that involve multiple brokers such as federal and state agencies and consultants[5]. Educators regularly noted that access to research "*is really by word of mouth…knowing somebody...having a connection. So if…you don't have a connection, you don't learn about it*."

E ⟶ X	**30%** did not search their networks for sources of information
E ⫽► S ⟶ X	**15%** eventually reach an information *dead end*
E ⫽► S ⇄ S	**19%** eventually reach an information *echo chamber*
E ⫽► S ⟶ P	**37%** eventually reach a Producer of research

E An Educator	S A Source of Information	P A Producer of Research	⟶ Searches for information from

However, although educators commonly use their networks to search for research, communication often broke down. Nearly one-third of the 382 educational leaders we surveyed did not search their networks for sources of information about school programmes. Another 15% did search their network, but nonetheless encountered a *dead end* because one of their sources of information did not their search their network. We also observed *echo chambers* hamper efforts to access research for 19% of educators. These appeared not only in our network survey data, but were also described in interviews, where educators discussed talking to each other in closed loops. Ultimately, only 37% of the educators in our sample were able to access a researcher or researcher organization through their network.

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[5] Neal et al. (2015a)

The Current Study

In Spring 2018, Drs. Jennifer Watling Neal and Zachary Neal at Michigan State University partnered with Dr. Stuart Kime at Evidence-Based Education and Louise Quinn at Shotton Hall Research School to understand how heads of teaching and learning (HOTLs) in North East England use their social networks to search for research about programmes. In particular, this pilot study had three major aims:

1. To assess the feasibility of collecting network data on information chains – similar to the survey data collection used in the original MiSPI study – in England.

2. To identify key brokers in the North East that can be leveraged to improve communication about research in the region.

3. To determine similarities and differences between the United States and North East, England samples with respect to how educators use their social networks to search for research and the extent of the research-practice gap.

Methods and Data Collection

Sample
The population for this study consisted of schools in the North East. The sampling frame was constructed from the Ofsted list of "Maintained schools and academies inspections and outcomes as of 31 December 2017," which we obtained directly from Ofsted. We restricted this list to Academy, Community, Foundation, Voluntary, or Free located in the North East region (as defined by Ofsted), yielding a sampling frame of 1066 schools.

From this sampling frame, to ensure the inclusion of our partner schools and variation in terms of both Ofsted ratings and Research Schools Network (RSN) participation, we drew a stratified random sample of schools that included:

- All 9 North East Learning Trust (NELT) schools
- 20 RSN members rated "Good" or "Outstanding"
- 20 RSN members rated "Inadequate" or "Needs improvement"
- 20 RSN non-members rated "Good" or "Outstanding"
- 20 RSN non-members rated "Inadequate" or "Needs improvement"

This yielded a sample of 89 schools. Within each strata, we also randomly sampled 5 schools to be used as sample replacements in the event that any originally sampled schools opted out of the study.

Head of Teaching and Learning Survey
The head of teaching and learning (HOTL) at each sample school received an email invitation to complete a web-based survey on 16 October 2018. Non-respondents received weekly email reminders, and one phone call, until the survey ended on 7 April 2019. All participants received an Amazon.co.uk gift voucher for completing the survey. A total of 36 HOTLs (40.4%) completed the survey.

The survey began with a brief description of the study, followed by a request for consent to participant and a verification of the survey taker's identity. The HOTL was then asked whether they are "involved

in identifying, evaluating, developing, or selecting new programmes or practices" in each of the following areas: Pastoral, Literacy, and Numeracy (definitions and examples of each were provided). The remainder of the survey focused on the area selected by the HOTL. For HOTLs involved in more than one area, a focal area was selected randomly by the survey software.

Next, HOTLs were asked "**when you look for information about <pastoral/literacy/numeracy> programmes and practices, what person would you talk to?**" Respondents were invited to identify up to five information *brokers*. HOTLs then completed an adapted version of the Structured Interview for Evidence Use[6], a question ranking factors they consider when deciding to adopt a new programme or practice, and a short set of demographic question.

Information Broker Survey

Starting 5 February 2019, each of the brokers named by an HOTL received an email invitation to complete a web-based survey. This survey was much shorter. Following a request for consent to participant and a verification of the survey taker's identity, each broker was asked "when you look for information about <pastoral/literacy/numeracy> programmes and practices, what person would you talk to?" Each broker was invited to provide the name and contact information for one information broker. The survey concluded with a short set of demographic questions. All participants received an Amazon.co.uk gift voucher for completing the survey.

Non-respondents received a weekly reminder email. Additionally, any new brokers identified in the prior week's surveys were added to the sample and received an invitation to complete the survey. This snowball process of expanding the sample via broker referrals continued until the survey ended on 7 April 2019, and generated a total of 46 unique people as information brokers, of whom 18 (39.1%) completed the survey.

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[6] Palinkas et al. (2016).

Key Findings

Who participated?

Both the Heads of Teaching and Learning (HOTLs) and Information Brokers that participated were overwhelmingly female, reflecting the historically gendered nature of the education sector. Both HOTLs information brokers had worked in multiple schools, providing them with exposure to a range of education contexts. These groups were also well-educated, with the majority holding a Bachelor's or Master's degree. Among HOTLs, there was little variation in their teacher training, with two-thirds having pursued a PostGraduate Certificate in Education (PGCE).

	HOTLs	Information Brokers
Female	78%	83%
Years at current school / organization Mean (Standard Deviation)	8.5 (6.7)	7.2 (5.6)
Number of schools worked in Mean (Standard Deviation)	3.3 (1.4)	3.5 (1.8)
Highest degree		
Foundation	3%	0%
Bachelor's	52%	50%
Master's	32%	44%
Professional	13%	0%
Doctoral	0%	3%
Teacher training		
PGCE	65%	
SCITT	3%	——
Teach First	3%	
GTP	7%	
Other	23%	
School's Ofsted rating		
Good or Outstanding	64%	——
Inadequate or Needs Improvement	36%	
RSN Member school	67%	——
Published research on school programmes in the last 10 years?	——	5%
Focal programme area		
Literacy	40%	43%
Numeracy	31%	39%
Pastoral	29%	18%
Sample	N = 36	N = 18
Response rate	40.4%	39.1%
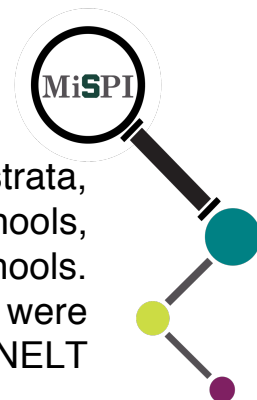
The participating HOTLs were representative of the sampling strata, including respondents from both high and low Ofsted rated schools, and both Research Network member and non-member schools. However, HOTLs from schools rated Good or Outstanding were slightly overrepresented in this sample, in part because all 9 NELT schools were included as an independent sampling strata.

The participating HOTLs were also representative of the three focal programme areas, with roughly equal proportions providing responses concerning their search for information about literacy (40%), numeracy (31%), and pastoral (29%) programmes. However, information brokers were more likely to be focused on literacy (43%) or numeracy (39%) programmes than pastoral (18%) programmes. This may reflect that the information and research available about pastoral programmes is more limited, or more difficult to locate.

What do they think about research?

The Structured Interview for Evidence Use is a scale designed to measure respondents' attitudes toward and use of research evidence in programme decision making. It was originally developed for use in social work, but was slightly adapted for use with HOTLs. The full scale and its three subscales each exhibited acceptable interitem reliability, however the three subscales were highly correlated and do not appear to measure independent dimensions in this sample. On average, HOTLs had scores only slightly above the scale midpoint, indicating that they only occasionally consult each of a variety of sources for information (input subscale), and are neutral about each of several factors they use to evaluate that information (process subscale) and make decisions about programmes (output subscale). We do not observe substantial differences between HOTLs by their school's Oftsed rating or membership in the Research School Network. In sum, we find that the SIEU provides limited information about HOTLs attitudes toward research.

In contrast, we also piloted a new ranking-based measure that asked HOTLs to rank in order of priority each of 8 possible things they might consider when deciding to adopt a new programme:

- My personal **experience**
- How much the programme or practice **costs**
- How much **time** the programme or practice takes to implement
- Published **research** evidence on the programme's or practice's effectiveness
- Whether the programme or practice is being used by **other schools**
- Whether the programme or practice has been recommended by a **Research School**
- Whether the programme or practice aligns with the **values** of parents or other stakeholders
- Compelling **anecdotes** about how the programme or practice has worked in the past

The priority rank assigned to published research (8 = highest priority, 1 = lowest priority) was highly correlated with the SIEU scale ($r = 0.5$, $p < 0.01$), and therefore may offer a rapid single-item alternative to measuring attitudes toward research. On average, HOTLs place much greater priority on published research evidence (6.25) than on recommendations from a Research School (3.64). We also observed differences in our two sampling strata. First, **HOTLs at schools with high Ofsted ratings place more priority on Research School recommendations (4.19) than those at schools with low Ofsted ratings (2.92)**. Second, **HOTLs at schools in the RSN place more priority on published research evidence (6.56) than those at schools outside the RSN (5.70)**.

	All HOTLs	Ofsted Rating		Research School Network	
		High	Low	Member	Non-Member
SIEU (1-5 Likert; $\alpha = 0.826$)	3.43	3.46	3.38	3.38	3.52
	(0.34)	(0.35)	(0.32)	(0.33)	(0.34)
Input subscale ($\alpha = 0.726$)	2.90	2.94	2.85	2.83	3.04
	(0.42)	(0.41)	(0.44)	(0.40)	(0.42)
Process subscale ($\alpha = 0.723$)	4.04	4.08	3.98	4.04	4.05
	(0.32)	(0.32)	(0.33)	(0.30)	(0.38)
Output subscale ($\alpha = 0.768$)	3.58	3.64	3.48	3.58	3.57
	(0.46)	(0.43)	(0.51)	(0.44)	(0.53)
Priority (8 = highest, 1 = lowest)					
Published evidence	**6.25**	6.50	5.92	**6.56**	**5.70**
	(1.94)	(1.75)	(2.19)	**(1.65)**	**(2.36)**
Recommended by a Research School	**3.64**	**4.19**	**2.92**	3.50	3.90
	(2.42)	**(2.48)**	**(2.23)**	(2.46)	(2.47)

Mean (Standard Deviation)

Where do they look for research?

On average, HOTLs named only one or two brokers (1.18), but they came from a variety of settings including their own school (44%), other schools (11%), trusts such as the North East Learning Trust or hubs such as a Maths Hub (19%), and other settings including public charities and universities (25%). Concerningly, **19% of HOTLs reported having no one from whom they would seek information about school programmes**.

	All HOTLs	Ofsted Rating		Research School Network	
		High	Low	Member	Non-Member
Number of brokers	1.18	**1.43**	**0.78**	1.22	1.09
Mean (Standard Deviation)	(0.76)	**(0.75)**	**(0.60)**	(0.85)	(0.54)
Percent seeking information:					
From no one	19%	**13%**	**30%**	25%	8%
From the same school	44%	**39%**	**54%**	46%	42%
From another school	11%	**17%**	**0%**	13%	8%
From a school trust/hub	19%	**26%**	**8%**	21%	17%
From elsewhere	25%	**30%**	**15%**	21%	33%

There was little difference in the number or location of brokers between HOTLs at schools that are and are not members of the RSN. However, there were notable differences between HOTLs at schools with high and low Ofsted ratings. Specifically, **HOTLs at schools with high Ofsted ratings tended to seek information from one or more brokers (1.43), while those at schools with low Ofsted ratings from either no one (30%) or only one broker (0.78)**. Additionally, HOTLs at lower-rated schools tended to rely on information from brokers at their own school (54%), while those at high-rated schools tended to also seek information from beyond their own school, from brokers in other schools (17%), in trusts or hubs (26%), or outside schools entirely (30%). These large differences by Ofsted rating are consistent with recent arguments for retaining Ofsted's current four-point grading system[7], suggesting that they also capture differences in educators' capacity to access information that can inform programming decisions.
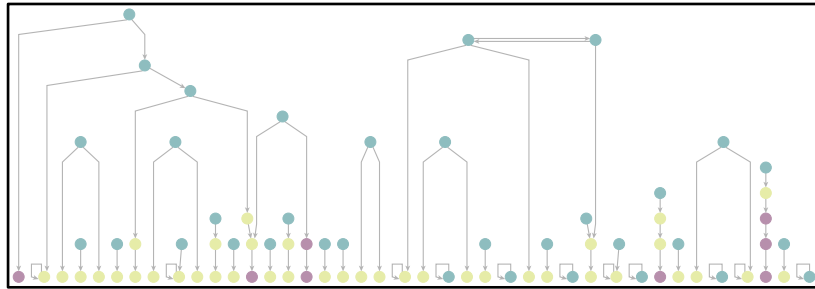
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[7] Ofsted (2019)

What do their networks look like?

In this figure, the BLUE dots represent HOTLs, the GREEN dots represent the information brokers from whom they get information, and the PURPLE dots represent information brokers that are

researchers or research organizations.

The arrows show how people look for information about school

programmes by talking to others. For example, ● → ● → ● represents a HOTL who sought information from a non-research broker, who sought information from a researcher. This figure shows all the study participants' networks, but the more detailed examples below show how the process works.
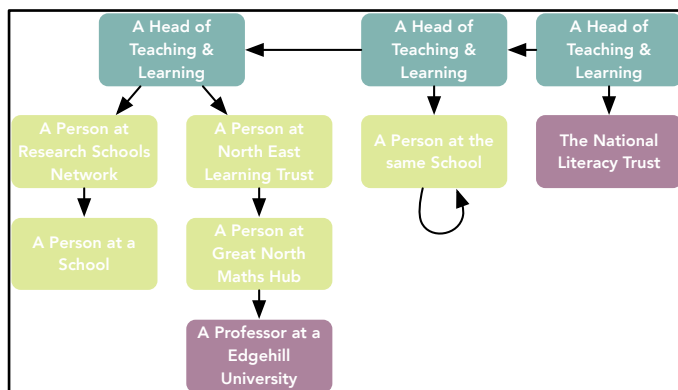
In this example, three different HOTLs were all part of the same information searching network that eventually linked them all to two different research sources: the National Literacy Trust, and a researcher at Edgehill University. In this case, **the information searching process was *successful* in closing the research-practice gap because the network linked HOTLs to sources of research**. It was also *efficient* because each HOTL was only a few "degrees of separation" away from the research. These HOTLs were all located at North East Learning Trust (NELT) schools, which are all members of the Research School Network (RSN). As a result, they were already part of a research-oriented network of educators, who served as helpful brokers that facilitated this successful and efficient process.
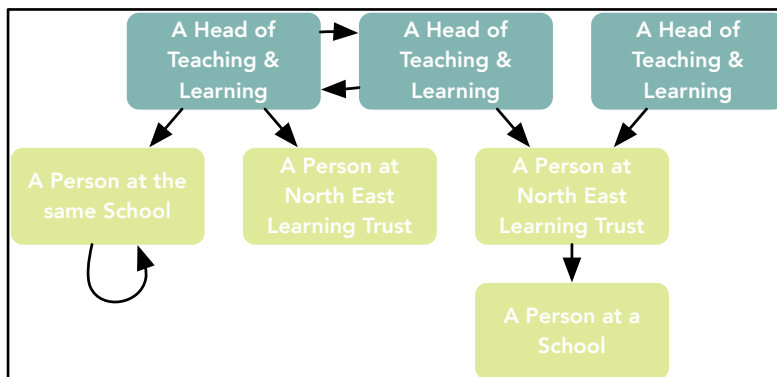
Groups like the Research School Network can be helpful, but all educators have the potential to close the research-practice gap using their existing networks. This HOTL was located at a school that is not part of the Research School Network. However, they **relied on a series of helpful brokers from multiple public charities – the Fischer Family Trust and the Education Endowment Foundation** – to reach a researcher at the University of Sussex with expertise in reading comprehension.

However, networks are not always successful at closing the research-practice gap, and participation in a group like the Research School Network is no guarantee. These three HOTLs were all located at NELT/RSN schools, but their process of searching for information using their network did not link them to a researcher or research organization. A few features of this network help explain why. First, two of these HOTLs seek information about school programmes from each other. This creates an information *echo chamber* that reinforces existing ideas but does not provide access to new ones. Second, one of the brokers reported being "the end of the line" and relying solely on their own judgement about school programmes (indicated by the looping arrow). This creates an information *dead end* because it does not lead the HOTL to further potential sources of information or research. Finally, unlike the other examples above where brokers from diverse settings, the individuals in this network rely only on brokers from their own or other schools.
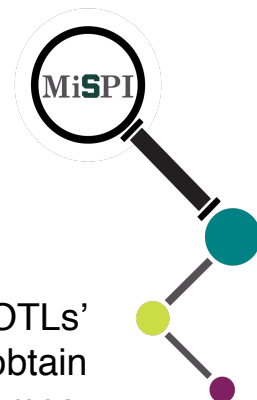
Conclusions and Recommendations

Feasibility of MiSPI data collection in England

We found that it is feasible to collect data in England on HOTLs' perceptions of research and the network chains they use to obtain information about literacy, numeracy, and pastoral programmes. Specifically, with incentives, weekly email reminders, and one phone reminder, we were able to obtain a 40.4% response rate for our initial survey of HOTLs, and a 39.1% response rate for our survey of information brokers. Although these response rates are promising, they are lower than those obtained in our initial study in the United States, where we received a 59.2% response rate for our educator survey and an 88.1% response rate for our broker survey. Two factors might account for these differences. First, in contrast to our study in the United States where contact emails for educators were publicly available in an existing government maintained dataset, it was often difficult to locate correct email addresses for HOTLs in the North East. Second, in contrast to our study in the United States where we had the resources to make multiple phone reminders to both educators and brokers, we were only able to conduct one phone reminder to HOTLs in the North East.

Recommendation. Collecting data in England on HOTLs' perceptions of research and network information chains is feasible, but would be improved by dedicated local support to make multiple phone reminders and by a more robust set of contact emails. Given the feasibility of collecting these types of data in England, it would be useful to undertake a nationwide survey to fully understand how HOTLs networks do (or can) help close the research-practice gap in education.

Key information brokers in the North East

Results from this study suggest that HOTLs typically turn to a small set of 1-2 information brokers when they seek information about school programmes. While these information brokers are often colleagues in their own school, they can also include trusts and public

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charities. Public charities like the Educational Endowment Foundation and the Fischer Family Trust may be particularly helpful for linking HOTLs with researchers. Groups like the Research Schools Network and trusts like the North East Learning Trust (NELT) can also be helpful, but their effectiveness in linking HOTLs with researchers was less consistent.

Recommendation. Ensuring that both HOTLs and education researchers can link to key brokers like the Educational Endowment Foundation and the Fischer Family Trust may be helpful for improving the research-practice gap in education in the North East. A more detailed examination of the strategies that the Research Schools Network and trusts like the North East Learning Trust (NELT) use to connect HOTLs to research could help uncover what is and is not effective for closing the research-practice gap.

Similarities and differences with the United States
There were several similarities between the United States and North East England samples with respect to how educators use their social networks to search for research and the extent of the research-practice gap. First, many educators in the United States (30%) and HOTLs in the North East (19%) reported having no one from whom they would seek information about school programmes. This is troubling as it suggests that many educators in the United States and England have no one to turn to when searching for information about programmes and practices to adopt in their schools. Second, in both the United States and England, educators and HOTLs who did search their networks for information varied in their effectiveness of reaching sources of research. In both studies, communication commonly broke down, leading to *information dead-ends* (i.e., cases where a broker has no information source) or *echo chambers* (i.e., cases where individuals simply seek information from each other in a closed loop). Third, in both studies, we found that educators and HOTLs who sought information about school programmes from colleagues in their own school were ultimately less likely to reach a

source of research. Instead, reliance on key brokers outside one's own school is critical for bridging the research-practice gap.[8]

A key difference between the studies in the United States and England is reflected in participant response rates. Educators and brokers in the United States were far more likely to participate in study surveys than those in England. As noted earlier, this may be due to increased resources for phone reminders and other recruitment strategies in the United States study. However, reluctance to participate in the surveys in England could also be due to the implementation of the European Union's General Data Protection Regulation (GDPR), which occurred immediately prior to the start of data collection.

Recommendation. Given the similarities in findings between samples in United States and England, there is a need for more communication and collaboration between these countries on issues and initiatives related to the research-practice gap in education. For example, in the United States, those interested in narrowing the research-practice gap should look to initiatives from the Educational Endowment Foundation like the Research Schools Network as models to supplement existing efforts to bridge the research-practice gap like research-practice partnerships and the What Works Clearinghouse.

What should Heads of Teaching and Learning do now?
This was a small-scale pilot study, so we are unable to make firm recommendations about specific actions that HOTLs should take. However, our findings from this study are consistent with those from earlier studies in the United States, so we believe recommendations developed there may also be worth considering in the North East.

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[8] Neal et al. (2015a)

When HOTLs are seeking information about new school programmes or practices they may consider adopting in their own school, it may be helpful to:

- **Use your social network** – Talking to people you already know and trust can be an excellent way to learn about promising school programmes or practices, and often is more helpful than reading research publications or browsing websites.

- **Talk to others outside your own school** – Colleagues at your school know a lot about the local context, but may not be the best way to learn about new programmes being developed or already in use elsewhere.

- **Contact a broker organization** – Organizations like the Education Endowment Foundation and the Research Schools Network can be helpful in quickly linking HOTLs to the information they need.

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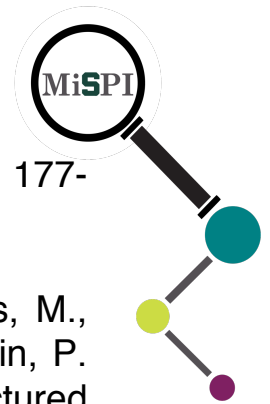
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