The link between teacher buy-in and commitment to their school.

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Abstract

Previous research has found school working conditions – particularly the quality of school leadership – to be linked to teacher retention. At the same time, evidence from the management literature has suggested that obtaining "buy-in" from staff is critical to employee performance and instigating change. This paper brings these two literatures together, being the first study to explore the relationship between buy-in and teachers' plans to continue working at their current school. The analysis illustrates how teachers who buy into the leadership team's strategy are much more committed to the school, over and above their views on workload, pay and the quality of their relationships with their colleagues. We conclude by considering what school leaders might do to improve buy-in amongst their staff, while also highlighting areas where future research is needed.

Key Words: buy-in, teacher retention, TEP, teacher engagement.

1. Introduction

Teachers are the most important resource available to schools, playing a key role in children's academic, social and emotional development. Previous research has shown how being taught by a good rather than an average teacher can lead to an improvement in children's standardised test scores by around 0.2 standard deviations per year (Hanushek, 2011). Economists have illustrated the long-term productivity boost that this can then bring to the economy (Hanushek, 2011). It is therefore vital that schools can recruit and retain the best people. Unfortunately, many schools globally are failing to do so (Williams et al., 2022). Not only do leaders face competition from other schools for their top talent, but many teachers leave the profession early to pursue other careers. Indeed, in England, around one-in-three newly trained teachers are not working in the state school sector five years after competing their training (House of Commons, 2022). This has led to great interest across the education community about what schools can do to retain their best staff.

A plethora of academic studies – both within England and internationally – have consequently studied the correlates of teacher attrition and retention (see Education Endowment Foundation, 2023, for a rapid evidence assessment on this issue). Although this body of work has identified several important factors – including pay, workload and behaviour – school leadership has been found to be key. Indeed, as Sims & Jerrim (2020) illustrate, leadership is more strongly associated with teacher retention than other aspects of teacher's working conditions, including school discipline and teacher workload. Yet, despite this evidence, there have been relatively few quantitative studies attempting to link key concepts from the management literature on effective leadership to the retention of staff within education settings. This hence represents an area in need of future research.

In this paper we consider the evidence with respect to one potentially important aspect of school leadership: the extent that teachers "buy-in" to the strategic vision of the school. Specifically, we investigate whether teachers who have greater belief in their school's strategy demonstrate higher levels of organisational commitment – i.e. would choose to continue to work at the school if they were to receive an outside offer of employment – over and above their views on other aspects of their working conditions, such as pay, workload, relationship with colleagues and general attitudes towards their job. By including school fixed effects in our models, we highlight the importance of buy-in amongst teachers working in the same school, over and above the actual strategy that their leadership team are pursuing.

The concept of buy-in

Merriam-Webster defines buy-in as the "*acceptance of and willingness to actively support and participate in something*" (Merriam-Webster, 2023). Within business settings, this concept has been developed by researchers specialising in the field of "internal marketing" – the promotion of an organisation and its plans to its own employees. In a landmark study, Thomson et al. (1999) conceptualised staff within a firm as "internal customers" who have "*buying decisions to make*" (p 824). This includes "*whether to buy-in to a business objective or initiative, whether to take ownership of a company vision, whether to aspire to achieve organisational goals*". Or, as put by Hsia (2017), "*an employee that has strong organizational buy-in believes in the potential success of the organization's strategy*".

A particular feature of the pioneering work of Thomson et al. (1999) was the division of buy-in into two distinct components: intellectual buy-in (staff understanding the organisation's strategy and how they can help achieve it) and emotional buy-in (staff commitment to achieving the organisation's strategic goals). Employees must thus both (a) understand what their organisation's strategy is and (b) believe in its likely efficacy, for them to be truly bought in. Thomson et al. (1999) then proceed to develop a "buy-in matrix", distinguishing four groups of employees:

- Champions. Employees who know what they need to do (i.e. understand the organisation's strategy) and are committed to delivering it.
- Loose cannons. Individuals who are "*highly motivated to support business goals but do not understand what they are or how to achieve them*". (Thomson et al, 1999, p.829).
- Bystanders. Staff who understand the organisational strategy but lack commitment to it.
- Weak links. Those who neither properly understand or are really committed to the organisation's strategy and goals.

Within their empirical analysis, Thomson et al. (1999, p.83) go on to show that "*greater levels of buy-in [is] associated with better business performance*".

Since the work of Thomson et al. (1999), the concept of buy-in has been studied in several workplace settings. For instance, Altaf et al. (2022) investigated buy-in within financial organisations, finding support for the notion that both intellectual and emotional buy-in amongst staff is needed to make them organisational "champions". Focusing on buy-in within

healthcare settings, French-Bravo & Crow (2015) argue that "*without buy-in, employees are more likely* to *go through the motions and not commit to a level of change which results in active engagement*". They note how gaining buy-in from staff within hospitals is critical for the implementation of a new initiative to be a success, stating how true buy-in does not occur until the goals and core beliefs of an individual align with those of the organisation. Hubbart (2023, p5) describes buy-in as "*a commitment from organization members to support the vision of leadership*", going on to describe how *"truth and buy-in are critical and unavoidable steps in the organizational change process"* (Hubbart, 2023, p4). Zeiss & Chapman (2022) investigate buy-in amongst sales staff into (a) the product they are selling and (b) the marketing strategy underpinning their efforts. They describe buy-in as capturing "*the manner in which a salesperson gets behind the product or product strategy*" (Zeiss & Chapman, 2022, p.978) arguing that higher levels of buy-in will lead to staff striving to achieve long-term customer satisfaction with their firm. The only study we are aware of to examine the relationship between employee buy-in and their intentions to continue working for their firm is Hsia (2017). They find that "*intent to stay is higher in employees with higher organizational buy-in*" and that "*building buy-in throughout the organization can have a positive effect on retention, reducing the costs related to replacing employees, and reducing the inefficiencies in operations due to employee withdrawal*" (Hsia, 2017, p.34) Together, the above demonstrates how the concept of buy-in has been linked to employee performance and organisational change across a range of workplace settings. There is also some limited evidence that buy-in may be related to the retention intentions of employees.

Teacher retention

Our theoretical approach to teacher retention is based upon the conceptual model presented by Guarino et al. (2006), building upon the work of Haggstrom et al. (1988) and Boardman et al. (1982). This is derived from a standard economic model of how labour markets function, applied here to a school setting. As Guarino et al. (2006) explains, teachers will be more likely to remain in the profession – and continue to work in the same school – if this "*remains the most attractive activity to pursue among all activities available to them*" (Guarino et al., 2006, p. 175). They then proceed to define the "attractiveness" of employment in terms of four broad factors: pay, benefits, working conditions and personal satisfaction. Teachers will then seek another job – whether this is in another school or outside of teaching altogether – when they believe there is a more attractive alternative available.

Each of these four broad factors are comprised of sub-components. Our particular interest is in the working conditions that teachers face. Following Sims & Jerrim (2020), we divide working conditions into the following five dimensions: leadership/management, workload, collaboration, preparation, and discipline. We conceptualise school strategy – and the extent to which leaders can get staff to understand and buy into said strategy – as a key aspect of the leadership and management component. A simplified depiction of this broad model of teacher retention can be found in Figure 1.

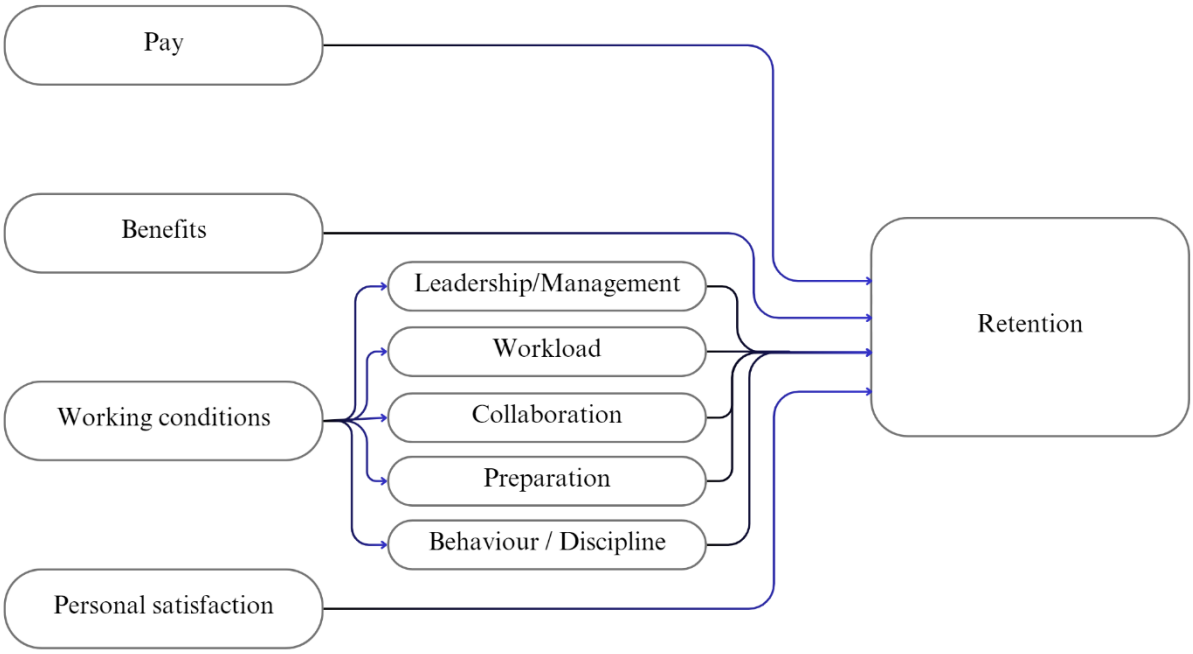


Figure 1 – A conceptual model of trach retention

Previous research has found school leadership to be amongst the most important aspects of the working environment for the retention of teachers. For instance, using data from the TALIS 2018 study from England linked to administrative records, Sims & Jerrim (2020) found a one standard deviation increase in an early-career teacher's perception of leadership quality lowered the probability of them leaving the school the following academic year by 4.5 percentage points (from 12.5% to 8%). This built upon earlier work by Sims (2020), who drew upon TALIS 2013 data to investigate how a series of working conditions were linked to teacher retention. He found that "*leadership and management shows the strongest association with desire to move school*". Outside of England, Kraft et al. (2016) explored teacher retention in a sample of New York middle schools. They concluded that headteachers' leadership skills are "*particularly salient for whether teachers decide to remain in their schools*" (Kraft et al., 2016,

p. 1,439). In North Carolina, Ladd (2011) finds that working conditions are strongly related to teachers' intentions to leave their current school, with school leadership identified as the most salient factor. Studying teachers in Massachusetts, Johnson et al. (2012) report that "social work conditions" – including school leadership – are key factors in predicting teacher's job satisfaction and their future career plans. Together, this demonstrates how understanding school leadership is vital to gaining further insight into the mechanisms that underpin teacher retention.

The present study

While previous research into the link between school leadership and teacher retention have proved insightful, studies investigating the role of teacher buy-in have been somewhat more limited. However, those that do exist suggest that having high-levels of teacher buy-in is important. For instance, in the United States, Yoon et al. (2016, p. 517) found that "*students attending schools with high teacher buy-in are more likely to have a higher reading achievement*" and that teachers tend to have higher levels of buy-in when headteachers use data to support their decisions. Feuerborn & Chinn (2012) discuss how gaining buy-in from teachers is vital to implementing school-wide changes in how behaviour is managed within schools. This sentiment is supported by Silin & Schwartz (2003), who note how curriculum reform is unlikely to be successful unless there is substantial buy-in from teachers. They go on to suggest that buy-in to a particular programme or intervention is best achieved when it is adapted to the local problems and needs of teachers in their classrooms. When attempting to introduce a reform programme, Turnbull (2002) suggests that teachers are more bought in when they have had adequate training and resources, when there is significant school-wide support for the change, and when they have control over how it is implemented within their own classrooms. Hubner et al. (2021) also note how teacher buy-in is important when schools are making reforms, but there are few previous quantitative investigations into this issue.

In this paper, we follow the management literature into buy-in, and conceptualise teachers as internal customers within their schools. They thus have a "buying decision" to make – whether to sign-up to the school strategy or not. If they fail to do so, then this is likely to mean they do not believe that the performance of the school – and/or their working conditions – are likely to improve. This is likely to mean that, ceteris paribus, teachers will start to evaluate outside employment offers more favourably, and thus start seeking work elsewhere.

The main contribution of this paper is to provide the first large-scale quantitative investigation into this relationship between buy-in and teacher retention intentions. In doing so, we apply the concept of buy-in from the management literature to a workplace setting where it has received limited attention before. Outside of Hsia (2017), it is also one of the first studies in any industry to explore the association between staff buy-in and their future employment plans. Our first research question is hence:

- Research question 1: How much more likely are teachers to intend to stay working in a school when they buy into the school strategy?

Previous research into buy-in has highlighted the key role of communication between employees and senior leaders (French-Bravo & Crow, 2015). When staff do not buy into their organisation's strategic vision, leaders should encourage an open dialogue to try and bring these employees onside (Thomson & Hecker, 2000). It may hence be a particular concern if staff with low levels of buy-in feel unable to voice their concerns; that they cannot voice a contrary opinion without worrying that negative repercussions may emerge. Of course, some groups may be more willing to speak out when they don't buy into their leader's strategy than others (e.g. more senior or experienced teachers), though this may then lead to concerns that the views of some groups are particularly unlikely to be heard. Our second research question hence explores the interplay between these issues, and in particular the extent that those teachers who do not buy into the school strategy feel more or less able to voice a contrary view.

- Research question 2: To what extent do teachers who don't buy into the school strategy feel they are able to voice contrary views?

We then consider how these two factors – teacher's buy-in to the school strategy and whether they feel able to voice contrary views – are jointly related to their future employment plans. In particular, it is one thing for a teacher to not fully believe in the strategic direction leaders are taking, it is another for them to feel unable to have open and frank discussions about such matters. Thus, the ***combination*** of low buy-in and feeling unable to freely state one's views may be particularly damaging for the prospects of keeping a teacher working at a school. The final research question thus explores whether these two factors have an additive or multiplicative relationship with future employment plans.

- Research question 3: Are teachers more likely to want to leave the school when they don't buy into the school strategy AND feel unable to voice contrary views?

2. Data

The data we use are drawn from the Teacher Engagement Platform (TEP); a school staff survey conducted in a selection of England's schools. We use information gathered during the June 2023 wave, when a total of 2,852 teachers from within 82 schools took part. Although the sample of participating schools is not random, the response rate of teachers within schools is relatively high, standing at around 81%. Table 1 provides some descriptive information illustrating the characteristics of teachers and schools that participated in the survey. This demonstrates how the sample comprises a variety of school types with different pupil demographic characteristics. Likewise, the responding teachers were from a variety of different demographic backgrounds and were of various levels of seniority.

Table 1. The background characteristics of the TEP sample (June 2023).

Variable	Group	%	Average buy-in score
Job role	Class Teacher	61%	6.5
	Middle Leader	25%	6.7
	Senior Leader	14%	8.5
Contract	Full time	85%	6.9
	Part time	15%	6.7
	Other	5%	7.5
Phase / subject	Primary - Foundation or Key Stage One	7%	8.1
	Primary - Key Stage Two	10%	8.3
	Secondary - Arts, Music, Physical Education	15%	6.6
	Secondary - English, Humanities, Languages	31%	6.6
	Secondary - Maths, Science, Technology, Computing	31%	6.2
Gender	Female	66%	6.9
	Male	31%	6.8
	Prefer not to say	3%	5.2
Age	20-29	24%	6.6
	30-39	30%	6.9
	40-49	27%	7.2
	50+	15%	7.0
	Missing age	4%	5.3
Most recent Ofsted rating	1.Outstanding	31%	6.9
	2.Good	61%	6.9
	3.Requires improvement	5%	5.6
	4.Inadequate	2%	5.6
School-level demographics	% of EAL pupils	14%	-
	% pupils Ever FSM eligible	31%	-
	% pupils persistently absent	31%	-

Table 1 Notes: School level information reported where available. Average buy-in score refers to the average response of teachers to the question *"We have a strategy that is taking this school in the right direction"* along the 0-10 scale.

As part of TEP, teachers respond to over 40 questions asking about different aspects of their job and working environment. These questions were answered using an 11-point (0-10) scale, where 0 indicates strong disagreement and 10 strong agreement. The question of interest in this paper is:

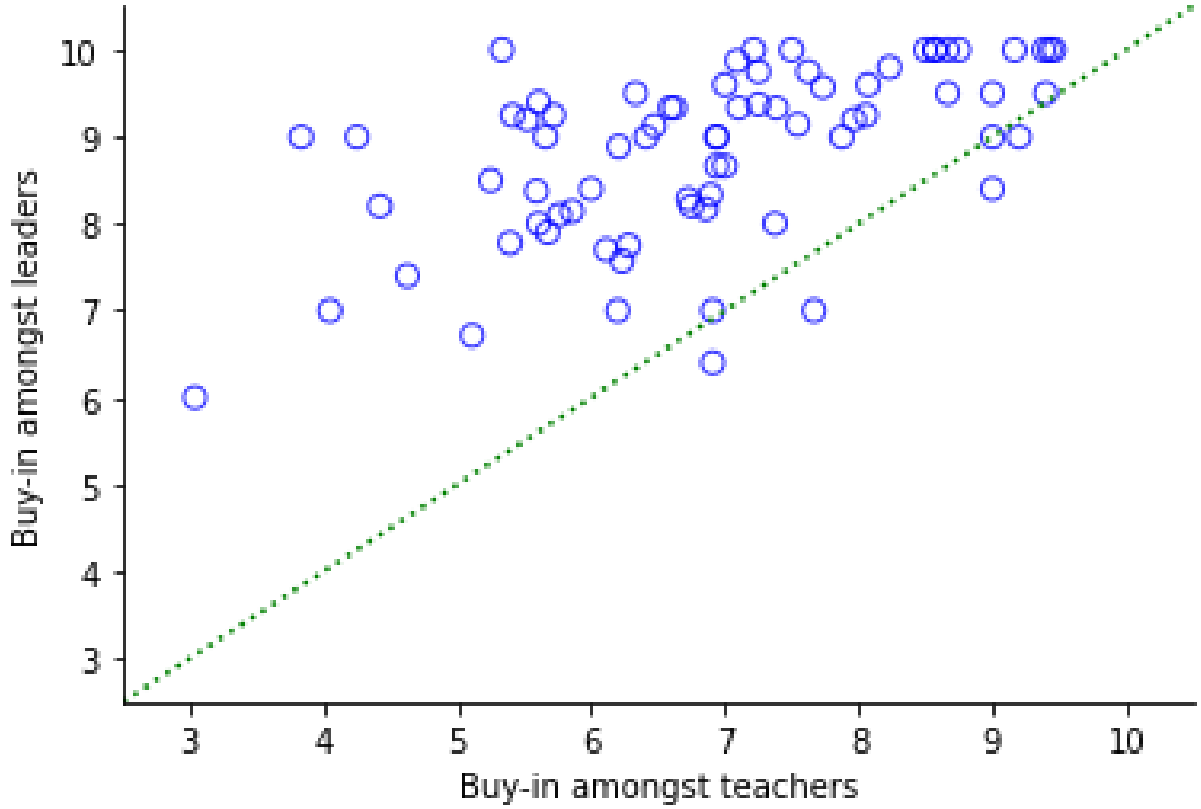
"We have a strategy that is taking this school in the right direction".

We interpret this question as the degree to which a teacher is currently bought into the school strategy. Indeed, the question closely follows Hubbart's (2003) description of buy-in as "*a commitment from organization members to support the vision of leadership"* and the notion put forward by Hsia (2017) that "*an employee that has strong organizational buy-in believes in the potential success of the organization's strategy"*. The question does not, however, capture differences between intellectual and emotional buy-in as defined by Thomson et al. (1999). In other words, when staff disagree with this statement, we are unable to distinguish whether this is due to them not understanding the strategy of the school (a lack of intellectual buy-in), whether they do not believe the strategy is the right one to pursue (a lack of emotional buy-in) or some combination of the two.

The distribution of responses across the 0-10 scale can be found in Appendix A. This illustrates how responses have a clear negative skew; while around half of staff respond with a score of 8,9 or 10, around a quarter reported a score of 5 or lower. The mean score reported across all participating teachers was 6.8, with a median of 7. Table 1 provides some descriptive information illustrating how average responses to this question varied across schools and teachers with different background characteristics. Primary school teachers buy into their school's strategy more than secondary teachers, with older and more senior staff more bought-in that junior staff. There are also clear differences according to the school's most recent inspection rating. Interestingly, the proportion of the variation in responses that occurs *within* schools (77%) is greater than the variation that occurs *between* schools (23%). This illustrates how there are substantial differences in how bought-in teachers are to the strategy amongst colleagues working in the same school. Finally, as Figure 2 illustrates, senior leaders tend to

provide more positive responses (on average) than their staff. In other words, it is not uncommon for senior members of staff to be much more bought-in to the school strategy than their more junior colleagues.

Figure 2. Views of school strategy across participating schools. Differences between school leaders and teaching staff.



Notes: Each point in the plot represents one school. Figures along the horizontal axis captures the average response of class teachers in the school to the question "*we have a strategy that is taking this school in the right direction*" along the 0-10 response scale. Analogous figures for senior leaders are reported along the vertical axis. Dashed 45-degree line is where responses are, on average, the same from teachers and school leaders. The correlation in responses is 0.56.

To address our second and third research questions, we make use of a further question asked as part of TEP. This captured the extent to which teachers felt able to put forward their point of view:

- *"I can voice a contrary opinion at this school without fear of negative consequences"*.

Teachers were again asked to respond to this question using the same 0-10 scale.

We also draw upon several other questions asked as part of TEP within our analysis. For instance, teachers were asked for their views about various other working conditions within their school. This includes:

- Seven questions about their relationships with their colleagues (e.g. "*I value the relationships I have with colleagues in this school*"). These are combined into a single scale via confirmatory factor analysis (Cronbach alpha = 0.91).
- Three questions about teachers' views on their workload (e.g. "*I feel happy about my work-life balance*"). These are combined into a single scale via confirmatory factor analysis (Cronbach alpha = 0.92).
- Five questions capturing teachers' self-efficacy (e.g. "*I can teach effectively in this school*"). These are combined into a single scale via confirmatory factor analysis (Cronbach alpha = 0.84).
- Six questions capturing teachers' general attitude towards teaching (e.g. "*I am excited about teaching*"). These are combined into a single scale via confirmatory factor analysis (Cronbach alpha = 0.87).
- A single question asking teachers about their view of their pay ("*I believe my total compensation (e.g. including both pay and other benefits) is fair, relative to similar roles at other schools*").
- A single question capturing the quality of the relationship that the teacher has with their manager ("*I feel my manager cares about me as a person*").

These scales are used as covariates within a selection of our statistical models.

Our primary outcome is how teachers responded to the question "*if you were offered the same job at another school, how likely is it that you would stay at this school?*", reported using the same 0-10 scale. This is a measure of a teacher's commitment to their current school, and whether they would like to change employer if they had chance. It is thus a measure of future employment ***intentions*** – i.e. what teacher's say they would do – rather than capturing their actual decisions/actions. Responses to such questions about future employment intentions are a frequently used outcome measure in the teacher retention literature (e.g. Ladd 2011; Van den Borre et al., 2021) though, we note, are an imperfect proxy of actual future behaviour. Nevertheless, in Appendix B we illustrate the robustness of our findings to an alternative measure (teachers' responses to the question "*I see myself still working at this school in two years' time*").

Throughout our analysis, we report results based upon continuous measures in standardised form (i.e. so that their mean is zero and standard deviation is one). Estimates can hence be interpreted in terms of effect sizes.

3. Methodology

Research question 1

To address research question 1, we estimate a series of OLS regression models of the form:

$$R_{jk} = \alpha + \beta.S_{jk} + \emptyset.D_{jk} + \delta.TSE_{jk} + \tau.At_{jk} + \theta.Rel_{jk} + \varphi.P_{jk} + \pi.W_{jk} + u_k + \varepsilon_j \quad (1)$$

Where:

R_{jk}= A continuous measure of whether the teacher intends to continue working in the school.

S_{jk} = A continuous measure of whether the teacher buys into the school strategy.

D_{jk} = A vector of teacher demographic characteristics, including age, gender, subject and job role.

TSE_{jk} = A continuous scale capturing teachers' self-efficacy.

At_{jk} = A continuous scale capturing teachers' general attitudes towards teaching.

Rel_{jk} = A measure of teachers' relationship with their colleagues.

P_{jk} = Teachers' views on their pay.

W_{jk} = Teachers' views on their workload.

u_k = A school-level fixed effect.

ε_j = Random error term. Standard errors have been clustered at the school level.

j = Teacher j.

k = School k.

Standard errors are clustered at the school level to allow for teachers (j) to be nested within schools (k). The parameter of interest from this model is β. This captures the strength of the association between how bought-in teachers are to the school strategy (S_{jk}) and whether they

would choose to stay working at the school if they were offered the same job elsewhere (R_{jk}). To facilitate interpretation of results, our covariates and outcome of interest have been standardised to mean zero and standard deviation one. Estimates can hence be interpreted as the standard deviation change in whether the teacher would choose to continue working at the school for each standard deviation increase in how bought-in they are to the school strategy.

Five specifications of this model are estimated. In the baseline specification (M0), only our scale of interest (the extent each teacher buys into the school strategy, S_{jk}) is included in the model. Teacher background characteristics (D_{jk}) and school fixed effects are added in model M1, thus illustrating the extent to which such factors confound our baseline results. Note that by controlling for school fixed effects, we effectively account for all between-school variation in this relationship, including differences in actual strategy. This in turn means that the β parameters will capture the association between teachers' retention expectations and their *views* on school strategy, net of any *actual* differences in the direction that leaders are taking the school.

The attitudes of teachers towards teaching and their view of their pay are then added to model in specification M2. This includes responses to questions such as "*I pay a lot of attention to how I teach*" and "*I find teaching a reward in itself*" which are thought unlikely to themselves be strongly influenced by how much teachers buy into their school's strategy. They may, however, help control for the potential confounding influence of teachers' general enthusiasm for their job or aspects of their survey response style (e.g. individual differences in the tendency to generally use higher or lower parts of the response scale). Similarly, specification M3 further adds to the model measures of teacher self-efficacy and the quality of their relationship they have with their colleagues. The latter, in particular, is likely to be related to whether teachers intend to continue working in their current school. Finally, model M4 also adds a control for teachers' perceptions of their workload. Although we recognise the potential endogeneity of this variable – e.g. teachers' view of their workload will to some extent be driven by whether they buy into the school strategy – our interest is in whether buy-in continues to be associated with teachers' commitment to their school even after this factor has been controlled.

Research question 2

We begin by presenting a cross-tabulation between whether teachers buy into their school's strategy and whether they feel able to voice contrary opinions to their leadership team. Having

first restricted the sample to those teachers with low levels of buy-in (scores between 0 and 5), we then estimate the following regression model to explore whether teachers with certain characteristics feel more able to express their views:

$$C_{jk} = \alpha + \beta.S_{jk} + \emptyset.D_{jk} + \varepsilon_j \qquad (2a)$$

Where:

C_{jk} = Teachers' responses to the question regarding whether they believe they can voice contrary opinions.

Our focus from this model is the relationship between teachers' background characteristics (e.g. gender, age, job role) and whether they feel able to raise contrary views (amongst those staff who do not buy into the school's strategy).

We then extend this model to also include teachers' views of working conditions and various aspects of their job:

$$C_{jk} = \alpha + \beta.S_{jk} + \emptyset.D_{jk} + \delta.TSE_{jk} + \tau.At_{jk} + \theta.Rel_{jk} + \varphi.P_{jk} + \pi.W_{jk} + \varepsilon_j \qquad (2b)$$

With all variables defined as under equations (1) and (2a) above. Our interest is now in the δ, τ, θ , φ and π parameters. For instance, amongst teachers who do not buy into the school strategy, do they feel more able to voice such contrary views when they have a better relationship with their colleagues (θ)?

Research question 3

Returning to the model presented in equation (1), we estimate the following additional specification:

$$R_{jk} = \alpha + \beta.S_{jk} + \vartheta.Voice_{jk} + \delta.Interaction_{jk} + \emptyset.D_{jk} + \varepsilon_j \qquad (3)$$

Where:

$Voice_{jk}$ = Teachers' responses to the question asking about whether they feel able to voice contrary views.

With all other variables as outlined above.

Several specifications of this model are estimated. First, we re-estimate the bivariate relationship between teacher buy-in (S_{jk}) and teachers' retention intentions (R_{jk}). The scale capturing whether teachers feel able to voice contrary views ($Voice_{jk}$) is then added to the model. This is to initially establish whether these two covariates have an additive association with teachers' plans to continue working at the school. We then test for an interaction between buy-in (S_{jk}) and teachers' feelings of whether they can voice their concerns ($Voice_{jk}$) in the third specification, to investigate whether these variables have a multiplicative effect. In other words, is the relationship between buy-in and teachers' commitment to their current school stronger when they feel unable to voice a contrary view? Finally, a further set of controls are added to the model (school fixed effects and teachers' views on other aspects of their working conditions) to investigate the robustness of the results.

4. Results

Research question 1

Estimates from the model outlined in equation (1) are presented in Table 2. Model M0 begins by presenting the bivariate relationship between teacher buy-in and their intention to keep working at the school. There is a clear, strong relationship; each standard deviation increase in teacher buy-in is associated with a 0.50 standard deviation increase in the likelihood they would reject the offer of the same job with a different employer.

Table 2. The association between a teacher buying into the school leadership's strategy and their commitment to the school.

(a) Models M0 – M2.

	M0		**M1**		**M2**	
	Effect size	**SE**	**Effect size**	**SE**	**Effect size**	**SE**
Believes in strategy (one SD increase)	0.50*	0.02	0.50*	0.02	0.42*	0.02
N	**2,852**		**2,852**		**2,852**	
Controls						
Demographics	-		Y		Y	
Attitudes towards teaching	-		-		Y	
Views on pay	-		-		Y	
School fixed effects	-		Y		Y	

(b) Models M3 – M4.

	M3		M4	
	Effect size	**SE**	**Effect size**	**SE**
Believes in strategy (one SD increase)	0.27*	0.02	0.26*	0.02
N	**2,852**		**2,852**	
Controls				
Demographics	Y		Y	
Attitudes towards teaching	Y		Y	
Views on pay	Y		Y	
Teacher self-efficacy	Y		Y	
Relationship with colleagues	Y		Y	
Relationship with manager	Y		Y	
Views on workload	-		Y	
School fixed effects	Y		Y	

Notes: The outcome measure is teachers' responses to the question "*if you were offered the same job at another school, how likely is it that you would stay at this school?*". The covariate of interest is teachers' responses to the question "*we have a strategy that is taking this school in the right direction*". Figures refer to the standard deviation change in teachers saying they would remain at the school for each standard deviation increase in their belief in the school strategy. Estimates can hence be interpreted in terms of an effect size. SE refers to the estimated standard error. * indicates statistical significance at the 5% level.

School fixed-effects and teacher background characteristics are added to the model in specification M1. Interestingly, this leads to almost no change to the results; the strength of the relationship remains virtually unchanged at 0.50. This illustrates how the link between buy-in and retention intentions are <u>not</u> being driven by differences between schools, such as between-school differences in leadership style or the actual strategy that school leaders are pursuing. Rather, the relationship is due to variation in views amongst staff working in the <u>*same*</u> school. This may include, for instance, differences across colleagues in their understanding of the school strategy and the extent that they personally feel it is the right direction to go.

In model M2, teachers' general attitudes towards teaching and their pay are added in the model. The intuition behind including these measures now is that they will to some extent control for individual differences in teachers' general (dis)satisfaction with their job amongst a set of factors that are (arguably) unlikely to have been strongly impacted by their views of the school

strategy[1]. Again, the inclusion of these controls leads to little change to the substantive results. Although the estimated effect size now falls slightly (from 0.50 to 0.42 standard deviations), teacher buy-in remains strongly associated with future employment plans, even after their views about pay and general attitudes towards teaching have been controlled.

There is greater movement in the estimates in model M3, once we have accounted for the relationship that teachers report having with their colleagues and line manager. We note that, rather than being confounders, these factors could be a mechanism via which buy-in influences retention (i.e. a teacher who buys into the strategy may make sure they have a good relationship with their colleagues in order to reach the school's objectives). Nevertheless, even after accounting for this factor, the relationship between teacher buy-in and future employment plans remains substantial (0.27 standard deviations). Moreover, the same continues to hold true in model M4, where the teachers' satisfaction with their workload is also added to the model. Together this suggests that teachers who are bought into the school strategy are much more likely to reject outside employment offers compared to colleagues who don't buy into the strategy, even amongst those working in a similar job in the same school, have the same demographic characteristics, and who are equally (dis)satisfied with their pay, workload, teaching in general and relationships with their colleagues.

Table 3 extends the insights from model specification M4 by comparing the strength of the relationship between buy-in and future employment plans to other aspects of teachers' working conditions. In particular, Table 3 presents how much more likely teachers are to reject an outside employment offer for each standard deviation increase in the relevant working condition scale (pay, workload and relationship with colleagues).

[1] They will also to some extent control for inter-individual differences in response style, such as some teachers continually using either the upper or lower part of the scale.

Table 3. How do teachers' commitment to their school relate to their views on pay, workload, relationships with colleagues and buy-in to their leaders' strategy?

	Effect size	SE
Buy-in to strategy	0.26*	0.02
Good relationship with colleagues	0.15*	0.03
Satisfaction with workload	0.07	0.02
Pay fair	0.03	0.02
Controls		
Demographics	Y	
Attitudes towards teaching	Y	
Teacher self-efficacy	Y	
Relationship with manager	Y	
School fixed effects	Y	

Notes: The outcome measure is teachers' responses to the question "*if you were offered the same job at another school, how likely is it that you would stay at this school?*". Figures refer to the standard deviation change in teachers saying they would remain at the school for each standard deviation increase in the covariate in question. Estimates can hence be interpreted in terms of an effect size. SE refers to the estimated standard error. * indicates statistical significance at the 5% level.

Out of all these factors, buy-in has the strongest link to teachers' employment plans. Each standard deviation increase in teacher buy-in is associated with a 0.26 standard deviation increase in the likelihood they would reject an outside offer of employment. This is almost twice as strong as the next most important factor (relationship with colleagues), with teachers who have a good relationship with other members of staff being 0.15 standard deviations more likely to plan to continue working at the school. Buy-in also appears to be a more important driver than either workload (0.07 standard deviations) or pay (0.03 standard deviations), with the latter barely having any relationship with commitment to working at the school at all (conditional upon the other factors included in the model). These results are consistent with previous research illustrating how leadership is the strongest workplace factor predicting teacher retention (e.g. Sims 2020; Kraft et al. 2016).

Research question 2

We now turn to whether staff who are not bought into the school strategy feel they are able to raise contrary views. Table 4 begins by presenting the cross-tabulation between the two variables, with red cells indicating a greater proportion of respondents (column percentages). It becomes immediately clear that many staff who do not buy into the strategy of the leadership

also have concerns about raising contrary views. Around a quarter of teachers with low levels of buy-in scored their ability to voice contrary views as between 0 and 2 along the 11-point response scale, with almost 70% returning a score between 0 and 5 (for reference, the mean score reported across all teachers was 6.5). This hence points to a risk that when staff are not bought into the school strategy, they may be unwilling to talk to leaders about their concerns.

Table 4. Do teachers who don't buy into the school strategy feel able to voice their concerns?

Feels able to voice concerns	Low buy-in	Moderate buy-in	High buy-in
0. Feels completely unable to voice concerns	9%	1%	0%
1	6%	1%	0%
2	10%	2%	0%
3	11%	5%	1%
4	10%	6%	1%
5	21%	15%	5%
6	8%	11%	4%
7	11%	19%	9%
8	8%	22%	20%
9	2%	9%	20%
10. Feels completely free to voice concerns	3%	8%	40%

Notes: Figures are column percentages. Shading of cells to be read horizontally, with darker shading for higher values. Figures refer to teachers' responses to the following question "*I can voice a contrary opinion at this school without fear of negative consequences*", stratified by whether the teacher had low (score 0-5), moderate (score 6-8) or high (score 9-10) belief in the school strategy.

Table 5 takes this analysis a step further by considering the characteristics of teachers who are more likely to raise contrary views when they have low levels of buy-in (operationalised as those reporting a score between 0 and 5 on the buy-in scale). Panel (a) focuses on teacher background characteristics. There is no difference by age or job role. A modest difference can however be observed by gender. In particular, male teachers who do not buy into the school strategy are 0.15 standard deviations more likely to feel able to raise contrary views than their female colleagues, with this difference reaching statistical significance at the 5% level.

Table 5. Amongst teachers who don't buy into the school strategy, who is more likely to feel that they can voice concerns?

(a) Demographic characteristics

	Effect size	SE
Job role (ref: Class teacher)		
Middle Leader	0.04	0.07
Gender (ref: female)		
Male	0.15*	0.06
Age (ref: 20-29)		
30-39	0.00	0.11
40-49	0.07	0.09
50+	0.13	0.11
N	**806**	

(b) Attitudes towards other aspects of job

	Effect size	SE
Relationship with colleagues	0.20*	0.03
Relationship with manager	0.12*	0.04
View of workload	0.09*	0.04
View of pay	0.04	0.04
Teacher self-efficacy	0.02	0.09
General attitude towards teaching	-0.05	0.04
N	**806**	

Notes: Sample restricted to those teachers who have low levels of buy-in to the school strategy (scored between 0-5 in response to the question "*we have a strategy that is taking this school in the right direction"*). Outcome measure is teachers' responses to the question "*I can voice a contrary opinion at this school without fear of negative consequences*" standardised to mean zero and standard deviation one. Estimates in panel (a) do not include any further controls in the model, other than the residual difference within the group in their views of school strategy. Estimates in panel (b) additionally control for job role, age, gender and school fixed effects.

Somewhat more pronounced differences can be observed in panel (b) where we consider the correlation with other attitudinal factors. Perhaps the clearest evidence is with respect to the relationship teachers have with other members of staff. Specifically, amongst those who do not subscribe to the school strategy, teachers who have a better relationship with their colleagues are 0.20 standard deviations more likely to feel able to voice their concerns. There is then an additional benefit – equivalent to 0.12 standard deviations – if teachers also feel that their manager cares for them as a person. Together, these results are consistent with the broader managerial literature into how organisations can achieve buy-in, where communication

between staff has been found to be key (French-Bravo & Crow, 2015; Thomson & Hecker, 2020).

Research question 3

To conclude, Table 6 explores whether teacher buy-in and their willingness to voice contrary views have an additive or multiplicative relationship with their commitment to the school.

Table 6. The association between teachers' belief in the school strategy, whether they feel able to voice concerns and intentions to remain working at the school.

	Specification M0		**Specification M1**		**Specification M2**		**Specification M3**	
	Effect size	SE	Effect size	SE	Effect size	SE	Effect size	SE
Believes in strategy (1 SD increase)	0.50*	0.02	0.37*	0.02	0.37*	0.03	0.21*	0.03
Feels able to voice concern (1 SD increase)	-	-	0.21*	0.02	0.21*	0.02	0.08*	0.03
Interaction	-	-	-	-	0.00	0.02	-0.02	0.01
N	**2,852**		**2,852**		**2,852**		**2,852**	

Notes: Model specifications M0, M1 and M2 control for job role, age, gender and school fixed effects. Model specification M3 additionally controls for general attitudes towards teaching, views of pay, teacher self-efficacy, relationship with colleagues, relationship with manager and views on teacher workload.

Specification M1 include the main effects for both variables. These are both independently associated with whether teachers plan to continue working at the school, though with buy-in being the stronger of the two (0.37 versus 0.21 standard deviations). An interaction between these variables is then added in specification M2. This is small in terms of magnitude and statistically insignificant at conventional levels. Similar results emerge in model M3, when a series of further controls (for teachers' attitudes towards other aspects of their job) are added to the model. Indeed, the interaction term has a negative sign indicating that – if anything – the importance of teacher buy-in may be slightly *lower* when teacher's feel unable to voice contrary views. Nevertheless, on the whole, the results presented in Table 6 point towards buy-in and teachers feeling able to voice contrary views as having an additive, rather than multiplicative, relationship with teachers' commitment to their current school.

5. Conclusion

Teachers play a pivotal role in achieving the mission of schools. Unfortunately, in many countries, there continues to be a shortage of appropriately qualified, high-quality teaching staff. This means it is vital leaders manage to retain their top talent and do not lose key individuals to other schools or, indeed, to other organisations outside the teaching profession. Previous research has highlighted how working conditions are key to teacher retention, with school leadership being a particularly important factor (Sims, 2020; Kraft et al., 2016). At the same time, previous work on "buy-in" from the management literature has shown how this plays a key role in helping staff to remain motivated, on-task and wanting to keep working for their current firm.

The main contribution of this paper has been to take this concept of "buy-in" from the field of management and apply it to an education setting. In doing so, it is the first study to bring the previously distinct literatures into buy-in and teacher retention together. Our empirical analysis demonstrates how teachers who buy into the school strategy are around 0.3 standard deviations more likely to want to continue working at the school than a colleague who does not, even when they work for the same school and have similar views on other aspects of their working conditions, such as pay, relationships with colleagues and workload. We also illustrate how many staff who are not bought into the school strategy feel unable to voice contrary opinions, particularly when they do not have a strong relationship with their colleagues. Together, this suggests that some leaders may not be hearing the concerns some staff may have with their plans.

These findings are in many ways consistent with previous research into teacher retention. For instance, Sims & Jerrim (2020), Sims (2020), Ladd (2011) and Kraft et al. (2016) all point towards leadership being vital to schools retaining their best staff. Our work has added further insight into this issue, highlighting the importance of teachers believing in the strategic plans of their leaders. Our findings are also in line with the general thrust of the literature into the importance of buy-in outside of education, although this has mostly focused on employee performance and organisational change. However, consistent with our results, Hsia (2017) also found buy-in to be related to the future employment plans of staff. This paper has replicated this finding and shown, for the first time, that it also seems to hold amongst staff within education settings.

What, then, might school leaders do to increase strategic buy-in amongst their staff? Unfortunately, the empirical evidence here is somewhat scant. There has only been limited previous research into the correlates of buy-in, with many of these conducted in other industries (e.g. Hubbart, 2023; French-Bravo & Crow, 2015). However, the general view from the existing literature is that communication is key (Errida & Lotfi, 2021). Increasing buy-in amongst staff into the leadership teams' vision is likely to involve winning a battle of both hearts and minds, particularly if this involves the introduction of bold initiatives or significant organisational change. Teachers should thus feel able to talk to senior leaders openly about their views, particularly when they have concerns, so that leaders can hopefully bring them "on board".

This does, of course, assume that staff have an accurate understanding of what the strategy of their school is in the first place. Yet, as Hsia (2017, p17) notes "*it is often the case that employees are unaware of their organization's strategy*", pointing towards evidence from Kaplan & Norton (2005) who found that 95% of employees in large corporations do not know – or do not understand – their organisation's strategy. Although we do not currently know the extent that this holds true amongst teachers within schools – or indeed within groups of schools such as academy chains in England – it is nevertheless clear that the first step to getting education staff to buy into their leader's strategy is that they know and understand what this strategy is. Leaders should not take this for granted, and may thus wish to monitor both intellectual buy-in (understanding of the strategy) and emotional buy-in (belief that the strategy is the correct one) over time.

We of course recognise there are also limitations with our work. First, our empirical analysis has focused upon measures of teachers' future employment intentions (what they *say* they would do) rather than the actual decisions they make. Although such measures have been widely used in the teacher retention literature (e.g. Ladd 2011; Van den Borre et al., 2021), we recognise the evidence could – and should – be made stronger in the future by directly linking buy-in to teacher retention. Second, our measure of buy-in is based upon a single question, and does not distinguish between Thomson et al.'s (1999) concepts of "intellectual" versus "emotional" buy-in. Future work might seek to develop a better understanding of how these components of buy-in interplay within education settings. Third, it has been beyond the scope of this paper to investigate the drivers of buy-in, and indeed how levels of buy-in change over time. Indeed, few studies have presented such a longitudinal analysis of buy-in in any organisational setting (not just education) making this area ripe for future work. Finally, we

have analysed cross-sectional rather than longitudinal data, thus making causation particularly hard to establish. Our estimates are hence best interpreted as conditional associations, rather than establishing cause and effect.

It is therefore clear that further research is needed to develop a better understanding of buy-in amongst teaching staff, and how leaders can then utilise this information to help retain their best teachers. At the same time, we believe there is sufficiently promising evidence to suggest that school leaders may look to systematically track how bought-in their staff are to their strategic plans. This will help management to better understand whether staff are becoming more or less in-tune with the strategic direction of the school over time, how this differs across groups (e.g. junior versus more senior staff; those working in different departments) and how the level of buy-in responds to major events (e.g. a change in school inspection judgements; the arrival of a new headteacher). Such data may also help leaders to better understand what they can do to further improve the buy-in of staff into their plans, and the efficacy of any attempts they make to do so.

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Appendix A. Distribution of responses to the question "*we have a strategy that is taking this school in the right direction*".

Response	%
0 (low)	1%
1	1%
2	3%
3	5%
4	6%
5	12%
6	11%
7	15%
8	20%
9	11%
10 (high)	15%

Appendix B. Alternative estimates using response to the question "*I see myself still working at this school in two years' time*".

Appendix Table B1. The association between a teacher buying into the school leadership's strategy and whether they intend to keep working in the school.

(a) Models M0 – M2.

	M0		M1		M2	
	Effect size	**SE**	**Effect size**	**SE**	**Effect size**	**SE**
Believes in strategy (one SD increase)	0.49*	0.02	0.52*	0.03	0.44*	0.03
N	**2,852**		**2,852**		**2,852**	
Controls						
Demographics	-		Y		Y	
Attitudes towards teaching	-		-		Y	
Views on pay	-		-		Y	
School fixed effects	-		Y		Y	

(b) Models M3 – M4.

	M3		M4	
	Effect size	**SE**	**Effect size**	**SE**
Believes in strategy (one SD increase)	0.29*	0.03	0.28*	0.03
N	**2,852**		**2,852**	
Controls				
Demographics	Y		Y	
Attitudes towards teaching	Y		Y	
Views on pay	Y		Y	
Teacher self-efficacy	Y		Y	
Relationship with colleagues	Y		Y	
Relationship with manager	Y		Y	
Views on workload	-		Y	
School fixed effects	Y		Y	

Notes: The outcome measure is teachers' responses to the question "*I see myself still working at this school in two years' time*". The covariate of interest is teachers' responses to the question "*we have a strategy that is taking this school in the right direction*". Figures refer to the standard deviation change in teachers saying they would remain at the school for each standard deviation increase in their belief in the school strategy. Estimates can hence be interpreted in terms of an effect size. SE refers to the estimated standard error. * indicates statistical significance at the 5% level.

Appendix Table B2. How do teachers' intentions to keep working at their school relate to their views on pay, workload, relationships with colleagues and buy-in to their leaders' strategy?

	Effect size	SE
Buy-in to strategy	0.28*	0.03
Good relationship with colleagues	0.20*	0.03
Satisfaction with workload	0.07*	0.02
Pay fair	0.00	0.02
Controls		
Demographics	Y	
Attitudes towards teaching	Y	
Teacher self-efficacy	Y	
Relationship with manager	Y	
School fixed effects	Y	

Notes: The outcome measure is teachers' responses to the question "*I see myself still working at this school in two years' time*". Figures refer to the standard deviation change in teachers saying they would remain at the school for each standard deviation increase in the covariate in question. Estimates can hence be interpreted in terms of an effect size. SE refers to the estimated standard error. * indicates statistical significance at the 5% level.

Appendix Table B3. The association between teacher's belief in the school strategy, whether they feel able to voice concerns and intentions to remain working at the school.

	Specification M0		Specification M1		Specification M2		Specification M3	
	Effect size	**SE**	**Effect size**	**SE**	**Effect size**	**SE**	**Effect size**	**SE**
Believes in strategy (1 SD increase)	0.52*	0.03	0.39*	0.03	0.38*	0.03	0.22*	0.03
Feels able to voice concern (1 SD increase)	-	-	0.22*	0.02	0.22*	0.02	0.09*	0.02
Interaction	-	-	-	-	-0.01	0.02	-0.03	0.02
N	**2852**		**2852**		**2852**		**2852**	

Notes: Model specifications M0, M1 and M2 control for job role, age, gender and school fixed effects. Model specification M3 additionally controls for general attitudes towards teaching, views of pay, teacher self-efficacy, relationship with colleagues, relationship with manager and views on teacher workload.