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# Exploration of the pathway from teacher expectations of pupils' likelihood of university study to actual leaver destinations

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## ABSTRACT

This article considers expectations and outcomes for a cohort of 617 thirteen to fourteen-year-old school pupils and eight teachers, sampled from eight secondary schools in Scotland where many children were from relatively low socioeconomic backgrounds. Interviews with teachers revealed that they expected relatively low numbers of the pupils in this cohort to progress to Higher Education. Teacher estimates and actual leaver destinations were considerably lower than the pupils' own expectations for university or their perception of their favourite teacher's expectation of university study for them, obtained through pupil questionnaire. It is widely believed that teacher expectations lead to pupil outcomes via a route that involves pupil perception of teacher expectations; however, questionnaire data suggested that the pupils were largely unaware of their teachers' relatively low expectations for them. Interviews suggested a possible pathway linking teacher behaviour to pupil outcomes through the use of elite ability and university-track groups, which were offered at an early opportunity to students with potential. Although the data collected do not allow a causal link to be determined, the paper proposes a possible relationship between belonging to these groups and actual leaver destinations and ends with implications for policy and practice.

## ARTICLE HISTORY

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## KEYWORDS

Teacher expectations; higher education; Elite ability groups; university track groups; widening participation

## Introduction

Understanding the impact of teacher expectations on student outcomes remains a fertile area of research following the controversial description of Rosenthal's Pygmalion effect (Rosenthal and Jacobson 1968). In this study, children's academic attainment was said to be influenced positively by their class teacher's response to inaccurate information, communicated to them by the researcher. The authors suggested a causal link between teacher expectations and attainment, and over 140 papers have explored and tested

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this relationship over the last 50 years, as described in recent reviews (Johnston, Wildy, and Shand 2019; Wang, Rubie-Davies, and Meissel 2018). The reviewers identified key themes explored in this field of research, including mediation stages with identified pathways that could explain the relationship between expectations and outcomes.

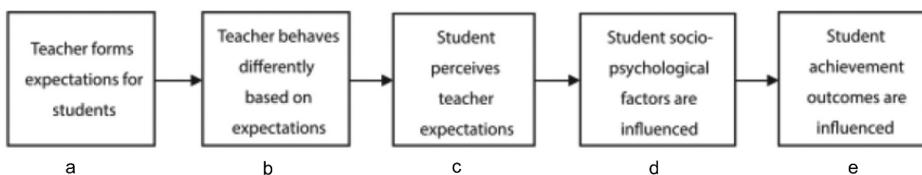
These reviews identified several gaps in the research field, including a lack of qualitative research that considers the mediation stages and gives voice to pupils. The data presented here address these gaps by looking at each of the mediation stages in turn, considering how and why they were enacted, using a combination of qualitative and quantitative research with teachers and pupils.

## Literature review

Teacher expectations are thought to be linked to pupil outcomes, including academic outcomes and leaver destinations. Meta-analysis of the research literature has placed teacher expectations, labelled as teacher estimates of achievement, as one of the main influences on student achievement with high effect size (Hattie 2008). There is an alternative suggestion that teachers are simply competent at predicting outcomes (Jussim 2017; Jussim and Harber 2005); however, research by Murphy and Wyness (2020) suggested that teacher prediction of A level results was less than 20% accurate. In this study, accuracy varied depending on the socio-economic status (SES) of the school; estimates for students from the most disadvantaged backgrounds tended to be less inflated than pupils at grammar or independent schools. The authors suggested that teacher bias, student incentive or sudden student progress could be the reasons for the disparity between predicted and actual results.

The aforementioned reviews have summarised possible mediation stages from expectations to outcomes as shown in Figure 1, with most studies focusing on the links between stages A and B, B and C, or C, D and E (Wang, Rubie-Davies, and Meissel 2018).

Within this pathway, the formation of teacher expectations (stage A) leads to changes in teacher behaviour (stage B). Students then perceive the



**Figure 1.** Mediation stages of teacher expectation effects (after Wang, Rubie-Davies, and Meissel 2018).

teacher's expectations through these behaviours (stage C), which influences their socio-psychological factors (stage D) and achievement outcomes (stage E) as shown in [Figure 1](#). This literature review briefly considers the five mediation stages in more detail, highlighting salient research that focuses on schools of low SES.

Teacher expectations (as noted in [Figure 1](#) as A) for students in low SES schools have been researched by several authors. Teacher expectations are thought to affect students from marginalised groups, including low SES students, to the greatest extent (Hinnant, O'Brien, and Ghazarian 2009). Structural factors such as poverty are not necessarily cited by teachers as the reasons for their low-level expectations; rather, student attitudes, behaviour, home background, prior achievement and even appearance have been used as explanation (Agirdag, Van Avermaet, and Van Houtte 2013; Al-Fadhli and Singh 2006; Fitzpatrick, Blair, and Côté-Lussier 2016; Rubie-Davies 2010). Contrastingly, research on the attainment gap between students from high and low SES schools points towards differences between these settings in instructional quality and teacher beliefs, including teachability and trust in children (Agirdag, Van Avermaet, and Van Houtte 2013; Dewulf, van Braak, and Van Houtte 2017; Rjosk et al. 2014). Here, the explanations for differences in outcomes lie with the teachers rather than the children themselves.

Teachers may have expectations about whole classes and whole schools; indeed, early research in expectation effects revealed that group expectations can be as strong a mediator of achievement as expectations about an individual pupil (Brophy 1983). A deficit view of large groups has been shown to lead to low expectations and questionable pedagogical practice (Rodriguez 2012). In the case of low SES schools, implicit bias may play a part; teachers may not actually realise that they are viewing whole cohorts of pupils through a discriminatory lens (Peterson et al. 2016). Agirdag's (2018) paper complemented this research to confirm that teachers' collective perception of how easy their school's pupils were to teach was lower in low SES schools, even after controlling for prior achievement, and that this 'teachability culture' mediated academic performance.

Research into stage B, where the teacher behaves differently based on their expectations, has identified both verbal and non-verbal behaviours with a pupil or class. Harris and Rosenthal's (1985) early meta-analysis highlighted the impact of teacher warmth, differentiation and academic dialogue with students. Questioning of students and feedback given are said to be important (Chen et al. 2011; Rubie-Davies 2007) as are non-verbal responses including body language, behavioural expectations and work offered (Rubie-Davies 2007). These examples are concerned with individual teachers and what goes on in their classrooms, but school policy

may support teachers to differentiate by perceived academic potential to support another expectation-linked behaviour: setting by ability groups.

Ability grouping is commonplace in Scottish schools, but ability is difficult to define. The role of genetics and environment have been considered by researchers; both factors have been thought to contribute to ability (Stables, Gellard, and Cox 2019) and intelligence levels (Cheng and Saqui 2017). Ability has been said to elude direct measurement and to be a combination of achievement, attitude and behaviour, including effort and engagement (Stables, Gellard, and Cox 2019). This article reported agreement that any measure of ability is subject to change. This builds on growth mindset discourses; a belief in the malleability of intelligence can support academic success while a belief that ability is fixed can do the opposite (Blackwell, Trzesniewski and Dweck 2007). It has been suggested that a belief in fixed ability may be the reason for stable population intelligence (Aronson, Fried, and Good 2002).

Being part of an elite ability group can influence academic choices; participation in advanced science programmes for highly qualified students at age 12 was found to be the main predictor of pupils' enrolment in a science major at age 15 (Caspi et al. 2019). These students, who were selected at the start of secondary school, received specialised regular instruction in science, with a focus on enquiry-based learning and conceptual understanding as opposed to manipulation of abstract symbols.

Steenbergen-Hu, Makel, and Olszewski-Kubilius (2016) secondary meta-analysis into the effect of ability grouping suggests that while high attaining students benefit from ability groups, students do not generally benefit from between-class grouping, as commonly seen in Scottish secondary schools. A contemporary secondary meta-analysis (Higgins et al. 2016) agreed that high attaining students benefit from ability grouping; however, they concluded that low attaining learners, who are more likely to be from disadvantaged backgrounds, may be actively disadvantaged by the setting or streaming process. They reflected that setting and streaming may be detrimental to the confidence and self-beliefs of low-attaining pupils.

Mazenod et al. (2019) suggested that low ability groups foster dependency on teachers. These groups do not account for child development or maturity, which may evolve at different rates for different children (Campbell 2013). Children in lower groups may get left behind as the gap between their content knowledge and that of other groups widens. Children in ability groups are often seen as a homogeneous group and are subject to class-level expectations (Johnston and Wildy 2018), which fail to differentiate and support learning of individual children.

Another way in which expectation effects may occur is that students detect different ways that teachers treat them, as represented by stage C in the mediation pathway. Some research in the area has

found that students are indeed aware of differential teacher expectations, and that this affects achievement outcomes (Joseph, Viesca, and Bianco 2016); however, there is some contrasting evidence that student perception of teacher expectations does not fully explain the relationship between these expectations and outcomes (Gill and Reynolds 1999).

Students' self-expectations have been proposed as one way of explaining how teacher expectations shape achievement outcomes (Benner and Mistry 2007), as represented by stage D in the mediation pathway. Awareness of low teacher expectations can result in feelings of hurt and hopelessness for pupils (Weinstein 2009). It has been argued that if an individual does not believe that they are likely to achieve a goal, then they are not likely to pursue it (Bandura 1982; Rea 2000). In the case of expectations for higher education, Harrison and Waller (2018) have suggested that for pupils in low SES areas, early high aspirations for university study may be misaligned with their later expectations. Over time, their palette of 'possible selves' is refined into a more elaborated vision of 'probable selves'. This vision is shaped by several factors, including: the expectations of the adults in their lives; the palette of possible selves available to them; their sociocultural environment; and their beliefs about their self-efficacy and ability to influence their future. The authors argue that expectations are indeed a predictor for HE participation and explain the influence of significant adults in the development of these expectations, noting that 'parents and teachers exert a strong influence on which possible selves appear probable to young people.' (Harrison and Waller 2018, 923)

Mazenod et al. (2019) found that 2<sup>nd</sup> year pupils' placing in mathematics and English attainment sets influenced their aspirations, with students in the top sets being most likely to aspire to university. The same research group also found an association between set level and general self confidence (Francis et al. 2017). After controlling for prior attainment, the gap in general self-confidence was found to widen over two years for top and bottom maths sets; although, this was not seen for top and bottom English sets (Francis et al. 2020).

The final stage in the mediation pathway, stage E, represents the end point of the pathway. Recognition of the relationship between teacher expectations and this end point is what sparked research into the Pygmalion effect (Rosenthal and Jacobson 1968). Longitudinal research focusing on the first and last step of the expectation effect process has shown that teacher expectations can accumulate over years, and that after controlling for prior attainment, mathematics and English teacher expectations significantly and positively aligned with student postsecondary education (Gregory and Huang 2013). The authors concluded that teachers 'predicted' leaver destinations, but also stated that positive teacher

expectations were ‘additive’, ‘promotive’ and ‘protective’, suggesting a causal relationship (Gregory and Huang 2013, 41).

Owens and de St Croix (2020) considered teacher expectations from a different viewpoint. Their UK study looked at unusually high expectations within a London school which served predominantly low SES students. The authors challenged the belief that pupils, their families or teachers are responsible for enabling students’ educational success, rather putting the onus on society to remove structural barriers to success. In doing so, they challenged the meritocratic belief that merit is the result of effort and talent, which perpetuates the dangerous notion that people that are living with disadvantage are doing so because they are untalented, lazy and do not try. Instead, they recommended addressing structural disadvantage at its core, removing barriers that prevent individuals from converting resources and support into genuine opportunity.

## Methodology

The data studied in the current article were collected in 2014/15 using semi-structured interviews, pupil questionnaires and government statistics and draw on a larger set of empirical data from an impact evaluation of a widening participation initiative in an urban local authority in Scotland. Although ten years have passed since the original data collection, the most recent leaver destination statistics from Scotland show that the proportion of young people from the lowest decile areas remains low, making these findings relevant today (The Scottish Government 2024). The original research considered the views of nursery and primary teachers, secondary school pastoral teachers, pupils and their parents. The data used for this article focuses solely on the views of 13/14 year old secondary school pupils and their pastoral teachers. Pastoral teachers, sometimes known as guidance teachers, have relationships with and have a specific responsibility for supporting the wellbeing of a large group of students, e.g. a year group. The sample comprised eight schools that catered to large numbers of pupils of low socioeconomic status (SES). Entitlement for free school meals depends on factors such as relatively low household income (currently less or equal to £850 per month) and receipt of other government benefits; all eight schools were in the 11 schools with the highest levels of free school meal uptake in a local authority that contains over 30 schools. All pupils in the study engaged in widening participation activities: some took part in whole-year group activities designed to raise aspirations for university and increase awareness of positive destinations, for example university visits; all schools also experienced other widening participation initiatives that targeted selected

groups of pupils, for example where small groups of first-year pupils were selected to take part in university focused presentations and visits.

Participants were recruited using two methods: five schools were part of an opportunity sample, as pupils in these schools were taking part in a specific widening participation intervention that was being evaluated; three others were recruited to provide a comparison via the local authority. The Deputy Director of Education within the local authority identified three schools with similar socioeconomic status to the opportunity sample and requested participation. Although the original sample included a comparison between the five opportunity sample schools and three comparison schools, all data have been combined for the analysis presented in this paper in order to explore the mediating factors associated with teacher expectations.

Pastoral teachers were recruited for interview following signposting by the schools' Head Teachers. These pastoral teachers then invited one or two pupils, who they felt would be comfortable with the interview process, to be interviewed through a process of informed consent. It is acknowledged that this may have created sample bias, as these comfortable students were likely to be confident, high achieving students. This was noted in the analysis of data and compared with findings from the questionnaire.

Semi-structured interviews were conducted with eight third-year pupils and eight pastoral teachers from the eight schools. One school declined to participate in the qualitative research due to lack of available time (although they did participate in the questionnaire research) and on one occasion, two teachers were present at the interview. Pupil interviews always took place with individuals. Semi-structured interviews were used for data gathering, as they provide a loose framework of questions, while allowing some rapport to develop between interviewer and interviewee (Mann 2016). It is acknowledged that interviews are co-constructed, and that the interviewer may have influenced the direction of the discussion; although, care was taken not to influence responses through interviewer responses (Seidman 2006).

Teacher interviews lasted from 30 to 60 minutes. The interviews were relaxed; answers were detailed and appeared to be honest accounts of viewpoints. Although all the interview transcript was considered in relation to the findings reported here, the most relevant interview questions from the teachers' semi-structured interview were concerned with understanding barriers and enablers for pupils' education and travel towards positive post-school destinations. Teachers were also specifically asked to predict what proportion of children in the third-year cohort would achieve specific post-school destinations, which included university, apprenticeships and other positive destinations. Teachers' predictions varied across the schools; one teacher gave a direct estimate of third year numbers, while others made comparisons with other year groups, usually the sixth-year cohort. The

Scottish Government provided stratified school level total year group leaver numbers over a six-year period, which when combined with the teacher responses, allowed estimation of the numbers of pupils in the third and sixth-year cohorts (The Scottish Government 2018) and calculation of predicted numbers of third-year pupils who would attend university. Some of these data were suppressed due to low numbers, which meant that precise calculations could not be made; however, a range could be calculated for the affected schools.

Pupil interviews, which were also relaxed overall, tended to be much shorter, up to 15 minutes. Pupil questions were entirely focused on their understanding of and feelings about university study.

Interview data were transcribed verbatim by an external transcriber. NVivo was used to support analysis of pupil and teacher interviews. Directed thematic content analysis was used to code data around the chosen themes (Hsieh and Shannon 2005), which were identified following immersion in the interview transcripts, questionnaire analysis and literature review. This immersion involved listening to, reading and rereading the transcripts. Cognisance was taken of questionnaire responses, to check for data that would contradict these or complement findings. Directed thematic content analysis allowed the researcher to use an existing theoretical framework to determine an initial coding scheme and relationships between codes. Data that could not be coded into these initial codes were placed into a new code and revisited later to decide whether it was an entirely new code or sub-code of another code.

All schools distributed paper pupil questionnaires, which were delivered to the school a few weeks prior to interviews taking place and collected shortly after the face-to-face interviews. Questionnaires were distributed to 817 third-year pupils (this number is based on stratified leaver destination data over three years (The Scottish Government 2019)). The two pupil questionnaire items that are relevant to the findings reported in this article are:

- (1) Think of your favourite teacher. How long do they think your education will continue for?
- (2) How long do you think your education will continue for?

Response options for these two questions were: until I finish fourth year; fifth year; sixth year; college; university or don't know.

617 questionnaires were completed by the third-year pupils, which represents a return of 76%. Reasons for non-completion are unknown but may have included lack of parental or pupil consent or absence from school on the day questionnaires were administered. Pupil questionnaire responses for these two questions were compared using Fisher's exact test to determine

heterogeneity between samples. A senior statistician colleague validated the tests. Statistical significance was determined by  $p < 0.05$ . Prior achievement of children could not be controlled for in these data, due to a lack of any standardised measure of achievement for these pre-examination students.

The Scottish Government Statistical Section publishes annual reports on school leaver destinations for every Government-aided school in Scotland three months after leaving school. Questionnaire data were collected in Spring 2015, and sufficient time passed that Scottish government leaver destination data were available for the third-year pupils. Stratified school-level data from this publication were provided by the Scottish Government for the purposes of this study (The Scottish Government 2019). It is noted that the government statistics class both university study and university-level study at college (higher national courses) under the umbrella term 'higher education', while questions in the research study were focused on expectations for university study. This inconsistency is accounted for within the analysis.

Quantitative data about leaver destinations are presented in the following ways: pastoral teacher estimates of proportions of 3<sup>rd</sup> year pupils that will attend university are presented as an overall range across the cohort; Scottish Government leaver destination data are presented as a percentage of leavers attending Higher Education across the cohort; pupil questionnaire data about pupils' perceptions of how long they will stay in education and how long their favourite teacher thinks they will stay in education are presented as percentages across the cohort. Teacher estimates and pupil questionnaire data are directly comparable; although, it is noted that the 24% of pupils who did not respond to the questionnaire were not represented in the pupil sample. Pupil questionnaire data about their perceptions of how long they will stay in education and how long their favourite teacher thinks they will stay in education are directly comparable with each other and are analysed using Fisher's exact test statistics. Government data add value to the data set, but, as the figures include students studying Higher National qualifications at college, are not directly comparable.

Ethical approval was obtained from the relevant university ethics committee prior to starting data collection. The children interviewed for the study were a vulnerable group due to their age. Informed consent was obtained from teachers, children and parents prior to interview using participant information sheets and consent forms. Parents and children also received separate information sheets about questionnaires, given the opportunity to opt out and children advised not to complete the questionnaire if parent or child were not comfortable with this. The researcher made efforts to reassure all participants that their contributions would not be traced back to them. As new environments and strange adults can cause anxiety, the interviews took place in the school in an informal setting and

with minimal distractions, which encouraged an informal, comfortable atmosphere. All participants were told, in the participant information sheet and orally where applicable, that they could withdraw from the study at any time before a final withdrawal date.

## Findings

Each of the mediation pathways summarised by Wang, Rubie-Davies, and Meissel (2018) and listed in A – E in [Figure 1](#) are considered.

### *How and why the teacher forms expectations*

Eight pastoral teachers from seven schools agreed to be interviewed. Their predictions of the proportion of third-year pupils who would attend university ranged from between 9% and 20% across the seven schools where interviews took place. Assessment and tracking of children, which were used by schools to estimate children's potential, usually started as soon as they arrived at secondary school:

We try and target youngsters early based on primary information . . . we are told about kids who are able; we do have a rough idea of what their ability level is going to be.

This early tracking was used to explain predictions; but, most of the teachers also used their knowledge of sixth year leaver destinations to extrapolate to the lower school year groups. One teacher acknowledged the year-to-year variation. Another felt that higher numbers of the third-year cohort would attend university than their estimate for the sixth year cohort, as they were 'quite a bright year'. The remaining participants talked about the 'pattern' not changing, making statements such as 'I tend to find that the numbers who go onto university don't change by very much.' There was a suggestion that the participants would like to be predicting higher numbers, but that it would not be realistic. For example, one participant reflected that they would be ridiculed by the head teacher if they suggested that 30% of the school's pupils would go to university.

The teachers explained why their predictions were low by citing multiple barriers to children's pathway towards higher education. These barriers were sometimes linked to the child themselves:

Some of them are too scared to leave the area that they live in. I mean we have had young people before who have not gone on a work experience placement in (nearby town) because that's too far out of their comfort zone.

This fearful element was echoed by a child, who, when asked what she thought about the idea of going to university, stated that it would be 'exciting' but claimed that she'd be 'too scared'.

Teachers did not generally feel that they had high levels of influence over children, and there was a deficit view of parents, who were said to ‘lack parental skills’. It was suggested that schools try their best for children, but that low parental aspirations thwarted their efforts:

They’ve got parents who don’t really have any aspirations for their young people . . . who just want them to be the same (as them).

There was a sense of futility expressed by some:

I think teachers have a huge positive influence because we do always reinforce high aspirations and how far they can go, but I think unless their parents are reinforcing that as well and see that for their kids, it’s not as positive as it could be.

These pre-existing labels, deficit views of parents and feelings about lack of influence all contribute to understanding how and why these teachers formed expectations.

### *How and why the teacher behaves differently*

Teachers explained how they used the information sent up from primary school to inform their tracking and assessment systems. They described setting ‘very early’ in maths and English so that they can ‘push the kids who seem that bit more able.’ Although some of the schools in the study engaged with a widening participation intervention that worked with whole year groups, teachers from these schools still described additional elite ability groups for the ‘high-fliers’. In addition to these academic groups, some schools also had university-track groups for those pupils who were thought to show ‘potential’ for university.

We spend a lot of time thinking about university and higher education as an option for our young people, and specifically target our young people who were capable of going to university with a group.

The teachers that spoke of university-track groups did so with an element of pride, as they saw that large numbers of students in the programmes tended to succeed.

We’ve got a very capable top set . . . so I would like to think that we would still continue with our impressive punching above our weight number into higher education.

Ability groupings are commonly used as a way to support differentiation, and arguably to simplify teaching. Looking at the language used by teachers when describing the groups, they align themselves with the status quo using phrases such as ‘We track children from very early on . . .’ and, ‘We also use assessments to try and make sure . . .’ As previously noted, some teachers expressed a sense of futility when

it came to supporting most pupils, linked to deficit views of parents. The teachers spoke positively about the elite ability groups and university track groups; they felt they could make a difference with these children, which may be one reason they continue with this practice.

### *Student perceives teacher expectations*

When asked in the pupil survey how long they thought their favourite teacher expected their education to continue, 52% thought that their favourite teacher would expect them to graduate from university. The large difference between actual teacher expectations (9–20%) and pupil perceived teacher expectations (52%) may suggest that many of the pupils were not aware of their teachers' expectations.

Pupils spoke in interview about their perceptions of teacher expectations for them. When asked why they thought they were expected to go to university, one high achieving student responded:

I'm in a high science class and I get chosen for (widening participation intervention for selected pupils) that is for people who are expected to go to university.

Another pupil reflected that their music teacher 'always' talked to them about university because 'I want to be a teacher and she knows that.'

The children who were interviewed had been selected by the pastoral teachers and were almost all on a university trajectory. Although these high achieving pupils had well-formed views of their teachers' perceptions of them, the rest of the cohort was not well represented in the interviews. The one child who was not on a university trajectory was less certain of adults' expectations for them.

Interviewer: Does anybody think you'll go to university or college?

Participant: No, not that I know of, but I think they might be thinking it, but they don't say it.

There was a large difference between the perceived favourite teacher expectations, taken from the pupil questionnaires, and the estimated pastoral teacher expectations for the cohort, which were established at interview. It may be the case that not all pupils were aware of the existence of the university track groups or were not aware of the implications for teacher perceptions of them if they were not selected for them. Alternatively, the difference could be related to the still-early stage of the pupils' secondary schooling, before national examinations. At this stage, pupils' possible selves may not be fully elaborated into probable selves; their early high aspirations for university study may be misaligned with their later expectations.

Teachers may believe they can estimate the grades that pupils would achieve in national examination and link this to destinations.

### *How student socio-psychological factors are influenced*

Pupils were asked in the questionnaire how long they thought they would stay in education. 61% stated that they expected to finish university, which means that 9% of the students had higher levels of university expectations for themselves than they believed their favourite teacher had for them. This difference was statistically significant ( $p < 0.05$ ).

Most of the interviewed children were high achievers in the school who were certain about their elevated status within the school. There was evidence of high levels of self-efficacy in statements such as 'I'm good at maths; I'm in the top group', and 'I enjoy being able to do science and I like when I get good marks in tests and stuff'.

Stages C and D in the framework are concerned with the notion that children may pick up cues from the adults around them, which could then in turn affect their socio-psychological factors, either positively or negatively. While the children who were on a university trajectory were aware of teacher expectations and spoke confidently about their futures, the questionnaires suggested student expectations (61%) for university study that exceeded perceived teacher expectations (52%) and far exceeded actual teacher expectations (9–20%) across the cohort. This may suggest that the cues were either absent or unnoticed; it's not clear whether this was intentional or unintentional.

### *Achievement outcomes are influenced*

Stratified leaver destination data for the cohort were obtained from The Scottish Government (The Scottish Government 2019). Three months after leaving school, 202 students from the cohort of 817, or 25%, were in Higher Education. For the cohort being studied, it would have been possible to leave school to enter Higher Education at three time points following national examinations: in 2015/16 after 11 years of schooling (age 16); in 2016/17 after 12 years of schooling (age 16/17); and in 2017/18 after 13 years of schooling (age 17/18). No students in the cohort left for higher education at the earliest time point; 14 students left for higher education and remained there three months after leaving at the second opportunity; and 188 students left for higher education and remained there three months after leaving at the third time point.

### *Comparison of data*

Pastoral teacher expectations (A) and teacher behaviours (B) were obtained through teacher interview, pupil perceived favourite teacher expectations

(C) and pupil self-expectations (D) were obtained through pupil questionnaire and interview, and the percentages of pupils in a Higher Education leaver destination three months after leaving school (E) were obtained from The Scottish Government. Teacher predictions ranged from 9% to 20% across the seven schools where interviews took place. This is lower than the actual Higher Education leaver destinations across the eight schools in the sample, at 25%. It is acknowledged that this 25% would include higher national students at college, as previously stated; therefore, it can be stated with confidence that no more than 25% of the cohort later attended university. Both of these levels are considerably lower than the perceived teacher expectations (52%) and children's self-expectations for university study (61%) across the eight schools. There was a statistically significant 9% difference between the pupils' self-expectations and their perceived teacher expectations.

These findings are summarised in [Table 1](#).

## Discussion

Wang, RubieDavies, and Meissel (2018) review suggests that teacher expectations may influence pupil outcomes. This is said to happen through communication of expectations via behaviour changes, with resulting impact on pupil perception of teacher expectations and socio-psychological factors. In the current study, while it was not possible to directly compare predicted with actual leaver destinations, it can be said with confidence that 9–20% of the cohort were predicted to go to university and less than 25% achieved a university destination. These values are relatively low compared with the children's own predictions. For this cohort at least, if teachers did influence pupil outcomes, it did not appear to be due to the child's awareness of low teacher expectations and subsequent changes in socio-psychological factors at age 14/15. If, on the other hand, teachers did not cause but predicted the outcome, as previously suggested by some authors (Jussim and Harber 2005), then this would indicate that teachers simply knew their pupils rather than influenced their outcomes.

The teachers in the study certainly did not feel that they had much influence on most children's outcomes, Teachers justified their low expectations by identifying barriers that were said to moderate (by reducing) their own influence. This perceived lack of influence to make positive changes to children's outcomes led teachers to conclude that promoting high aspirations is futile for most, as there is nothing that can be done; home issues are out-with the teacher's locus of control.

A deficit view of parents has a long-standing tradition (e.g. Cabinet Office 2010); however, some researchers (St Clair, Kintrea, and Houston 2011;

**Table 1.** Summary of data collected and findings.

Definition of stage	Method	Findings
A – How and why the teacher forms expectations	Pastoral teachers were asked to predict what proportion of third year pupils would attend interview during semi structured interview.	Predictions of the proportion of third year pupils who would attend university ranged from 9% to 20% across the seven schools where interviews took place. Pre-existing labels, deficit views of parents and feelings about lack of influence all contribute to understanding how and why these teachers formed expectations.
B – How and why the teacher behaves differently	Pastoral teacher semi structured interview.	Ability grouping and university-track groups were used for pupils who the teachers felt showed potential for university.
C – Student perceives teacher expectations	Student questionnaire: Think of your favourite teacher. How long do they think your education will continue for? Pupil semi structured interview	52% thought that their favourite teacher would expect them to graduate from university. High achieving pupils had well-formed views of their teachers' perceptions of them. The rest of the cohort was not well represented in the interviews.
D – How student socio-psychological factors are influenced	Student questionnaire: How long do you think your education will continue for? Pupil semi structured interview	61% stated that they expected to finish university. The children who were on a university trajectory spoke confidently about their futures.
E – Achievement outcomes are influenced	Stratified leaver destination data for the cohort were obtained from The Scottish Government (The Scottish Government 2019)	Three months after leaving school, 25% of the cohort were in Higher Education.
Comparison between Stage C and D	Pupil questionnaire data for stages C and D are compared using Fisher's exact test statistics (significance $p < 0.05$ ).	There was a statistically significant 9% difference between the pupils' self-expectations (61%) and their perceived teacher expectations (52%).

Harrison and Richard Waller (2018) have challenged the view that parents are to blame, suggesting that it absolves universities and schools of responsibility for leaver destination statistics. Research in Scotland has shown that although parents of children living in low SES areas do aspire for their children, knowledge of the pathways through education and employment to realise these ambitions is limited (Sosu 2014; Treanor 2017). Owens and de St Croix (2020) warn against blaming students, their parents or their teachers for poor outcomes. Rather they suggest that we look to remove societal barriers in a move away from meritocratic thinking. Weinstein (2009) has long promoted an ecological model, whereby parents, teachers, children and the home and school environments interact interdependently to create expectation effects.

Although the teachers in the study did not feel that they could influence most children's outcomes, some were proud to report that they were able to identify the children who had potential to attend university in the early years of school and nurture their ability within elite university and study groups. The pride of the teachers suggests that they see the special groups as

a positive element of their work; that they believe that the groups support the students; and that numbers of university entrants would be lower without them. 'Ability' grouping is a long-established method, and teachers readily aligned with use of groupings in this context. The special groups gave them an element of influence after all, as they felt they could make a difference in the lives of this small group of students. Identification of children with potential, and their placement in elite groups, suggests a belief in unmalleable intelligence. The suggestion that a belief in fixed ability may be the reason for stable population intelligence (Aronson, Fried, and Good 2002) is also relevant here, as despite describing the various initiatives and enablers, predictions about 11–14-year-old students were often based on the leaver destinations of the current school leavers.

The 9% difference between children's perceived teacher expectations and their expectations for themselves was relatively small; however, there was a much larger difference between actual teacher expectations and pupil-perceived teacher expectations. This suggests that, at the age of 14/15, most children were unaware that their teachers had lower expectations of them than they had for themselves. Similarly, the children's perceived teacher expectations bore no resemblance to the actual leaver destination statistics; their perceptions of their teacher's expectations were not enough to influence their eventual outcomes. If teachers did influence leaver destinations for these children, it was not through the children's perceptions of teachers' expectations and related changes in socio-psychological factors; indeed, self-expectations were very high.

No quantitative information is available from this study on teacher behaviour (stage B) but overall, the combined data may support a possible relationship between teacher behaviour (stage B) and achievement outcomes (stage E). Although high achieving pupils claimed to be aware of high teacher expectations during interview, questionnaire responses indicated that most pupils were unaware of teachers' expectations, suggesting that the accepted route was not applicable in this context. Although teachers acknowledged and celebrated influence on children in university-track groups, they did not feel they had influence with most students. It is proposed that teachers may have had an indirect influence on student outcomes, which was in the setting of elite ability and university-track groups at early stages in children's school career. The groups nurtured some children in terms of pathways and study skills, while most children were excluded from these supports. Stratifying children into university-track groups at age 11 may allow teachers to influence outcomes of children not placed in the groups as much as those placed in the groups. The elaboration process, where pupils develop their palette of possible selves into probable selves, is supported more for children in elite groups; the other

children may not necessarily have been fully aware of the implications of this at age 14/15.

## Conclusion

If we are to move away from blaming low SES pupils, their parents and their teachers for poor educational outcomes, then schools should be supported to recognise and overcome structural and cultural barriers. This may include questioning established practices of elite university-track grouping, which rest on an assumption of fixed ability. Low pupil self-aspirations, which are so often casually linked to educational outcomes in low SES areas, were not evident in this study. Providing all children with opportunities to explore pathways and graduate careers would increase the palette of possible and probable selves for all children, not just those in the university-track groups.

Implications for Policy and Practice:

- teachers should be challenged to consider the notions of ‘ability’ and ‘potential’, which are limiting terms that may affect how they view students.
- work should be done with schools to challenge teachers’ deficit view of parents and increase understanding of the role of structural disadvantage (as opposed to perceived standards of parenting or self-motivation of students) in shaping outcomes;
- avoid undermining inclusive approaches to widening participation through creation of elite university track groups in year 1, which stratifies children, even if they are not aware of this.

## Disclosure statement

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