

Are UK middle schools better for early adolescents than transition into secondary school? A study of two school environments

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Introduction

When children begin puberty and become early adolescents (at around age 10-12 years old), many also begin to disengage from school. International research finds that this drop in engagement is most pronounced at transition into secondary schools or their equivalent.

Most UK early adolescents attend one of two schooling systems. Those in the two tier system move from primary to secondary schools at age 11/12 years whereas those in the three tier system change between lower/first, middle and high schools at around age 8/9 and 12/13 years. Transition in the two tier system is characterised by marked change from small primary schools with single class teachers to large secondary schools with multiple teachers, older children and a more complex environment. The same aged children in three tier middle schools are introduced to subject specific teaching earlier (at age 9/10 years) but with fewer teachers than in secondary schools. The typical roll size of UK middle schools (around 400 pupils) is smaller than that of UK secondary schools (around 1000 pupils) but larger than UK primary schools (around 120 pupils). Having a moderate roll size, early introduction to subject specialist teaching and smaller number of teachers teaching a particular child are features of UK middle schools that have popular appeal as being good for early adolescents' personal, social and emotional development.

However, whether 11/12 year old children have more positive attitudes to school in UK middle or secondary schools is a question that has not previously been tested by academic research. Is there something in the difference between these two types of environments that might contribute to a difference in attitudes to school? Or perhaps it is the disruptive event of school transition that influences children's attitudes to school to fall, rather than school environments per se? What can we learn about children's attitudes to school by comparing the experiences of middle and secondary school children?

Methods

To address these questions, a one year study of Year 7 (age 11/12 years) pupils was carried out in one middle and one secondary school in the East of England². The schools were matched as closely as possible to national average role size, age range, KS2/3 literacy, numeracy and aggregate scores and value added scores and bands, for their school type. Exact figures are given in the full report (Symonds, 2009). This occurred in order for the schools to be representative of a typical middle or secondary schooling experience. The secondary school was in an area of slightly more affluence (unemployment rate 1.62% versus 3.35%), white ethnic majority (97% versus 91%) and lower population density (145 versus 255 people per square kilometre) than the middle school.

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² The researcher was based at the Faculty of Education, University of Cambridge and the research comprised her doctorate. The work was supervised by Dr Linda Hargreaves and was assessed by Professor Maurice Galton and Dr John Coleman.

Surveys. In each school, all children in the Year 7 group (whose parents consented to their participation in the research) were surveyed at the beginning of Year 7 in October 2007, then again at the end of the school year in July 2008. This survey measured their attitudes to school and self-esteem, as well as gathered information on their gender, achievement level and perceptions of pubertal status. The results of the information on pubertal status and self-esteem are available in the full report. The measures of attitude to school and self-esteem were developed by Dr Tony Pell and colleagues for the ORACLE replication study of school transfer (Hargreaves & Galton, 2002) and have also been used by the Suffolk Local Authority in their transfer review (Suffolk Local Authority, 2001). The attitude to school measure contained 24 statements, to which children responded on a four point scale of 'strongly agree' to 'strongly disagree'. The answers to each question were summed to give a total attitude to school score. The survey responses were analysed using the Statistical Package for the Social Sciences (SPSS) version 15 software.

Table 1. Attitude to school questions

1 I think my teachers are friendly.	13 When we do tests I feel confident I'll do well.
2 I think most school work is just to keep us busy.	14 I don't have as many friends as I'd like at school.
3 Nobody at school seems to take any notice of me.	15 I'm afraid that I'll make a fool of myself in class.
4 I think that my teachers take notice of what I need.	16 In class I'm often able to work with people I like.
5 People like me will never do well at school.	17 I'm quite pleased with how school work is going .
6 I usually feel relaxed about school.	18 I wish we did things we like instead of being told.
7 I look forward to coming to school most days.	19 People like me don't have much luck at school.
8 I don't really enjoy anything about school.	20 I am liked by most of the other children in my class.
9 I like school better than most other children.	21 I am afraid to tell teachers when I don't understand.
10 Sometimes I feel lost and alone at school.	22 Others in class include me in what they are doing.
11 I am making good progress with my work.	23 I like my teachers.
12 I don't belong to many friendship groups at school.	24 I have trouble keeping up with my work.

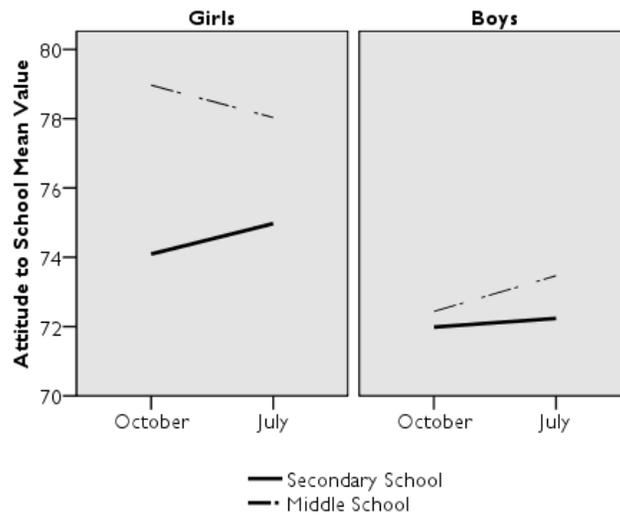
Interviews and observations. Using the first survey as a benchmark, ten children from each school were chosen to represent a mixture of high, moderate and low attitudes to school, levels of pubertal status and gender. The two groups of ten children were matched on these features in order to be a good comparison to each other. Each child was interviewed for thirty minutes once per term and on each occasion the researcher spent an additional day in school observing their behaviour. The information from the interviews and observations was analysed using qualitative coding software (NVivo 7) by looking firstly at the themes that arose across the information and secondly by looking for direct links between children's overarching attitudes to school and their perceptions of peers, family, school and self. These links were mapped into a *Network of Perceptions* (available in the full report).

Pupil voice. The two matched groups of ten children did not participate passively but were engaged as 'active participants'. Here they were actively engaged in research processes by the researcher scaffolding their knowledge about research, building their relationship with the adult researcher, granting them autonomy as participants (giving them a say in what types of questions were asked and what information was used in the final project) and by asking them to evaluate their participatory experiences. This process was found to give the children confidence in responding to interview questions, helped them feel less nervous and enabled them to actively help their local and wider communities via the research. The children chose their own pseudonyms to be known by in publications.

Findings

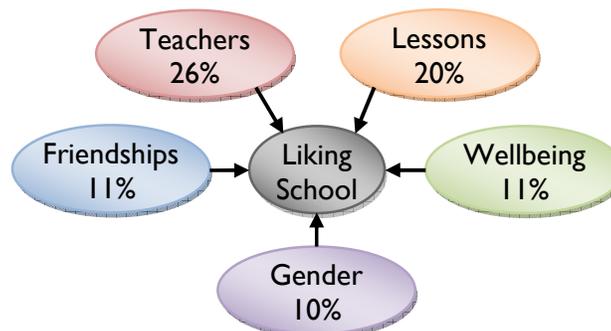
This brief report focuses on the findings regarding the children’s attitudes to school. First it is possible to see whether each year group’s attitudes differ between schools by comparing their average scores in November 2007 and July 2008. There were 46 middle school children (16 boys and 30 girls) and 146 secondary school children (70 boys and 76 girls) who participated at both times. This analysis finds that boys in both schools had lower attitudes than girls, and that on both occasions attitudes in the secondary school were lower than in the middle school (Figure 1). The rise in secondary school children’s attitudes most likely represents a normalisation of attitudes after a sudden dip from the end of primary school, as observed in other school transition studies.

Figure 1. Attitude to school by gender



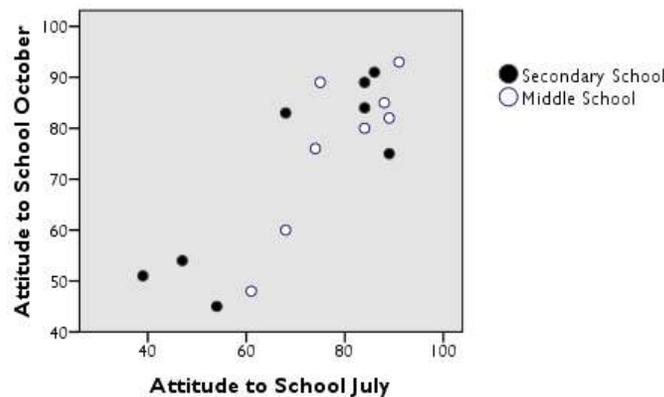
A second analysis was carried out to uncover more about the children’s attitudes to school in term three. This was based on the ‘Network of Perceptions’ analysis that identified which factors were most commonly mentioned in relation to children’s overarching attitudes to school, using the interview data. These were bullying, relationships with teachers, lesson enjoyment, friendships, psychological wellbeing, and freedom granted by parents. All of the factors except for bullying had been asked about in the October and July questionnaires. Using the questionnaire data, variables were computed to represent each factor. The factors were compared to each other and to demographic factors (the children’s KS2 achievement, socioeconomic status and gender), to see which was the most powerful in predicting children’s overarching attitudes to school (using only the questions about ‘liking school’ taken from the 24 item measure). The analysis found that children’s perceptions of teachers were most closely linked to whether or not they liked school, over and above other factors. This was closely followed by enjoyment of lessons.

Figure 2. Contributing factors to children’s liking of school in term three



In order to help explain why relationships with teachers and enjoyment of lessons were the most powerful factors, we now turn to the interview data which is a rich source of information on children's perceptions of teachers and learning. The analysis is limited to these two factors in order to provide educators with the most potent information for improving children's attitudes to school. As mentioned, two groups of ten children took part in the interviews. The following graph presents where each child's attitude to school scores are positioned in respect to terms one and three. This reveals a few children with low attitudes and others with moderate to high attitudes, who are fairly evenly dispersed between the middle and secondary school groups. This indicates that the groups are comparable.

Figure 3. The matched groups of active participants' scores for attitude to school



Attitudes to teachers

As discussed, the survey results found that the most important factor for contributing to children's attitudes to school was their relationships with teachers (Figure 2). The interviews revealed that both groups of children liked teachers who were kind, humorous and who allowed the children to interact with each other in class. However there were marked differences in the extent to which this occurred between the schools.

Teachers in the middle school: old friends and danger zones

In the middle school, each Year 7 child was taught by around nine teachers, many of whom they had already known for three years. "They know me well. Because I've been here through Years 5, 6, and 7" (Indiana, term 2). In the first term, the children were asked to give words of encouragement and warning to a pen pal who was 'just like them' and would be joining the school. Often the children recommended the schools' social environment and the prevalence of good quality teacher-pupil relationships. "The friends, the people are really nice and they're really inviting and so are the teachers" (Deirdre, term 1). The children were aware of how to manage their relationships with their teachers and for some this hinged on familiarity. "Get to know the teachers well because if you know the teachers well then you'll get on with them and be on the right side of them" (Gus, term 1). Most children when asked viewed their teachers as someone halfway between a friend and a parent. "Well you talk about like if you've fallen out but you wouldn't talk about if you've got a new handbag so it's like a kind of friend and it's like a parent but not as strong." (Joanna, term 2). Even Indiana who had behaviour problems and was often in detention was appreciative of his teachers: "Cause they already know so much but they're taking their time to actually teach us things that they know".

However there was one teacher who caused problems for many children in the group. In the middle of the year, Deirdre and Yasmin explained how this teacher was reputedly threatening and aggressive to the children. A few other negative comments about teachers arose toward the end of the year as some of the boys began to misbehave and get detentions. However many children including these boys reported that their relationships with teachers improved over the year. "At the start of the year we didn't really talk to teachers that much but now we do cause like we know them better" (Gus, term 2). By the end of Year 7, the children still had positive things to say about their teachers in general. "Well a lot of them are really nice and they'll help you if you can't do a bit of work in the class" (James, term 3).

Teachers in the secondary school: unfamiliar adults and stereotyping

In the secondary school each Year 7 child encountered around 20 teachers in their first year. As in other studies of transition, the children reported difficulty adapting to the varied work styles and expectations of these multiple teachers. "Because all the teachers were saying different stuff to me, and were contradicting each other, they were saying one thing and when I was doing that another teacher told me not to do it, and it was really weird because I didn't know what to do" (Jacob, term 3). Across the year they had mixed impressions of their teachers in general. "Teachers are being nicer, but then some just still are horrible and mean" (Ruby, term 2).

The children perceived their teachers as being primarily interested in school work. Discipline was a method of ensuring that the children worked hard. "She just wants to do things her way. And if you don't like it then tough. You're here to learn, you're not here to like mess about" (Sam, term 2). By term two, teachers were observed to have firmed up their impressions of some children which affected their delivery of time and emotional resources. "They can be nice to the nice pupils but they're horrible to the nasty pupils they don't really like and they won't tend to help as much" (Charlie, term 2). Teachers were constantly engaged in managing the children's behaviour and this took time away from helping individual children. "Because some teachers, cause they have other people to deal with, they sometimes just leave you there and you don't understand. Then you get told off for what you haven't done and you haven't understood it" (Stacey, term 3).

None of the children reported having a personal relationship with their teachers. This fed into their developing stereotypes of teachers as adults who were just there to do a job. "Nobody particularly really likes them, like is friendly with them. They are just adults that we know, and um, well basically all we do is we just walk into the lesson, they talk to us, we do the work and then we walk out" (Kevin, term 2). "They're just there to do their job, they're not there to be like your best friend" (Sam, term 2). Even a well behaved boy who wanted to be a teacher himself felt that there was no hope of a personal relationship with some teachers. "Generally I do quite want to be liked by teachers. In some cases that's impossible" (Matthew, term 2). Having supply teachers simply worsened the effect. "Our teacher's been gone since December so we've got a replacement" (Ruby, term 3), "We had the one with the short hair, that's one" (Sam), "We called her witch" (Ruby), "Yeah we've had 3...all horrible" (Sam). In general the children desired better quality relationships with their teachers, "They need to interact more and be more friendly" (Charlie, term 2).

Attitudes to learning

The children's impressions of their lessons and learning were fairly similar between schools, unlike their perceptions of teachers. Most children desired practical learning, learning that supported their developing career identities and that was characterised by good quality relationships. They wanted moderated freedom in learning, a mixture of scaffolding and free choice, yet perceived little of this in either school.

Active learning

Both girls and boys showed a strong preference for physical, active learning. The extent to which lessons comprised physical activity often determined children's attitudes to subjects: "Which subjects do you enjoy the most?" (Interviewer, term 1), "Food, drama, and PE" (Billy), "Okay, and why those subjects?" (Interviewer), "Well, it's because I get to move around" (Billy); "And why do you enjoy those subjects?" (Interviewer, term 1), "Cause they're like the most physical and ones where you can do practicals and go out and move instead of sitting at the desk and just writing" (Gus). This did not change across the year. "Like more physical stuff, like using wood or cooking. It's just more fun doing physical things then just sitting on a desk, writing stories or answering questions" (Bobby, term 3). The desire for active learning extended to subjects that did not often involve movement, such as geography. "If we actually went up and had a go at it and maybe that would be better. Like go up to it and say it was draw an exam like a diagram of the local traffic and draw a diagram of the traffic like something to actually do it if you know what I mean" (Sam, term 1).

Freedom in learning

In term one, several children mentioned that they liked subjects which gave them more freedom to be themselves and to follow their personal interests. "Why do you like drama?" (Interviewer, term 2), "They say in the class...when you want to be all loud they say quiet down, they don't wanna hear my shout. But in drama they're like speak your mind and have a real argument so then they...you just get to do what you like to do best" (Ruby). Some even wanted to choose their own curriculum. "I'd like to choose which subjects I go to" (Jacob, term 1), "So what would be your ideal curriculum?" (Interviewer), "PE, science, bit of maths, tiny bit of English, Spanish, French, food, drama" (Jacob). However there was a good deal of variation in the extent to which children felt comfortable directing their own learning. This was in some cases linked to a lack of experience. "Well I don't really know what it's like to have more freedom. I can't really imagine what more freedom would be like" (Yasmin, term 3). However in general, most children desired a more even balance of choosing what to learn and having this decided for them by the teachers. "Say like doing something in science, you have to try and discover something, but you can make your own practical or do what you want and do one of them every fortnight because they're really fun lessons" (Bobby, term 1). They were also in favour of a moderate amount of freedom, given that they still needed guidance from teachers on what to learn. "Do you think that you get enough freedom at school or would you like more or would you like less?" (Interviewer, term 3), "A bit more, but then not too much because I think you shouldn't have freedom all the time" (Lauren).

Meaningful learning

The children's learning preferences were often tied in with whether the subject was relevant for their future career ambitions. "Can you tell me why you like English?" (Interviewer, term 1), "I just like reading and writing stories" (James), "Have you got any ideas about what you want to do when you finish school?" (Interviewer), "I do quite want to be a director when I'm older" (James). Likewise their experiences of learning helped develop their career aspirations. "I like maths so I wouldn't mind working in an office and I like PE so I could be a teacher for PE like the teachers are saying I'm a good coach and yesterday I done the warm up for our class in basketball" (Gus, term 1). When asked what the most important thing about school was, nearly all the children replied that it would help them get a job in the future. "And does school give you what you need?" (Interviewer, term 1), "In some ways it does, you need to have education to get a good job when you're older" (Joanna). What things do you think are important about or in school?" (Interviewer, term 1), "Getting a

good level and then getting a job” (Gus). This ‘instrumental’ attitude to learning was tied in with their self-esteem. “Because I want to get a good job and get paid well and so I want to get good A levels and stuff, and so I get respected” (Billy, term 1)

Relational learning

Children in both schools also enjoyed learning that was characterised by good quality relationships with peers and teachers. This included team work: “When you’re learning, what types of things make you happy then?” (Interviewer, term 2)., “I like hands-on activities” (Alex), “Why did you say those things?” (Interviewer), “Because you’re like teamwork, working together to do something and rather than just writing stuff down, you can actually put stuff together” (Alex); and being able to talk with friends: “It just feels a bit uncomfortable that we can’t really talk. I guess if we just talk and not get any work done then that’s not alright but in art we are allowed to talk and get our work done at the same time” (Sam, term 2). When teachers did not allow peer interaction and were nasty to the children, this could completely turn children off certain subjects. “But I don’t really like German, my teacher’s horrible” (Billy, term 3). “I don’t think I ever liked Maths. I think I might have liked Science, but not anymore” (Chloe, term 3). “What’s the main reason for that?” (Interviewer). “The teachers. They are not very good and you don’t learn anything in any of the lessons. Mrs Chisel, she doesn’t let us do anything fun” (Chloe). These occurrences were only present in the secondary school.

The transition effect

As discussed, one effect of transition to secondary school was the move from a single class teacher to multiple teachers. In the secondary school studied the children reported having fairly low quality relationships with their teachers, as their teachers were more work focused and less able to provide personalised pastoral care. This intense focus on work and achievement was motivating for some, but threatening for others who were not confident about their work abilities and who didn’t receive personal support.

As well as experiencing changes in their learning environment, the children were also developing an altered sense of self. Being in secondary school made the children feel more grownup. “I think when you move up you feel more mature, even though you might not be. You just feel more mature because you feel like you’ve left everyone else behind” (Kevin, term 1). This pressure to grow up came from teachers: “You get the good teachers and they’re more nice but they’re more strict... in primary school they’d be rushing over to you like they’re your mum, helping you up, but now they’re not like that” (Ruby); and from parents: “My mum treats me different” (Chloe, term 3), “How does she do that? (Interviewer), “I think she just expects me to be more responsible and to do more housework” (Chloe). Also the children actively engaged in peer pressure to ensure that others in their year group were more grown up. “They’re in Y7 now, they shouldn’t be acting like they’re in reception, they should be acting like they’re part of grownups cause in Y6 they are still young and when they come to Y7 it’s like a big step. Growing up” (Ruby, term 1). On the good side, the increased maturity pressures encouraged some children to take school and school work more seriously (as they were more aware that it was important for their future careers). However feeling more mature also encouraged children to desire freedom in learning and more unsupervised activities which the school did not provide. Feeling more grown up at school transition can therefore link to children developing lower attitudes to school, depending on the school environment.

Summary

The following table summarises the findings between schools.

Table 3. Summary of findings

	Middle school	Secondary school
Number of teachers teaching each child	Around 9 teachers.	Around 20 teachers.
Teacher-pupil relationships	Good quality. Teachers already knew the children well. Relationships improved over the year.	Teachers were perceived as being focused on work and behaviour and not on pastoral care.
Impressions of teachers	Kind generally. One teacher was problematic.	Impersonal adults who are just there to do a job.
Teachers' management of behaviour	Only mentioned by naughty boys who had detention.	Could get in the way of helping all children to learn.
Learning preferences	Children preferred active, hands on, concrete learning where they could have a limited choice of activities and where learning was meaningful for their developing identities.	
School transition	Little change or social pressure noted across the year.	Children were expected to be more mature, and felt more mature. This contributed to their desire to be autonomous.
Comparison of attitudes to school	Attitudes were high. These decreased slightly for girls and increased for boys across the year.	Attitudes were lower than in the middle school at both times. These increased slightly across the year.
Evaluation of factors contributing to attitudes	Relationships with teachers and learning experiences were most important for children's overall attitudes to school.	

Limitations

As mentioned in the methods section, this study only involved children from one middle and one secondary school. Despite taking great care in choosing the schools to represent average schools of their type nationally, schools ethos might have been an underlying cause of differences found between the schools. However as the results tie closely to typical features of middle and secondary schools (teacher familiarity, a smaller number of teachers per child) school ethos cannot completely explain the differences found. It should also be pointed out that there was a much smaller sample of Year 7 children surveyed in the middle school. Although this in part mirrors the smaller year group size, it presents the question of what the survey results would look like if the sample was larger.

Discussion: What can schools do to improve children's attitudes?

This paper began by asking whether children would have more positive attitudes to school when housed in UK middle schools, rather than after transitioning to traditional secondary school environments. By comparing children in both types of schools, the most critical factor that emerged was the quality of their relationships with teachers. This information might have remained hidden if the children had been interviewed by their teachers, rather than by an impartial outsider. Other people who might be well placed to interview children about their attitudes to school are non-teaching staff members such as school counsellors and creative agents.

The findings suggest that it is easier for better quality teacher-pupil relationships to develop in middle schools given that children encounter less teachers and have prior

opportunity to get to know them well. Middle schools, in their form of organisation and curriculum provision, need to ensure that they can provide the best circumstances for these relationships to develop. Increased accountability has encouraged a move in some middle schools to an increase in specialist teaching at an earlier age – this needs to be balanced against the importance, revealed in this paper, of high quality teacher-pupil relationships.

Stationing school transition in early adolescence appears to make children feel more grown up, and for some this influences the amount of autonomy they want at school. Unfortunately the children in this study did not find that their new school granted them more autonomy. Instead, they perceived their teachers as strict and controlling and soon began to form impressions of their teachers as impersonal adults. Secondary schools are encouraged to rethink their organisational design in order to provide more opportunity for good quality teacher/pupil relationships to develop. The current arrangement where large numbers of teachers teach each child in the first year does not appear to facilitate this.

A successful project in Rhode Island, US, that has been ongoing for twenty years, has focused on reducing the number of teachers and the size of the peer group (by forming 'houses' or 'teams' of 60-100 children) in schools' Year 7 equivalents, in order to provide incoming children with a smaller and more secure environment in which to adjust to secondary schooling (Felner, Favazza, Shim et al., 2001). Compared to those in schools without the intervention, children in the project schools are found to have better social and emotional adjustment, to not exhibit a decline in achievement after transition and be 40-50% less likely to drop out of school. This type of intervention might be something for UK secondary schools to consider, as some are already doing.

The second most critical factor regarding attitude to school that emerged from the current study was children's learning needs. These were not entirely being met by either school, perhaps due to the rigidity of the school curriculum and persistence of traditional teaching styles. The children in this study suggested that things would be better if they were able to direct their learning towards their personal interests. However at age 11/12 they were still keenly aware that they needed support and guidance from their teachers so that they would have a well rounded education, which was considered to be of vital importance to their future careers. Their needs for autonomy, career and identity exploration in a safe environment that is mediated by supportive adults, are characteristic of early adolescents. Current forms of didactic teaching do not appear to fully meet this age groups' learning needs.

Presently in the UK, a national scale programme called 'Learning Futures', run by the Paul Hamlyn Foundation, is exploring what happens when KS2/3 children are involved in activities that are designed around one or more of four themes that are very similar to the needs described above. The themes are enquiry based learning, 'co-constructed' learning, learning mentorship and community participation. It is thought that when children become more actively engaged in their learning, their achievement and wellbeing should follow suit. Learning Futures aims to deliver information to educational practitioners to help them address these issues in their own curriculum management. Currently several of the schools' projects are available online³.

³ www.learningfutures.org

Conclusion: A need for learning mentors?

Although related to school ethos, relationships between teachers and pupils have not received a lot of popular attention, perhaps because their importance has not yet fully been recognised. This study indicates that good quality relationships with teachers underpin children's attitudes to school, and therefore that these should be discussed. A shift to more personalised mentoring is critical for improving children's attitudes to school and capabilities to learn. Given the current organisation of middle and secondary schools, this study indicates that learning mentorship is more likely to occur within the current setup of UK middle schools, rather than at transition into traditional secondary school environments.

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ⁱ The full multiple regression analysis is presented in Symonds, 2009.