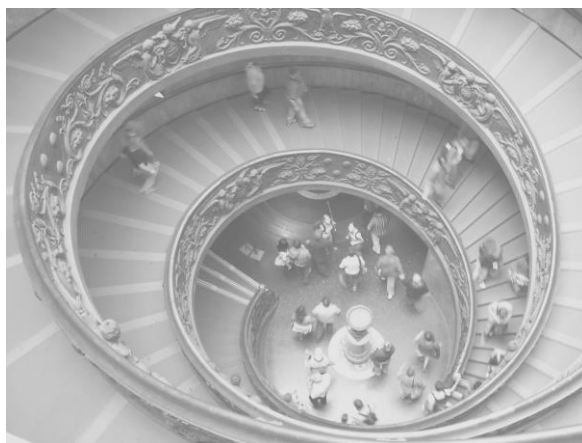


**The ambiguities of comparing transfer ‘effects’ between two
and three tier systems; suggestions for improving pupil
declines in attitude and achievement**

A Review of the Literature



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CONTENTS

The first section of this paper consists of a brief report on the ambiguities of using both national data and transfer literature to compare ‘transfer effects’ between the two and three tier systems. This can be read as a separate article. It is followed by a more detailed review of the particular mismatches between school environment and adolescent development which can cause declines following transfer. The paper concludes with a table of suggestions for improving post-transfer school environments.

SECTION ONE: Ambiguities of Comparing Transfer ‘Effects’	3
1.1) <i>Summary of Environmental Aspects Which Cause Declines</i>	4
1.2) <i>‘Accumulative Dips’ or ‘Dips Less Likely’?</i>	5
1.3) <i>Concluding Thoughts</i>	7
SECTION TWO: Mismatches Between Adolescent Traits and School Environment ..	9
2.1) <i>Pupil Teacher Interactions</i>	9
2.2) <i>Discrepancies Between Pre and Post-Transfer Curriculum</i>	10
2.3) <i>Achievement Grouping</i>	11
2.4) <i>Lack of Pupil Autonomy and Decision-Making, and Conflicting Social Roles</i>	13
2.5) <i>Proposed Solutions</i>	14
2.5.1) <i>Table of Adolescent Traits, Environmental Mismatches and Solutions</i>	15
REFERENCES	16

SECTION ONE: Ambiguities of Comparing Transfer ‘Effects’

Many pupils experience dips in achievement and attitude when changing schools, however the validity of comparing these dips between the English two and three tier systems is uncertain. No published studies currently exist which clearly show that the effects of changing schools twice causes cumulative declines in pupil achievement (Galton, in Suffolk LA, 2006, p. 45). A large number of American studies state that declines are more likely caused by features of post-transfer school environments rather than by the act of changing schools. These studies have linked specific teaching and organisational aspects of post-transfer schools to feelings of less academic competence, less school engagement and declines in general well-being, especially among adolescents. Therefore, the question of ‘are dips following transfer accumulative?’ is not one that can be addressed simply by assuming that dips in each system are comparable by default. Rather, a comparison of school environments will be key to understanding at what age, and in what type of schools, declines are most likely to occur.

A further confounding variable is that in many cases, national assessment data has been used to compare the performance of middle and upper schools to their primary and secondary counterparts. Ward (2000) among others, finds that most pupils need time to adjust to their new environments before being able to fulfil their academic potential following transfer. The placement of SATs tests is close to transfer in the second and first years of middle and upper school respectively, versus in the sixth year of primary and third year of secondary school. By Ward’s logic, this yields results that should be incomparable, as pupils in the three tier system have had less time to adjust. Using this perspective, this paper argues that from the basis of very similar SATS results between the two and three tier systems, despite experiencing two transfers, pupils moving into middle and upper schools may experience less declines than their secondary school counterparts.

The purpose of the following report is to discuss how the data put forward by the Suffolk Review (2006), aimed to promote the advantages of a two over three tier system, can be equally used to indicate that the three tier system may actually be outperforming the two tier system with regards to transfer. The theoretical basis for this argument stems from the research into post-transfer school environments and adolescence.

1.1) Summary of Environmental Aspects Which Cause Declines

Since 1983, American developmental psychologist Jacquelynne Eccles and her colleagues have studied adolescent development within school contexts. This research is part of the current Gender and Achievement Research Program at the University of Michigan. They found that pupils who transfer generally do so from small, close knit communities into larger, less personalised institutions. Declines in pupils' attitude and achievement following transfer were linked to specific features of post-transfer school environments. Interestingly, declines were shown to be most significant if happening in the context of early adolescence. Eccles and Midgley termed this discrepancy between adolescent development and school context as the 'developmental-mismatch hypothesis' (1989).

Adolescence is often marked by changes in personality and behavioural characteristics, resulting from a combination of biological and social factors. These changes are often identified as increases; in autonomy and decision-making, self-consciousness, self-identification, appearance issues and self-other comparison, salience of identity issues pertaining to sexuality and relationships, peer-orientation, avoidance of familial adults, desire for non-familial role-models and the ability for complex, abstract thinking (Eccles & Roeser 2006, Blakemore & Chowdhury 2006, Shapka & Keating 2005, Eccles 1999, Allen & Land 1999, Eccles, Lord & Midgley 1991). Eccles and her colleagues have found that adolescents who search for adult role models but who find a lack of relatedness with their new teachers, who strive to make their own decisions in order to grow in autonomy but who have little opportunity to do so in class, and who are faced with less challenging work than at their previous schools, display declines in achievement and self-esteem.

Pupils moving into junior high school and secondary schools in the US have reported finding in comparison to their previous schools: less relatedness between themselves and teachers, less trust from teachers and lower achievement expectations, drops in teacher efficacy, less opportunity for autonomy and decision-making in class, more emphasis on performance and comparison and decreased cognitive complexity of tasks (Eccles & Roeser 2006, Eccles, Lord & Midgley, 1991, Eccles et al. 1989). These environmental characteristics are likely to be true also of many English middle, secondary and upper schools.

To date, none of this research has been cited in depth by either the UK's most recent large scale study of transfer (Galton, Gray & Ruddock 2003) or by county

councils who specialise in transfer studies (Suffolk 1996, 2002, 2006). Instead, Galton and his colleagues focus on the concept of transfer as a status passage, and find that pupils benefit the most from having an appropriate mix of continuities and discontinuities between their former and transfer schools (Galton, Gray & Ruddock 2003, Galton, Hargreaves & Pell 2003). Many local authorities have approached smoothing the transition between schools through orientation programmes and cross-over units of work (Galton, Gray & Ruddock 2003). However the real problem may lie in the very nature of secondary and middle school environments. Steps towards improving these environments should replace the focus on isolating the process of transfer as responsible for declines, an opinion which in part, suggests that lower outcomes after transfer are inevitable, and which has been used in support of middle school closures (Suffolk County Council, 2006).

1.2) 'Accumulative Dips' or 'Dips Less Likely'?

Currently, middle schools are publicly judged by their rating in the English league tables, determined by their performance on national KS2 SATs tests, sat by the majority of Y6 pupils. These tests as stated in the introduction, fall 'uncomfortably' in the second year of the four year middle school programme. Comparatively, the tests are sat in the final year of primary school, therefore being an indication of pupil progress over six years of uninterrupted schooling. At present, there is no nationally published measure that gives an equivalent assessment of the overall effectiveness of middle schools, therefore, public judgements are made by using ambiguous data.

Behind the curtains of the media stage, there is increasing movement by many middle schools to obtain data that will give a sufficient measure of the four years of middle schooling. Some schools have implemented a condensed key stage three curriculum (SKS3). Here, pupils sit their KS3 SATs at the end of Year Eight (Y8), instead of in Y9 at secondary or upper school. Preliminary test results from a mixed demographic of schools in the SKS3 pilot are either similar, or in some cases better, than those from many secondary schools (Wyatt, 2007).

These findings are particularly interesting when considering that secondary school pupils sit the KS3 SATs after three years of adjusting to their new school environments. In comparison, pupils at upper schools in the three tier system have only had a single year in which to adjust and prepare for these tests, following transfer. Respectively, the comparison of KS3 results between secondary and upper schools is not an appropriate measure of attainment between the two and three tier

systems, as dips in achievement at upper school are likely to happen while pupils adjust to their new environment. Instead, comparison of results should occur at GCSE level, once adjustment factors are countered for. Perhaps surprisingly, from Annex 9 of the Suffolk Review (2006), it clearly shows that when using contextual value added data (CVA), Suffolk upper school pupils have better overall GCSE results than their secondary school counterparts (33% of upper schools being below the national average of GCSE G-A* grades compared to 40% of secondary schools). Although not quite as many upper school pupils obtain five GCSE C-A* grades, this may again be related to their higher CVA.

To reiterate, if tracing together the data presented in the Suffolk Review (2006) and elsewhere, it appears that middle schools although disadvantaged by the placement of national tests, are able to produce comparable results with primary schools, after only two years of pupil attendance. Following from this, the preliminary data from the SKS3 pilot shows that after four years of middle schooling, pupils are able to achieve KS3 results that are as good in Y8 as they are in many schools in Y9. Hypothetically, there may therefore be something about middle school environments which encourages quick adjustment and increases in learning by pupils transferring from lower or junior schools. In accordance with this, analysis of DfES value added performance data has shown that middle school pupils make better progress over KS3 than secondary school pupils (Wyatt, 2004). Likewise, despite the placement of KS3 SATs tests immediately after transfer, results from Suffolk upper schools are very similar to those of Suffolk secondary schools. As pupils progress into GCSE, the distance between the systems reverses with upper schools obtaining slightly more GCSE grades overall. This may indicate that upper school environments can also quickly reduce declines following transfer, or that they incur less declines initially. Both of these features may be present in the three tier system, and need further investigation before any claims on middle and upper school effectiveness can be made.

With regards to upper schools, several studies have found that transfer effects lessen with age. Pupils who transfer from middle to upper school have reported feeling more able to cope with their new school environment, both emotionally and academically (Lipps 2005, Ward, 2000). A classic study by Simmons, Blyth and Carlton Ford (1987) found that pupils who experience the onset of puberty at the same time as transferring schools were more likely to suffer declines in academic

achievement and self-esteem, compared to their non-pubescent counterparts. The above findings may point to the benefits of keeping transfer away from the beginning, crucial stages of early-adolescent development where individuals are more sensitive to adjustment, and leaving it until pupils are more mature.

In the Suffolk School Organisation Review (2006), Galton searches the literature for data to show that dips in transfer are accumulative. He states in his conclusion that "...the evidence supports the view that delaying the move from the elementary school helps to reduce dips in transfer. [author insert – this finding concurrent with logic that transfer improves as pupils grow older] There is less of a case for arguing that the dips are cumulative so that pupils attending a three-tier system of schooling are permanently disadvantaged" (p. 45). As discussed throughout this section, middle and upper schools achieve very similar results to, and in some cases better than, primary and secondary schools despite the disadvantages of test placement close to transfer. This may indicate that declines following transfer are less, or are more quickly made up, in a three tier system perhaps because the timing of transfer in the two tier system occurs just as many pupils first experience puberty. At this age, as discussed, pupils are found to be more susceptible to the features of school environment which can cause declines (Eccles, Lord & Midgley, 1991). Therefore, further research into age-specific, post-transfer adjustment may indicate the benefits of scheduling transfer for after early-adolescence.

1.3) Concluding Thoughts

In summary, pupils' early-adolescent traits have been found to mismatch with typical features of transfer school environments, causing declines in attitude and achievement. Accordingly, the placement of KS2 and KS3 SATS tests in the three tier system occurs when pupils are adjusting to their transfer environments, resulting in unbalanced comparisons between the performance of middle and primary, and upper and secondary schools. A truer measure would be to consider GCSE results between the two systems, however environmental context must be factored into any such comparison. The minute differences in KS3 SATs scores between two and three tier systems may indicate that adjustment following transfer to upper school is swifter or less negative than primary to secondary transfer, perhaps as the latter occurs during the sensitive period of early-adolescent development. Middle schools, with their higher levels of pastoral care (OFSTED 2006, Wyatt 2007), may be in a particularly good position to support adolescent developmental changes and to promote successful

adjustment. Respectively, the significant care for adolescents at middle schools, combined with the benefits of a 'delayed' transfer to upper school, may explain the lack of evidence for transfer 'effects' being accumulative, and point to the advantages of scheduling transfer around a three tier system.

Certainly, changing from a three tier or mixed system to a two tier system is very expensive. Oxfordshire are estimated to have spent £35 million on reorganisation. As counties that have reorganised from two to three tier have improved over the past decade at a similar level to those who have retained three tier systems (Wyatt, 2007), this money may be better put into improving the aspects of school environment that cause pupil declines. In particular, LAs could develop training courses (and fund places on these for KS3 teachers) on how to address the developmental needs of early-adolescents through teaching, organisational and pastoral approaches. This would give opportunities to KS3 practitioners to develop as expert teachers in the field of adolescent education, and approach a reduction of teacher/pupil related aspects of environmental mismatch that are likely to occur in both school systems. Importantly, the culture of middle years education must increase its focus on understanding and taking into account physical and psychological development in adolescence, in relation to teaching and learning.

The final suggestion from this section is that more research needs to be done in order to fill the gap in the transfer literature. No authoritative studies exist which compare adjustment following transfer in a two to three tier system, outside of the somewhat misdirected comparison of SATS. A more efficient investigation could use observational techniques such as in the ORACLE studies, to find out more about the mismatches between pupils and school environment in two and three tier systems. Considering the many levels of school organisation, social life and classroom interaction which affect pupil adjustment (Roeser, Eccles & Freedman-Doan 1999), this type of close-up investigation must focus on multiple aspects of the school environment that may cause academic declines, before any meaningful conclusions which compare the two systems can be reached. Concisely, Eccles, Lord & Midgley (1991) state that "...the presence or absence of a major school transition is less critical than the type of school the child is in during the early adolescent years" (p.532).

SECTION TWO: Mismatches Between Adolescent Traits and School Environment

The following section further describes the environmental mismatches outlined in section one, using findings from the Michigan studies and from elsewhere in literature on developmental psychology and transfer. It aims to encourage educational practitioners to consider the negative effects of certain teaching and organisational aspects of school environment on pupil achievement and attitude, so that they may further address post-transfer declines.

2.1) Pupil Teacher Interactions

When pupils transfer, they are likely to experience a lack of relatedness with their new teachers, a distance that is difficult to decrease due to the limited time that pupils and teachers spend together in a subject specialist environments (Siedman et al. 1994, Roeser & Eccles 2000, Ward 2000, Johnstone 2001). As it takes teachers longer to become familiar with pupils, potentially never reaching the levels of familiarity experienced between pupils and teachers in their junior/primary schools, it is no surprise that transfer school teachers have been found to trust pupils less and want to control them more – behaviours that have negative effects on pupil attitude and achievement motivation (Eccles et al., 1993). The adolescent tendency to experience a growing need for adult guidance outside the family, mixed with the delicate balance of detaching themselves from parents and carers in the search for autonomy (Allen & Land 1999) may provide further confusion for adolescents when trying to evaluate their relationships with teachers.

A second cause of academic decline is caused by the drops in efficacy among transfer school teachers, observed in several middle and secondary schools (Roeser, Eccles & Sameroff, 2000). Effects of low teacher-efficacy have been found to ‘rub off’ onto pupils, who as a result, reduce their self-perceptions of academic competence and perform less capably, leading teachers to underestimate their abilities (Eccles et al. 2003). Many schools employ techniques to improve teacher/pupil relatedness (a particularly successful one being teacher participation in extra-curricular activities), however teacher efficacy is more complex subject to manage, especially in schools where the workload is fierce.

Lastly, academic decline can also occur when pupils have difficulty in coping with teaching styles that are different from those at their previous school (Ward 2000, Galton & Wilcocks 1983). Pupils have perceived post-transfer teaching styles as

being inconsistent (Johnstone 2000), perhaps linked to their exposure to several teachers in the course of a single day. Galton and Pell (2003) suggest that pupils should “take account of these differences in their efforts at learning to become a ‘professional pupil’” (p.1). For pupils to be alerted to the benefits of doing so, it may be the teachers’ responsibility to visibly integrate orientation strategies to their own teaching methods when teaching a post-transfer group.

2.2) Discrepancies Between Pre-Transfer and Transfer Curriculum

The widely cited ORACLE study by Galton and Wilcocks (1983) used systematic observation in an investigation of pupil-teacher behaviour in pre-transfer and transfer classrooms. The study found links between school curriculum and declines in pupils’ achievement post-transfer. Pupils in the study felt anxiety and dissatisfaction about their Art and Maths curriculum being more advanced and therefore more demanding than in their previous schools. In Science and home economics, pupils were restricted to carrying out far less complex and active projects than before transfer. When commenting on the study, Galton and Pell (2003) noted that both factors were felt by researchers to reduce pupils’ enthusiasm for work. Pupils were observed to develop work-avoidance strategies which led to underachievement and lower expectations from teachers. Perhaps as a result, 40% of pupils had lower scores on their basic skills tests, administered by the research team in June following transfer, than when they sat the ‘equivalent’ tests in the end term of their previous schools. It is of interest to note that even though this statistic is used as evidence in the Suffolk Review (2006) to illustrate dips occurring after transfer, it is almost thirty years old and occurs in the context of a far different curriculum from that of today.

When considering how modern curricula could relate to dips after transfer, the introduction of key stages in 1988, and the subsequent national strategies of core subjects for these age groups should have reduced the chances of repetition or huge jumps in subject complexity between years. In particular, national strategy subjects draw from a bank of regulated teaching and learning objectives that should be able to provide children with targets in learning and work that increase systematically. Using the literacy and numeracy hour formats (three part structure) is another way that many pyramids of schools are providing pupils with a degree of continuity when they transfer. Indeed, the Suffolk review of transfer (2002) states that “the differences in approaches to teaching between first and middle schools is less marked than between primary and secondary schools” (Annex 1, p. 4.), as a result of the use of national

strategies and the literacy hour. Despite irregularity across counties and schools, the practice of using ‘bridging units’ of work where pupils complete a task in their new school, which was started at their previous school before transfer is increasing (Galton, Gray & Ruddock 2003). However, the Suffolk review (1996) still found that work was being taught at discernibly different levels in pre and post-transfer schools. Similarly, in a recent follow-up of the 1970s ORACLE study (2000), Galton et al. observed several incidences of less complex teaching following transfer despite the introduction of the national curriculum. Galton and Pell (2003) suggest that secondary school teachers regularly lack knowledge of the capabilities of primary school pupils, thus teaching them at a lower level when they enter Year Seven. Therefore although the discrepancies between pre and post-transfer curricula may be less today than they were in the original ORACLE study, the issue remains that individual teaching style may be accountable for reduction in pupil progress between year groups.

The drop in task complexity following transfer may be especially damaging when considering that adolescents characteristically increase in cognitive ability and in abstract thinking, and need avenues within which to explore these mental gains. This calls for teachers to provide adequate challenge in post-transfer classes, while building on pupils’ academic profiles from their previous schools. Furthermore, teachers should recognise the growing maturity of adolescents and take time to explain the purposes and structure of curriculum to them. The anthropological idea of marking the transition to adolescence through ritual or by increasing roles and responsibilities (Shegel & Barry, 1991), in early transfer work known as the ‘status passage’ (Measor & Woods, 1984), could be employed by giving adolescents’ a cross-curricular unit once they transfer, that encourages a grownup insight into the purposes and structures of education.

2.3) Grouping by Achievement

Another environmental factor which has the propensity to discourage and disable children from learning is the practice of set achievement grouping employed by many schools. The ‘learning without limits’ project from Cambridge University examined the concept of ability in English schools to find that the benefits of grouping by achievement are primarily for teachers who use these divisions as a tool for simplifying the complex job of instruction. Being in set achievement groups was not found to create any tangible benefits for pupils (Hart et al. 2004). The Michigan Adolescent Development in Context Study (MADICS) of 2,500 pupils also found that

achievement grouping incurs declines in pupils' self esteem following transfer. Interestingly, pupils who moved into set achievement groups showed an initial increase in performance but then rapidly dropped in attainment (Eccles et al. 1993). The Suffolk review of transfer (2001) observes that in achievement groups...“high attaining pupils benefit from more targeted teaching but low-attaining pupils often suffer from less appropriate teaching strategies” (Annex 1, p.5). Furthermore, some schools deploy the bottom sets to the most inexperienced teachers, partially to make life easier for more established staff (discussion among supply teachers, February 2007).

A psychological explanation of why achievement grouping does not generally improve results rises from the finding that emphasis on performance and comparison actually decreases academic achievement (Elliot & Dweck 1988). Encouraging pupils to judge their achievements through performance related goals has been found to lower academic and social self-esteem (Midgley & Edelin, 1998). Indeed, Chris Watkins from the Institute of Education in London suggests that when schools confuse performance with learning, and when pupils are performance oriented, pupils may demonstrate ‘helplessness’ and maladaptive academic achievement strategies (Watkins, 2001). In relation to this, the strong push on British schools to achieve high SATS scores has filtered through to numerous aspects of classroom environment. Galton suggests that emphasis for pupils to achieving specific SATS levels (i.e. level 5 in order to move to a higher set) has resulted in diminished goal oriented motivation, as pupils may feel that beyond achieving a certain grade there is no other reason for working hard (personal correspondence, January 2007).

For adolescents in particular, the practice of categorising their academic achievement and making it visible to themselves and others may impact negatively on their self-concepts. The increased tendency for adolescents to focus on self-identity issues may make them more sensitive to external judgements (Eccles & Roeser, 2006), such as whether they are ‘doing well in school’, or when they are branded by their peers. Recent neurological findings indicate that during adolescence a rapid increase in formation of neural networks sets the scene for neural structures that could persist into later life (Blakemore & Chowdhury, 2006). It is by no means certain, but certain external influences to the self-concept during this time, such as achievement grouping, may be likely to influence long-term psychological changes.

Alternatively, a rapid improvement in learning motivation has been found by increasing the focus on mastery related goals, where pupils are encouraged to try their best, and achievement is judged by effort and not by comparative performance (Dweck, 2006). In accordance with this, 'expert' teachers in the 'learning without limits' study were characterised by their deep-rooted belief that achievement is transformable, and is not a fixed trait of ability (Hart et al., 2004). This viewpoint may encourage pupils to overcome hurdles to learning.

To conclude this section, a common perception is that achievement can be improved through set-achievement grouping. In contrast, the research shows that grouping pupils in this way is likely to incur academic declines through emphasising ability and performance over effort. Importantly, when schools do encourage effort over performance, they should also facilitate ways in which this effort can be successful, such as through mentoring pupils in metacognitive learning strategies ('learning about learning', Watkins, 2001), therefore improving the chances of all learners to experience mental gains.

2.4) Lack of Pupil Autonomy and Decision-Making, and Conflicting Social Roles

A common complaint of transfer pupils is that their opportunities for decision-making and for autonomy in school decrease. When reaching puberty, girls in particular are more likely to be dissatisfied with the amount of decision-making awarded to them in class (Miller, 1986). The Michigan Adolescent Study (1987) tested the perceptions of 2,210 pupils and their class teachers, before and after transfer. An increase in teacher control and less opportunities for decision making in class were perceived by pupils in transfer schools. In comparison to junior school teachers, teachers in transfer schools felt that pupils should not have as much influence in decision-making. Despite this, pupils' desires for decision making increased following transfer, revealing a mismatch between adolescent development and school environment (Midgley & Feldlaufer, 1987). Similarly, pupils have reported losing interest in school subjects when there are not sufficient opportunities for decision-making (Eccles, Lord and Midgley 1991). This finding is supported by a study from Zanobini and Usai (2002), who found in their survey of Italian middle school pupils that perceptions of less autonomy following transfer related to declines in academic achievement, which correlated with reduction in intrinsic motivation.

Further developmental mismatch can occur when adolescents are used to having greater opportunities for decision-making and autonomy when in their home

environments. Some adolescents may be responsible for their younger siblings, or even for the family income (Burton, 1998), or may be awarded extensive freedom through experiencing a lack of discipline from their parents or carers. When entering a school environment where decision-making opportunities are less available, these adolescents may become dissatisfied. When adolescents experience conflicting expected social roles, their academic achievement and school engagement has been found to drop (de Bruyn, 2004). Discrepancy between expected roles at home and at school may incur adolescents to choose a preferred role, and in the case of retaining their more autonomous role from home, a potential mismatch between classroom expectations and adolescent behaviour may occur.

2.5) Proposed Solutions

The table below concludes the article by outlining several key traits of adolescence, followed by the relevant mismatches between traits and school environment, then offers tentative solutions gathered from both the literature and from observations made in successful schools. Doubtless the reader will have experience of addressing such issues in their own schools, and will be familiar with current approaches to dealing with academic, social and emotional issues within the context of teaching and school organisation. However, if nothing more, this table proposes a format which educational practitioners could use as a think tank to outline mismatches within their own organisation and to propose solutions.

2.5.1) Table of Adolescent Traits, Environmental Mismatches and Solutions

Adolescent Trait	Feature of Transfer School Environment	Proposed Solutions	Your School?
Autonomy Decision-Making	Less Decision-Making Opportunities Less Teacher Trust Conflicting Social Roles	More Pupil Choice in Homework, Tasks and Learning Styles Design of Own Projects Increased Form Time A House System	
Need for Non-Familial Role Models Self-Other Comparison (incurring negative views of teachers)	Lack of Teacher/Pupil Relatedness Lower Teacher Efficacy Low Emphasis on Teaching as a Successful Occupation	After School Extracurricular Activities Programmes for Teachers on Adolescence Raise the Profile of Teaching (By Notice-boards and Cross-School Awards)	
Peer-Orientation	Seating Plans Set Achievement Classes	Pupil Assisted Seating Plans Mixed Achievement Classes	
Sexuality and Relationships	Lack of Indoor, Age Appropriate Social Areas	Key Stage Common Rooms with Indoor Entertainments Pupil Cafés	
Self-Consciousness Self-Other Comparison	Public Assessment Achievement Grouping Performance-Oriented Goals	No SATS Mixed Achievement Classes Encouragement of Mastery-Orientated Goals	
Self-Exploration	Directed Learning of Topics Without Cultural/Self Relevance	Units that Begin from a Self-Exploratory/Autonomous Stance Community Research	
Appearance	School Uniform or Lack of (both may cause problems)	Ethos of Tolerance of Appearance Optional School Uniform? Jewellery, Hats and Coats	
Increased Cognitive Abilities	Less Complex Work Simple Worksheet and Textbook Tasks Lower Teacher Expectations Lack of Metacognitive Learning Techniques	Colleague Assessed Lesson Plans Modern, Relevant Material Consistent With Popular Style Use of Multiple ICT Design of Own Projects 'Brain Exercise' Interventions	
Transfer in Early-Adolescence	Curriculum and Teaching Style Discontinuity	Head of Subject Meetings Within School Pyramids Observation of Primary and Junior School Teaching Orientation For Pupils to Teaching Styles Cross-Curricular 'Rite of Passage in Education' Units	

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