



Education Committee

Oral evidence: Academies and free schools, HC 981

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Members present: Mr Graham Stuart (Chair); Neil Carmichael; Alex Cunningham; Pat Glass; Siobhain McDonagh; Ian Mearns; Mr Dominic Raab; Mr David Ward; Craig Whittaker

Questions 178-297

Witness: **Andreas Schleicher**, Deputy Director for Education and Skills, Organisation for Economic Co-operation and Development, gave evidence.

Q178 Chair: Good morning and welcome, Mr Schleicher, to this session of the Education Select Committee looking at academies and free schools. Perhaps I could ask you the central question for us in this inquiry, which is: will academies and free schools improve England's education in general, and are they likely to help improve our relative position in your PISA tables?

Andreas Schleicher: It is very difficult to judge from the international comparative data. What our data do show is that school systems which offer a greater deal of school autonomy tend to have higher performance, but they do not say anything about trends. We cannot say that increasing school autonomy will necessarily yield an increase in outcomes because autonomy always operates in a context. One of the things that our PISA data show is that it is typically autonomy combined with transparency, or autonomy combined with certain factors, which yields better outcomes. Raising autonomy alone is not, at least from our data, a guarantee for improving outcomes.

Q179 Chair: If you are in business, you might have greater autonomy in a more successful business because you had such well developed systems and people that the centre could let go a little, so, in a sense, the autonomy was more a reflection of quality than a driver of quality. Is that potentially true in education systems, do you think?

Andreas Schleicher: The issue of cause and effect is obviously not answerable with cross-sectional data of the type that PISA offers. Some countries deliberately grant more autonomy to schools with higher levels of performance. That is the case, so cause and effect are intertwined on this. At the very same time, you see the trend across countries that schools and school systems with greater levels of autonomy have better performances. In one way, it is true that you might grant more autonomy if there is greater capacity at the front line, but it is a pretty global trend that holds in Shanghai, as well as in Finland, as well as in the UK.

Q180 Chair: Michael Gove has described you as the most important man in English education. Given that mantle, what recommendations would you make, based on data that you sift, analyse and consider, to improve the English education system?

Andreas Schleicher: In regard to autonomy or academies?

Chair: We are doing a free schools and academies inquiry but, as the Education Committee, we are interested in all aspects of young people's lives. If there is anything that stands out, it is a rare opportunity to have you here. Are there any reflections on what the international evidence suggests about English education policy—any possible changes in direction, improved emphases or anything else—you would like to share with us?

Andreas Schleicher: The first thing that our data show is that one of the key drivers is the level of ambition and standards being put into a system. High-performing systems tend to place very high expectations on every school. Indeed, that is something that our data also showed in regard to academies. The combination of local discretion with a system of shared standards, in the field of mathematics—that is where we assessed it—is the most conducive combination for high outcomes. Having a clear understanding in every school of what good mathematics performance is and very strong global standards, with a high level of autonomy and discretion at the front line, is very important.

I view the trend towards academies as a very promising development in the UK, which used to have quite a prescriptive education system, if you look at this through international comparison. That is a promising trend but the test of truth is building the system around it. When you look at the United States and some European countries, more autonomous schools can be part of the solution or part of the problem. What really matters is to build a strong system around that, which innovates in proportion to success. Knowledge in education is very sticky. You can have great autonomous schools, but that does not necessarily affect the system as a whole.

There are some very good examples of this. In the Netherlands and Belgium, there are examples where academies work very well, or even free schools, in a sense. If you go to Sweden, you would think twice about it. It is about the combination in England. Local discretion is developing, but building a strong system around that is where I see the greatest challenges are, so that knowledge and good experience spreads through the system.

Q181 Mr Ward: You mentioned, in passing, the USA. We are travelling to New Orleans and Boston in the next month or so. What are the sorts of things we should be looking for when we go to those places to look at their system?

Andreas Schleicher: New Orleans I am not that familiar with. Boston is a great example. In Massachusetts in general, there is a lot they have achieved. They are the top performing state in the United States. They have put a lot of emphasis on local discretion. They have interesting larger programmes, but they also invest a lot in capacity programmes. One of the things you might visit is the Boston residential programme, where they have heavy investments in capacity development in schools—and struggling schools. They try to link high levels of autonomy in schools with a big effort in capacity building.

Boston would be an interesting place to visit, also because it is not a particularly socio-economically privileged context, but you can find very similar experiences in New York.

Q182 Mr Ward: What do you mean by capacity building in this context?

Andreas Schleicher: It is an investment in continued professional development in the teaching population, looking at underperforming teachers and how to raise their capacity.

Q183 Pat Glass: This Committee has travelled a little bit and looked at those jurisdictions that are at the top of the league tables. What we find is that autonomy means different things in different places. We went to Singapore, and I felt that there the Ministry of Education almost had a Stalinist grip on the system. They still talked about being autonomous, but not in the way that we would recognise. Some researchers have suggested that the UK has little to learn from PISA in relation to autonomy, because it is already near the top of the rankings. Would you agree that this is a valid view?

Andreas Schleicher: With regard to resource management, certainly, there are very few countries with such a high level of discretion in schools' capacities to manage their resources, make funding decisions and so on. With regard to curriculum and instructional policies and practices, I am not so sure. In fact, I might consider Singapore a country where, at that level, schools have a lot of responsibility. There is a lot happening in Singapore in the schools if you look at the professional learning communities, which have almost entire responsibility for shaping their learning and instructional environment. It depends how you look at it. You are absolutely right. For that reason, we measure, in PISA, 12 aspects of autonomy, because you cannot just define one variable.

Q184 Pat Glass: Do you think that the academies and free schools programme will improve the autonomy in Britain, or make any difference?

Andreas Schleicher: I would think so. At least they provide schools an enabling environment. The question is always that you need to look at this from two lenses: one is the intended policies; the other is the implemented policy. That is true in many countries. In many countries, schools legally have a lot more room than they actually use. The question is often how schools exercise the possibilities that they have. I do think academies offer that. The extent that it is going to be used is something we will see only when these data become available.

Q185 Pat Glass: What do you see as the most effective model of school autonomy?

Andreas Schleicher: There are different ones. Countries that have a long tradition with this are generally doing it well, like the Netherlands, where you have a very strong inspection system—like you have in the UK—so there is quite good supervision. The ministry is very active in watching the system, but at the same time schools can almost shape their own affairs. Anybody can open a school. It is a well functioning model.

Even though you might have second thoughts about countries like Singapore or systems like Shanghai in China, I would even think that the level of professional

responsibility and professionalism in schools there is also a very interesting and compelling example. You see in the data that you have virtually no student falling behind. Schools exercise their options and possibilities to help every child to succeed.

Q186 Pat Glass: If you look at what is happening here with, say, the science curriculum, where we are looking at a nationally imposed science curriculum, do you think that that is possibly going in the wrong direction?

Andreas Schleicher: No. Most high-performing education systems have very clear goalposts. They have tough examinations with high stakes for individuals. They articulate very clearly what good performance is, but they are not necessarily prescriptive in the sense of telling teachers what to teach and how to teach. That is the important thing.

Q187 Pat Glass: So the national curriculum as a baseline, but not as an instruction.

Andreas Schleicher: Yes. That is one of the best system-level predictors in PISA: that you do have clarity on the goalposts and various other high stake gateways in this system. However, in many countries with those goalposts, there is a lot of room for discretion at the level of schools to tailor their instructional system around it.

Q188 Pat Glass: If we look at centrally controlled systems, of which there are some that do quite well, what would you say was the most effective performance in centrally controlled systems?

Andreas Schleicher: Take the example of Japan. Japan is a highly centralised education system, but when you look at this through the eyes of the schools, which is what we do through PISA, you will find that there is an amazing amount of local autonomy and discretion. In the sense of shaping the instruction methods, Japanese schools come close to academies. The reverse would be true for the United States. In the United States, you would think, “That is the country of devolved responsibility. Every school district can more or less do what it likes.” At the same time, you can look at this through the eyes of the schools in the PISA framework and find a country in the US having far less room for schools to manoeuvre than schools in the UK. That is something you have to look at in a very differentiated way. Centralised education systems do not necessarily stand in the way of greater school autonomy. In one way, this is what our data support; the more autonomy you provide to schools, the more discretion schools have, the stronger the system you build around it to share good practice and knowledge and make sure you have effective ways to deal with underperformance.

Q189 Chair: Could you unpick that parallel a little more? You said it seemed to be a highly loose system in the United States and yet that was not how it felt from the school end.

Andreas Schleicher: I used the United States as an example where most decision-making power rests with the school districts—basically, the equivalent of the local education authorities in the UK. They have, in fact, most of the powers. If you look at this through the eyes of the school, though, schools cannot decide who to hire and how they work with people; schools cannot decide on salary structures; schools have very little discretion on curriculum implementation. Schools themselves are probably less autonomous than in many of what you call centralised education systems. That is a very

interesting finding from our data: the only area of decision-making that has a measurable impact on outcomes is the level of decision-making at the school. Discretion and decision making at a local level is not related to outcomes.

Q190 Pat Glass: We did have a system in the UK of school-led curriculum and instruction; I have been around long enough to be able to remember that, when things were based on hunch and guesswork, and it did not work for us, so we had the National Curriculum and those strong boundaries. Do we need to go through that before we can give schools the confidence to deliver a curriculum that suits their children? Is this something that you need to go through?

Andreas Schleicher: We have a cross-sectional database, so it is very hard to judge those kinds of trend comparisons. Again, school-level discretion on instructional environment is not in contradiction with pretty tough national goals and standards. In fact, that is the combination that we would see as conducive to learning outcomes.

Q191 Pat Glass: People like me, when we start to say we will not have a National Curriculum and teachers can teach what they like, start to shake a bit, because we remember how bad it was. It has to be a combination—right, okay. Can I ask you about your methodology? There has been some criticism levelled at PISA around your methodology, such as the misleading conflation of private schools and autonomous state schools. Does your methodology stand up to scrutiny?

Andreas Schleicher: We believe so. I know the analysis you refer to. I think it was published by Cambridge University.

Chair: Cambridge Assessment—part of the university.

Andreas Schleicher: In fact, we believe that the public-private dimension is, in many countries, a very important expression of school autonomy. Once you take that out of the equation, you do not see many of the patterns that we are looking for. In some countries—the country where I work, France, is a good example—school autonomy is mainly a function of whether you are public or private. It is not true in the UK; I agree with that, but, in that sense, in our methodology, it is very important to keep that dimension.

Q192 Pat Glass: Does that not skew the outcomes?

Andreas Schleicher: We basically do not care who runs, owns or finances the school. We will look at what the school can and cannot do. We believe that is the fairest way to compare education systems. I will give you an example. You go to Finland. They are all public schools. They are all publicly run, but you could compare every Finnish public school to an academy in the UK, when it comes to curriculum, instructional policies and practices, teacher development and so on. Taking out the public-private dimension would have no meaning. We believe it is really important to look at the discretion schools have, irrespective of who runs, owns or finances it. That is basically our approach. We just look at the reality at the front line. We do not give that importance to those other

dimensions. When you take it out, you get a different result, and then you take out many of the things that you wanted.

Q193 Ian Mearns: I understand exactly where you are coming from; you are trying to rationalise an awful lot of data, but making a comparison between city states, like Singapore, or individual capital cities or economic cities, like Shanghai, and a whole economy like Germany, the UK or anywhere else in the European context, is not really the same. It is not comparing like with like. Shanghai, being the sort of place that it is, attracts people with brains and intellect who are trying to better themselves much more than other parts of rural China, for instance. Even then, just between Shanghai and Beijing, there are small inconsequential cities of seven million or eight million people. It is not fair. If you are going to compare the United Kingdom with Shanghai, why not do it with Nanjing or anywhere else, which is a large city in the Chinese context?

Andreas Schleicher: It is a fair point, and one that does not extend only to Shanghai. There are countries in the OECD like Luxembourg, the Netherlands and Belgium and big countries like Mexico, the United States and Japan. What is a meaningful entity for comparison is open to question or debate. What makes Shanghai an interesting benchmark is that, in terms of its socio-economic diversity, it does not compare favourably to most OECD countries. What makes it impressive is not the absolute performance but the trend. You can see rapid improvements in their education system, which you cannot explain by the context.

Q194 Ian Mearns: Is it not true, though, that there are many children, even within Shanghai, who are disaggregated from the educational data because their parents are not Shanghai city residents? They are economic migrants and, therefore, many of those children are not counted. Equally, at the other end of the spectrum but in the same neck of the woods, another place that the United Kingdom is compared with, within the PISA rankings, is Macao, which has a population of just over 600,000. We are not comparing like with like. Would it not be fairer of PISA to do some disaggregated international rankings?

Andreas Schleicher: It is a fair point. Just on the issue of Shanghai, again, be very careful. You are right; in the upper secondary track in Shanghai, because of the hukou residential system, there are still some children not gaining access to high school.

Q195 Ian Mearns: If you know that is the case, why can you therefore put Shanghai so high up in the international comparators? It is quite clearly not collecting the data on an awful lot of their own population.

Andreas Schleicher: I will tell you why. In Shanghai, there are many children from internal immigrants and poor socio-economic contexts for which we do have data. Those children outperform similar kids in the UK by a very large margin. That makes this comparison for us really interesting. What Shanghai does succeed with is that it raises the performance of children from very disadvantaged contexts to a very high level. That is, for us, an interesting experience.

Q196 Ian Mearns: Is that based on hard data and evidence or just based on some assumptions?

Andreas Schleicher: No, it is based on hard evidence. We collect, for every child, the socio-economic context: the familial, educational and economic background. We can, conditional on that information, look at the outcomes. It is true not only for Shanghai. You see something similar in many East Asian countries, including large ones like Japan. What these countries achieve are strong outcomes for children from all social classes. In our view, that is a policy lesson that is very valid and important to look at for OECD countries.

Q197 Mr Ward: The Chief Inspector, if I remember rightly, said more or less the same thing about London. He said, if you looked at London, as opposed to the UK, our position within the PISA tables would be completely different. We come back to the same point that we are not talking about young people in China a thousand miles from Shanghai. We are talking about one part of the whole system, and yet you are comparing it, in the UK, to the whole system.

Andreas Schleicher: We have encouraged the UK to collect separate data for London, like many other countries have already. We believe that is an interesting dimension to look at: to compare the performance of large cities. This is a guess I am making now, but I still think that you will find a very large performance difference between Shanghai and the city of London. London will outperform the rest of the country; there are good national data for this, but when I look at your national data on that, you are not going to be anywhere close to some of the city states. I think it is a relevant, interesting comparison, and well worth pursuing.

Q198 Chair: Given the high levels of autonomy we have in this country and have had for quite some time, relatively speaking, why is our relative performance so poor?

Andreas Schleicher: It comes back to your initial question. Autonomy is one dimension of a high-performing education system. If you look at our PISA data, there are many aspects that are at least as important: the level of standards, the level of people you get into the teaching profession and the investment countries make in their teachers. In the province of Shanghai, they invest 240 hours in the first three years in every teacher. They have a very strong mentoring practice and system. There are huge investments being made. There are many dimensions behind the success of those countries. They have very high expectations. Parents make huge investments in the education of their children. Education is the principal gateway to success in the job markets and entering university. There are many factors behind that, of which school autonomy is just one aspect.

Q199 Chair: You touched on teacher quality and training. From a number of years sitting on this Committee and its predecessor Committee, the one thing I feel I do know about education is that the most important thing is teacher quality. What is the link between more autonomous systems and those systems' ability to attract the best people and then to get the best out of them?

Andreas Schleicher: It is work organisation. Part of the problem you have in a more prescriptive system is that you tend to have a highly industrialised work organisation; that is, basically, teachers work in pretty standardised sessions. That is not conducive to attracting people who want to work as professional knowledge workers. The

promise of academies is that you offer more professional work organisation, which offers better career prospects and career diversity, more career structures and more opportunities for professional collaboration within the school. That, in turn, can have implications on how attractive a job is.

I cannot say to what extent it is playing out in the UK context, but that is the promise we see in many countries with high levels of discretion. It is basically offering a more attractive work organisation for the teaching profession, which we know has a big impact on the attractiveness of teaching.

Q200 Chair: Is pay flexibility an important part of that?

Andreas Schleicher: According to our data, it is more about careers and public recognition. Pay is one dimension of that, but not the dominant one. We do not have conclusive research on performance related pay. Some studies show it is a good thing in some countries, and others show it is more detrimental.

It is more about offering interesting work opportunities. That is, on the one hand, the promise of the academies; on the other, it is also the challenge, because you need to have that work organisation, which relies a lot on sharing good practices and experience across schools. In some of the larger academy chains it may be easier to achieve, but if you are an isolated academy, again, knowledge is very sticky in education and usually rests where it is produced. Schools have very few incentives to share that practice.

There are good lessons to be learnt. If you go to Singapore, every teacher goes for 100 hours every year back to the National Institute of Education to upgrade their knowledge, to contribute to the profession. If you are in Finland, most school principals spend two thirds of their time in the school and one third of their time as system leaders, so they connect to the rest of the system. If you go to Shanghai, the way you become famous as a teacher is that every teacher shares a lesson plan through an electronic, digital platform, and the more other teachers start to use your lessons, the more popular you become and the more prestige you obtain. It is those kinds of mechanisms that are really important in a highly autonomised system. On the one hand, the opportunity is there for a more professional work organisation, but the sharing of good practice and experience is still a big challenge.

Q201 Chair: It is fascinating hearing your evidence, but some people see increased autonomy as risking greater atomisation. How do you combine autonomy with that commitment to creating a genuinely self-improving system that is not isolated in one school?

Andreas Schleicher: What you say is exactly what our data show. I will give you an example. If you have a system that does not have a strongly shared notion about what good mathematics is—we call it the absence of a shared vision of mathematics—school autonomy works against you. The lower performing schools are the ones with higher degrees of autonomy. If you do have this shared notion of what good mathematics is—I say mathematics because that is what we measured in the last PISA survey—school autonomy works in your favour. The more autonomous schools, the better.

It is the same thing on public information. If you have a high level of transparency in the system and a functioning market, school autonomy works in your favour. If school

data are not being shared across the system, the more autonomous schools show a lower performance on the PISA data. If school autonomy means you have a school principal who can decide everything but teachers are not active agents in the management of schools, you see the same pattern: school autonomy works against you. It is, indeed, the combination of a high degree of discretion with a system built around that that is most conducive to outcomes, in a cross-sectional sense. That is what our PISA data show.

Q202 Ian Mearns: There is still this ongoing debate about the statistics coming from Shanghai, because the number of youngsters counted for the PISA data is very low given the overall population of Shanghai. The population of Shanghai, in the latest estimates, is about 23 million-24 million, and yet the number of youngsters counted for the PISA data was less than 100,000. It just does not work in terms of the overall population statistics.

Andreas Schleicher: You are right. We have a population coverage in Shanghai of 73%, which is low. By the way, it is not dramatically lower than what you would find in the United States, where you also have a lot of young people at age 15 no longer in school. It is low by OECD standards when you look at the total number of students. In the OECD, it is pretty much on average; I do not think Shanghai is an exception. Again, if you discount those kids who are not in school, look at those who are in school, and take those children with similar socio-economic contexts, which is, in our view, the fairest comparison, you will see that those children outperform by a large margin.

I will give you an example. The child of a room cleaner in Shanghai, the lowest status of occupational development, outperforms the child of a professional in the Western world, including the UK. That is the relevant comparison to make.

Q203 Ian Mearns: Do you have hard evidence of that?

Andreas Schleicher: Yes. We know the socio-economic context of every child for which we have data. We do not know the children who are not part of the school system, which is a diminishing fraction but still a significant fraction in Shanghai.

Q204 Ian Mearns: Some estimates are that it is a lot more than is being suggested. I have seen some estimates that the number of youngsters not being counted is almost equal to the number of those being counted.

Andreas Schleicher: That is only true in the upper secondary track.

Q205 Ian Mearns: Do you accept it is true in some contexts?

Andreas Schleicher: If you take the total number of 15 year olds in Shanghai, we have covered 73%. If you only take the students who are enrolled in the upper secondary, which is part of the population—45% of the Shanghai population—the proportion is much higher because children from—

Q206 Pat Glass: Does this not come back to what I said earlier? Does your methodology stand up? You have seen the criticisms of Cambridge Assessment. Should it

not at least have an asterisk saying, “We are only counting half the children in this jurisdiction”?

Andreas Schleicher: That is what we do.

Q207 Pat Glass: Should you not be putting some contextual evidence around this?

Andreas Schleicher: It is not true that it is half. Again, it is 73%.

Q208 Pat Glass: That is more than a quarter who are not there.

Andreas Schleicher: It is true but, again, if you make the comparison of children with a similar social background, you do not have that—

Q209 Pat Glass: If you look at the figures coming from Britain, Germany, the United States or whatever, they will be including children with special needs in special schools. You are not comparing like with like here.

Andreas Schleicher: If you look at people who are not enrolled in education in the Western World, the United States is a good example. The problem is a lot worse in the United States of disadvantaged children—

Q210 Pat Glass: Then should you not be highlighting that?

Andreas Schleicher: We do, in every comparison that we do.

Q211 Ian Mearns: In all honesty, in the European context—within the European Union, for instance—how many 15-year-olds are not enrolled in education, in comparison with Shanghai?

Andreas Schleicher: There are still in many countries about 10% not covered by the PISA comparisons. We have to include children with special needs who cannot physically take the test, and some children who have not been in a type of school. It is a sizeable fraction. That is why I think making the aggregate comparison is always difficult. The better comparison is to look at children from similar family backgrounds and how they perform relatively. We believe that those comparisons are highly robust. I do not see any reason for putting those in question.

Q212 Mr Ward: The Shanghai school cleaner seems to have a remarkably gifted child, I must say. The academies and free schools in this country are not, in many cases, using some of the freedoms that they have been granted. Based on the evidence you have about the value of increased autonomy, are there any additional freedoms that would be beneficial to academies and free schools. They tend to be using them for terms and conditions of service and changing the school hours and so on, but are there any additional ones that your evidence shows would be of value?

Andreas Schleicher: My understanding of the current academies is that the potential discretion they have is pretty much at the front of what you would have internationally. How much of that they actually use is something that would need to be

studied. That is the issue. With academies, I do not think you will find any school system that offers more in terms of potential discretion. Your academies would be very similar, for example, to what you see in countries like the Netherlands and Flanders, who have a similar philosophy and approach.

Q213 Mr Ward: Just going back to the conflict we have already touched on that may exist between having a national system of testing, league tables and therefore the need for direct comparability, and at the same time the benefits of freedoms in terms of curriculum assessment, how do we match those two?

Andreas Schleicher: I believe they do belong together. If you want a functioning market, you need to have a high degree of transparency. It may be league tables; it may be other instruments. Again, the East Asian system relies a lot more on reputation, but, in fact, it is quite similar to your league tables. That combination is very important. If you lose that combination, the sense of transparency in the system and good public information on the performance of schools, you are at great risk of just seeing greater diversity in outcomes.

With school choice, for example, the more emphasis a system places on choice, the more risk there is for widening disparities in the system. That is one of the things you can see in the PISA data as well. That is why I am saying that the more local discretion you have, the stronger the system you need to build around it, including league tables, standards and benchmarking.

Q214 Mr Raab: When you look across the range of countries of the OECD, does excellent teaching look broadly the same? What are the key nuggets or constituent factors that stand out for you as a critical part of first-rate teaching?

Andreas Schleicher: Teaching does look very different across countries. In fact, our latest PISA round has illuminated that. When you look at mathematics teaching, for example, in the case of the United Kingdom, the dominant form of mathematics teaching would be word problems: quite simple mathematics being embedded into quite complex textual problems, which students then have to solve. You do not find any of that in virtually any of the high-performing East Asian education systems. They place the premium squarely on conceptual understanding. All the teaching focuses on whether students have understood the concept of probability, change and relationships. It is deep conceptual understanding that they focus on. You can see that nicely reflected: we do not ask teachers or Governments about this because that is all about the intended policies; we look at this through the eyes of the students. We look at the exposure of the task to students. That gives you a really great reflection of how teaching happens in a classroom. There you see really big differences across countries.

Q215 Mr Raab: So there is conceptual learning. Are there any other key factors?

Andreas Schleicher: You have a great multiplicity of approaches to learning. One of the most interesting findings from our PISA study is that many high-performing education systems in Europe and also in Asia prioritise the quality of teaching over the size of class. In the last 15 years, the UK has gone exactly the opposite way. Most of the

resources have gone into lowering class sizes; not so much has gone into raising the quality of teaching.

In Asia, you see very large classes. In fact, because of demographic changes in Japan, for example, the class sizes are becoming smaller; they have fewer kids, and many teachers will tell you, “This is a problem. I no longer have the diversity of views and ideas in my classroom to do the type of instruction that I want to do.” It is the capacity of teachers to embrace the diversity of the student population, to personalise teaching. There are very interesting lesson studies, systematic video studies, that have been done and teach us a lot about how great teachers in very large classroom settings can achieve very strong results.

Q216 Mr Raab: Are you making a perhaps stronger claim that there is an inverse relationship between class size and teaching?

Andreas Schleicher: No. If you keep everything constant and you diminish the class, you have an advantage. I would go that far. However, if you have one pound extra to spend, our data suggest that the least effective way to spend that pound is to decrease class sizes. You are much better off investing this in more attractive career structures, including better salaries, or more opportunities for professional development and more non-teaching working time of teachers. That is the comparison I would make. I would not say smaller class sizes are bad, but I do not think they are an effective way of spending additional resources.

Q217 Mr Raab: You mentioned this earlier about the profession, and performance related pay was one aspect of it, but also the structure of the profession, the amount of training and development and, linked to that, the degree to which the profession is revered. Is that a key bit as well? You mentioned it before and you have touched on it again.

Andreas Schleicher: If you ask yourself, “What is cause and effect?” one thing is clear. In most high-performing education systems, teaching is a highly revered profession. Everyone wants to become a teacher. In Finland, despite average pay, there are 10 applicants for every teaching post. Singapore is similar.

You could argue that, because they have these great teachers, they can do better things, but they also offer those teachers a work organisation that is simply a lot more attractive to be in. That is, again, where I think the potential of academies lies. I will give you an example on that. If you leave it to Governments to decide how to spend additional money, the trend in OECD countries has been to spend it on things like reducing class sizes because you make yourself very popular by doing that. If you leave the resource decisions to the school, they generally make intelligent spending choices: “Do I pay my teachers more?” “Do I have a smaller class?” or “Do I give them more opportunities?” This is a good illustration why more responsibility at the frontline can lead to greater efficiencies in what you get than if you leave those things to become political decisions. It is a good example of this.

On the training part, it is very hard to measure but I would still argue, from the data we do have, it is the work organisation and environment, and the career structures, which make teaching more attractive in those systems.

Q218 Mr Raab: One of the big contentious things in this country has been the issue of whether the formal basic teaching qualification needs to apply to academies and free schools. The Government has gone the route of the independent sector, whereby a head teacher can hire someone who does not have that formal qualification. I wondered whether the evidence you have from the OECD data suggest that that makes a difference one way or another.

Andreas Schleicher: We do not. In fact, I must say that initial teacher qualifications do not explain very much of the performance differences that we see across countries. The specialisation and subject matter you teach is the only variable that we can relate to outcomes. If you teach mathematics and you have a mathematics qualification, that is something related to outcomes. Formal teaching qualifications are probably so different across countries that we do not see any effect of that. The bigger effects you get are when you look at ongoing professionalisation. The investment that schools and teachers make in their professional advancement is where you can see closer relationships.

Q219 Mr Raab: Again, on the international evidence side of things, do you have data that tell you one way or another whether greater school autonomy facilitates greater teaching collaboration in terms of an involvement in the wider running of the school? Does autonomy create greater opportunities for that managerial process or not particularly?

Andreas Schleicher: You do see both sides. That is where the promise and the risks of academies lie. You can see education systems that are very good at that. Again, I would mention the Nordic countries in Europe. There is a lot of knowledge sharing and mobilisation through the system. It is the evidence from the data. There is very little performance variation among the schools in those countries, which is probably the best test of truth. If you get every school to do well, then knowledge sharing seems to be working.

The United States is a negative example. You have a lot of isolation among schools and very little collaboration. In that sense, greater discretion at the front line can provide an environment for schools, but it is not a guaranteed outcome of it. You need a very strong education system to make school autonomy work. If you leave it to markets alone, you have the effect that school autonomy may lead to greater disparities in the system, not necessarily to improved outcomes.

Q220 Neil Carmichael: Can I ask a quick question on measurement? I will focus on something we are discussing here, which is the possibility of looking at destinations after school. My first question is—

Chair: Your question is—

Neil Carmichael: Yes, my question is: do you think that that is a useful measure for the performance of schools, and have you seen that operating internationally?

Andreas Schleicher: Yes, the usefulness is undisputed. In fact, I believe it is a much better measure than looking at academic performance alone. How your skills are being deployed is the best test of whether what school has taught you is a useful thing. It is very hard to do and very few countries do it right. You see it more prevalent at

universities. In fact, some countries have gone to the extreme. Again, I will quote the example of Shanghai. If you are a university and you offer courses that operate at the lowest 5% of graduate employment—one of those dimensions—you lose your public funds. They attribute a lot of importance to successful employment prospects for people, but I am not aware of something really robust. You have to have very long follow-up studies.

We did this in the context of PISA in Canada. We collected data from 29,000 Canadians in 2000 and we have been following them since the age of 15 up until now. We can see to what extent test results and other cognitive and non-cognitive dimensions predict further prospects in education. I am not aware of any country using this in a systematic way, but I think it should be. It is much better than narrow academic success in schools.

Q221 Chair: Does your data tell us anything about teaching assistants? We have talked about where we have spent our money and how to focus. In recent years, in this country, there has been quite a big investment in teaching assistants. Would that money have been better spent on teachers themselves, especially if larger classes are not necessarily a weakness if you have high quality teachers?

Andreas Schleicher: It is very difficult to answer in a comparative sense, because the range of responsibilities teachers have varies hugely across countries. If you are in the UK, your main focus is teaching in the classroom. If you are in Japan, you clean the class with your students at the end of the lessons. You have a lot of responsibilities for parents. If students get into trouble with the police, the police will call you as the teacher, not the parent. There is a lot of expectation on a teacher beyond teaching in the classroom.

It is part of the pedagogical concept in the country. Discipline in the classroom is very different if you, collectively—teachers and students—are responsible for it. It is very hard to compare. The East Asian countries tend not to have any kind of teaching assistants or even support personnel in the school; it is all the responsibility of teachers. Particularly in the English-speaking countries there is more occupational differentiation, so I cannot say how this plays out.

Q222 Siobhain McDonagh: Is England's accountability system sufficiently robust in using a combination of hard, or statistical, and soft, or inspection, data?

Andreas Schleicher: We rate England very strongly on the accountability system. You have a good combination. On the one hand, you have test data that are reasonably robust, but you also have one of the best inspection systems looking after schools. If you look at the focus, much of the inspection has been geared just to the very lowest performing schools. Probably the schools that have suffered most are the next layer of schools, so there could be a more systematic view of the school system. As to the mechanisms you have, according to PISA data, schools are rated highly on internal evaluation, external evaluation, inspection and the testing regimes. That is an aspect the UK does well.

Q223 Siobhain McDonagh: PISA describes effective accountability as requiring “multiple-accountability” models. What do they look like in practice?

Andreas Schleicher: That is what I am trying to describe. You have things like student test data at the classroom, school and system level. There is good data on student learning outcomes. You have robust systems of teacher evaluation. Career paths always depend on teacher evaluation. You have methods of internal school evaluation. You have inspection, with a more qualitative context to this. Those multiple measures of accountability are key to success.

This is an area where, in my view, the United States has gone to an extreme. It is all geared around student test data, which we believe is a very important part of an accountability system, but should not be the only one. Whenever you have one overriding criteria, you risk distorting incentives. That is very clearly evidenced.

Having multiple measures is important, but I rate the UK highly on that. Singapore would probably be similar, but even more systematic, with a strong culture of multiple measures. What they have, which the UK does not have, is a very strong culture of professional learning communities. School principals work very systematically with all the teachers in the school to share and develop good practice. That is what we call lateral accountability. The vertical accountability systems are the easy parts. You just move information upwards. For lateral accountability, how do you move information sideways between teachers and schools? Those are the areas where countries like Singapore have something to offer the UK.

Q224 Siobhain McDonagh: It has been suggested that academies and free schools should be subjected to a different inspection regime, perhaps by a different inspectorate, from that applied to state maintained schools. Are there examples of other countries where different accountability systems apply to different types of schools? How effective are these systems?

Andreas Schleicher: I am not aware of this and I do not believe this is the case. Most countries have one inspection system that operates for all schools, to my knowledge, but I would have to look into this.

Q225 Mr Ward: How is the issue of democratic accountability dealt with in the different jurisdictions that you have come across? Is it felt to be important as greater autonomy is introduced into systems?

Andreas Schleicher: Do you mean parents or communities?

Mr Ward: It could be parents in the local community being elected on to governing bodies, the Government or the local education authority. I know you have looked at the issue of democratic deficit. I just wondered if it is regarded as being an important issue in other systems. If so, what do they do about that?

Andreas Schleicher: The only data that we have are data on the involvement of students, teachers and parents. On those dimensions, student voice is one of the issues you can measure, and some countries place great emphasis on that. Unfortunately, we do not have comparative data on parental engagement for the UK. The UK does not collect

parental data for PISA, which is a pity, so I cannot compare you on that. As to the school dimension, we have very little data on the community and other types of—

Q226 Mr Ward: We are talking about billions of pounds in this country, and billions of pounds' worth of education in other countries. Is public accountability for the public funding not considered to be an issue across different jurisdictions?

Andreas Schleicher: It is, and it comes back to how information is shared on school performance and disseminated, how parents are informed on the results of their children. Again, our data for the UK are limited so I cannot make any comparisons, but I still think that the mechanisms the UK has, at least, in sharing outcomes with parents and communities are quite robust. I cannot say how they are used.

Q227 Mr Ward: The accountability, then, would be, as you have greater autonomy, devolved to schools or those responsible for the school. The Secretary of State could just turn around and say, "It is not my fault that it is all failing. We have given the schools the autonomy." Increasingly, the local education authority would increasingly say, and is able to, nowadays, "We have less control. If it fails, it is not our fault."

Andreas Schleicher: You can take New Zealand as an example. It has gone very far on that. The accountability of schools is primarily to the local school boards. Again, watch that carefully. It works really well if you live in a neighbourhood that has lawyers, administrators and people like that on the school boards. It does not work at all in more difficult neighbourhoods. This issue of local and public accountability can be one important aspect of accountability, but if you make it the sole mechanism you might lose out in those areas.

One of the things I was looking at is the capacity of high-performing education systems to attract the best teachers in the most challenging classrooms and to get the best principals in the toughest schools. That requires mechanisms in the system that go beyond just the local dimension.

Q228 Chair: Can you unpick that a little more? Tell us a bit more about what that looks like. For us, the central challenge in education is how we get the best teachers and heads into schools in the most challenging circumstances. While successive Governments talk about closing the gap, it seems that all the incentives are for people to move where they are needed least rather than where they are needed most.

Andreas Schleicher: One of the mistakes that education systems often make is, if they find a school in need, they give that school more, but not better, people. They tend to increase spending on those schools but not necessarily the quality of professionals at those schools. There are also very good examples. I come back once more to Shanghai, because I do believe there are important lessons to learn. The only way to make a career as a teacher in Shanghai is by taking on tough classes. If you are a vice-principal in a high-performing school in Shanghai and you want to become a principal, the education system will tell you, "Yes, you can get that, but, first, help us improve one of the lowest performing schools." London Challenge is what Shanghai operates. It is a very similar philosophy. What you did in London Challenge is what works there system-wide. It is constant focus on where the greatest need is and how we can make it attractive for people to do that.

Sweden has introduced individual pay so you are able to offer schools more money for better salaries if they have a more difficult environment. This is generally a tendency in the Nordic countries but, again, converting it into attracting better people is still a—

Q229 Chair: You could just end up paying the poor people that you have in schools more money.

Andreas Schleicher: Exactly. That is the trick. That is why I always say operating with career incentives is much more powerful than just with monetary incentives. You need to combine them. When you lose the aspect of career and just operate with money, you end up, often, just spending more money and getting more people, but not necessarily the right people.

This being said, one of the things to look for in PISA data is that, in the UK, only 30% of the performance variation in the student population is between schools. Two thirds of the performance challenges lie within schools. That is, again, where I think there is real potential for the academies to take their challenge seriously. The incentives for academies to look at the poorly performing students in a school are greater than those system-wide, which is a very important aspect.

My country, Germany, for example, has over 50% of performance variation between schools. You can locate schools or school tracks that are underperforming. In the UK, you have not only poor kids from poor neighbourhoods getting poorer results, but there are many kids, in many neighbourhoods, in many schools, where you can raise performance. Two thirds of the challenge really lies within schools—that is many schools

Q230 Chair: The previous Chief Inspector of Schools told the Committee that the variation of teacher quality is greater—because we talk about good, bad and outstanding schools—within schools than it is between schools.

Andreas Schleicher: Absolutely, and that is where, in principle, greater school autonomy and responsibility in the school can help you act on this, because people take ownership of that problem. They look at it and say, “Here is our performance variation. Let us deal with this.”

In one way, the more the work organisation is an industrial work organisation system, the less likely schools are to want to take on that challenge. The way I look at the PISA data for the UK is not just on disadvantaged schools. You have many privileged schools, with a rich social background, that are not reaching anywhere near the performance expectation that you would hope for. It is not just disadvantaged. In my view, the promise of school autonomy to address that challenge, giving schools greater discretion and responsibility to deal with underperforming students and teachers, is probably real.

Q231 Alex Cunningham: What is happening elsewhere in the world to drive the higher performers from the more privileged end of the education system?

Andreas Schleicher: Across schools?

Alex Cunningham: Yes.

Andreas Schleicher: In Asia, it is typically career pathways. You only move up in a career path by taking on a tough challenge. In some countries, this is very brutal. In Japan and Korea, you are moved every three years as a teacher across schools. I would not recommend this for the UK, but that is one way they deal with this issue. In Shanghai or China, it is more intelligent: you build career pathways and teacher evaluation systems around taking on tougher schools. In Northern Europe, it is money. Basically, you offer schools individual resources.

Q232 Alex Cunningham: But how do we take the coasting school in the affluent neighbourhood and make it perform to the higher standard that you would expect?

Andreas Schleicher: The first thing is to expose it. The risk of league tables is that they are not adjusted for social context. In PISA, for example, we look at the data in two ways. Firstly, we show you how you perform relative to other countries; then we show you how you perform relative to your statistical neighbours, and that dimension is really important. For parents, it does not matter that much. As a parent, you want to know the bottom line performance, but, when you evaluate schools, I do believe that picture is really important.

Q233 Alex Cunningham: What do we do in schools to say, “You are a coasting school. You need to do better because all the aspects of your school and everything you have says that you should be performing there instead of there”? How do we get them to close that gap?

Andreas Schleicher: It is difficult to say. I can only say that there are many countries doing better on that part of the spectrum. In Europe, if you look to Switzerland, Germany and Poland, they have been very good. They are not only doing well on that spectrum but also raising it. There are very few underperforming schools in privileged neighbourhoods. The performance problem, there, is more about social disadvantage, but I cannot give you the recipes on that. I wish I could.

Q234 Mr Ward: On the question of the democratic deficit and governance, we tend to think about autonomy in terms of powers being removed from either Government or local education authorities to the school. Within the school, is there any international evidence of the autonomy where the local community is or is not involved? Would the autonomy be to those leading and managing the school, as opposed to autonomy to the local community through governing arrangements?

Andreas Schleicher: We look at this the other way round. We have data on the relevant role in decision making of schools, local communities, regions and the central Government. That is the only data we have. We do not have the view from the consumer side.

Q235 Mr Ward: I am talking about the involvement of the local community who are electing members of governing bodies, as opposed to having professionals there with the expertise in education—like an interim executive board would be, with professionals appointed with key skills.

Andreas Schleicher: Again, we do not have comparative data because the governance arrangements are so diverse. New Zealand has gone very far in that direction, as I mentioned, giving local communities almost exclusive control. They basically select their principal. That is an extreme example, and it works reasonably well in medium to high-end neighbourhoods.

Q236 Mr Ward: In Shanghai and Singapore, do they have community governors?

Andreas Schleicher: Not really, no—very little. The measures of control there are all in the profession. There are high levels of competition in the system, and high levels of exposure of strong performance and underperformance. Parents have a lot of knowledge. That is what drives the school system there. There is no strong community involvement in running the school.

Q237 Pat Glass: We talked a lot this morning about closing the gap between the children from the most disadvantaged backgrounds and those from the most advantaged backgrounds. We spend a lot of time, here in this building, talking about that. You have said that the country in which you are educated can almost eradicate family background and disadvantage. Do you think that that is true?

Andreas Schleicher: That is what the data show. There are a fair number of countries—not just one or two—where social background has almost no impact on the learning outcomes at age 15. There is always some but there is a lot of variability in the relative impact.

Q238 Pat Glass: When you say “a lot of countries”, are these westernised, industrial countries?

Andreas Schleicher: Yes, in Northern Europe—

Pat Glass: I know there is Finland, but is there anywhere else?

Andreas Schleicher: Look at this the other way round. My country is a good example where the socio-economic gap has been halved in the last 10 years. Even in a stable socio-economic context, you can make a lot of difference. There are still large gaps; Germany still has significant social disparities, but they have been cut by half, and that shows you that you can do a lot through public policy.

Q239 Pat Glass: You may not know the answer, but does that feed through to, as Neil was saying, destinations? There are lots of young people I know from my area who do well at school, go to university, get a degree and then cannot get a job. Does that feed through to further destinations?

Andreas Schleicher: Unfortunately, our measures of social mobility only relate to education. It does feed to access to university, but the link to the job market is something that I am not able to look at.

Q240 Pat Glass: We get lots of schools who will tell us that schools can only do part of the job. Your evidence is saying, quite clearly, that the impact of a school can eradicate the disadvantages in the family background.

Andreas Schleicher: Yes, and public policy can also make a big difference. You see it in two ways. The first is the cross-country difference of the impact that social background has on learning outcomes; some countries are strong and others less strong. The second is the trend aspect: countries making progress on that dimension and reducing socioeconomic disparity. All of this tells me that public policy can have a very significant impact on the outcomes. In fact, it is often overestimated. Many school systems have this notion that, “Well, it is all a matter of society.” Our data tell otherwise. There is a lot that schools and school systems can do to diminish, if not eliminate, disadvantage.

Q241 Pat Glass: PISA shows that the degree to which the system gets feedback from the student has an impact on the level of equity in the system and is part of this narrowing of the gap. How does that work, and do students not give good feedback to teachers who are personable and likeable, rather than teachers who necessarily impart good knowledge?

Andreas Schleicher: Possibly, but it is a more indirect indicator. It tells you systems that are open to and look at their clients. You also have different mechanisms. Student feedback is one thing; feedback from parents is another aspect. You have some countries with very strong parent-teacher associations. The system is open to learn from its client base. That is really what is behind those indicators, rather than what specifically a student says.

Q242 Pat Glass: If you look at the law around education in this country, it talks about the rights of parents and teachers; it rarely talks about the rights of pupils. We have a very low feedback system in this country so is that something you think we need to look at.

Andreas Schleicher: What our data show is that the student voice is an important factor in the equation, to think through how learning is perceived at the frontline.

Q243 Pat Glass: Students’ feedback, not just on teachers, but on resources and the curriculum, matters too.

Andreas Schleicher: We have not broken that down. We only know the level of student voice they have. The PISA data, as I mentioned on the question before, on instructional practices is very valuable information. The fact that mathematics teaching is so different in the UK from other countries is what students are able to tell us. Students have a very good perception of what actually happens in the classroom. Discipline is another interesting example. Students sometimes give us a very different picture on the disciplinary climate from that we receive from principals and teachers. It is the mismatch between those perceptions that tells you a lot about an education system. It is an important thing.

Pat Glass: So we need to start listening to our children.

Q244 Craig Whittaker: You found some correlation between choice and fairness. Would that not indicate that parental choice needs to be a bigger measure than we currently see it?

Andreas Schleicher: This is interesting. There is a correlation between school autonomy and outcomes. We do not find any correlation between the degree of parental choice and overall outcomes. That could be a measurement issue because those mechanisms vary so much across countries, but that is not something we can say: that school choice, per se, is a driver of greater outcomes.

Q245 Craig Whittaker: There is no evidence that parental choice, for example, achieves greater outcomes. Is that correct?

Andreas Schleicher: In fact, our data from our parent survey—again, I have no data from the UK, but for the countries for which we do—show that, unfortunately, in many countries, performance is not the top priority in the criteria parents use when choosing a school. The majority of parents put priority on other things like reputational factors, proximity and so on. There is an interesting analysis from this in our PISA report. It tells us the choice element is probably less important than the discretion schools have. We cannot say it has a positive impact; we cannot say it has a negative impact.

Q246 Craig Whittaker: When you have a good reputation as a school, does that not drive parental choice of parents wanting to go to that school?

Andreas Schleicher: To some extent, but other variables drive parental choice more, according to the data that we have. That is something that Governments need to work on. If you want to make school choice work, you have to create an effective and efficient market for that. That is where many educational systems struggle: in providing parents with robust information about the quality of learning outcomes they get. At least from the PISA data, that is not happening in many countries.

Q247 Chair: May it be impossible? Parents typically—I remember the work done by Becky Allen and colleagues—will want their children to go to the school that has the highest results, which will be chiefly determined by the social background of the children who go there. Parents will choose on the basis of schools getting better raw results—you said that earlier in your evidence to us—and do not seem able to contextualise that. If we get more parental choice, it may just lead to further reinforcement of existing misunderstandings.

Andreas Schleicher: Again, it is not something that we see in the data. There is no relationship we can see in the degree of parental choice. We measure it by looking at how many competing schools a school has, and we cannot find a relationship between that and the learning outcomes of the school and the school system.

Q248 Chair: Does that go to a broader issue about competition?

Andreas Schleicher: Yes.

Q249 Chair: For schools that are effectively competing more for pupils, there is no link between having to make yourself more attractive and the standards you maintain.

Andreas Schleicher: At least not something we can measure. In some countries, there is a geographic effect. If you live in Canada, for example, it is just one choice, one school for most children, except for large cities, so one needs to look at this very carefully. Our data do not identify school choice as a variable that is strongly linked to system-level outcomes. In fact, you could even argue, on the issue of disparity, there are slightly greater socio-economic disparities in schools with a higher degree of choice.

Q250 Craig Whittaker: You mentioned earlier about how in Germany they have closed the equity gap over the last 10 years. How have they done that without affecting the higher-achieving top end of the scale? Do you have any clues to give us on that?

Andreas Schleicher: Germany is a good example. Poland is another one. They started with improving diagnostics in the system. Many children before fell through the cracks and nobody knew about their performance. Because the system is highly stratified, that had consequences, so you had many children from disadvantaged backgrounds who may have had academic potential but ended up in low-performing tracks of the school system. By strengthening diagnostics and support early on, they get more children from disadvantaged backgrounds moving on to the higher performing tracks. There has been absolutely no detrimental effect at the high end of the performance distribution.

Poland is more interesting, because it was able to reduce the low end of the spectrum and still raise the share of students at levels five and six. That did not happen in Germany.

Q251 Craig Whittaker: Michael Gove recently said that he wanted to break down the Berlin Wall between the private and state sector in this country. Given the academic selection we have in this country, do you think this goal will ever be possible?

Andreas Schleicher: Again, the public-private dimension is just one expression in the school system. In principle, every academy could assume very similar characteristics to an independent school. In a way, if you wanted to break this wall, then the current policies could probably get you there by giving academies very similar possibilities to what you have in the independent sector. I cannot talk about the financing; probably, the financial means will still vary greatly.

Q252 Craig Whittaker: You do not think, then, that the academic selection has a bearing on breaking down that barrier.

Andreas Schleicher: Not necessarily. The question is how you ensure that children with talent get there, irrespective of their social background. That is the trick. The East Asian systems are highly selective. In upper-secondary education in most East Asian countries, it is very tough to get into great schools, and you still do not see a detrimental effect of social background. In a sense, there is good evidence that, in fact, reducing selectivity could be achieving the opposite. If you go to Southern Europe, you can see where you get with no selectivity in the system.

Q253 Mr Raab: On this same subject, we have heard from the head of a successful academy chain, Harris, last week, who described mixed-ability teaching as, I quote, “almost impossible”. Starting with the question of setting and streaming within schools, so having tiered classes for, say, maths or English, what is the evidence—you mentioned Asian evidence—of it having either a positive or harmful effect in terms of overall attainment?

Andreas Schleicher: The PISA data show that, when you stream within schools selectively, it has no detrimental effect. When you do that streaming for all subjects, it opens up socio-economic disparities. In other words, if you say, “You are good at mathematics. We will put you in an advanced maths class. But you are not so good at English or history,” it is not a problem. As soon as you give the signal, “Well, you are not a well performing student; we will put you in a lower performing track overall,” you get this opening disparity, where you select by social background. The evidence from PISA is that streaming that is done selectively and is revertible, so next year you might do better, is an effective policy. As soon as it becomes tracking, you risk widening social disparities.

Q254 Mr Raab: Is it effective just for the bright kids, or also for the underperforming students?

Andreas Schleicher: We look at overall performance, and selective streaming in a school does not negatively affect anybody’s performance. This being said, there are some countries that are very good at teaching very heterogeneous classes. In effect, I would quote almost any of the Asian systems. They have virtually no streaming in the school. They have a lot of private tutoring going on in the afternoon; one has to look at that as well, but teachers are very good at teaching very diverse classrooms.

Q255 Mr Raab: But you also said they were selective at secondary level.

Andreas Schleicher: Yes, the entry point is pretty tough but you still have a fair degree of heterogeneity in the classrooms.

Q256 Mr Raab: On the separate question of admissions and selectivity, we still have, for some schools in the state sector, grammar schools, as well as the independent schools at a different age, selection at the age of 11. What is the evidence you see from international practice that this helps raise attainment or not?

Andreas Schleicher: Again, our data show that, where this becomes tracking, it is quite a risk. Austria and Germany are the extremes. They do that stratification at the age of 10. You can see that it is largely driven by social background. Again, Poland is a very interesting example. They deferred their tracking from ninth to tenth grade, and they were able to raise the potential of a lot of children.

Q257 Mr Raab: What age is that?

Andreas Schleicher: It is between 14 and 15. You could see a clear positive effect from the delayed stratification in that case. Every institutional barrier you create in an

education system has the risk of amplifying social background. That is really the short lesson.

Q258 Mr Raab: Is your point that it can be harmful depending on the age, or is it that, if you want to increase mobility, you also need to create different checking points throughout the system? Is that the point?

Andreas Schleicher: Yes. You need to make sure, where you have selection, that it is truly academic selection and not impacted. I will give you an example. Where parents have a voice in that, you usually tend to have greater social disparities than when you have test-based selection. When the selection criteria are objective, the risk of biasing those choices is smaller than when it is influenced by preferences.

Q259 Mr Raab: Based on test-based selection—if you took that as the strict objective criteria—what would you say is the evidence internationally?

Andreas Schleicher: The earlier the age at which that happens, the greater the risk of social disparity. Parents, even of academically not as talented students, can still make very significant investment, which other parents may not be able to do. The earlier the point of stratification, the greater the impact.

Q260 Chair: Do you have any evidence on where this stratification should come? In this country, the Secretary of State says that the best jurisdictions, as he sees it, typically have a pretty strong academic core to 16, and that more vocational options and choices should spring in at that point. At the same time, while he has been Secretary of State, we have had the introduction of university technical colleges offering a choice at 14. We have had direct admissions into further education colleges at 14. What does the international evidence say as to at which age point you are best to offer choice, whether it leads to high selectivity or otherwise?

Andreas Schleicher: In most countries, the important choice comes at the stage of upper secondary education, which is typically 15 or 16 years. When it comes as early as 10 or 11 years, we think it is a real problem. In the middle is the grey zone. At age 15 and 16 is what you see in most countries.

Q261 Chair: What about 14 to 16? It seems slightly odd the Secretary of State seems to think it is better at 16, and then there are others who are pushing and saying 14 is the natural point at which a choice should be offered of different routes. Any thoughts on that?

Andreas Schleicher: It depends on the structure of the education system. Again, in most countries, you have a six-year, three-year, three-year structure, so naturally the choice is around the age of 15 or 16 rather than 14. Then you have other countries that make the big selection after primary school.

Q262 Mr Raab: What evidence is there of a causal relationship between school autonomy and positive ethos and attitude within the school? Is that something where the evidence shows that autonomy can be a driver for positive change?

Andreas Schleicher: We do not really have a comparative measure on the ethos and attitude of schools. I would not know how to measure that.

Q263 Alex Cunningham: If I may paraphrase your opening statement when you started your evidence this morning, you were saying, whilst autonomous schools could perform better, it is autonomy is linked with certain practice. Does that mean that structures are very much secondary to practice?

Andreas Schleicher: I do not think so. The practice is influenced by the structures put around it and what happens in the classroom is very much a function of the work organisation within schools, of teacher collaboration, teacher evaluation and so on. What happens in the school is very much a function of the structures put around schools—the degree of competition and collaboration amongst schools. The direct influence of structures is lower, except for stratification, as I mentioned, but, indirectly, those structures shape the instructional environment. How attractive structures can influence the attractiveness of the teaching profession has a huge impact on the quality of learning in a classroom.

One piece of interesting evidence is that today, at PISA, we can statistically account for 85% of the performance variation of schools in the industrialised world. This tells you that measurable attributes of an education system, of which structures are always an important part, are a big part of the picture.

Q264 Alex Cunningham: You have autonomous schools and then you have schools that may well still be overseen by local authorities. What you are saying is that the autonomous schools are more likely to rise and result in higher standards?

Andreas Schleicher: Yes, but, again, you need to have an environment in which good practice becomes good practice in the system. That is the real test of truth of school autonomy: how do you spread innovation and move the good practice from the schools into the system?

Q265 Alex Cunningham: It is interesting that you used those last few sentences, because what I am interested in is how standalone autonomous schools can foster that environment of continuous improvement.

Andreas Schleicher: This is where public policy really comes in and where high-performing countries are very strong. They provide that environment for schools to operate in a true market place with good information for all stakeholders; they have very good incentive structures to mobilise or channel their resources to where they can make most difference. School autonomy really needs that broader context. The three dimensions that come out strongest on the PISA data are teacher participation in the management process, the standardised goals in the system and clarity on what good outcomes are.

Q266 Alex Cunningham: Some of our earlier standalone schools have starting to face challenges where their performance has, in some cases, dropped. Generally speaking, things have improved but there has been that drop-off in performance. How on earth do we arrest that?

Andreas Schleicher: This is where, in my view, the country that is struggling most is the United States, where you have some of the charter schools being part of the solution. There are great charter schools, but there are an equal number of charter schools who are part of the problem and perform worse than many of the state schools under comparable conditions. If you leave it just to individual schools, that is the picture you will get.

Q267 Alex Cunningham: That is particularly interesting because the Government is very keen that schools collaborate more but, out there, it still remains a very competitive environment between schools. How do we ensure that they do not just stand alone; that they reach out and share but also accept help from elsewhere?

Andreas Schleicher: One of the interesting findings from our work is that collaboration and competition do not contradict each other. The most impressive example, again, is China.

Alex Cunningham: You try telling some of our head teachers that.

Andreas Schleicher: China is very interesting. There is no education system in the world more competitive than what you have in China. At the same time, they have very strong incentives for teachers and principals to collaborate. That is the only way to move forward. That is where you can create intelligent mechanisms. Creating a shared platform for teachers to share lessons plans is just one example. It is very, very powerful, because generally professionals are more attached to their profession than to their workplace.

Q268 Alex Cunningham: What can Government do? What can we, as a Committee, recommend that Government do to make sure we can create some of those things that you have just described?

Andreas Schleicher: Part of it is resource mobilisation and career structures. These are things that Governments can shape in significant ways, as are pay structures

Q269 Chair: In an autonomous system, how does the Government create a career structure? The policy of the Secretary of State is that schools should best determine that, and there is a hesitation to create career ladders. He would rather leave it to the system to come up with it itself.

Andreas Schleicher: It is a political choice, but I would not see any contradiction. You could have quite an effective system of career structures set, where you define the stages and leave it up to individual schools to evaluate and monitor teachers. There is not necessarily a contradiction. One of the aspects is creating incentives for great people to move into difficult places and to share. Professional networks are very, very important. There are a lot of mechanisms you can use to create them.

It happens in every other discipline. If you look at medicine, if you are a medical practitioner somewhere in a hospital and you invent something great, everybody is going

to know about it tomorrow. Everybody is going to emulate you. We have an inward looking culture in education, but it is not inevitable. There is a lot of competition in those systems as well, even more than in education. There are still very good mechanisms.

Q270 Alex Cunningham: We probably still have some way to go. Many academy schools in England are now run by education chains. What does PISA tell us about the effects of moving decision-making powers away from head teachers and the school and creating this system of franchise schools where decisions are made centrally?

Andreas Schleicher: Unfortunately, we do not measure that, but I can say that moving decision making from the school to the local areas is something that removes the advantages of school autonomy. The only variable that is measurably related to outcomes is the discretion that the school has. I cannot say whether this is the same effect you would have if you built chains of schools. We do not have data on that.

Q271 Chair: But there is a risk.

Andreas Schleicher: Potentially. You get the same effect. What you want to achieve with autonomy is greater ownership and responsibility and better mechanisms at the local level. I cannot judge it; we have no data on this. Our data are limited to the regional, local and school level.

Q272 Alex Cunningham: Our Chief Inspector of Schools would like the powers to inspect chains as a whole, rather than individual schools or groups of schools within the chain. Do you think that would make any difference?

Andreas Schleicher: If you take into account that it is the school that affects learning outcomes most, the link with inspection in individual schools and even individual classrooms is probably important. In the case of the UK, your inspection of individual classrooms would probably be more powerful than schools alone, because that is where most of the performance variation lies.

Q273 Ian Mearns: It is an important area of work that we have moved on to here, because you have said that competition and collaboration are not mutually exclusive, but what we are doing is introducing a much greater level of competition and autonomy into a system where it did not traditionally exist to that extent in the United Kingdom, particularly England. Therefore, with autonomy, as you quite rightly pointed out, comes responsibility, but we also need to have transparency and accountability. How do you think we can actually engender those twinned issues of responsibility and autonomy on one side, and transparency and accountability on the other? I am not convinced that the system has yet completely embraced all of those concepts.

Andreas Schleicher: It is that combination that matters for success. On the one hand, you have local discretion, and at the same time the capacity of the system to diagnose issues and intervene.

Ian Mearns: We do need transparency and accountability because we are educating the nation's children, but we are also spending the nation's money doing it.

Q274 Mr Ward: This is quite crucial. In our briefing notes, one of Dominic's earlier questions started by saying "the head of a successful academy chain". The only way that chain can be deemed to be successful is to be more successful than others, so that competition exists by proving through the league tables that you are better than others. This wonderful world you described of the professional ethos of sharing—in Shanghai where someone would put a lesson plan on so all others could see it—really does fly in the face of us showing how successful we are as a school or a chain, by keeping what we have and not sharing that with others.

Andreas Schleicher: I do not necessarily think so. Look at industry; industry works on the principle of competition: "I want to be more productive than anybody else", and still there is a lot of knowledge-sharing and mobilisation happening there. This is more related to the cultural schooling than the issue of competition in the system. There is no evidence from the PISA data, or any other data that we have, that a higher degree of competition leads to less collaboration, as we measure those aspects.

Q275 Mr Ward: I think you said about incentivising. Based on the knowledge that you have, are there any recommendations you could make on how we could incentivise those involved in collaboration?

Andreas Schleicher: Personally, I think what you did in the past in London, London Challenge, was a great example of how you can, as a Government, make a significant difference to this. That is creating an environment where knowledge and people are spread through the system. I would go so far as saying that using money alone will not make a difference. It is using people that matters, and getting great principals to more difficult schools. They have powers of administration in some of the Asian systems. London Challenge and those kinds of mechanisms have been shown to make a big difference.

Q276 Alex Cunningham: In this country, our failing schools are almost inevitably going to be recreated as academies. Failing academies tend to be taken over by or taken under the wings of other chains. Laying aside the autonomous structures, what successful approaches have been applied in other countries to raise standards in poorly performing schools? Set aside the structures.

Andreas Schleicher: I will credit the UK. If you look at the lowest layer of schools, that is probably where most of the improvement has been achieved. There has been less improvement in the middle and top layers of the system. In one way, the UK is a good example of how you do that, but if you come from a privileged neighbourhood it does not matter whether you go to school in the UK, Shanghai, the United States or anywhere. It is the children coming from disadvantaged backgrounds where those things make a big difference. You can operate through public policy to identify those issues, to bring in the support and capacity you need.

Q277 Alex Cunningham: It is wider than just the school; it is about reaching back into the parents, the community and everything else.

Andreas Schleicher: Yes, but that is what great schools do, and that is where the potential of academies comes in. If you have an academy that looks at the wider social context, and does not see itself as only delivering instruction, but that it is responsible to truly engage parents, that is where much of this comes in. It is hard to disentangle this in terms of measurement, but when you look at countries like Japan, that is what happens. Schools do see their remit as encompassing all aspects of the development of children.

Q278 Chair: When would you expect the benefits of the academy and the expanded academies programme to show up in your analysis? Would it be 2015, or is it more likely to be 2018 or 2021 when we find out whether this Government's policies are successful or not?

Andreas Schleicher: Much of the effort has been on primary schools in the UK. Obviously, you will not see those effects in the performance of 15-year-olds until these students have moved through the system, so you can count the number of years. In one way, 2015 is probably where, for those schools that are in the secondary level, you will see initial effects, but you can count the number of years it takes from when children were educated.

This is the trouble with many of those reforms that are geared towards the long term rather than the short term. For primary schools, it is going to take many years for those effects to become visible in the performance of 15 year olds. That is one of the things we should be quite careful about. The UK, by international standards, does perform quite well in primary schools. When you look at PIRLS, TIMMS comparisons and so on, the relative performance of the UK is quite good in the early stages, but the trouble is that students make less progress than we see in many other countries.

Q279 Chair: We are quite unusual in having this dip when children come into secondary schools. Other countries do not seem to have that.

Andreas Schleicher: Yes, that is the point. There is less progress being made.

Q280 Ian Mearns: Given the subjectivity involved in drawing findings and conclusions from such a large, diverse and complex data set, should Ministers be more circumspect in citing international comparison tables as evidence to support their own policy position? Do you think there is a danger that they are making sometimes questionable conclusions based on the data?

Andreas Schleicher: You always need to use multiple measures for those things. International comparisons are, in my view, an important dimension, because what they offer you is the perspective of what is possible. In a national perspective, you can measure yourself against the past, but this is not the criterion for success. The best performing, most equitable and most efficient education systems set the benchmark for success. That is what you get through international comparisons, but you need a lot of other types of data and research. Where international comparisons are limited is particularly in identifying the causal nature of relationships.

Q281 Ian Mearns: Is there not a danger, though, that, because the comparisons are comparing very different systems and settings, people will cherry pick the bits they like, which will not necessarily transfer from one setting to another?

Andreas Schleicher: Yes, that is certainly a risk. There is a lot more education systems can learn from each other than what sets them apart, as in schools. As we talked about earlier, we often believe that there is limited potential for schools to learn from each other; actually, there is a lot. The characteristics related to success are pretty universal, but I agree; if you use it as your only perspective, you probably risk having a distorted picture.

Q282 Ian Mearns: I am going to ask you a leading question; do you think British Ministers are putting too many eggs in the PISA basket in that case?

Andreas Schleicher: I do not think so. That is quite a recent trend. If you look over the last 10 years the UK has probably made less use of international comparisons than many other nations.

Q283 Ian Mearns: More recently they have?

Andreas Schleicher: Yes, but this is pretty much in line with what we see in other countries. There is more attention now to international benchmarking.

Q284 Ian Mearns: Given that you are in charge of the data, do you think there is any significance to the UK moving up or down two or three places in the PISA rankings on an annual basis?

Andreas Schleicher: No. For the UK, there is a little bit of variability, but it is flat-lining. The more important message is that other countries are improving, and the gap to the best performing systems is increasing. I would not look so much at the small fluctuations of the UK performance. I would rather look at how the distance to high performance changes.

Q285 Ian Mearns: Are you more interested in the comparisons between performance in countries, rather than the comparisons within countries? For instance, has the quality of Swedish education declined so much as the PISA data suggest?

Andreas Schleicher: Yes. Sweden is a good example. In the UK, there has been a small slide in the results. I would think that the UK performance has remained pretty stable. In the case of Sweden, this is quite a dramatic slide in overall outcomes, which is visible in many parts of the system.

Q286 Ian Mearns: Can you put your finger on a main reason for that?

Andreas Schleicher: If I relate this to the debate on academies, what has happened in Sweden is, very rapidly, a lot of discretion has been devolved to individual schools. School autonomy has been strengthened and the system has taken no measures to build the structures around it. The Swedish system has nothing that could compare with an Ofsted,

for example. The Swedish system did not even know about the effect; the fact that Sweden needs PISA to identify that slide is a sign of the problem.

Q287 Ian Mearns: So too much autonomy and not enough accountability.

Andreas Schleicher: Accountability, but also the mechanisms to support it. Accountability is just making problems visible. The real issue is how you address the problems and the mechanisms you have. There is nothing, in the case of Sweden.

Q288 Ian Mearns: Am I right in thinking that they have had a particular problem with free schools as well?

Andreas Schleicher: Yes, it is the same kind of situation. You have some free schools that are doing really well and others that are doing terribly.

Q289 Alex Cunningham: Just to follow up on the Swedish thing, the support mechanism, you said, they did not build around it. That is a fear some of us have of the current system as the academy system is developing. We have the chains and so on, but we do have lots of individual academies out there. What advice would you offer us? What would you have us recommend about structures around the autonomous school world we now live in?

Andreas Schleicher: You are in a far better position than Sweden in the sense that you have strong diagnostics. Your culture of and approach to inspection are very robust, strong and impartial. That is a great strength of the UK system. However, if you think of the operational capacity where you to help struggling schools, it is quite limited. That is where you need to think hard.

In that sense, the Swedish example is the worst-case scenario of what can happen in such an environment. They have understood that pretty well across the political spectrum. If you speak to people, they know what the problems and solutions are. However, it has taken them a long time, and it has been very hard to revert their course. The decline has been very significant.

Q290 Alex Cunningham: So you see some support mechanisms, but we need to do much better.

Andreas Schleicher: Yes. It is creating the right balance between a lot of ownership and responsibility at the front line, and a system that diagnoses failure and helps struggling teachers to improve. If it were just schools, it would be easy to address. The issue in the UK is often within the schools. That is much harder to deal with.

Q291 Chair: What gets in the way of that? Probably the most unionised workforce in the UK now is teaching. Are strong teaching unions typically a pernicious force?

Andreas Schleicher: It is interesting. If you look to other Nordic countries in Europe, they have very strong unions too, but they operate more like professional bodies. It is the nature of the unions and the collaboration between Government and unions that is

probably more an issue than simply unions. I do not think that unionisation stands in the way of progress and reforms; it is more about how they operate. In some countries, unions are involved, not only in the implementation of reforms, but in the design of the reforms. There is a lot of dialogue happening up front. Those are important ways to think about it. Unionisation can be a problem, but I do not think there is comparative evidence that unions stand in the way.

Q292 Chair: Unions play very different roles, do they, in different jurisdictions? Some are much more like professional bodies rather than luddite opposers of every single possible change brought in regardless of who is in government.

Andreas Schleicher: My philosophy on that is that every education system gets the union it deserves.

Chair: We have done something very badly wrong in that case.

Andreas Schleicher: The nature of the unions often reflects the work organisation in education. If you have a highly industrialised work organisation, you get industrial unions who just look at salaries and so on. If you have a professional work organisation, where there are real opportunities for people to move in their careers, the teaching profession will change the unions because they want to advance. If you take that opportunity away, it is the lowest level of teachers who are going to fight for rights. If you open up the teaching profession, you will get a very different union.

I will give you an example. When Sweden introduced individual pay in 1994, the unions were on the street. That was the biggest threat to their work. Four years later, this system had an approval rate by unionised teachers of 70%. It tells us something. It tells us that, because everyone saw, “This offers schools great possibilities to attract resources where they are needed. This offers me possibilities to advance my career,” you had very different mechanisms. Norway is another good example. This is the way to think about it: it is the work organisation that shapes the nature of the unions and the way they work with government.

Q293 Alex Cunningham: As an observer of the British education system, do you see our professional associations—teachers’ associations and unions—as an impediment to progress?

Andreas Schleicher: What I find quite impressive is that they are very much interested and engaged in research. They probably have their own interpretation of and take on it. I can only watch that from the way they are engaged in our national work, and there is a lot of good and positive engagement, and openness to research. Again, it is the way the work of teachers is organised that will ultimately shape the way this plays out.

Q294 Mr Ward: You are introducing a new PISA test in 2015 to assess soft skills, creative problem-solving. What is the rationale behind that?

Andreas Schleicher: PISA has evolved quite a bit from the year 2000. If you compare our reading assessment in 2009, it was very different from the one in 2000,

because issues of digital reading skills and the capacity to triangulate information and deal with conflicting pieces of information are much more important.

In the same way, if you look at our problem-solving assessment in 2003, it was individual problem-solving skills. In the labour market today, we see a rapid increase in non-routine interactive skills and collaborative problem-solving skills, so we are trying to mirror them in PISA. PISA is not driven as the common denominator of national curricula, but it looks at the type of skills that play out in societies and labour markets. I would not call them soft skills; we think they are very hard and key skills for successful people: non-routine analytic and interactive skills.

We have, on 1 April, our first results coming out on dynamic problem-solving skills, looking at the capacity of people. You could call it creative problem-solving skills, but they are not soft; they are really important for the success of people. The knowledge economy no longer pays you for what you know; Google knows everything. The knowledge economy pays you for what you can do with what you know, and that is really what PISA is after.

Q295 Mr Ward: Do you envisage any link at all between the ability to deliver on this test and the type of school? We are looking at the autonomy of schools and greater autonomy. Do you see any links at all?

Andreas Schleicher: I cannot judge that. We will see when we have those data. It could offer a different perspective on criteria. You might see different education systems coming out in different positions, placing much greater importance on those kinds of skills.

Q296 Mr Ward: There have been discussions, which you must be aware of, led by DfE in terms of the type of traditional teacher-led curriculum teaching. I know it is early days, and we will see from your evidence, but do you have any views on the type of teaching and the impact that it may have on this particular test?

Andreas Schleicher: Our PISA data from the students tell you a lot about how the approach to teaching can shape outcomes in very significant ways. The focus of most high-performing education systems on deep conceptual understanding, as opposed to the accumulation of very shallow subject-matter content, is a good illustration that the nature of teaching will have an impact.

However, what we also see, and it is important in this, is that in high-performing countries teaching is seen less as an art than as a science. There is a lot of collaboration among teachers to shape and refine teaching practices. There is a lot of professional engagement: “What is good maths teaching like, in a way that I can replicate?”, rather than, “I have my classroom. I try out my own policies and practices.”

Q297 Mr Ward: Going back to an earlier question, does that suggest that the ever-increasing need for qualified teachers, who understand the pedagogy, is likely to be more necessary? You also get outstanding amateurs.

Andreas Schleicher: I do not like the word “qualified” because I do not know what it really means. Good teachers will be more and more at a premium because the

expectations on student performance are rising. The complexities of the skills that count for student success are harder to teach. Dynamic problem-solving is a lot harder to teach than simple mathematical content, so the premium on better teachers is going to be higher, in the future. That is a trend we have observed over many years already.

Chair: Thank you so much for giving evidence to us today. It has been most helpful, and we look forward to seeing further tests in future.