1 Country Background

Azerbaijan is a presidential republic with a division of powers between a strong presidency and a parliament. The President is directly elected for a 5-year term and dominates the executive, legislative and judicial branches. The President appoints the Prime Minister and the Council of Ministers.

Investment in education is a governmental priority and public education is compulsory, free and universal (mandatory) until age 17. Tertiary education is also free for those who qualify for it. According to the Ministry of Education, all school-age children attend school; however, UNICEF reports that the true figure is approximately 88%. A significant number of refugee and Internally Displaced Persons' children from Nagorno Karabakh region are partially able to attend school. In rural areas, there are cases that low-income families send their boys to work while they have little interest in education of girls. Language of instruction primarily is Azeri however Russian is widely used as well.

1.1 Education Structure

A 3-year programme of Early Childhood Education begins at age 3. Fewer children were enrolled in 2004 than in 1999. All of the 10,973 teachers working at this level of education are women, and 85% are trained. The pupil/teacher ratio (PTR) is 10:1.

Education at the primary level begins at the age of 6 years and lasts until the age of 10 years. The Net Enrolment Rate (NER) is 84%. There are 42,533 primary teachers (85% female), and all are trained. The Pupil Teacher Ratio PTR is 14:1.

Of the children who complete primary school, 99% enrol in secondary education. Only 1% of students are reported to study in the technical vocational sector in upper secondary school, which ends at age 17. The Net Enrolment Ratio (NER) is 77% (48% female). There are 127,109 secondary teachers (65% female), and all are trained. The PTR is 9:1.

1.2 Information and Communication Technology (ICT) Policies

According to the Ministry of Education the attention in past has been paid to strengthen logistic base of school libraries, and their provision with the latest IT has increased in accordance with the executive order of President Ilham Aliyev on "Improving the activity of libraries in Azerbaijan" dated on 20 April 2007. In order to implement the decision 128 of 6 July 2005, of the Cabinet of Ministries on some issues connected with the implementation of the programme for ICT provision in secondary schools of the Republic of Azerbaijan (2005-2007), the e-learning materials were developed in compliance with the subject programmes for secondary schools and based on the order of the Ministry. These materials were confirmed after extensive discussions. There were prepared disks, manuals and posters on multimedia systems for the
subjects Azerbaijani History (Antique and mediaeval period), Chemistry (Inorganic Chemistry), Biology (Botany and Zoology), and Physics (Mechanics and Molecular Physics). Moreover, as a continuation of these works, there were prepared disks, manuals and posters for subjects Azerbaijani History (New and Modern period), Biology (Human and General Biology), Chemistry (Organic and General Chemistry) and Physics (Electrodynamics, Optics and Nuclear Physics). 2013 has been declared to be the year of ICT in Education. In this regard, the government intends to expand the provision of computers, other ICT technologies and internet access to all schools in Azerbaijan.

Internet service providers are required to have formal agreements with the Ministry of Communications and Information Technologies. Public Internet access is available at Internet clubs and cafes, but availability in the home is still rare.

2 Institutional Visits

The members of the visiting panel were:
Martin Romer, ETUCE Director
Susan Flocken, ETUCE Coordinator and project manager
Hans Laugesen, (Denmark), project coordinator and advisory group member
Nigar Mustafazade (Azerbaijan), organiser and advisory group member
Georgy Kursakov (Russia), advisory group member
Guntars Catlaks, Education International, project expert

The panel visited three institutions: 2 secondary schools and 1 higher education institute responsible for the pedagogical training of general secondary school teachers. All institutions are located in Baku.

2.1 Azerbaijan Teachers Institute, Institute in Baku
This is the leading higher education institution that offers initial pedagogical teacher education (Bachelor and Master Degrees as well as Doctoral studies) and continuing professional development post-graduate training for all teachers in secondary and primary education. Its main campus is located in Baku, but it also has 11 regional branches over the country. The institute (Main campus in Baku) has expanding ICT facilities for the instrumental training of student teachers – special classrooms equipped with computers and linked to internet, as well as electronic boards and projectors, yet there is need for significantly more ICT equipment. The institute has got its own policy on ICT use – there are separate trainings “Use of ICT in education” as part of general curriculum (new programs) and specialized courses. Teachers are trained how to use ICT in general but also how to use electronic boards and computers in the classroom. All the faculty staff members have received special trainings on the use of computer and electronic boards. ICT is primarily used for training preparation, presentation of learning material to the whole class, student’s independent research. There is free access to computer classrooms for all students.

The 4th-year students in the institute receive trainings on application of 60-hour curricula and are provided with certificates upon completion.
The panel had a meeting with the management team: the Rector, two deputies, then a separate meeting with three teacher (English, ICT and Russian) and three students. There was a brief round-up meeting at the end of the visit with the Rector.

2.2 School Nr 20
This is a standard secondary school, situated in the central part of Baku. The school has 2818 students comprising both primary (6 – 10 years) and secondary (10 – 17 years) education
levels, of mixed and medium socio-economic background, funded fully by the state. The school has got two parallel language tracks – Azeri and Russian. There are 304 teachers. 85% of students’ progress successfully from the first to the final year of education and 73% of those continue on to further education and training. There has been a significant increase in the percentage of graduates proceeding to higher education in the last three years.

The school has been equipped with ICT technology during the last years – projectors, computers and electronic boards. However, not in every classroom: 80% of classrooms are equipped with computers and projectors, while 20% are connected to internet.

The school has got a policy on ICT use for pedagogical goals, implying the use of online resources in lessons, preparing and presenting curricular information with the use of computers, projectors and electronic boards. The school offers special distance education classes based on internet for special needs students across the country. All teachers have been trained in ICT use by Madat Intel in the framework of “Electronic School” project, which this school is part of. ICT is primarily used for lesson preparation and presentation, students’ independent work and communications with parents.

The school has a policy on early school leaving, including a specialised member of staff addressing student's issues and needs; all teachers are registering the absence of students electronically, including automatized warning of parents. Regular meetings with parents are held on statutory basis and parents have access to monitor their children's progress online. The official webpage of the school contains a special section “Parent-teacher Association” which contains pedagogic recommendations and answers parents' questions.

ESL is not a particular issue in this school, as only 0.4% of undergraduate students have left the school during the last three years, all of them either relocating with their families or entering VET. Students who are falling behind expected attainment targets are assigned to repeat the respective grade, but they cannot be dismissed until the age of 17.

The panel had a meeting with the school director, two separate meetings with four teachers (two English teachers, one Physics and one Chemistry teacher), and four students – 2 from 9th and 10th grades respectively (15 – 16 years olds).

2.3 School Nr 220

This is also a standard school, located in the vicinity of central Baku. 1847 students attend this school and 186 teachers work there, comprising both primary and secondary levels – students are aged between 6 and 17 years with mixed socio-economic backgrounds. The school is fully funded by the state. 99% of its students’ progress successfully from the first to the last grade and about 75% of its graduates enter tertiary or further education institutions.

Since 2000 the school enjoys the status of “UNESCO school”, offers division in parallel specialized mathematics and humanities tracks (from the grade 6th upwards) and has participated in the World Bank’s funded Cito project on curriculum and standards development. The school leadership has a strong vision of integrating its education with the rest of the world.

The school is well equipped with ICT facilities – all classrooms have computers and projectors and the school is connected to broadband internet. Students at primary level are provided with personal notebooks as part of the project “One pupil – one computer”. Concerning pedagogy, ICT is used for preparation and presentation of lessons. All teachers are trained in the use of the ‘Education Portal’, ‘Electronic Lesson Management Programme’ (AEL), ‘Electronic School Management Programme’ (ASM), and application of the curriculum. Specific trainings have been

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1 Cito is international testing and assessment company, based in the Netherlands
organised for teachers who are part of the “One pupil – one computer” project as well as part of the projects organized by Intel, Mimio and Promethean introducing ICT solutions for education. Future plans include further development of teachers’ skills and knowledge in the pedagogic use of ICT.

Although early school leaving appears not to be a problem, the school has got a policy on eliminating it through the use of ICT – e.g. using the electronic assessment register which allows parents to track regularly their children’s progress and to contact teachers. Beyond that, the school leadership considers ICT use crucial in developing individual approach, special interests, creativity, personality and raising motivation of students.

There were three separate meetings with the school director, three teachers (English, Mathematics and Informatics), and three students from 8th grade.

### 3 Outcomes of Meetings

#### 3.1 Brief Description of Interview Process

The interviews were conducted using an informal semi-structured interview technique. The interview schedule was distributed prior to the meeting. All respondents indicated that they had seen the schedule. This approach was adopted to ensure that the views and experiences of the respondents were encouraged and captured in an objective manner. The panel took care not to influence the responses from the respondents.

The following section lists the major themes to emerge from open discussions held within the various interviews. All discussions were held in a very open and constructive manner. The following themes emerged from points, statements and responses made by the participants during the meetings. These were audio recorded for all meetings. The themes were extracted from notes made by the panel members, the audio recordings and subsequent discussions of the panel, usually in the evening following the interviews.

Most of the discussion consisted of approaches and experiences of ICT in Education; however the panel did try to ensure that ample time for comments related to Early School Leaving was available. The panel focused the questions on the use of ICT in reducing ESL both as part of general discussion on education and ESL and specifically as a goal in itself. Therefore, the panel has reported ICT and ESL and ICT use to eliminate ESL separately.

#### 3.2 Emergent Themes by Institution

<table>
<thead>
<tr>
<th>Institution</th>
<th>Azerbaijan Teachers Institute</th>
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<tr>
<td>Category</td>
<td>Management, Staff and Students</td>
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<tr>
<td>ICT in Education</td>
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<tr>
<td>1.</td>
<td>ICT use for learning raises student motivation;</td>
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<td>2.</td>
<td>Social media is used in an open way – students are allowed to use it during the learning process</td>
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<tr>
<td>3.</td>
<td>ICT provision is developing, but the institute does not provide Wi-Fi access</td>
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<td>4.</td>
<td>There is conceptual difference between perceived accessibility to the internet and modern ICT use; main method is developing presentation materials</td>
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<tr>
<td>5.</td>
<td>Content is not as much available in Azeri, as in Russian or English – a language not commonly spoken; so Russian instructed students have an advantage in using internet resources</td>
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<tr>
<td>6.</td>
<td>There are mandatory teacher trainings per year which use ICT</td>
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7. There is motivation to exchange ICT based teaching methods with colleagues abroad, but possibilities are limited
8. Incentives are determined in granting of awards for schools and teachers to develop certain skills
9. Salary increases can be a good motivation for teachers and are desired
10. Motivation for teachers is a competition for awards (yearly 50 schools and 100 teachers receive a reward from the Ministry of Education)
11. New training technologies are used in teaching. There is room for innovation including trial and errors
12. ICT use plays a special role in the work of future teachers
13. Restrictive curriculum limits expanding the use of ICT in education
14. ICT use in final exams is little.

Early School Leaving

1. Socio-economic background does not impact early leaving the higher school
2. There is also a normal gender aspect: 90% of the students at the higher school are girls.
3. Family background has no visible impact on education. Therefore, family background does not cause the students leave the institute
4. Pedagogical and psychological measures are taken to prevent early higher school leaving

ICT and ESL

1. If students cannot attend school, ICT is a good means to follow up in distance with their studies, but this is difficult to implement in the whole country because of great differences between the rural and urban areas in terms of ICT availability
2. The Gender bias should be minimised, currently girls are not supposed to access internet from internet cafes yet other access forms are limited
3. Students motivation is far greater when using ICT in learning

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<td>Category</td>
<td>Management, teachers and students</td>
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ICT in Education

Management
15. Teacher training is focused on pedagogical use of ICT
16. Provide teaching material and online teaching resources in Azeri should be provided that are accredited by the education ministry
17. Necessity to increase the ICT equipment available to students
18. ICT cannot replace the communication between teachers and students

Teachers
19. Need for foreign exchanges for students and teachers is very strong to develop ICT use in pedagogy
20. Teacher training requires more use of interactive learning approaches towards student centred learning
21. Learning with the use of ICT can be restrictive, it is more open in traditional ways of teaching
22. ICT use requires more electronic teaching material available in Azeri, including guidance on links where to find good internet sources for internet-based teaching material.

23. ICT is a support in visualising content and helpful in organizing lesson and eases the use of different learning styles.

24. No need to use ICT all the time, teacher–student interaction is important.

25. There exist danger of unsafe internet use. Social websites are free to enter (unblocked) in the school.

26. Exams assess memorised information; students also ask teachers to prepare them for written exams.

27. Pedagogic ICT use in classrooms requires more preparation, which is time consuming: as teachers have low salaries and give private lessons late in the afternoon, they have little time to prepare their normal lessons in school, which results in less time to prepare the pedagogic use of ICT for their lesson.

28. Generation differences are prominent: young teachers are inexperienced in teaching but interested in ICT, older teachers are experienced in pedagogy but their skills and often interest in ICT use is little.

29. There is conceptual controversy as well: some teachers think that some subjects can be better taught in the traditional way, others more with the use of ICT.

30. It is more useful, however, for teachers to use ICT because children otherwise will lose interest in learning subject matter.

31. Pupils sometimes are more advanced than teachers in use of ICT.

32. The curriculum is restrictive: from grade 1-6 teachers are more free to organise the curriculum but from grade 7 on the curriculum has to be followed more strictly.

33. Use of ICT in schools depends very much on the attitude and interest of the school principal.

34. ICT is used for communication between teachers and for international exchange programmes, the school was involved in exchange programmes with the US, Russia and the Czech Republic on developing democratic citizenship; this also involved teleconferences.

Students

35. Prefer that teachers teach, ICT use only for information research.

36. Prefer that even with ICT use teaching should be teacher-oriented.

37. It would be good to have more material on the internet in Azeri language.

Early School Leaving

Teachers

7. ESL is not considered an issue because children have to go through compulsory education, after 9th grade they can decide whether to follow vocational training or a military school; some students do not have the psychological capacity to study or leave for socio-economic reasons.

8. School prepares children for life, not for the assessment of skills only.

Students

9. Know students in other schools that leave for socio-economic reasons or because of psychological difficulties.

10. Parents are supportive to school as they are interested in good quality education for their children.

ICT and ESL
Teachers

4. Their school offers ICT means for **distance learning** and a system that links parents with school to inform them immediately about absenteeism and the marks of their children

5. **Distance learning** is a good means to integrate children who are ill or need special education

6. School has a system with passwords for students and parents to enter the closed school network to look up on their homework, to check up on attendance; it is also possible to contact school psychologists via the website

7. Sometimes children do not know the **limits** of using ICT and this harms learning. There is strict control to ensure that children do not enter internet cafes during school hours and do not enter prohibited websites

Students

8. ICT use **motivates** students who are not really keen to stay in school

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**ICT in Education**

Management

38. There are **computer equipped** classes, but ICT is used for **content delivery**, there is no personalised learning; following of a **common curriculum** is the key condition

39. Main purpose of ICT use can be explained using Azeri proverb: “it is better to see something once than to hear it a hundred times”

40. The pedagogic vision is to develop **learner centred approach** with the use of ICT

41. Sometimes pupils are **more advanced** in ICT use than their teachers

42. Teachers who have had training themselves and work with ICT in class train other teachers in their school; in fact all teachers have had and continue to receive **training on ICT use**

43. Exacting approach exists towards **elderly** teachers who perceivably do not want to change their traditional way of teaching

44. Generally teachers are very **interested and motivated** to use ICT;

45. School has won the **best school award** in 2008 and received corresponding grant

46. School is also part of the UNESCO school programme and involved in many **exchange programmes**

Teachers

47. Broad understanding that **teaching of today** needs to include ICT

48. Teachers feel that they have to use ICT to give an **interesting lesson**

49. Most examples of ICT use consist of Power Point **presentations** prepared by the teacher

50. More **ICT equipment** is needed and more specialised **training for teachers**

51. One student – one computer project is only a project, teachers have the vision that all **pupils should have a computer**, it will also help developing their families skills in ICT;
52. One student – one computer project has changed the attitude of pupils, parents and broader society towards education
53. Wi-Fi is open to the whole school, but access to web is filtered by the Education Ministry
54. Not all subjects are equally good for using ICT, e.g. geometry
55. ICT helps both teachers and pupils to better grasp the subject
56. ICT is a great motivator; students are more interested in using ICT than learning from the books
57. In higher grades pupils receive tasks according to the individual learning level
58. More pupil-centred teaching is needed
59. The school library does not have computers for research.
60. The curriculum allows to adapt to innovative teaching methods
61. Online exams are a good way of supporting students in higher grades to use ICT
62. Pupils who do not have a computer at home can stay at school and use the computer lab until 8pm – teachers also have a choice to stay at school and prepare their lesson instead of doing it at home
63. Teachers are open to be helped by pupils if they do not know how to use a certain device
64. Teachers are open to more teacher training on ICT use – although it does not help in the advancement of the career! – only English/language teachers get opportunities to go abroad to other schools and experience other ways of teaching that are used in Europe

Students
65. Prefer that teachers teach instead of using ICT independently because they are not sure about which sources are reliable – which are the sites that provide the good/correct answer, therefore it is better to ask teacher
66. Prefer books as all valid and correct information is in one place
67. Students use mostly Wikipedia as a resource – Google offers too much choices
68. Computers can be helpful in memorising learning material – it is better to see something once than to listen to something hundred times
69. Exams are based on memorising and providing the correct answer
70. Some students have to ask their parents’ permission to be allowed to use the internet at home
71. Teachers do not use ICT in every lesson. For instance, ICT is used less in Literature and Geometry
72. It is easier for teachers to check homework through ICT
73. ICT use in class is interesting. Subscription of a website to use in class are provided at the personal initiative of some teachers
74. Students are envied by other students and friends for having the opportunity to learn in a school which uses ICT in class

Early School Leaving

Management and teachers
10. ESL is not a problem because children have to go through compulsory education. After the 9th grade they can decide to follow vocational training or go to a military school; some students do not have the psychological capacity to continue to learn or drop out because of socio-economic reasons
11. There is a strong link to parents, via the school network parents are informed of the marks and attendance of pupils
12. It is important to develop a democratic relationship between teachers and
13. The general school policy for children who have difficulties with learning is:
   identify students with difficulties, examine their family conditions, work with
   family in a friendly approach and involve the kids actively in extra curricula
   activities

Students
14. ICT is used to communicate to parents about absenteeism and also the grades:
   ICT makes their performance at school more transparent to parents
15. They do not know anyone personally who left school early
16. It might be that pupils drop out due to their parents' not supportive attitude
   towards school
17. School provides an inclusive model, trying to help weak students with the
   support of strong students

ICT and ESL

Management and teachers
11. Vision of a school where all pupils have their own computer
12. Sometimes Facebook sites are created for specific lessons to motivate students
   and to facilitate the communication on a certain topic
13. Teacher training should be focused on pedagogical use of ICT
14. Provide teaching resources and online teaching resources in Azeri language
   that are accredited by the education ministry
15. Increase the equipment available to students on ICT
16. ICT cannot replace the communication between students and teachers, which
   remains crucial

4 Analysis of Outcomes

4.1 Discussion on Emergent Themes
All of the meetings were held in an open and friendly manner; participants refrained to
comment on government policy. This resulted in 74 themes on ICT in Education, 18 themes in
ESL and 16 themes on links between ICT and ESL. All of the themes are interrelated and
although they show certain ambiguity and confusion of the goals and vision of ICT development
in education, they are also coherent in their reflection of the reality on the ground.
There is strong commonality between all of the interviews in terms of perceived reality and also
in evaluating it. In comparing with other case study countries there were some commonalities
but also significant divergence in terms of the level of development of ICT in education, and in
pedagogical concepts behind and implementation of them.

The following section extracts Master Themes on the basis of their emergence as a theme but
also in the intensity of their expression during the interview.

4.2 Identification of Master Themes for ICT in Education

1. TECHNOLOGY: There was broad acknowledgement that ICT has become part of modern
   social life and a necessary precondition for future success of students and therefore an
   obligation for education to reflect this trend. More effective visualisation of teaching
   material in order to understand and memorise better was commonly stressed as an
obvious advantage of using ICT. Awareness that ICT can bring about more fundamental pedagogic change (e.g. learner centred approach) was rudimentary and incidental, and was not conceptualised at institutional strategy level. Therefore emphasis was on providing more ICT equipment to classrooms not on developing various ways of using it. (Themes: 3, 15, 17, 18, 23, 26, 38, 39, 40, 42, 47, 48, 49, 50, 51, 52, 54, 55, 58, 61, 64, 68, 69, 71, 72)

2. **AUTHORITY**: All students indicated that they learn common curriculum and give correct answers in exams in order to demonstrate their achievement of learning goals. This approach, while not necessarily contradicting the wider use of ICT, apparently limits independent development of critical analytical thinking and problem solving skills, demonstrated by a rather limited role and use of the internet in the learning process. Most of the students consistently reported that they prefer to rely on the teachers’ intellectual authority (or official textbook) in the class, rather than searching on internet. A recurrent theme was the somehow ambiguous but strongly present concept of “hierarchy of knowledge” implying that there is an objective truth represented in the curriculum and the goal of education is for students to absorb it. (Themes: 11, 12, 13, 16, 22, 24, 26, 29, 35, 36, 38, 43, 49, 54, 55, 59, 65, 66, 67, 68, 69, 71, 72)

3. **RESTRICTIVENESS**: Correspondingly, restrictiveness was very often mentioned when discussing curriculum, teaching methods and access to internet. While all schools visited offered internet access both for teachers and students, it was regulated, either by the Ministry of Education or local school policies. Students are not allowed to use social media at the school, and certain web sites are filtered by authorities. This was not perceived necessarily as obstacle. All respondents tended to agree that the information on the internet is unreliable and some teachers thought it may be harmful. Illustratively, when students are given tasks they are expected to be given guidance on which websites to use. The access to internet cafes outside school is also regulated and there is no considerable restriction for adolescents attending these. In parallel, the curriculum also was characterised as restrictive, allowing little space for pedagogical innovation or experiment either on content or methodology side. In addition, examination favours strict framework in terms of student knowledge. (Themes: 2, 11, 13, 21, 25, 32, 53, 70)

4. **TEACHER CENTRED**: While acknowledging that teachers want and need more training on ICT use for pedagogy, it was generally recognised that the teachers’ role remains the same – provider of knowledge to the students. Regarding the motivation for more ICT use, the dominant answer was that ICT helps making lessons more interesting and illustrative for students, keeping their motivation higher. The need to develop more interactive and student centred methods was mentioned incidentally. There was a strong refrain, nevertheless; that ICT cannot replace the communication between teacher and students: whole class teaching. (Themes: 6, 11, 15, 18, 20, 24, 28, 30, 40, 44, 50)

5. **INTERNATIONALISATION**: The desire to open up for more contacts with education systems in Europe was very present in both teachers and students, and recognised as part of school policy in all cases. Even if the international exchange may be perceived as goal in itself, the evidence of its impact was clear: those teachers who have experienced training abroad and participated in international projects demonstrated far greater vision and understanding of the role of ICT in education, they also showed significantly higher motivation, self-efficacy and agency to use ICT to develop their schools and methods of their peers. (Themes: 7, 34, 46, 64)
6. **LANGUAGE:** Availability of electronic online teaching materials in Azeri language was frequently mentioned as one of the main challenges for the wider application of ICT in education. Teachers who teach and students, who are taught in Russian, may have some advantage over their Azeri language peers, as education resources in Russian are more available. English language materials are less used because of the language barrier. Teachers have to prepare their classes themselves and often lack time and resources to do it. (Themes: 5, 16, 22, 37)

7. **EQUITY AND COMPETITION:** There was a strong sense that in the institutions visited the respondents saw their situation as advanced compared to other schools, and even subject of envy. All schools visited reported as being recognised and awarded some special status, not least because of their advancements in the ICT use. On the one hand, there is a culture of competition between schools and individual teachers and proficiency in ICT stands high on the criteria list. On the other hand, this implies that not all schools may be developing equally and the differences between urban and rural, metropolitan and provincial, poor and rich are emerging. All respondents, teachers and students alike placed great emphasis on the role of the family on students' achievement and progress and noted that they are proud being in this school (Themes: 10, 45, 46, 52, 74)

4.3 **Early School Leaving**

1. **SOCIO-ECONOMIC BACKGROUND AND GENDER:** Early School Leaving was not considered as a problem in the schools visited; however, when discussed on a national basis, the poor socio-economic background was mentioned as the major cause for ESL. Gender stereotypes also still play a prominent role. Namely it is mainly boys of 15 – 16 years of age in rural areas who are often taken out of school and enrolled in the labour market in order to support their families. In some regions, girls are expected to play different social roles, and can be limited to homes or married at school age. The role of the families was regarded as essential and work with parents was named as key area of preventive action besides stricter law enforcement which prohibits child labour (Themes: 1, 2, 7, 10, 13, and 16)

2. **MONITORING AND MANAGEMENT:** ICT is also used for monitoring and management purposes with soft-ware recording each student presence and progress, which allows for parent control and intervention (Themes: 12, 14)

3. **STUDENT CENTRED LEARNING:** A too rigid and restricted curriculum was mentioned as one of the obstacles and more emphasis on extracurricular activities and student centred teaching were recommended (Themes: 4, 6)

4.4 **ICT and ESL**

1. **MOTIVATION:** This emerged as the dominant theme of all interviews, as all respondents emphasised increasing interest and motivation of students exposed to various forms of ICT in classrooms, especially for those students who participate in projects as One student – one computer, where students can use their own computer at school and home. It also helps motivating those students who are not very interested in learning. Also, for teachers, the ICT use seem to be a motivating factor; although at the current stage of development they lack more structured support in terms of time, available internet sources and financial stimulus. (Themes: 3, 7, 9)
2. **ACCESS**: Access to education for disadvantaged students, especially with physical disabilities was also mentioned as key advantage of ICT. Through distance learning such students can follow the curriculum although they lack experience of attending the school. (Themes: 1, 4, 5)

3. **SPILL OVER EFFECT**: It was noted that expanding ICT use in schools also affects broader society – primarily the parents and families of the students who are exposed to computers and internet – either through the personal laptops which students can carry home and use for home work, or through using internet based school portals for monitoring their children's progress. This helps to prevent potential ESL but also improves student learning and parents engagement with it. While often parents' familiarity with ICT is already high, sometimes it helps also develop their ICT skills thus benefiting more people than the individual student. (Themes: 4, 6, 11)

5 **Conclusion**

Azerbaijan is a country at the crossroads. It is at the initial stage of development of ICT use in education. The emphasis during the last years has been on the provision of the schools with technical equipment – computers, electronic boards and projectors, and internet connections. While this work has just started and it will take time when all or most schools in the country will be equipped comparably, there is an urgent need to roll out on the scale teacher training programmes on how to use ICT for pedagogical aims. Otherwise, there is a risk that ICT can become "embedded" in the traditional way of teaching or the curriculum centred model, which may block or even reverse development of teaching and learning. There are signs that this is happening already, although, there are also examples of progressive thinking towards personalised learning and learner centred curriculum development. There is strong evidence that such methods are highly motivating and should be supported in order to grow and spread. In order to foster this, a curriculum reform seems to be a necessary precondition, coupled with more formative and diagnostic assessment and summative examination. Currently, the one-size-fits-all curriculum and programme does not allow for individualised teaching and learning methods and standardised high-stakes testing prevents teachers’ form innovating and experimenting even in the frame of existing curricula. Furthermore, in most European countries, the development of the educational system and the curriculum follows OECD's recommendations to give increased attention to train transversal competences in schools. Subsequently, it has a visible impact on the educational system in Azerbaijan.

The further development of ICT use is directly linked with limiting Early School Leaving, which at the moment is seen as a marginal problem and mainly as a legal issue – matter of enforcing and strengthening the law mandating attendance of all school age children. Pedagogical developments of ICT use can increase the effectiveness and motivation of teaching and learning and stimulate personal and societal development.

Regarding initial teacher education and professional development, top priority should be given to expanding and enhancing teacher participation in international training and exchange programmes and projects. In the situation, when monetary instruments (salaries) are not attractive, such international exchange can give a strong motive for teachers. From the evidence this develops teachers significantly both individually but also as catalysts for change in their pedagogical communities.

In expanding the pedagogical ICT use in education, attention should be given to teachers working conditions as well: teachers need more support in terms of time and content resources
to better prepare and work innovatively. Development of online education resources in Azeri is also critical for both national development and social integration.

5.1 Emerging findings in relation to ELFE-ESL conclusions

To summarise the findings in Azerbaijan in relation to the other case studies we see several elements, which should be included in the general study conclusion:

- It has a strong impact on the use of ICT at school if the principal understands the challenge of using ICT as a pedagogical tool, and makes sure it is a pedagogical priority in the school policy, supported by the necessary training of the staff.
- The initial teacher training need to increase the focus on the pedagogical use of ICT
- The use of ICT motivates students and motivated students have a smaller risk for ESL
- The visualisation of topics taught in class via the use of ICT increases the learning outcome
- The use of ICT to give virtual lessons/remote teaching can reach groups of students who will not attend schools if they did not have this offer due to distance to schools or to a handicap
- Even in cases where there is no formal school policy to link the use of ICT with an effort to diminish ESL, ICT can have an effect on ESL when it becomes part of the schools daily practice:
  - To open up for access to schools ICT facilities after school can help overcome a digital gap for students from families without a computer or gender issues if girls are not allowed to go to an Internet cafe
  - When school use ICT for grading or to register students’ presence and allow parent and students to access this information, it motivates students to attend and helps parents to support their children’s active participation at school.
- Relaxing curricular regulations is important: it is a barrier for developing use of ICT in education if the curriculum is very detailed without requiring use of ICT, and if schools focus solely on preparing for exams, where use of ICT is not integrated.
- To develop the use of ICT it is important to have a culture where teachers at the schools are encouraged to change the way they teach, and school management support and accept that success of a pilot projects is not guaranteed - there must be room for failures, combined with a process where teachers can learn from their mistakes.