



INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR INCLUSION

Germany

Preamble

The *KMK* (Standing Conference of the Ministers of Education and Cultural Affairs) provides standards on the use of ICT in education in Germany; each *Land* has its own way of implementing these standards. It can be said that everything is in flux at the present time. There are no automatic specific IT measures or solutions regarding inclusion. The aim for all *Länder* is to optimally prepare schools for handling heterogeneity, including in the use of ICT.

Therefore the reply from Germany consists of the following sections:

1. National policy overview presenting information applicable to all *Länder*;
2. Regional policy overview from one *Land*, Hamburg;
3. Information on practice from Bremen;
4. Information on practice from Hamburg;
5. Information on practice from Bavaria.

1. National Policy Frameworks

Country: Germany (covering all *Länder*).

National overview source: *KMK/Nationaler Bildungsserver* (National Education Server).

This information was provided by Ulrike Suntheim (Agency National Co-ordinator).

1.1 Policies that impact on ICT for inclusion in the compulsory school sector

- Framework media education and education plan for all school subjects in the *Länder*;
- Software and hardware available;
- Internet access available in the classroom.

Please see:

<http://www.bildungsserver.de/Konzepte-Projekte-und-Angebote-zu-Medienerziehung-Medienbildung>

<http://www.bildungsserver.de/innovationsportal/zeigen.html?seite=1930>

<http://www.bildungsserver.de/Computer-in-der-Grundschule-1662.html>

<http://www.bildungsserver.de/Grundschul-Angebote-der-Landesbildungsserver-1659.html>

<http://www.bildungsserver.de/Medien-fuer-den-Unterricht-145.html>

http://www.bmbf.de/pub/it-ausstattung_der_schulen_2006.pdf

1.2 Current policy on ICT for inclusion in relation to the main project themes

1.2 (i) *ICT as a tool for promoting equity in educational opportunities.*

See the *KMK* plan of action '*Anschluss statt Ausschluss – IT in der Bildung*' (Connection instead of Inclusion – IT in Education):



[http://www.bmbf.de/media/press/KONZE_IT\(2\).pdf](http://www.bmbf.de/media/press/KONZE_IT(2).pdf)

ICT is seen as one of the key issues in educational policy.

1.2 (ii) Access to appropriate ICTs as an entitlement

This is generally included in frameworks, especially in frameworks for media education, but is not binding.

1.2 (iii) Training of educational staff in the use of general and specialist ICTs

There are training and educational measures for all partners in all *Länder*.

1.2 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

No information is available on this issue.

1.2 (v) Data collection and monitoring in the use of ICT in inclusion

Please see http://www.bmbf.de/pub/it-ausstattung_der_schulen_2006.pdf

1.3 Strategic plans for implementing policy on ICT for inclusion

The *Länder* are responsible for any strategic plans and for implementation.

1.4 Monitoring and evaluation of policies or strategic plans relating to ICT for inclusion

- Digitalisation of study material, assessment and frameworks in all *Länder*;
- Software and hardware available in all schools;
- Internet access available in many classrooms.

1.5 Main policy developments in ICT for Inclusion that have taken place since 2000

Please see above.

1.6 Current issues in relation to ICT for Inclusion

- Digitalisation of study material, assessment and frameworks in all *Länder*;
- Training and educational measures for all partners.

1.7 Important short and long-term developments in ICT for Inclusion

- Software and hardware equipment available in all schools for all students;
- Better training and educational measures for all partners.

2. Regional Policy Frameworks

Region: Hamburg

This information was provided by Dr Angela Ehlers (*Referat Inklusion, Behörde für Schule und Berufsbildung* – Inclusion Unit, Ministry of Schools and Vocational Training).

2.1 Policies that impact on ICT for inclusion in the compulsory school sector

- Framework media education and education plan for all school subjects with mandatory use of ICT;
- Software and hardware available;



- Internet access available in the classroom;
- There are interactive whiteboards in 30% of classrooms;
- Specialised special needs education (SNE) software is used to compensate for any disadvantages;
- Training and educational measures for all partners.

2.2 Current policy on ICT for inclusion in relation to the main project themes

2.2 (i) ICT as a tool for promoting equity in educational opportunities.

To date, SNE schools offer better standards than compulsory schools.

With regard to implementing inclusion, only project ideas exist thus far.

2.2 (ii) Access to appropriate ICTs as an entitlement

This is generally included in frameworks, especially in frameworks for media education, but is not binding.

2.2 (iii) Training of educational staff in the use of general and specialist ICTs

The *Landesinstitut* (National Institute) offers training, but it is not obligatory.

There is only training for all schools in relation to interactive whiteboards, through the training of two to three teachers per school.

2.2 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

Preparation of a script on 'Inclusion and Media' by a multi-professional team.

2.2 (v) Data collection and monitoring in the use of ICT in inclusion

No information is available on this issue.

2.3 Strategic plans for implementing policy on ICT for inclusion

- Development of a digital infrastructure in schools including inventory, support, implementation, training
- Implementation of a network
- developing digital SNE material for all partners
- Providing digital material
- Development of qualification for teachers, training and support of experts

2.4 Monitoring and evaluation of policies or strategic plans relating to ICT for inclusion

The results of the projects are constantly evaluated.

2.5 Main policy developments in ICT for Inclusion that have taken place since 2000

No information is available on this issue.

2.6 Current issues in relation to ICT for Inclusion

- Improvement of communication and information by using a platform;
- Digitalisation of study material, assessment and frameworks;

- In the context of the project, students are given personal notebooks;
- Participants are trained in using ICT.

2.7 Important short and long-term developments in ICT for Inclusion

Expected developments for all participating schools:

- platform and material for organisation and communication;
- thirty-hour courses based on the 'Inclusion and Media' pilot project for grade 5 and 6 staff members;
- digital material;
- digital skills, SNE papers, assessment, digital SNE material.

Expected developments for everyone:

- blog where all participants can share information;
- cross-linkage of schools through the platform, mailing lists and newsletter;
- use of digital material;
- use of well-known structures;
- qualified experts among the project participants.

3. Regional Practice (Bremen)

This information was provided by Helmut Kehlenbeck (*Die Senatorin für Bildung und Wissenschaft/Bildung Bremen* – Senator for Education and Science/Education Bremen).

3.1 Main developments in practice in ICT for Inclusion since 2000 in relation to the main project themes

3.1 (i) ICT as a tool for promoting equity in educational opportunities

Integration into the school network and internet usage is possible in each classroom.

A standardised network structure is being implemented via SuBITI (Service and Operation Concept for the IT Infrastructure). Through a personal account, every student and teacher has access to private data areas, as well as data areas reserved for each class, for example. The standardised network structure permits easy, effective support.

The *Landesinstitut* has its own media department. The *Landesinstitut* is active in consulting on IT concepts and software. Via SuBITI, schools are provided with relevant software. Software for individual learning is provided in this way. Please see www.lis.bremen.de

Schools can use the www.portal.schule.bremen.de web portal for school-related uses. E-learning concepts can be accessed through the portal.

A next step will be the creation of wireless LAN structures in schools.

3.1 (ii) Access to appropriate ICTs as an entitlement

Every primary school has one or multiple classroom computers.

In addition, various primary schools have media corners or computer rooms.

Secondary level I and II schools have multiple classroom computers, as well as media corners; individual schools have laptop classes.



All secondary level I and II schools have at least two interactive whiteboards.

Each student and teacher has an individual email address that can be used within school contexts.

Every primary school has a media set, consisting of projector, laptop and speakers, for presentations.

3.1 (iii) Training of educational staff in the use of general and specialist ICT

The *Landesinstitut* has its own media department. The *Landesinstitut* is active in consulting on IT concepts and software. Via SuBITI, schools are provided with relevant software. Software for individual learning is provided in this way. Please see www.lis.bremen.de

3.1 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

In the context of inclusion and the dismantling of *Förderzentren* (special education units), the following steps have been carried out:

Every secondary level I and II school has its own ZUP (centre for supporting education). Each ZUP management body is part of the school management body and is responsible for the implementation of inclusion. Various primary schools also have an independent ZUP, while other primary schools are assigned to ZUP groups. Whenever students are in need of specific hardware, which is not covered by health insurance, individual solutions are sought.

Naturally, we would like to have even better IT resources available to us. However, overall we are prepared – both conceptually and in real terms – for the implementation of inclusion in the IT sector.

3.1 (v) Data collection and monitoring in the use of ICT for inclusion

No information is available on this issue.

3.2 ICT to promote learning in inclusive settings

3.2 (i) Country-based networks to support teachers in using ICT to promote inclusive learning

A web portal providing support to teachers with regard to inclusion is under construction.

3.2 (ii) Initial teacher education in using ICT to promote inclusive learning

No information is available on this issue.

3.2 (iii) Practical support in classrooms to help teachers' use of ICT to promote inclusive learning

No information is available on this issue.

3.2 (iv) Important information sources about new developments, hardware and software products and ideas for using ICT to promote learning in inclusive settings

No information is available on this issue.

3.3 Current obstacles to using ICT to promote learning in inclusive settings

No information is available on this issue.



3.4 Factors that support using ICT to promote learning in inclusive settings

No information is available on this issue.

3.5 Perceived short and long-term developments that will have an impact on ICT for Inclusion practice

No information is available on this issue.

4. Regional Practice (Hamburg)

This information was provided by Dr Angela Ehlers (*Referat Inklusion, Behörde für Schule und Berufsbildung* – Inclusion Unit, Ministry of Schools and Vocational Training).

4.1 Main developments in practice in ICT for Inclusion since 2000 in relation to the main project themes

4.1 (i) ICT as a tool for promoting equity in educational opportunities

There have been initiatives by single support centres (now regional support centres – *ReBBZ*) and positive experiences, especially in communication between teachers and other staff members, as well as in the vocational training of grade 8 and 9 students. However, there are no valid measures.

4.1 (ii) Access to appropriate ICTs as an entitlement

Software and hardware are available everywhere, as is internet access.

4.1 (iii) Training of educational staff in the use of general and specialist ICT

Teacher training is provided by individual schools. Competences are still unequally distributed among the staff.

4.1 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

There are no such activities in Hamburg.

4.1 (v) Data collection and monitoring in the use of ICT for inclusion

No information is available on this issue.

4.2 ICT to promote learning in inclusive settings

4.2 (i) Country-based networks to support teachers in using ICT to promote inclusive learning

Arrangements are made by the *Landesinstitut* (LIF15) to provide a network for co-ordinators. The *Landesinstitut* seeks solutions in order to secure resources.

4.2 (ii) Initial teacher education in using ICT to promote inclusive learning

Basic ICT skills are necessary for employment.

The *Landesinstitut* does not provide any additional training.

4.2 (iii) Practical support in classrooms to help teachers' use of ICT to promote inclusive learning

In every school, one of the staff members is responsible for media and supports colleagues according to the media framework. One problem is these experts' lack of time.



4.2 (iv) Important information sources about new developments, hardware and software products and ideas for using ICT to promote learning in inclusive settings

Individually, integration to the network is still lacking.

4.3 Current obstacles to using ICT to promote learning in inclusive settings

- Staff, especially in schools working with inclusive education for the first time, might be overstretched;
- Lack of competences and training;
- Lack of digital material to support all students with assessment and evaluation.

4.4 Factors that support using ICT to promote learning in inclusive settings

- Competent co-ordinators in schools;
- Integration to a network, working with best practice examples;
- Intensive teacher training, accompanied by reduced timetables.

4.5 Perceived short and long-term developments that will have an impact on ICT for Inclusion practice

Implementation of a project to train experts and create structures and material.

5. Regional Practice (Bavaria)

This information was provided by Erich Weigl (*Referat Sonderpädagogik, Staatsministerium für Unterricht und Kultus* – Special Education Unit, Ministry of Education and Culture, Munich/Bavaria).

5.1 Main developments in practice in ICT for Inclusion since 2000 in relation to the main project themes

In the context of the Digital Learning in Bavaria programme, which supports IT-based lessons in schools, the Bavarian Ministry of Education and Culture has been running the digital learning project since 14 September 2011. It will continue until 1 March 2014.

In co-operation with *Staatsinstitut für Schulqualität und Bildungsforschung* (State Institute for School Quality and Educational Research – *ISB*), *Akademie für Lehrerfortbildung und Personalführung* (Academy for Advanced Teacher Training and Personnel Management – *ALP*) and *Institut für Film und Bild in Wissenschaft und Unterricht gGmbH* (Institute for Film and Image in Science and Education – *FWU*), the programme offers:

- The Online Media Centre: Bavarian teachers and students are authorised to use the films, media, etc., available in the centre at no charge.
- A Learning Management System to promote digital learning by providing software with particular focus on support and organisation in the students' learning process.
- The mebis (Media Centre Bayern): a web portal for students and teachers that provides information, films, media, etc., for all school subjects. (www.mebis.bayern.de).

5.2 ICT to promote learning in inclusive settings

To support inclusive settings, all concepts and offers:

- are accessible (adjustable font size, integrated reader function, etc.);



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- provide information and suggestions concerning inclusive education and teaching in heterogeneous groups. 'Inclusion and media' is one of the portal's main topics;
 - help teachers to provide learning material for their students online;
 - provide a large quantity of media materials for all subjects.

In the 2012/2013 school year, 90 schools (primary, secondary and special schools) took part in the project. The accompanying support comprises teacher training, guidance, technical assistance, etc., for all participating schools.

5.3 Current obstacles to using ICT to promote learning in inclusive settings

No information is available on this issue.

5.4 Factors that support using ICT to promote learning in inclusive settings

Co-operation between all stakeholders, integration into a network, intensive teacher training, guidance, technical assistance, etc., for all participating schools are seen as relevant factors that support the use of ICT to promote learning in inclusive – and non-inclusive – settings.

5.5 Perceived short and long-term developments that will have an impact on ICT for Inclusion practice

No information is available on this issue.