Chances and obstacles

Dynamic SoundField in Regular Schools
Attempts to implement wireless speech-transmission in regular schools may end in both ways. My thesis: "Dynamic SoundField" is a key instrument to end more frequently successful.
Chances and obstacles

Dynamic SoundField in Regular Schools

Please be indulgent to the old man...

Holger Mahlke
Chances and obstacles
Dynamic SoundField in Regular Schools

early 2018, after 3 years of trying to implement „Dynamic SoundFiled in regular schools...

... and in early 2019!
Chances and obstacles

Dynamic SoundField in Regular Schools

Options of Hearing Technologies are fascinating

Holger Mahlke
Chances and obstacles

Dynamic SoundField in Regular Schools

Options of Hearing Technologies are fascinating

So why using **FM-Systems** and **Dynamic SoundField**?
Because noise, distance and reverberation-time interfere speech comprehension
Chances and obstacles

**Dynamic SoundField in Regular Schools**

FM-Equipment is well known in pedaudiology ...

... and used since decades

Holger Mahlke
And fortunately it is changing... to much more options
So why do many of our young patients do not want to use our fine equipment?
Chances and obstacles

Dynamic SoundField in Regular Schools

Because success depends on people ...

...and circumstances.

Holger Mahlke
Chances and obstacles

Dynamic SoundField in Regular Schools

As long as education looked like this, everything was fine for the student with hearing aids.

Perfectly connected with „his master’s voice“
Chances and obstacles

Dynamic SoundField in Regular Schools

After the „PISA-shock“ of 2000 educational concepts in Germany changed...
Chances and obstacles

**Dynamic SoundField in Regular Schools**

... from „teacher-centered“ education to „dialogic learning-centered“ education.
Using „MultiTalker“—Mics in class, without hearing any sound, is an abstract and somehow senseless action for children (and even adults).
It’s a „One-Way“—communication, which demands a great will to cooperate, although from the teacher as well as from all classmates.

Willing or not, our student becomes „the special one“
“Multi-Talker – Transmission“ leads to real improved speech comprehension for the hearing-impaired student, but causes much more obstacles and resistance as earlier known, when only singular „teacher-to-student – transmission“ was used.
At least this is the opposite of inclusion!
Chances and obstacles

**Dynamic SoundField in Regular Schools**

„Multi-Talker – SoundField could be a solution, because everyone in class is able to experience the advantage of microphone usage..."
Chances and obstacles

**Dynamic SoundField in Regular Schools**

... and from my point of view it might be one of the key issues, regarding to successful inclusion of hearing-impaired students.

Holger Mahlke
Chances and obstacles

Dynamic SoundField in Regular Schools

Case Examples
Chances and obstacles

Dynamic SoundField in Regular Schools

Juna
born 2009

Here in 2012 at the age of 2

- Relapsing polychondritis, diagnosed at 6th month
- Deafness on the right ear
- Progressive HF-hearing-loss on the left ear

Holger Mahlke
Chances and obstacles
Dynamic SoundField in Regular Schools

- Her audiogram, meanwhile stable since 2013
- First usage of Roger-transmission at the age of 4
- Equipment has been intensively used in speech therapy and Kindergarten
- Had good impact on Juna´s speech development.
Chances and obstacles

**Dynamic SoundField in Regular Schools**

- Additional MT-Mic at 5 (last year at Kindergarten)
- to improve her understanding in chair circle
- to condition her in group usage
- complained early about “*noise and nonsense that other kids do with the mic*”

Holger Mahlke
Chances and obstacles

Dynamic SoundField in Regular Schools

- Early in first year at primary school Juna refused Roger equipment
- same reasons as already mentioned in Kindergarten.
- „Forgot“ to carry Roger to school
- Had a variety of strategies to avoid using Roger
Chances and obstacles

Dynamic SoundField in Regular Schools

• Juna became more and more isolated in class
• had significant problems to follow the lessons
• „special school“ - option has been dicussed, but strongly refused by parents
Chances and obstacles

**Dynamic SoundField in Regular Schools**

- In 2. year of primary school intensive intervention of „special pedagogues service“

- Using only one MT-mic deferred the flow of every lesson.

- Classmates were very cooperative to Juna, but situation became ennoying for the whole class.
Chances and obstacles

**Dynamic SoundField in Regular Schools**

- In 2018 two long term trials of a complete SoundField including:
  - 2 TouchscreenMics
  - 6 PassAround MT-Mics for the class of 26 children
  - took only a few days until the whole class, including the teachers, felt very much comfortable with the new situation.
Chances and obstacles

**Dynamic SoundField in Regular Schools**

Class uses SoundField since December 2018; statements of class in April 2019:

- Speaking into a Mic is (now) normal
- We hear each other better
- Every table group has Mic-service
- “I like that we do not talk across each other any more“
- “Before „Alexa“* came I did not now how loud to speak into the Mic to let Juna understand; now I know.“

* the class gave the name „Alexa“ to SF – Speaker
Chances and obstacles

Dynamic SoundField in Regular Schools

Statements of teacher (fem) in April 2019:

• To be honest, I realized the whole dimension of Juna’s problems only in the last few months, as her participation in class changed completely

• In a “reading-night“ with two devided groups, I used the SF only in the „Juna-group“ and realized the different impact for all kids and for myself

• The shy and silent ones in class have great benefit from SF
Chances and obstacles

**Dynamic SoundField in Regular Schools**

**Harun**  
born 2008

Here in 2019 at the age of 10; 3rd year at primary school

- Binaural deafness diagnosed at 13 months
- CI – surgery right at 22 months
- CI - surgery left at 26 months
- Bilingual education German / Kurdish
Chances and obstacles

Dynamic SoundField in Regular Schools

- „Lost“ his Roger – Receivers several times
- Was a quiet and shy boy in class
- Did his „still work“ fine
- Did not participate in communicative education

Holger Mahlke
Chances and obstacles

Dynamic SoundField in Regular Schools

Let us visit Harun’s class, to see how SoundField can work
Chances and obstacles

Dynamic SoundField in Regular Schools

Holger Mahlke
Thank you for your attention