

One handed musicianship, more than a gimmick?!

There is more possible than you think!



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Overview presentation

- **Introduction**
- **Functions of making music**
- **Definition one hand dexterity**
- **One handed music making**
 - **General approach**
 - **Kind of instrument**
 - **Solutions**
- **Conclusion**
- **Questions**
- **Take Home Message**



Introduction (1)

- **Do you know the percentage of music making in the general population?**
- **Do you know the percentage of potential musicians among the population of people with a physical limitation?**



Introduction (1)



- **“Rehabilitation Expertise Centre for Music & Dance (REC-MD)”**
Out - & inpatient clinic, Revalidatie Friesland (NL)
- **Prof./amateur musicians with**
 - **limitations caused by making music**
 - **limitations caused by chronic illness, trauma etc.**
- **People (children & adults) with a physical limitation, who want to play music.**

Introduction (1)

- Do you know the percentage of music making in the general population?
 - 12% of western populations are active in music or dance,
 - 12% of the patient population?!
 - Few requests for help in this area for many reasons :
 - E.g. not knowing that you can ask for, due to reference patient and instrument maker,
- Adaptive making of music: much is possible!

Introduction (3)



- **Goals presentation:**
 - **Creation of awareness,**
 - **Explanation how to handle this topic in a structural way,**
 - **Stretching frame of reference on the basis of examples, with collection of unique images..**

Functions (adaptive) music making

- **Similar to (adaptive) sports:**
 - **Motor function training** (rehabilitation, bimanual training)
 - **Hobby at home** (besides watching TV, reading)
 - **Profession/financial income**
 - **Social aspects** (playing together with other people)
 - **Emotional expression/regulation**
 - **Confirmation identity / self-confidence**

One handed musicianship

- **Functionally one handed:**
 - Illness (weakness, paresis muscle, artrosis, polyneuropathy, stroke..)
 - **Congenital disorder**
- **Amputation one-side**
- **Functional ‘clumsy’ with double tasking**



One handed musicianship

General approach

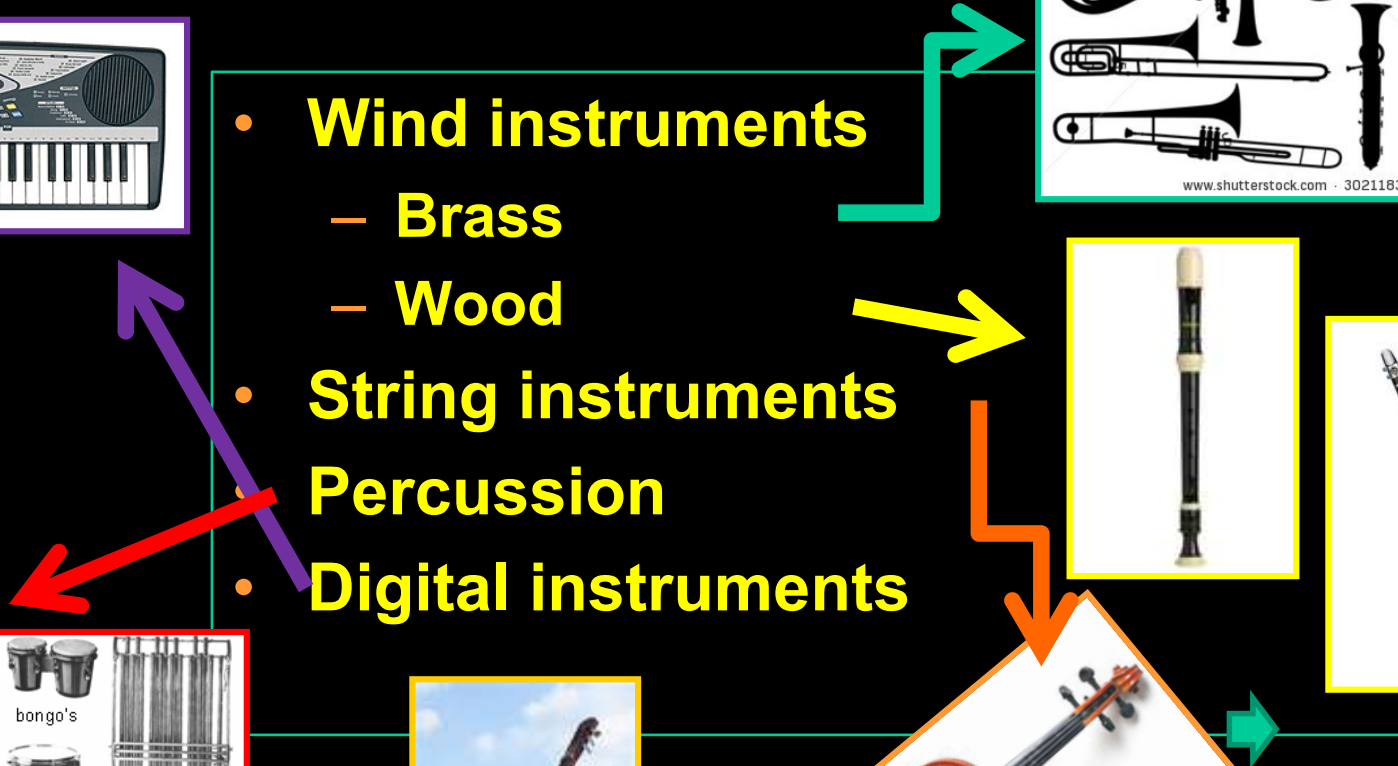
- **Doctor/therapist:**
 - **Expertise / access / time / network**
 - **New**
 - **Experience**
 - **Professional**
- **Good analysis of 'request for help'**
- **Body examination**
- **Type of instrument**
- **Solutions**



One handed musicianship kind of instrument



- **Wind instruments**
 - Brass
 - Wood
- **String instruments**
- **Percussion**
- **Digital instruments**



One handed musicianship Solutions1

- **Compensation for loss of power:**
 - **Suspension Straps / cords:**
 - Fixation instrument
 - Reduction of weight instrument
 - Dependent from type of instrument
 - **Orthoses**
 - **Standards:**
 - Table
 - pin



One handed musicianship

Solutions 2

- **One handed compositions**
- **Instrument reconstruction for one hand**
- **Adaptation instrument for the other hand**
- **Music prosthesis**
- **Making music with lower extremity**



One handed musicianship

Solutions 3



- **Compositions one hand**

- **For the right hand**

- http://www.youtube.com/watch?v=jWXMNh1OKug&feature=player_detailpage

- **For the left hand**

- **Forms in between:**

- http://www.youtube.com/watch?v=VbhW_K3NvmQ&feature=player_detailpage

One handed musicianship

Solutions 4

- One handed instrument



One handed musicianship

Solutions 4

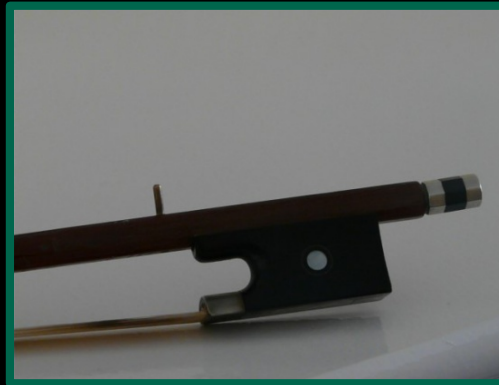
- Convert instrument to the other hand



One handed musicianship

Solutions 5

- **Prostheses/orthoses**

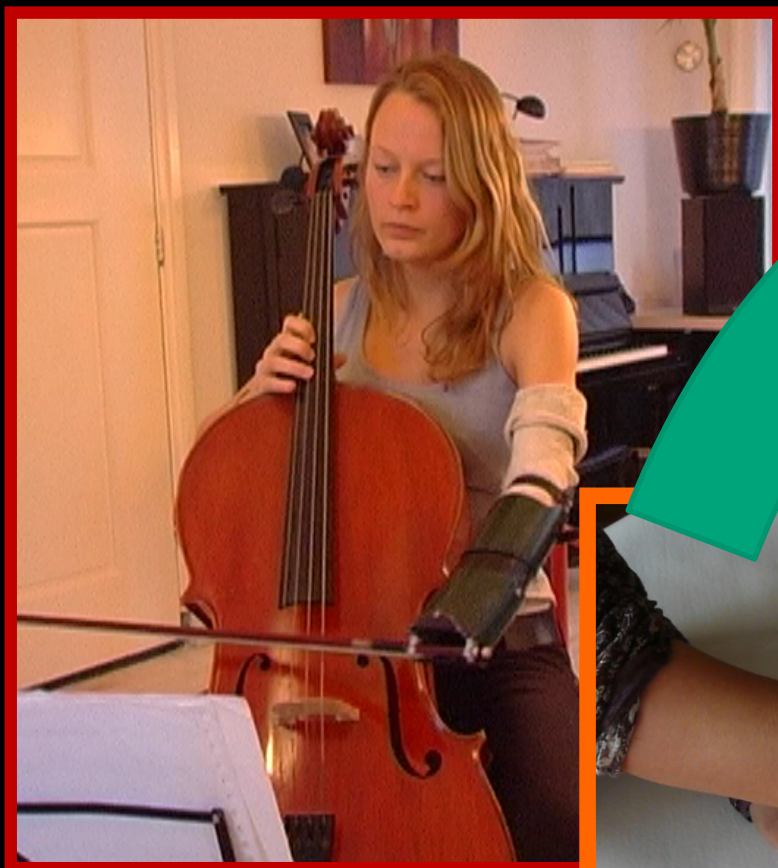


Prosthesis: for the replacement of missing body part
Orthosis : for the support of a body part

One handed musicianship

Solutions 6

- **Example 2 and 3**



Movie

Conclusions

1. **Participation in music \approx sports,**
2. **Many functions in making music,**
3. **Extra function for adaptive music making,
(bimanual hand function training)**
4. **'Adaptive' : complex, time consuming,
interdisciplinary approach, expensive,
– Foundations: www.muziekotheek.nl**
5. **'Out of the box' thinking necessary,**
6. **Role of the instrument constructor and
orthopedic instrument constructor is important
(Protheses, orthoses)**

Questions?



Take home message...

Take home message

1. Consider the possibility of adaptive music-making,
2. (Adaptive) musicianship can contribute to quality of life in many ways,
3. In the case of pathology upper extremity :
pleasant way of training, use of old (well trained)
neurophysiological pathways in musicians...
4. **Website:** <http://www.muge.at/doku.php/ergonomische-behelfe>

Non handed musicianship



http://www.youtube.com/watch?feature=player_detailpage&v=u453W3kZi6w

Thank you for your attention!

