



WTA of Wellness rocking chair for students at special needs schools.

Conducted by Helhedstilbuddet Skovmoseskolen in Rødovre Municipality, 2017

Helhedstilbuddet Skovmoseskolen is a specialized school for students with long term lowered functionality. The school is located in Rødovre municipality. The institution accepts students with a wide range of preconditions, all of whom have one or more handicaps. Predominantly, the primary handicap for the institution's students is learning disabilities.

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Report published June 2018

Indhold

Summary.....	3
Background.....	3
Goals.....	3
Choice of technology.....	3
Data collection - methodology.....	3
Methodology.....	3
Data.....	4
WTA assessment.....	6
Technology and functionality.....	6
Functionality.....	6
User-friendliness.....	6
Economics and resources.....	7
Investment.....	7
Operation.....	7
Citizens (students).....	8
Value.....	8
Usability.....	8
Organization.....	8
Leadership.....	8
Staff.....	9
Conclusion.....	9
Recommendation.....	9

Summary

Skovmoseskolen has been utilizing a Nordic Wellness rocking chair for half a year. It has fulfilled its objective, and we will continue to use it for our students. It is our experience that many students benefit from the rocking chair. It calms the user and leaves them energized enough to be able to partake in activities post use. It offers sensory stimulation, but also allows the function of sheltering in the user, if they require insulation from stimuli of their surrounding environment.

Background

Children/students at Skovmoseskolen ordinarily has sensory processing disorders, short attention spans, and difficulty understanding their surrounding environment. These factors, along with a lack of coping mechanisms and insufficient resources, can lead to frustrations.

The trial run has included 35 students from all of the institution, along with five teachers, seven caretakers, and two physiotherapists. The trial is empirically rooted in occupational therapy and physiotherapy, enhanced with insights and expertise from the teaching- and pedagogical profession.

Goals

With the Wellness rocking chair, we aim to achieve the following goals:

- Increase students' calmness and energy level by isolating and customizing their input of sensory stimulation.
- Through sheltering the students from outside stimuli, the students will be energized – enabling them to partake in activities for the remainder of the day.
- Review the resource optimizing potential of the rocking chair. Based on the hypothesis that the chair will allow the students to be energized enough to partake in activities following a 20-minute rest, staff can optimize their efforts accordingly.
- The student can concentrate for a longer duration of time after a 20-minute rest, leaving them equipped to obtain learning.
- Investigate whether the rocking chair can lessen conflicts between the children.

Choice of technology

The Nordic Wellness rocking chair was chosen due to its successful trial run in the dementia field of research. Additionally, it is the only chair on the market offering a solution which includes a coordinated experience using music, vibrations, and movement.

Data collection and methodology

We aim to investigate:













- Which students benefit from using the Wellness rocking chair
- How does it affect the students?
- Which challenges does it impose with regards to time, when only one student at a time can utilize the rocking chair?

Methodology:

- A survey designed as a table will be provided and should be completed after a student has utilized the rocking chair. The survey will be in the room, so that it is accessible to be filled out.

- After four months, the number of respondents to the survey fell, and the completed surveys tended to be repetitions of previous respondents.
- After these initial four months, a registration form was implemented, to keep track of date, time, name of student, and name of caretaker – thus allowing the rate of utilization to be clarified and allowing direct requests to usage of the rocking chair.

Example of survey table and response pertaining to a student

Name of student			
Time	13:45		
Prior condition of student	 Confused and tired	 A little confrontational	
Subsequent condition of student			 Relaxed and calm
Immediate effect		 Lies completely still	 Shields the eyes, and appears to be more tranquil than when resting elsewhere
Effect throughout the day			
Other			

The three different smileys helped note the student’s condition and show a progression with regards to how resting in the chair affects the student. Due to the survey being filled out in the room, the effect throughout the day is left blank.

Data

The trial has resulted in 59 completed surveys, and 35 students have tested the rocking chair between one and nine times. The registration form lists 20 students, however, more students utilize the rocking chair than indicated from the registration form. We estimate that the rocking chair is utilized 1-2 times on a daily basis. 14 industry professionals have supplied the trial with additional insights, allowing the “effect throughout the day” aspect of the data collection to be completed.

Contestants in the trial run are students at Helsetilbuddet Skovmoseskolen, chosen for their imminent needs, specifically of tranquility and sensory insulation. Therefore, the test subjects are not a specific type of student, but from a wide sample of learning profiles. The test subjects have been chosen through a cooperative process between teachers, caretakers, and physiotherapists.

The test run and data collection has taken place over a time span of 6 months.













Surveys: 59 total

- Approximately 75% (44 registrations) show a clear progression for users of the rocking chair. The student goes from needing a rest, to being calm, tranquil, content, and energized.
- Approx. 20% (12 registrations) show a happy smiley both before and after utilizing the rocking chair. These registrations show that the student rested.

- Approx. 5% (3 registrations) demonstrate students that disliked using the chair – two were unable to rest successfully, and one indicated unease and left the chair.
- The registration forms show that several students have been using the chair at set times in sequencing weeks. Cross-referencing surveys and registration forms, it appears that nine students have utilized the chair more than five times.

Aggregation of statements from survey:

The following table shows an overarching view of how the student’s condition progresses before and after utilizing the rocking chair.

Prior condition of student	 <ul style="list-style-type: none"> - Tired after swimming - Restless after activities - Tired and a little confused - Confused/stuck in their pattern - Confrontational, runs away, aggravates 	 <ul style="list-style-type: none"> - Will only spend time in chair when allowed their iPad - Confused - Pushes boundaries - Requires adult company - Tired - Motoric turmoil 	 <ul style="list-style-type: none"> - Happy, but uneasy - Needs tranquility - Benefits from adult company - Lot of activity before use of rocking chair
Subsequent condition of student			 <ul style="list-style-type: none"> - Calm and relaxed - Quiet and calm - Happy and content - Many happy smileys
Immediate effect		 <ul style="list-style-type: none"> - Uneasy sitting down in chair, and difficulty lying down. Had to get extra pillow - The student was able to rest when allowed to use their iPad 	 <ul style="list-style-type: none"> - When the music started, the smile came - Hurries in here and lies down with a deep sigh - After a few minutes, a deep sigh is triggered - Falls asleep - Snuggles into chair - Breathing very deeply
Effect throughout the day			 <ul style="list-style-type: none"> - More energy - Relaxed
Other	<ul style="list-style-type: none"> - Three of the children did not like the rocking chair at all 		<ul style="list-style-type: none"> - Would like to try again

WTA assessment (Welfare Technology Assessment) – documentation of effect

Area:	Category:	Question: (Answer: Yes=2, Partially=1, No=0)	Answer (2,1,0)
Technology	<i>Functionality:</i>	Can the technology do what it is expected to?	2
		Does the technology work every time it is utilized?	2
	<i>User-friendliness:</i>	Is the technology easy and intuitive to use?	2
		Are manuals good/has instruction been good?	2
Economics	<i>Investment:</i>	Can the technology be utilized without ressource draining competency-building	2
		Can the technology be utilized without investing in in additional products, or constructing facilities?	2
	<i>Operation:</i>	Does the technology allow us to be more efficient? (Can we deliver more with the same ressources, or deliver the same with fewer ressources?)	0
		Does the technology replace other options or similar technology?	1
Citizen	<i>Value:</i>	Are the students more self-sufficient when using the technology, and/or does it provide them with more options?	1
		Does the technology allow for a better quality of service (i.e. quality of life, increased dignity, integrity, inclusion, communication, and so on)?	2
	<i>Usability:</i>	Does the technology fulfill a need for the student?	2
		Does the student wish to use the technology?	2
Organization	<i>Leadership:</i>	Is there support from leadership with regards to usage of the technology?	2
		Does the technology support optimal workflows?	0
	<i>Staff:</i>	Does the technology give way for a better work environment?	1
		Is there motivation to use the technology?	2

Technology

Functionality

The technology has functioned seamlessly, with no breakdowns to date. It adheres to the functionality guaranteed by the supplier with regards to rocking, playing music, vibration, and stable uptime.

User-friendliness

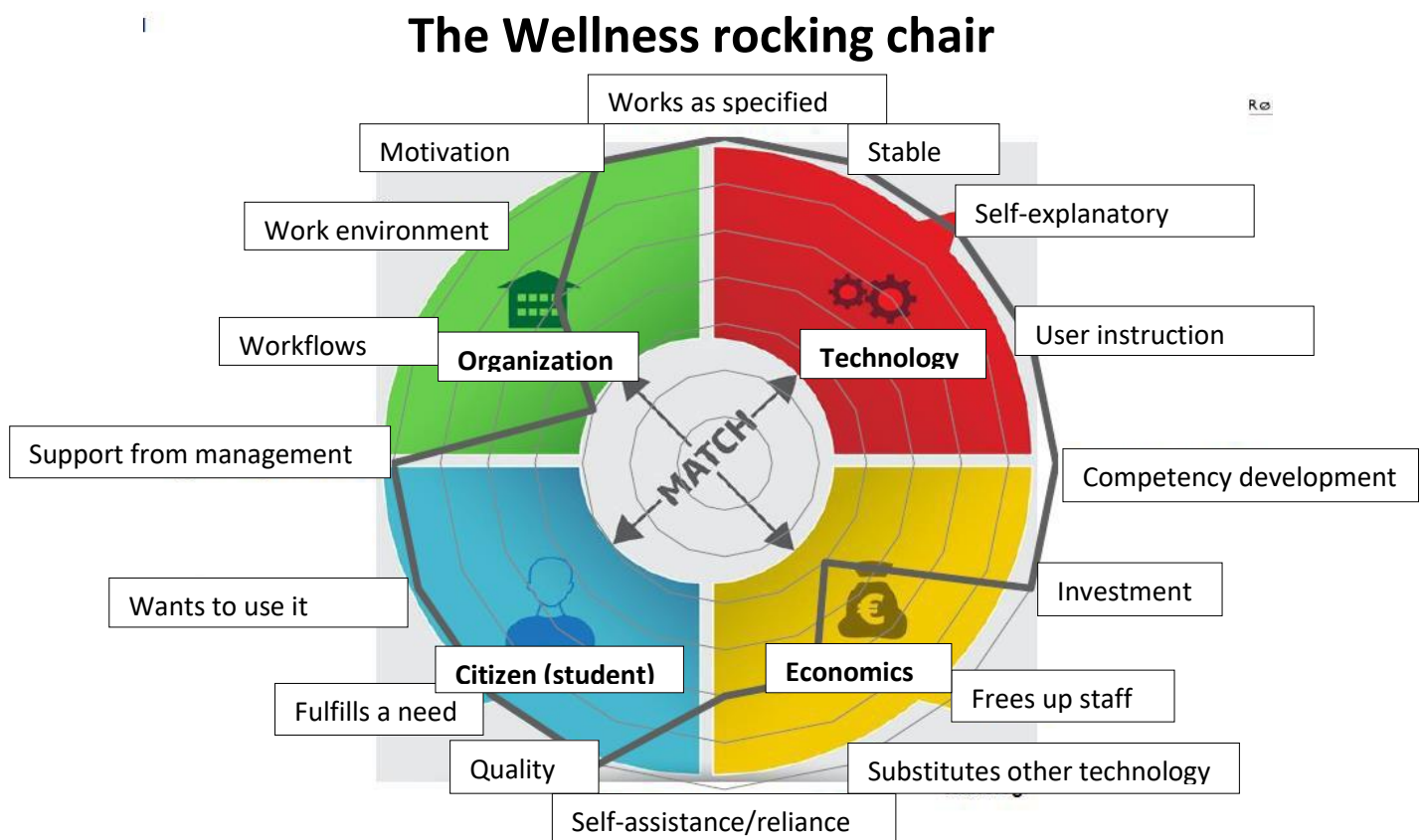
User manual and instruction has functioned as planned. Staff has found the rocking chair easy and uncomplicated to use.

Economics and resources

The chair increases the need of staff supervision resources, as using the chair requires a caretaker to spend 25 minutes with a single student. However, other students can benefit from this, as the caretaker will also be removing a student in urgent need of the rocking chair.

Investment

Everyone utilizing the technology will need a short introduction, which requires 10-20 minutes. We started off using the Wellness rocking chair for half a year to test it. Subsequently, it has been acquired as a part of Rødovre Municipality's investment into wellness technology, which means that the rocking chair is currently in function at Skovmoseskolen.



Operation

The technology requires an appropriate room, i.e. fulfilling the following conditions; it must be sheltered, preferably a smaller room with a lack of outside noise. Preferably, the room should have lighting that fosters calmness; low- and natural lighting.

There are not many operational costs, primarily electricity. We have not measured the usage.

Weekly support is approximately 30 minutes.

Citizens (Students)

The Wellness rocking chair has proven to increase students' level of calmness, insulating them from their surroundings and providing the right level of sensory stimulation. The Wellness rocking chair allows students the mental strength necessary to partake in activities for the remainder of the day. The rocking chair can function as resource optimizing by allowing a student to engage with their surroundings better, thus dampening potential conflicts between students. Hence, the rocking chair can also serve to fulfill pedagogical- and learning related goals.

Value

The student is calmer and able to concentrate for a longer duration of time after a 20-minute rest in the rocking chair. The student receives the right amount of sensory stimuli, which appears to result in a higher energy level for the remainder of the day.

Usability

The students are eager to use the Wellness rocking chair, as it appears to help them calm down after a long day at school. The students wish to use the rocking chair – only 3 out of 59 students are unwilling to make use of it.

Organization

The technology is available when it is needed, and staff fully supports its usage. A subset of caretakers continually aid students when using the chair, frequently planning sessions after lunch or in the afternoon. This is often when the students need a break from sensual stimuli. The staff utilizing the rocking chair with the students therefore prioritize their time accordingly, so that students in need of insulation from sensory stimuli, can achieve that through the rocking chair.

The most frequent users of the rocking chair are the staff in charge of students with special needs, as they have the option of prioritizing one-on-one time with their students. Other staff members may not think of the option due to either needing a reintroduction to the technology, lack of awareness about the effectiveness of the Wellness rocking chair, or simply due to general business.

For the first month, the rocking chair was placed in a room which was inexpediently located, as it required students to pass through group rooms to get to the rocking chair. This was met with some resistance from the affected groups, as their sessions were interrupted. This is not an issue at the chair's current location.

Leadership

There is full support from management, and deputy headmaster Per Danielsen has been a part of the project, both in the steering committee and as primary manager of the institution.

Staff

The technology can be a drain on staff resources, as a caretaker or teacher has to be set aside to spend time with a student one-on-one. Our students are unable to use the rocking chair without adult supervision. The chair is located in a small room, far from the classrooms. Alternatively, we would have had to attempt to insulate the student from sensory stimuli in another room, consequently allowing the student to be able to listen in on class activities. This option does not result in the same amounts of calmness in the student utilizing the rocking chair.

The benefit of using the chair is that students are more energized to pursue learning- and social activities, thus enhancing the social environment of the class. This benefit can outweigh the drain on staff time spent on the chair.

Conclusion

We have tested the rocking chair from September 1st 2017 to March 1st 2018, and the conclusion is that it fulfills the goals of the project description. That means:

- The sensory stimulation is thoroughly demarcated by sound, movement, and low lighting, which provides tranquility and relaxation to the student. They often fall asleep, breathe deeply, snuggles into the chair, and become calm and quiet.
- The student is energized and left with the mental strength to partake in social learning environments, in which they are able to concentrate longer than usually. This can serve as resource optimization, as the learning environment of both the individual student and the entirety of the class, is improved upon.
- The calmness and mental strength provided by sessions in the rocking chair alleviates potential turmoil in students, thus lessening the tendency towards conflicts between students.

Recommendations

We will continue to use the Wellness rocking chair and urge more students to utilize it. The data collection shows that students are very satisfied with the rocking chair, and that it serves its purpose of providing a surplus of mental strength and tranquility for the students.

If others are to utilize the technology pertaining to special needs students, they should be aware that the capacity of the chair only allows one individual at a time. Furthermore, the technology can require adult supervision, depending on the needs of the students – however, it is our experience that the benefits of using the chair outweighs the drain in staff time spent.