Ing-Mari Dohrn  
Reviewer comments to AAS_Open_Mosha_v3 and author responses:

Abstract

This sentence has not been revised: “Accelerometer had higher mean MVPA”… It is not correct grammar to say that “accelerometer had”. You also have to add which outcome it represents.

I suggest a change to: The mean total weekday minutes in MVPA from accelerometers were higher than from self-reports, 408 (SD=66) vs 261 (SD=179).

Response:
This sentence has been changed as suggested.

Good.

Maybe leave out since this is not really a validation result, but rather a description of PA level: “Children who reported walking to school had higher MVPA for both accelerometer and self-reports compared to children who use other means of transport to school, e.g. school buses (p < 0.001).”

Response:
We have removed that section from the abstract as suggested.

Good.

Methods

Comment:
The figure is now clearer, but you still show data from all three axes. It would be better to show only data from axis 1, the vertical axis, as this is what the cut-points relate to, or at least state that the cut-points are for axis 1 in the figure legend.

Response:
We have modified the figure, and now it shows only one axis (axis 1) which represents physical activity. See lines 148 – 150.

Good.

Results

Comment:
In Table 1: I think you still show median and IQR for MVPA?
In Table 2: You still write mean “MVPA for weekdays” and not “mean MVPA per week”.
Regarding sedentary data: Your write that the data show daily number of 10 min bouts, it that bouts of 10 min each or bouts of at least 10 min each? Median number of bouts is 74, (IQR 48-118) – if the bouts are 10 min each, would that mean that a median min spent sedentary per day is 740 min with IQR: 480-1180 minutes? That equals 12.3 h (IQR 8 h; 19.7 h). Is that realistic? And why do you think that number of bouts are interesting. I cannot see that you are discussing the pattern of sitting or comment on the outcome 10 min bouts. I strongly suggest that you present total number of sedentary minutes? Or at least bouts and total time.

Response 1:

Table 1 has been corrected.

Table 1 is still confusing: What is the difference between * and **? Which data is mean and sd? It looks like you are only presenting median and IQR.

For accelerometry, sedentary analysis is telling us about the bouts of low activity which gives detailed information about sedentary behaviour without considering non-wear time as sedentary time. Total sedentary time includes all times when the device is not worn, sleeping time etc. which might create more confusion. We acknowledge your concern on sedentary analysis, and we hope it is now clear.

I am afraid this is still unclear: What exactly do you mean by: “...the daily average of sedentary bouts was 74 (IQR: 48, 118).”? What is the average? Is it average number of sedentary bouts? Is it the average total time in sedentary bouts? Is it the average length of a sedentary bout?

Total sedentary time does not have to include non-weartime. If you cannot sort this out, I suggest that you leave out your sedentary data and only report MVPA.

Response 2:

Table 2 has been clarified. Results are presented per week. This is now clearly elaborated on the text and table. Therefore Table 2 presents MVPA per week (that is Monday to Friday), while Table 3 presents weekend data.

Comment:

Regarding figure 4 in the new manuscript. Like the other reviewer I suggest that you remove this figure. It confuses more than it adds, and your interpretation of these results is questionable.

Response:

As per another reviewer, we understand your concern. However, we think this figure is an important part of the paper. The figure reflects the variations of physical activity MVPA which might have contributed to the low to moderate correlations we are observing. To clarify further we used a statistical test to show clearly these differences. See lines 167 – 169, 259 – 261.