Author’s response to reviews

Title: Feasibility of an incentive scheme to promote active travel to school: a pilot cluster randomised trial

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Author’s response to reviews:

Dear Editor of the Journal ‘Pilot and Feasibility Studies’

Thank you for the opportunity to resubmit our paper ‘Feasibility of an incentive scheme to promote active travel to school: a pilot cluster randomised trial’ to your journal.

We also thank the reviewers for their time in reviewing our paper and for their detailed feedback, although we were slightly surprised to see that new referees had been consulted (raising additional issues) as well as our previous revision being sent to the original referees.

Please see below our response to the reviewers’ comments and explanations of changes made which are highlighted in the paper. To ease the reading, our responses to reviewers in this cover letter are also written in green.

We hope these revisions will address the issues raised by the reviewers to their and to your satisfaction.
We look forward to hearing the outcome of this resubmission.

Many thanks
Kind regards

Reviewer #1: Manuscript review - Feasibility of an incentive scheme to promote active travel to school: a pilot cluster randomised trial

General overview:

This is a strong feasibility study which uses a lottery type incentive to encourage ATS. The authors have conducted appropriate analysis and reported results clearly and concisely. The discussion provides transparent reasoning and provision for future methods, needing no changes.

The introduction and methods sections contain some points needing further clarification and justification, and are outlined specifically below.

I commend the researchers for conducting this worthwhile research, and fully appreciate the difficulties faced when accessing schools with limited resources. I believe that with the following corrections, this manuscript is worthy of publication.
Specific comments:

Line 91: I suggest the justification for a coin toss is not needed
Our response: Thank you for your suggestion. We have omitted the justification for coin toss in line 90-92.

Lines 114-115: Please report whether translation was performed in the study if known and comment on whether it may or may not have influenced reliability of data.

Our response: As explained, we did not translate materials but Reviewer1 may be referring to whether families translated materials themselves. We have added in line 115 that this is unknown. However, in the results section, we indicate that schools who agreed to take part had very low rates of pupils whose first language was not English (around 5%), which suggests that our sample is unlikely to be biased due to the language of the families.

Line 118: Suggest not using 'vis-à-vis'
Our response: Please see line 119. We have replaced ‘vis-à-vis’ with ‘compared to’.

Line 119: It seems as if you are saying that accelerometer data is used to validate the child and adult ATS report questionnaires so that accelerometers don't have to be used in the larger study. Please can you explicitly state here whether this is the case?
Our response: Yes, that is what we mean in lines 120-123. Ideally an evaluation trial should include an objective measure such as accelerometers. However, if this is not feasible due to budgetary constraints or if there are no accelerometers available to the researchers, they may consider the use of subjective report of ATS. We therefore report the evidence for the validity of ATS reports as demonstrated in our study.

Line 132: Perhaps justify why child reports were completed in researcher presence as recall may be affected.
Our response: Please see lines 134-135. We have added that this was to minimise the risk of losing the form and we have also acknowledged the risk of increased recall bias.

Line 136: Size of subsamples?
Our response: Please see line 139. We have added the words ‘typically two pupils per week’.

Line 137: How does this see seasonal change? Please omit if not justified.
Our response: Thank you for your suggestion. We have removed mention to seasonal change, previously in line 140.

Lines 138 - 141: Please rephrase this for clarity - it seems quite muddled.
Our response: Please see lines 140-144. We have rephrased the sentences.

Line 143: Please reference your choice of epoch length
Our response: Please see line 146, we have now provided a reference.

Line 148: Please state how many schools were approached and responded in the first instance.
Our response: Please see lines 155-156 for the number of schools who responded in the first instance, and line 158 for the number of schools who were contacted by phone.

Line 186: Change 'in' to 'of'. Why were only those who used ATS approached? Surely those who don't could be persuaded to use ATS by incentive and is therefore of great value. Please justify.
Our response: Please see line 189, ‘in’ has been replaced with ‘of’. We are not sure about what the above comment is referring to. This section (lines 189-198) has been restructured to clarify that children were entered into the prize draws (i.e. the intervention) in proportion to the number of active trips to school reported by the parent. All participants in the intervention school could therefore take part in the prize draws if they had walked/cycled at least once during the week.
Reviewer #2: This paper reports on the feasibility stage looking at the use of an incentive scheme to encourage active transport in primary school children in the UK. The team were interested in the recruitment rates of schools and pupils, return rate of data capture methods and how these methods compare. The team must be congratulated on the work in this paper especially as, as the text suggests, this work was done by one PhD student - no easy task. This paper is also well written.

The paper does contain some valuable information about undertaking this type of work in schools. However, I believe there are enough other school based trials in the literature that would have given the team this information (i.e. recruitment rates, return of documentation). Of course the logistics of the study methods are also important to assess the feasibility of but these are not central to the paper.

The fact that there was such a low recruitment of schools (3.3%) has been acknowledged by the team in the discussion. The approach they took for recruitment was surprising considering, based on studies mentioned (Owen; Van Sluijs; Lloyd), other studies have undertaken the recruitment personally or through a head teacher network. Why didn't the team consider these approaches that have been shown to be successful in the past? It is stated that head teacher groups contact details were not available to the team but presumably some details that Sustrans gave them were available. Did the team consider partnering with a local Sustrans representative to help with recruitment?

Our response: Thank you for your encouraging comments. Approaching so many schools in person would have been very difficult, since only one person (a PhD student) was available to conduct the fieldwork in this study. Recruiting schools via a head teacher organisation was our preferred route and we requested the relevant contact details of a head teacher on various occasions, but to no avail. We also contacted the Council asking for a letter of support for our study, but the Council declined our request stating that they had already provided too many support letters to other researchers previously. Sustrans kindly provided us the contact details of
schools in the North East and we did consider having Sustrans more involved in the school recruitment and in other stages of the research. However, it was clear that Sustrans staff already had a very busy schedule. There was also the risk of Sustrans asking for more control over the procedures of our study, if they had been more involved in it. (This is different than consulting them, which we did while developing our intervention; this is something we plan to discuss in another publication).

Line 64 - The authors state that "An existing systematic review has found limited evidence for the effectiveness of ATS interventions" what were the reasons for this and how does the proposed RCT aim to overcome any of the barriers or problems identified?

Our response: Please see lines 63-65. We have added that this systematic review concluded that ‘higher quality study designs and measures’ are needed before the effectiveness of ATS interventions can be determined. Therefore, our proposed RCT, here as a pilot study, aims to address these limitations by virtue of its design and accelerometer-based measures of ATS. By comparing reports of ATS with accelerometer data, we will also be able to know whether higher quality (objective) measures are needed at all; our data suggest that reports of ATS are generally valid which suggests that objective measures may not be needed, unless we want to find clearer differences between ATS and non-ATS children or trips (as we explain in lines 392-394). Nevertheless, a future definitive trial may have additional credibility, and higher chances of publication, if objective measures continue to be used, so we recommend that these are still used if possible (what we mean in lines 120-123 is that this is not always possible, and at least for those cases we have some data to support the validity of ATS reports as a low-cost alternative).

Line 68 - The authors state that "Some data suggest that incentives (e.g. rewards)" would be useful. Is there any evidence on what types of incentives might work? Monetary versus items? In the present study the team have used xxx but where is the evidence that this type of intensive scheme is going to be enough/work/appropriate? I think a more pertinent research question would be to explore the different types of incentive schemes and whether would might be more successful than another.

Our response: Please see line 69, we have added ‘gift voucher’ as an example of an effective strategy reported in the systematic reviews. In the ‘Intervention’ section (lines 199-203), we also explain that £5 is approximately what children of similar age receive as weekly pocket money in this part of the country. Reviewer 2’s suggestion seems to imply that we should have more than one intervention group to test different types/amounts of incentive. Given resource limitations, we could only have two schools in this pilot study, one control and one intervention, but we agree that there is potential to explore different types and/or values of incentive in future studies.
Nice addition of the TXT message reporting. Is there any data or anecdotal evidence of what the parents thought of the variety of methods?

Our response: In lines 367-369 we provide data suggesting that SMS reports are associated with better response rates than paper reports in both parents and children. We have some qualitative data on what parents thought about each of the paper reports and the SMS reports, which we will be reporting in another publication.

Do the team have any thoughts on whether a £5 voucher for returning then device and then being entered into a draw for £5 if they engaged in ATS seems like a fair payment i.e. the pupils needed to do considerably more to just be entered into a draw for £5 versus getting £5 for simply returning the device.

Our response: Reviewer 2 raises an interesting point about the fairness of the rewards. However, as we explain in the intervention section (lines 201-203), we did not want to have a much higher reward for the draws, in comparison to the return of equipment, as this risked being perceived as unduly coercive by schools and by parents (and therefore unacceptable to the research ethics committee), and also due to the low budget available to this project. Also, we had few accelerometers and therefore their timely return was crucial to the smooth running of the project.

Thank you for the justification of why £5 was chosen for the incentive scheme. The rationale is nicely written and is a valuable addition. However, it would seem that being entered into a DRAW for that amount of actually is quite small and maybe not an incentive at all. What were the odds of winning if all the children engaged in ATS? The odds obviously increased if less children engaged in ATS. Just a crazy theory but I wonder would this occur to children and that it was actually not in their interest for their peers to also engage in ATS?!

Our response: Two of the interventions reported in the systematic review by Kavanagh et al. (2011) (line 70) were prize draws and both reported significant positive results. Although our pilot trial can tell us little about whether the £5 value of the prize was sufficient considering the odds associated with the number of participants and the number of ATS trips per participant sample size, we conducted interviews with the children, some of whom reported being very motivated to walk to school in order to enter the draws. None of the children interviewed raised the possibility of influencing or being influenced by peers in order to change ATS behaviour, and thus the number of draw entrants and the chances of winning. Again, these data will be presented in another publication. Socio-economic status is also likely to play an important role in how appealing the reward is; in our study, all participants were from an area with high socio-economic deprivation, so this may have contributed to £5 being an attractive amount to them which may also relate with the fact that all remained in the study until the end. It is also worth
pointing out that a previous systematic review of incentive interventions to change health behaviours did not point to any clear conclusion as to whether the type and value of the inventive made any difference (Adams J, Giles EL, McColl E & Sniehotta FF. (2014). Carrots, sticks and health behaviours: a framework for documenting the complexity of financial incentive interventions to change health behaviours). We would add that the relationship between the value of the prize and the chance of receiving it is likely to be complex (particularly for children in this age group) and situation-dependent.

Table 1 - a high proportion of children already engaged in ATS - discuss implications of this in terms of generalisability. Parents already see the value of ATS and perhaps are more likely to return ATS trips?

Return of the ATS numbers from parents is an important number and will help with future planning of trials.

Our response: The high levels of ATS observed at baseline should have made little difference in our study because we were only interested in feasibility aspects, not on behaviour change. [We agree that in a future definitive trial, it might be more appropriate to look at change from baseline (or to adjust for baseline values) and/or to focus attention on those not engaging in ATS at baseline.]

In lines 376-378, we discuss how some baseline differences between intervention and control groups could have affected the adherence to some of the procedures. In 431-433, when discussing the limitations of our study, we explain that our findings may not generalise to other contexts or populations. In lines 467-469, we have now explained that given the high levels of ATS observed at baseline in our study, “an evaluation trial may benefit from targeting schools where the scope for ATS promotion is greater”.

Reviewer #3: This is an interesting and well-written pilot study looking to encourage active travel to schools using incentives. This is an important study area, particularly in the UK, where the number of children actively traveling to school is declining. This pilot study gives justification for a larger trial which will hopefully add some stronger research to this field. The authors have been fair in their assessments of the feasibility of the study. By and large, the
authors have addressed the comments by the other two reviewers. However, there are some minor issues that need to be addressed before publication.

Methods

Lines 133: This should be "GT3X+" not "3GTX+".

Our response: Thank you, this has now been corrected in line 136 and in the abstract.

Lines 143-144: Please include a reference to justify epoch length. Ridgers et al. used 15 seconds but have not saw 10 seconds being used often.

Our response: Please see line 146, we have now provided an additional reference.

Lines 171: During waking hours only? Clarify this.

Our response: Thank you, this has now been clarified in line 175.

Line 191: Small typo: "the child's ID on placed…". It should read: "the child's ID number being placed…".

Our response: Thank you, this has now been reworded as suggested in line 191.

Line 201: Adding to the comment regarding the Kappa test results by reviewer 2, including magnitude levels of agreement (slight, substantial agreement etc) in the methods section might help to make things clearer (see https://www.medcalc.org/manual/kappa.php). Reporting p values for Kappa is uncommon so probably not a huge requirement to be reported in this study.

Our response: This has now been moved to the ‘Data Analysis’ section in the Methods section, lines 211-214, and includes a description of the levels of agreement. P values were removed from the Results section, lines 293-298.
Line 204: Replace "relationship" with "association"… only correlations are being used so no relationships can be ascertained.

Our response: Thank you, this has now been changed as suggested, in line 216, 336 and 617.

Discussion

Line 345: Assuming this should be "practical" and not "practicable".

Our response: Please see line 358, we have replaced it by ‘convenient’.

References

There is a need to tidy up the formatting for a number of the references.

Our response: Thank you, we have tidied up the formatting of a number of references in lines 529, 542, 564, 574 and 591.

Reviewer #4: Thank you for the opportunity to read this interesting paper reporting the feasibility of conducting an incentive scheme to promote active travel to school.

The authors have addressed most of the previous reviewers comments adequately. I would however suggest they consider:

Looking again at their description of the analysis of the accelerometers. On a positive - they have a high rate of return of data - and it would help the field if they could describe what they did to encourage compliance.

Our response: Lines 360-365 – we consider that may be thanks to the vouchers given to those who returned the accelerometer, and we have also added that the small sample size may have helped by allowing the researcher to have more contact with participants and to remind them to return the accelerometer when necessary.
The authors have noted the cutpoints used, but do not report how they assess wear time, what cutpoints were used, how much data was lost to non wear etc.

Our response: As reviewer 4 says, we have provided details on the cut-points of physical activity intensity (lines 147-150). We are unclear about what other information reviewer 4 is referring to. Wear time is provided directly by ActiLife; in our case, we looked at wear time (as well as MVPA time) during the hour before the class and during the journey times reported by parents. We did not specify a time of minimum wear to measure overall physical activity because that was not an outcome in this feasibility study.

Were there a priori decisions on what would be acceptable recruitment/adherence rates to recommend proceeding to a fully powered trial?

Our response: It seems that the reviewer is referring to the fact that some researchers set, at the beginning of the study, their own ‘stop-go’ (or ‘stop’, ‘continue with changes’ or ‘continue without changes’) thresholds. In our case, we did not do this; with the benefit of hindsight, we acknowledge this as a limitation.

On line 135/136 the authors note at baseline, all participants wore an accelerometer belt simultaneously whereas in post baseline weeks different subsamples were monitored each week. Could you provide a more thorough description of this so it is easier to follow?

Our response: In response to a previous comment, we have already added that typically two participants were wearing the accelerometer each week, after baseline (line 139) and provided a justification for this.

Could the authors clarify the role that Sustrans played in implementing/interpreting the study?

Our response: We have already clarified this in response to reviewer 2. Sustrans provided us with the contact details of schools as explained in lines 154-155. After school recruitment, we also asked Sustrans about the ATS rates in the four schools who replied positively (which we obtained) in order to help us make our decision, which we also state in line 160. No further support was received from Sustrans in terms of implementation or interpretation.

I note that the authors have suggested to a previous reviewer that they wish to keep the physical activity data for a potential subsequent paper. It is my opinion that you should try to include at least a broad description within this paper. In their trial registration, they have listed a number of
physical activity measures. Some of these are mentioned in this paper. I note that the Number of Participants Who Met Physical Activity Guidelines is not. If they don't want to report this data - they should at least report the completeness of all these measures.

Our response: We appreciate reviewer 4’s interest in us providing data on overall physical activity. However, we had presented this as a secondary outcome on ClinicalTrials.gov. In our paper, we provide data on the completeness of measures pertaining to the validation of ATS reports, which are the relevant ones in this feasibility study. Overall physical activity, and the respective wear times, will be addressed in a different publication. However, if the editor considers that this is essential, we are happy to provide those data here.

In the abstract there is a spelling error in line 32. Should be GT3X+

Our response: Thank you, this has now been corrected.

Additional comments from editor

Abstract

Ln 31 – were the child reports daily?

Our response: No, the child report was completed weekly. In lines 133-135, we explain that the child report was completed in the classroom once a week, in the presence of the researcher. In the abstract, we are constrained by the tight word limit and found it difficult to add all the information suggested by this and other comments.

Ln 33 – how big were the sub-samples – also you need to make it clear that these were the post-programme measures

Our response: Please see line 139, there were typically two pupils being assessed per week. We are not sure what is meant by ‘post-programme’ measures. We are referring to post-baseline.

Ln 35-36 – Every parent – I don’t understand this sentence.
Our response: We have now rephrased this sentence and hope it is clearer (lines 35-36), however we are trying to take into account the 350 word limit for the abstract.

Ln 37 Could the authors state the denominator for schools and children?
Our response: Thank you, this has now been added in lines 37-38.

Ln 39 We need more detail on the intervention (probably in the method) to make sense of the results (e.g what are the draw sessions).
Our response: We have added more details in lines 189-198. We also provide more information about the intervention in Additional File 2 – TIDieR checklist.

Ln41-44… I find the sentence beginning MVPA very difficult to follow, could it be simplified?
Our response: The abstract word count requires us to be as succinct as possible. Saying ‘parent-reported trips’ saves us words compared to ‘trips reported by the parent’, and the same for ‘ATS trips’ compared to ‘trips reported as being active’. We would appreciate the editor’s guidance on re-wording, given the tight word count.

Ln 46 is there an opening bracket missing?
Our response: Upon checking, we can confirm that there is no opening bracket missing.

Ln 49 The first sentence of the conclusion is worded strangely – also the fact that so few of the eligible children took part suggests it may not be acceptable to all – this should be acknowledged – more work needs to be done
Our response: There were 15 children in the intervention group and they all remained in the study until the end. We acknowledge the difficulty in generalising our findings to our contexts and populations. We also state in the first sentence of the last paragraph of the paper, in which we present our conclusions and where we have more leeway to provide details, that ‘an ATS incentive scheme seems feasible for those participants who took part’.
Background

Ln 60 respectively is in the wrong place

Our response: We respectfully disagree and think it is appropriate to keep the word respectively in that place. If moved to the end of the sentence, it may be associated with walking and cycling, and the function of the word ‘respectively’ in its current place is to clarify that primary school children accumulate on average 17 minutes of MVPA and high school students accumulate on average 13 minutes of MVPA.

Ln74-75 this reference is not correct, also make it clearer that the RIGHT TRACKS study is the one being written about in this paper

Our response: Thank you for pointing this out. The reference has now been replaced by Craig et al. (2008) which is the most common for guidance on developing and evaluating complex interventions. We have also added the word ‘present’ to refer to our study in lines 76-77.

Methods

Ln 89 what is a fair coin?

Our response: This has now been omitted further to reviewer 1’s feedback.

Ln 103 – use of partake seems strange – why not just say take part in the study?

Our response: Thank you, we have reworded the sentence as suggested in line 103.

Ln 105 which protocol is the author referring to – study or intervention?

Our response: There is only one protocol describing both the procedures of the intervention and of the larger trial, which was the one submitted to ethics. We have now referred to it as ‘study protocol’ in line 105.

Ln 108 – why are the additional files not provided in the order they are referred to in the text?
Our response: Thank you, we have now renumbered the additional files in the order they appear in the text.

Ln 110 – I am not clear whether you are proposing you might add more questions to the parental baseline questionnaire for the main trial… the current version seems extensive. Please make this sentence clearer.

Our response: We are not proposing to add more questions to the parental baseline questionnaire. The confounders, mediators and moderators we are referring to are the variables assessed in the current questionnaire, which is available as an additional file. Perhaps the confusion arises from our reference to ‘greater knowledge’ – we have removed the word ‘greater’ for that reason (line 110).

Ln 128 – the use of contemporaneously doesn’t seem quite right. Why not just say on a daily basis?

Our response: We have replaced it by ‘in real time’ (line 129).

Ln 136 – do you have a time frame for when the post programme measures were undertaken – more detail is needed.

Our response: Please see section ‘Study timeline’ for details, particularly lines 97-98.

Ln 148 It seems strange to have recruitment after measures

Our response: In our case, measures included many aspects of feasibility in addition to ATS measures, such as number of schools/families who replied positively (i.e. it is a measure of feasibility). As such, we consider that this section should appear before discussing recruitment. However, if the editor still feels that an alternative ordering would be better, we will be happy to re-arrange this material.

What are the inclusion and exclusion criteria?

Our response: Any child could participate as long as their parental consent form had been returned and the child had completed the assent form in the classroom. Please see details in section ‘Child and parent recruitment’ (lines 165-171).
Ln 173-177 should this not be in the limitations section rather than here?

Our response: Thank you for pointing this out. We have excluded this here, as we already discuss the potential impact of children returning the parental forms in the discussion section (lines 391-396).

Ln 186 consisted in does not seem right.

Our response: This has already been changed to ‘consisted of’ in response to an earlier comment.

Ln190 you have already said the study was approved by the ethics committee – I am not sure repetition is need.

Our response: Thank you. This has now been removed.

Ln 191-193 this sentence is very confusing

Our response: Thank you. We have replaced ‘depicted’ by ‘represented’ and hope the sentence is now clearer (line 198).

I think more description of the intervention is needed in the body of the paper and not just provided as a TIDier Checklist in the supplementary materials.

Our response: Thank you, we have added more details in lines 189-197.

Results

Ln 217, why is ‘somewhat unexpectedly’ relevant? Also how many pupils were in these classes – i.e. eligible?

Our response: Please see line 232 - there were 88 children approached (i.e. eligible). We are making clear that this was unexpected for at least two reasons: we had few resources and would have thought twice about going to a school with two classrooms in Year 5 fearing that we would not have enough money for vouchers, in case an excessive (vis-à-vis the resources available to us, such as the number of accelerometers, and the money available for the ‘thank you’ and prize
vouchers) number of students were to take part. Had we known in advance about both schools having two Year 5 classrooms, we would have included this as a criterion to select two schools out of the four who replied positively.

Figure 1 – ‘not as suitable’ – need more description of this. ‘or returned it after baseline had started (n=0)’ – surely this is not needed? The numbers of participants in the boxes in the control arm do not add up. We also need the numbers of participants eligible in each school presented here. Why do we need ‘Excluded from analysis (n=0)’?

Our response: We explain what we mean by ‘not as suitable’ in the School recruitment section, where we explain that we had to select two schools out of four based on criteria which we describe. From a feasibility perspective, we feel that it is appropriate to indicate that two pupils returned their consent form after baseline assessment had already started, which made them ineligible. Out of the 14 participants in the control group, two of them dropped out in the first weeks, however these two participants were also included in the analysis. In the same box, we have the number of participants and the number of non-participants (i.e. the number of those who were eligible), and likewise for the intervention school. We view the CONSORT flowchart as a standardised tool to facilitate the report of participant recruitment and retention and feel that it is desirable to adhere to the original template as much as possible, even if in some cases there are zero cases to report. Should the editor still disagree, we will be happy to revise on receipt of specific advice as to the changes required.

Ln 241-243 – surely this should form part of the intervention description in the methods?’ Weekly sessions in each school (n=11) included presentation at baseline (n=1), week after baseline 242 (collection of materials before school randomisation) (n=1), post-baseline (including draw sessions in 243 the intervention school) (n=8) and final session (n=1).’

Our response: In our case, the number of sessions delivered is itself an outcome of feasibility which is appropriate in the results section. The distinction between baseline/post-baseline is relevant to both groups and is addressed in the Measures section (Methods).

Ln 244-45 it is not clear if there was an additional presentation session before the baseline – this needs clarified.
Our response: Please see first sentence of the section ‘Child and parent recruitment’ (line 165). There was a presentation of the study at that point, in which the questionnaire packs (with consent forms, etc.) were distributed to all of the children.

Ln 247 – need more detail of when the sessions were held in the intervention school – was it always at the same time – or did it vary and why. Also where were they held in both schools?

Our response: We provide details on the timeline, frequency and duration of sessions in both schools, in various sections, e.g. lines 97-98, 184-185, 128, 254-260. In lines 256-257 we report information about the re-arrangement of one session, and also on the TIDieR checklist (Additional File 2).

Ln 249 – is it a limitation that a teacher attended the sessions in only one school – does this finding impact the format of the intervention going forward?

Our response: Possibly. We discussed the possible impact of the teacher involvement in lines 384-386 and recommend that further research investigate the impact of school involvement in feasibility outcomes in lines 452.

Ln 255 parental forms not returned in control group – is this a limitation, how would this be addressed in a full trial (needs to be discussed further)

Our response: This is one of many cases where the control school did not do as well as the intervention school, therefore it is discussed in lines 373-386 where potential reasons for differences between schools are presented. In the last sentence of the paper, we explain that those potential reasons require further investigation.

Ln 256 – I am not convinced of the logic of implying ‘no’ when only ‘yes’ had been reported and vice versa? Has this been done elsewhere – how does this analysis compare with one where these data were treated as missing?

Our response: Our experience over many years with self-completion questionnaires is that some respondents typically only endorse either positive or negative responses, and assume that the researchers will infer the opposite response in the absence of an explicit endorsement. As indicated in line 273 the number of such instances was low.
Ln 260 – should ‘implied’ be ‘imputed’?

Our response: Thank you for your suggestion. ‘Imputed’ is reminiscent of imputation procedures to deal with missing data in a statistical manner, which we did not do in our study. We feel that ‘implied’ conveys what we want to say appropriately.

Ln 282 – is the ‘fair’ agreement between parental and child forms a limitation?

Our response: Possibly, but overall the agreement was moderate. This seems to us another case where the control school did not do as well as the intervention school, which we address in the discussion.

Ln 291-294 why is this not reported separately for both groups?

Our response: This is because results were very similar in both groups (which we have now added in line 304) and due to word limit constraints.

LN 298 – I don’t understand this Table (also the numbering is wrong). Is it accelerometry data or self report – this needs to be clear in the title of the table. Also the way the data is presented in the table is very confusing. Is this the difference between groups?

Our response: Thank you, the numbering of this table has been amended to Table 3. We would be grateful for further indication of how this table is unclear/confusing, since none of the other reviewers have indicated a problem. This table includes reported data and accelerometer data, and it compares active trips with non-active trips (i.e. ATS trips vs non-ATS trips). It does not compare schools because of the small number of non-ATS trips available. The reported data are the comparisons between ATS and non-ATS trips broken down by who reported (parent or child - columns), and also by the timeframe used (times of the journey to school reported by the parent or the hour before school started).

Ln 315- strange that weak relationship between MVPA and length of trip – is this fully discussed?

Our response: Yes, this is discussed in lines 399-413, particularly at the end of the paragraph. The weak relationship could have been due to partway active trips which were particularly
encouraged in the intervention school (in the materials provided to all children upon recruitment).

Ln 355 – more clarity is needed on what you mean by ‘such interventions’.
Our response: We are not sure where this is mentioned.

Discussion

Ln 344 – how could you address the fact the children from further away chose not to participate – is this a major limitation of the intervention?
Our response: This is only a possibility that we raised and we are not sure how we can address it directly. We discuss other strategies (e.g. incentives, simplifying report modes) which hopefully may make participation more appealing to everyone, including those who live further away from school. In a future definitive trial, greater emphasis should probably be given to the desirability of part-ATS trips, for those who live too far away to walk or cycle all the way.

Ln 353 returning of parental data is part of data collection, not part of the intervention
Our response: The return of parental ATS reports is of relevance to both data collection and to intervention, since in our case being entered in the draws was dependent on the provision of parental ATS reports.

Ln 358 what do you mean by provision of materials? – do you mean parent and child reports – this should be made clear
Our response: We have replaced ‘provision’ with ‘return’ and clarified that it refers to the return of parental and child reports, and also to the timely return of accelerometers (lines 374-375).
Ln 410-11 should you think about distinguishing uni and multi-mod trips in future? How could you do this?

Our response: It would be useful to distinguish between uni- and multi-mode trips for analytical purposes. In the future, we could ask parents to report this information, however we need to be cautious about not asking too many questions at each trip, as this could result in higher attrition. Emphasising even more than we did in the question that part-active trips should be reported as ‘active’ might suffice. If available, using a GPS would probably help as we discuss in lines 415-421.

Ln 414 the fact that the schools were from relatively deprived areas is surely a strength of the study? (as well as a limitation in lack of non-generalisability) – make more of this?

Our response: Thank you for pointing this out. We now discuss this in lines 433-434.

The authors should discuss how the intervention should be adapted, if at all, following the lessons learned in the feasibility study. Does the fact that so many children did not take part, mean that we really can’t yet conclude that the intervention is feasible – more work needs done?

Our response: Based on the quantitative data we have, it is unclear just how the intervention should be adapted (improved?) but there appears to be potential for doing so. We have qualitative data on this, which we plan to present in another publication. In this paper, we also acknowledge that the intervention is feasible for those children who took part, and who were from a deprived area.

The fact that outcomes were positive in the intervention school suggests to us that the intervention is feasible but we agree that more work can be done, for example to ascertain whether a £5 voucher works in other contexts and with other populations (see discussion on limitations line 431-433), and whether rates of data collection, retention and participation in trial processes would be as positive had our study lasted longer (in the conclusion, we have now clarified that ‘an ATS incentive scheme with an approximate duration of three months seems feasible for those participants who took part’ (lines 439-440)).

As noted above, greater encouragement of those living further from school, for whom full ATS trips may not be feasible, would be desirable (both to encourage them to join the study in the first instance, and to make part-ATS trips). To this end, some further developmental PPI work (the
PPI work that we did do will be reported elsewhere) with parents, children and schools would be desirable, targeting in particular those living at a greater distance from school.

Generally – the format of the citations needs addressed. The manuscript should also be read very carefully for grammatical errors and to make sure the ideas are presented clearly.

Our response: Thank you, we have improved the format of citations where necessary. We hope to have addressed the second part of this comment by dealing with all other previous comments. We have carefully checked the MS for errors of grammar, syntax and spelling.