Response to comments and suggestions by Referees on paper, “Cost-effective Infrastructure Choices in Education: Location, Build or Repair

Thank you for the constructive comments of the referees. We believe that we have been able to respond fully to all of the comments and suggestions. What follows is a point by point response to each of the comments made by the referees.

Reviewer B:

1. Referee Comment 1. It is not clear in the paper what the exact research question is that is being answered. Hence, I am unable to comment on the research methodology employed – which is also not explicitly stated. This needs to be addressed.

Response to B comment 1:

We agree that in the original paper we did not set out clearly the objectives of the research. We have rectified this deficiency. The research questions that are addressed by the paper are stated clearly in the last paragraph on page 1 that continues on to page 2

1. Referee B Comment 2:
2. Some of the assumptions made by the researcher(s) about the “cost of

construction” being uniform across districts is flawed. In addition, footnote 7, why the assumption to not discount the cost of construction? If you were to do so, the 11% used as a discount rate would not be a true reflection as to the cost of construction. The industry standard for market related costs is the BER Building Cost Index or if only the factors of production the CPAP?

Response to B comment 2:

This comment is addressed by endnote 8 reproduced here.

“In 2004 the policy of the government of Limpopo was to pay the same price for the construction of a school consisting of a block of 4 classrooms anywhere in the Province. Hence, the model here assumes a uniform cost of construction. If different costs were expected to be incurred depending on the location of the new construction, then the incremental cost-effectiveness would be calculated on the basis of the site specific construction costs. In addition, we were assured by the ministries involved that the construction costs of building a new school would be incurred over a period of one year or less. Hence it was decided to not apply a discount rate to the monthly expenditures within a year. If the construction costs were to be spread out over more than one year then these cost should be discounted back to the same period as the incremental effectiveness is evaluated.”

1. Referee B Comment 3

Some typographical errors in the paper that need correcting.

Response to B comment 3:

The typographical errors have been corrected.

Reviewer C:

This is a well-written reasonably straightforward applied article which I think is worthy of publication. It provides a procedure to estimate the cost effectiveness of enhancing educational quality by providing additional class space by building new rooms, refurbishing old ones, or both. It provides estimates of the ICER, calculated by dividing the cost of increasing class space by its future stream of effectiveness. The decision rule is to choose the project with the lowest ICER i.e. which increases quality at the lowest cost.

A few comments

1. Referee C comment 1
2. The references in para 1, p. 1 are quite dated. A similar point concerns

the Psacharopoulos reference on p. 11.

Response to C comment 1:

The reference in para 1, p1 has been replaced with a reference to the more recent article by (Ssewamala et al., 2011) that reports on the same problem of a shortage of school infrastructure. The previous reference to Psacharopoulos (1987) has now been replaced on page 11 by a more up to date reference to Psacharopoulos and Patrinos (2004)

Referee C Comment 2

1. Delete subheading 2.2 on p. 2 and change subsequent numbering
2. Rewrite the last sentence in para 2, p. 6
3. line 2, p. 6 insert originally before proposed
4. Tables 1-4. Is the source (Limpopo DoE) accurate? I think they only

provide the data for columns 1-3

1. sub-heading p. 17 Potential impact of the model may be better

Response to C comment 2:

All suggested changes have been made. The source footnote for each of the tables 1-4 has been revised to state that the Limpopo Department of Education is the source for Col 1-3, but Col 4-7 are reporting on calculations made by the authors.