Figure 1. A theoretical framework investigating the impact of school policy on teaching and school policy for SLE on student learning outcomes
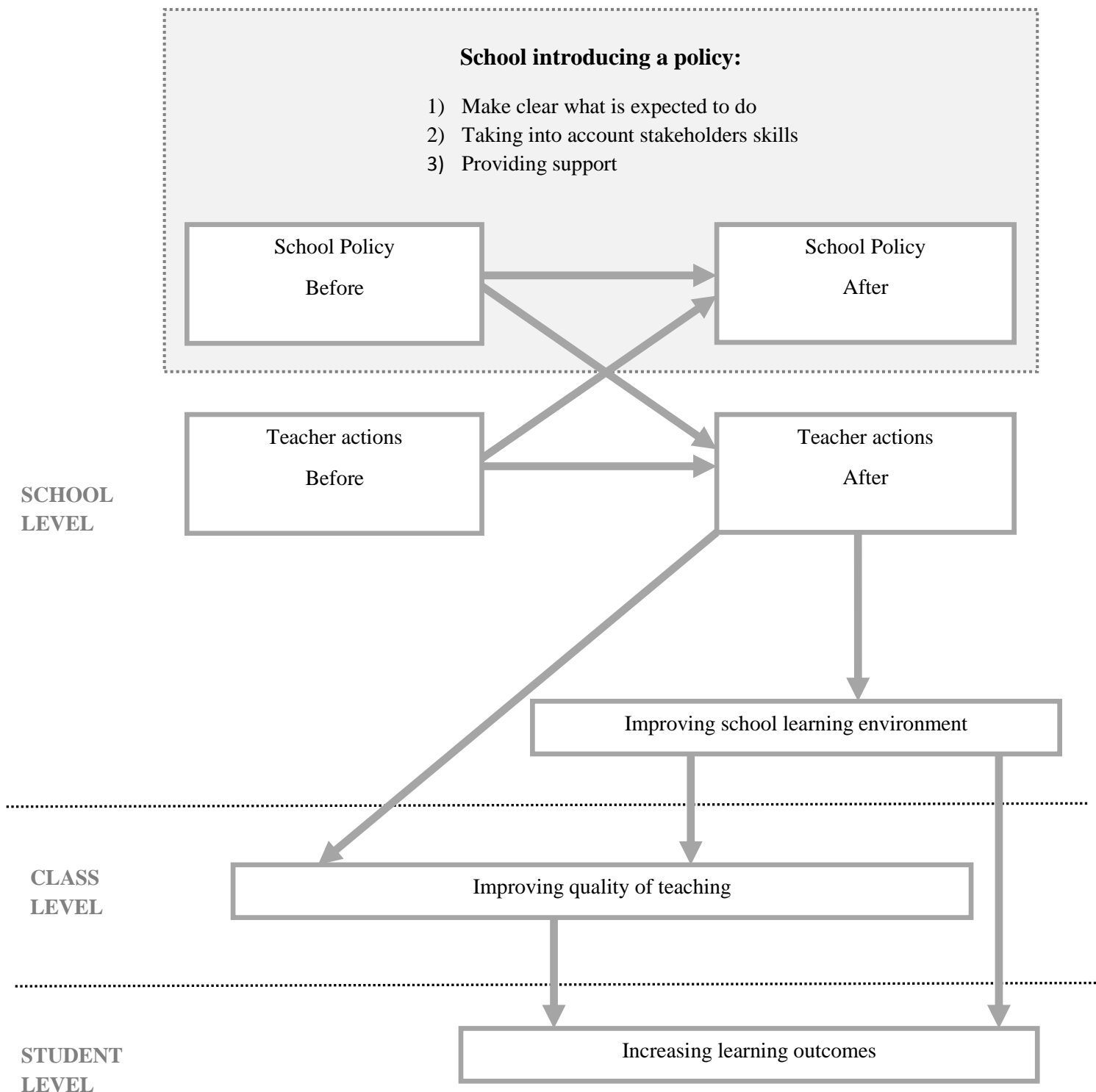
School introducing a policy:

1) Make clear what is expected to do
2) Taking into account stakeholders skills
3) Providing support

School Policy		School Policy
Before	→	After

SCHOOL LEVEL

Teacher actions		Teacher actions
Before	→	After

Improving school learning environment

CLASS LEVEL

Improving quality of teaching

STUDENT LEVEL

Increasing learning outcomes

*Figure 2.*The multilevel model investigating effects of school policy and teacher actions for improving teaching on student achievement
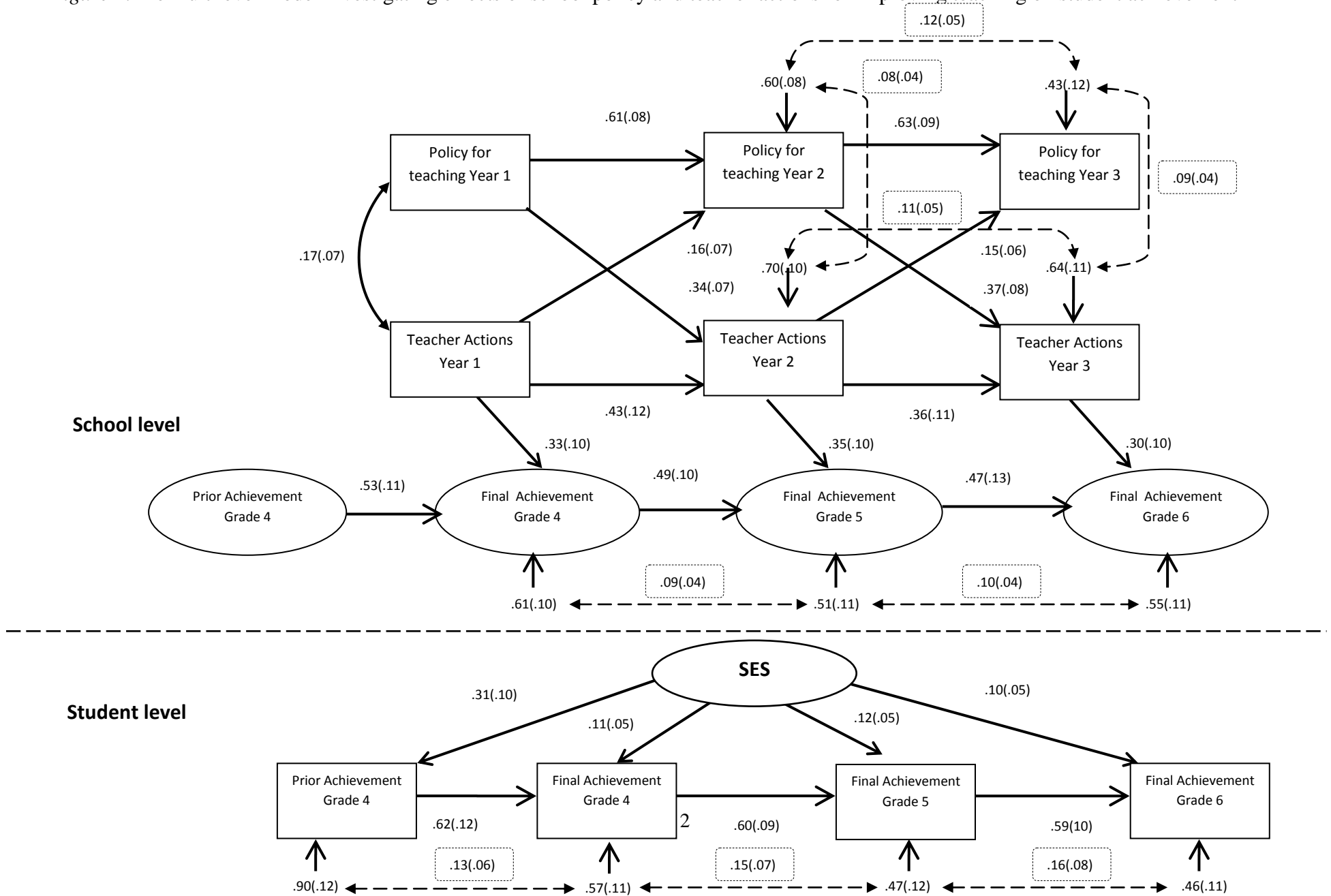
Figure 3. The multilevel model investigating effects of school policy and teacher actions for improving SLE on student achievement
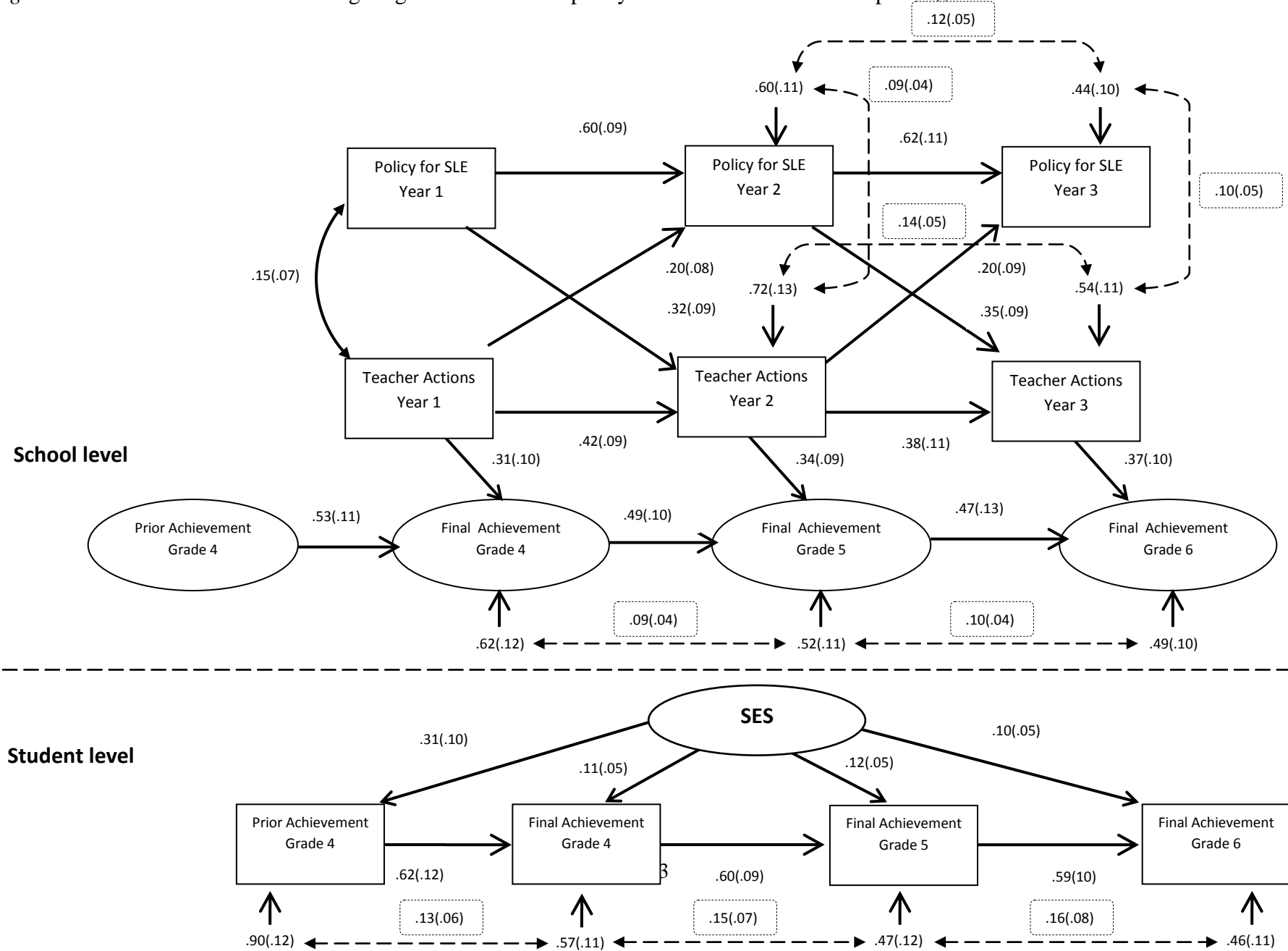
Table 1. Cronbach Alpha (Reliability), Multilevel Lambda and Intra-Class Correlations (ICC) of each Subscale Measuring School Policy per Measurement Period.

Scale	Cronbach Alpha			Lambda			ICC		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Scale 1: School policy on teaching	.88	.86	.89	.90	.89	.88	.41	.42	.39
1) Quantity of teaching (n=15)	.85	.83	.87	.88	.88	.91	.40	.41	.40
2) Provision of learning opportunities (n=12)	.82	.86	.88	.89	.90	.90	.37	.37	.38
3) Quality of teaching (n=10)	.87	.84	.85	.90	.88	.90	.35	.38	.36
Scale 2: Policy on the school learning environment (SLE)	.87	.86	.89	.91	.89	.91	.34	.33	.33
1) Student behavior outside the classroom (n=10)	.86	.85	.87	.89	.88	.90	.32	.30	.31
2) Teacher collaboration (n=12)	.89	.88	.90	.88	.87	.87	.36	.35	.34
3) Partnership: relation with the school community and parents (n=12)	.88	.90	.86	.89	.88	.86	.39	.38	.40
4) Provision of learning resources to students and teachers (n=8)	.85	.82	.83	.87	.90	.90	.36	.34	.35

Note. 1. Presented in parentheses is the number of items per subscale.

*Table 2.*Cronbach Alpha (Reliability), Multilevel Lambda and Intra-Class Correlations (ICC) of each Subscales Measuring Teacher Actions per Measurement Period.

Scale	Cronbach Alpha			Lambda			ICC		
	Year 1	**Year 2**	**Year 3**	**Year 1**	**Year 2**	**Year 3**	**Year 1**	**Year 2**	**Year 3**
Scale 3: Teacher actions for improving teaching	.91	.92	.91	.90	.88	.91	.38	.39	.40
1) Quantity of teaching (n=16)	.89	.88	.85	.89	.89	.88	.41	.40	.42
2) Provision of learning opportunities (n=10)	.84	.86	.82	.92	.88	.90	.39	.37	.38
3) Quality of teaching (n=8)	.82	.83	.81	.90	.87	.90	.33	.34	.33
Scale 4: Teacher actions for improving the SLE	.87	.86	.89	.91	.89	.89	.34	.35	.37
1) Student behavior outside the classroom (n=8)	.85	.84	.82	.91	.89	.90	.35	.33	.36
2) Teacher collaboration (n=10)	.85	.88	.89	.90	.91	.88	.40	.41	.39
3) Partnership: relation with the school community and parents (n=12)	.84	.86	.90	.88	.90	.89	.42	.40	.42
4) Provision of learning resources to students and teachers (n=8)	.82	.85	.84	.88	.90	.89	.37	.38	.37

Note. 1. Presented in parentheses is the number of items per subscale.

*Table 3.*Indicative Items Used to Measure Each Subscale in regard to School Policy and Teacher Actions for improving teaching and SLE

Subscale	School Policy	Teacher Actions
A)Teaching		
1) Quantity of teaching	When designing the school-timetable, we take into account that sufficient time should be provided for pupils and/or teachers to move between classrooms.	I ask specific students who are present in the classroom to inform a classmate who was absent about the homework of the day.
2) Provision of learning opportunities	Our school participates in programs (e.g., Comenius, action research projects, collaboration with other schools) that aim at providing learning opportunitiesbeyond the ones offered by the formal curriculum.	I offer extra-curricular activities during outside school hours (e.g., participating in projects and charity activities, preparing students for competitions).
3) Quality of teaching	At school staff meetings we discuss and take decisions on issues concerned with methods to effectively teach pupils (e.g., questioning, application, modeling)	During non-teaching time, I discuss and exchange ideas with my colleagues on good teaching practices.
B)School learning environment (SLE)		
1) Student behavior outside the classroom	In our school we share the opinion that break time is an opportunity for teachers to approach and interact with children that face problems which may affect their learning.	During break supervision time, I try to find out if there are students who are isolated or may need help and I try to talkto them
2) Teacher collaboration	In our school, teachers are encouraged to cooperate with each other by exchanging ideas and materials when teaching specific units or series of lessons.	I invite other teachers to observe me whileteaching and give me feedback on my teaching skills.
3) Partnership: relation with the school community and parents	In parent-teacher meetings organized by our school, we discuss ways in which parents can help to deal with the following issues: a) homework, b) ….	I send to parents the schedule for teacher-parent meetings and encourage them to come to school to be informed about the progress of their children
4) Provision of learning resources to students and teachers	Our school keeps systematic records concerned with the use of educational tools for teaching supplied by the school (e.g., maps, software)	I search for appropriate software and/or teaching aids that can be used in my classroom for learning purposes.

Appendix 1: Measuring Teacher Actions for Improving Teaching and School Learning Environment

This appendix provides information about the actions that teachers could take in order to improve teaching and School Learning Environment (SLE). These categories emerged from the interviews with the headteachers and were used to design the self-report questionnaire administered to the teacher sample

Teacher actions for improving teaching.

   1. *Quantity of teaching.* This factor refers to the ability of the teaching staff to deal with problems that may reduce the teaching/learning time of their students. The types of actions concerned with the quantity of teaching factor, which were mentioned during the interviews with the headmasters, are concerned with the following four challenges/problems that may reduce the time spend on teaching.

   Student Absenteeism. Cypriot primary teachers may take the following two types of actions to monitor student absenteeism and persuade parents that their children should always come to school unless their children are facing serious problem (e.g., health problems) that do not allow them to attend school. First, some teachers keep records of student absenteeism and analyze the data to set targets on how to reduce this phenomenon. For example, teachers may find out that student absenteeism is likely to occur in specific periods, which calls for finding out why this ''strange'' phenomenon is observed in their classroom. Second, students who missed lessons or school day(s) without any acceptable reason are addressed individually by their teacher and measures are taken to avoid absenteeism in the future. Some teachers may also take actions to regain (at least partly) the lost teaching time. Specifically, some teachers

ask students who were present in the classroom to inform a classmate who was absent on what happened during the lesson. They are also responsible to inform him/her about the homework of the day. Some other teachers find extra time to work with students and help them catch up with the part of the curriculum they have missed. This can be done either in the school when the student comes back or even outside the school (e.g., the teacher visits students at hospital to inform them about the lesson(s) they have missed).

Teacher absenteeism. Some teachers take the following three types of actions to account for (at least partly) the teaching time that was lost. First, teachers who know in advance that they will be absent (e.g., for army service) may prepare the teaching materials to be used during their absenteeism by the replacement teachers. In cases of unforeseen teacher absenteeism, some teachers spend their out-of-class time on teaching the students of their colleagues who are absent. While working with their own students, teachers may also volunteer to have students of their colleagues in their classroom. The latter students are typically asked to work on application tasks assigned by the hosting teacher.

Management of teaching time. This aspect of the quantity of teaching time covers issues that may affect the teacher's ability to manage his/her teaching time. The following types of actions are taken by teachers to ensure that their lessons start and finish on time and that lesson interruptions for staff meetings and/or other events are kept to minimum. First, it is announced to students and parents that lessons should start and finish on time. Second, teachers may keep records for students who are not on time to attend the lesson. Some teachers also inform various school stakeholders including parents about students' late arrivals (for disciplinary reasons). Finally, teachers may ask students who arrive late at school to spend extra time in school or to do extra homework to compensate for the lost teaching time.

Policy on homework. Teachers take the following types of actions to ensure that students spend time on doing their homework. First, some teachers may inform students and parents about their policy on homework concerned with the: a) amount of homework assigned to students, b) the type of homework assigned to students, c) the role of parents in supervising homework, and d) the evaluation and feedback of the homework assignments. Second, some teachers may also organize a parents' night to explain to parents how they can supervise and support their children while doing their homework. Third, some teachers ask parents to give them feedback on how their children behave while doing their homework and the kind of problems they are facing in doing so. Finally, teachers keep records for children who do not complete their homework. Students who have no acceptable reasons for not doing their homework are addressed individually, and appropriate measures are taken to reduce this problem (e.g., warnings, communication with parents).

2. *Provision of learning opportunities.* Teacher actions concerned with this factor are classified in the following two aspects presented in the second section of the paper. First, teachers take actions to ensure that they can make good use of school trips and/or other extra-curricular activities to promote their teaching objectives for student learning. Specifically, some teachers encourage their classes to participate in those extra-curricular activities that may support their teaching and learning. For instance, criteria are developed and used for selection of extra-curricular tasks. Teachers may offer extra-curricular activities during outside school hours (e.g., participating in projects and charity activities, preparing students for exams and competitions). Second, teachers may take actions to improve the quality of the extra support that is offered to their students with special needs (including gifted or talented children). For example some teachers provide special education children with learning support in various domains (e.g., Art, Music, Physical Education, Mathematics, Language,

and Science) during outside-school hours. Teachers may also provide extra support to children with special needs during the school hours in order to facilitate and promote their learning in the regular classrooms. Some teachers also explain to parents what type of support is provided to students with special needs. In this way, the parents of children with special needs are aware of the opportunities offered to their children; at the same time, the parents of non-special education students have the opportunity to help their children develop positive attitudes toward their classmates with special needs.

3. *Quality of teaching.* The following two types of actions are taken to ensure that teachers' skills in teaching will be improved. First, during staff meetings, teachers discuss issues concerned with the quality of teaching. For example, one teacher may present ideas on how to teach effectively and invite his/her colleagues to comment on his/her suggestions. Second, some teachers take advantage of their common non-teaching time (e.g., teachers of the same subject or teachers of the same age group of students) to define quality of teaching and exchange ideas and practices.

Teacher actions for improving the SLE.

1. *Student behavior outside the classroom.* Teachers take the following types of actions to ensure that time outside the classroom is used for promoting the learning outcomes of their students. Some teachers supervise students during school breaks each day using a specific schedule. During this supervision time they also try to make sure that no accident happens or when an accident happens to provide help. Teachers may also observe and identify students who are isolated or may need help and interact with this group of students to provide support. Moreover, some teachers organize learning activities during school breaks or after school

hours. These activities may either give students opportunities to play together and have fun or may also attempt to achieve an educational goal. For example, a science fair may take place and children have the opportunity to see or enact and explain different science experiments.

2. *Collaboration and interaction between teachers.* Some teachers take the following actions to establish close relations with their colleagues and also learn from each other to improve their effectiveness status. First, teachers discuss with each other issues associated with their teaching practice. They also try to learn from each other by exchanging ideas and experiences about teaching (i.e., development of a friendly and businesslike environment) and encourage other teachers to do the same. Second, some teachers collaborate during their common non-teaching time. This collaboration may refer to the development of a common short- or long- term planning, the use of specific teaching aids/handouts/materials for delivering an aspect of the curriculum, and the design of a common assessment instrument. Third, some teachers exchange visits to each other's classroom. During the visit, observation of teaching is carried out, and the results of this observation are discussed during staff meetings to help teachers learn from each other. In some cases, specific observation instruments are used which are in line with the school policy on quality of teaching. Finally, mentors (i.e., teachers with more years of experience) provide support to younger teachers for formative reasons.

3. *Partnership policy (i.e., the relations of school with community, parents, and advisors).* This factor is concerned with actions that teachers take to encourage parents and the school community to provide support to schools in their attempt to promote student learning. Teachers are also expected to provide support to parents to help them find out how to support their children at home. During the interviews with the headmasters, we identified

the following types of actions aiming to improve the relations of the school with the community and the parents. First, some teachers invite parents and/or other members of the school community to help them organize the teaching of a specific unit for which they are experts. For example, a coach of the volleyball team in the school community may be invited to help the Physical Education teacher to teach volleyball to his/her students. Second, teachers may invite advisors to provide guidelines for helping them to deal with specific problems (e.g., bullying) or to help them design/implement a research action plan. Third, some teachers may invite parents to visit their classrooms and observe teaching in order to understand what is happening in the school. In this way, they can learn how to support the learning of their children and what is expected from them to do in homework supervision. Some teachers may also invite parents to take an active role, such as helping students carry out a group task. Fourth, teachers may prepare a schedule for meeting parents and they encourage them to come to school to be informed about the progress of their children. Finally, some teachers provide parents with different ways for contacting them (e.g., alternative meeting hours, by email, by phone) and suggest ways in which parents can provide support to their children.

4. *Provision of sufficient learning resources to students and teachers.* The final factor has to do with the actions that teachers may take to improve the use of students' learning resources. Specifically, teachers may identify appropriate software and other teaching aids that can be used in the classroom for learning purposes. Teachers may also request their school to appoint extra personnel for supporting their needs and helping them deal with a specific challenge they face (e.g., appoint an expert to help them deal with children who have particular learning difficulties).