

POSSIBILITIES FOR SAVING ENERGY AT PRIMARY SCHOOL POLZELA

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School year 2008/2009

INTRODUCTION

- ✘ Saving energy at Primary School Polzela
- ✘ Keeping our environment clean
- ✘ Informing pupils about the rational use of energy
- ✘ Suggesting possibilities for saving energy



HYPOTHESIS



- ✘ Primary School Polzela belongs to those buildings, which could save a lot of energy



RESEARCH PHASES

1. phase: processing data
2. phase: poll
3. phase: booklet and stickers – informative
4. phase: analysis of the energy
5. phase: suggestion for renewing wasteful places

METHODOLOGY

- ✘ Inductive method – resolution that Primary School Polzela is an ineffective building
- ✘ The method of inquiry

POLL

- ✘ The poll was carried out among teachers and pupils
- ✘ 7 questions

Findings:

1. Pupils are not well informed about saving energy
 2. Teachers are well informed about the issue
- ✘ Creating the booklet and energy stickers



Turn off the light
if nobody needs
it!



Turn off the light
if nobody needs
it!



Turn off the light
if nobody needs
it!

LIST OF USERS

- ✘ We calculated how much energy is used in our school in 2 hours
- ✘ We came to the result that our users use 27 kW
- ✘ If we turned out 1 line of lights in each classroom we would save 2,2 kW

ANALYSIS OF THE ENERGY I

- Too much light – using weaker bulbs where possible
- The building has not got a suitable heat isolation of outside walls and of the roof (huge heat waste)



ANALYSIS OF THE ENERGY II

- The windows let out heat, there is no suitable sound isolation
- The lights are turned on when there is no one in the room
- The temperature in the classrooms is too high



SUGGESTIONS

- Heat isolation of the school
- Installing better isolated windows
- Use of motion sensors
- Use of thermostats
- Use of saving bulbs
- Use of solar cells
- Use of a heat pump
- Use of wind generators





THERMOVISUAL PICTURE

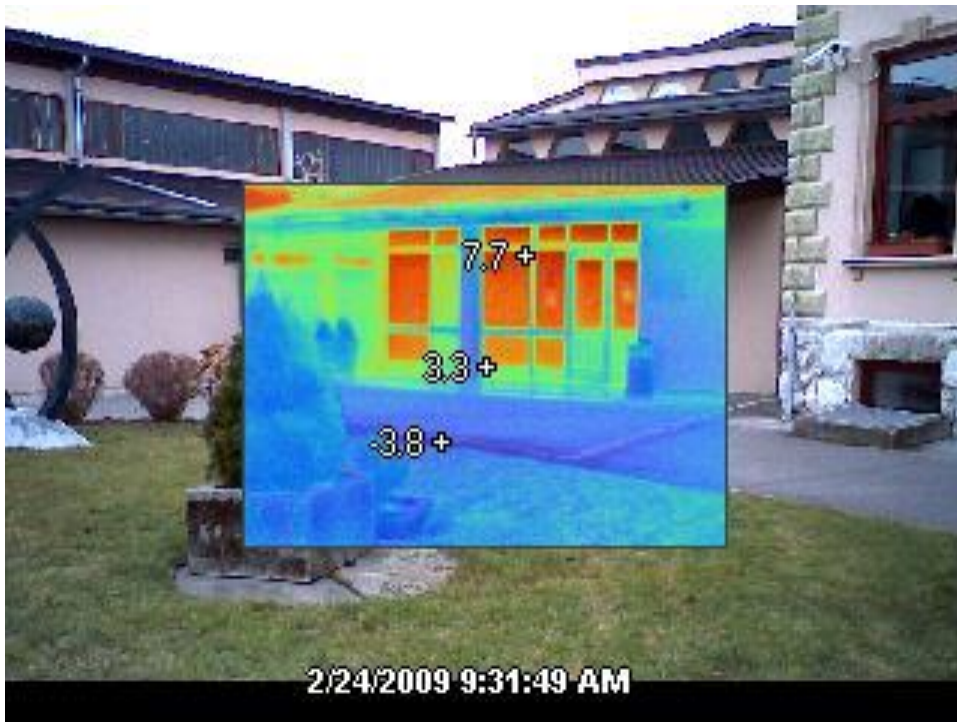
Findings:

- ✘ The frames of older windows let out heating energy

Specialities:

- ✘ 1-layer window in the hall,
- ✘ ventilating fans,
- ✘ roof on some parts of school,
- ✘ new windows





WHAT HAS ALREADY BEEN DONE

What has already been done in the time of the research:

- Windows in some classrooms were changed
- Valves on radiators were installed
- Pupils were informed with the help of the stickers and the booklet

CONCLUSION

- ✗ Pupils are not well informed about this topic
- ✗ The sunny sides use too much energy
- ✗ A better isolation of the school is needed
- ✗ The hypothesis is CONFIRMED



ACKNOWLEDGMENTS

- ✗ To our mentors
- ✗ To the management of the school
- ✗ To the school housekeeper
- ✗ To mr Borut Petrič
- ✗ To mr Cveto Fendre
- ✗ To participants in the inquiry