

Learning Environments

A FORUM ON THE ACADEMIC CALENDAR

Grace H. Aguiling-Dalisay

UP Diliman Department of Psychology (UPDDP), CSSP

10 February 2014

National Institute of Physics

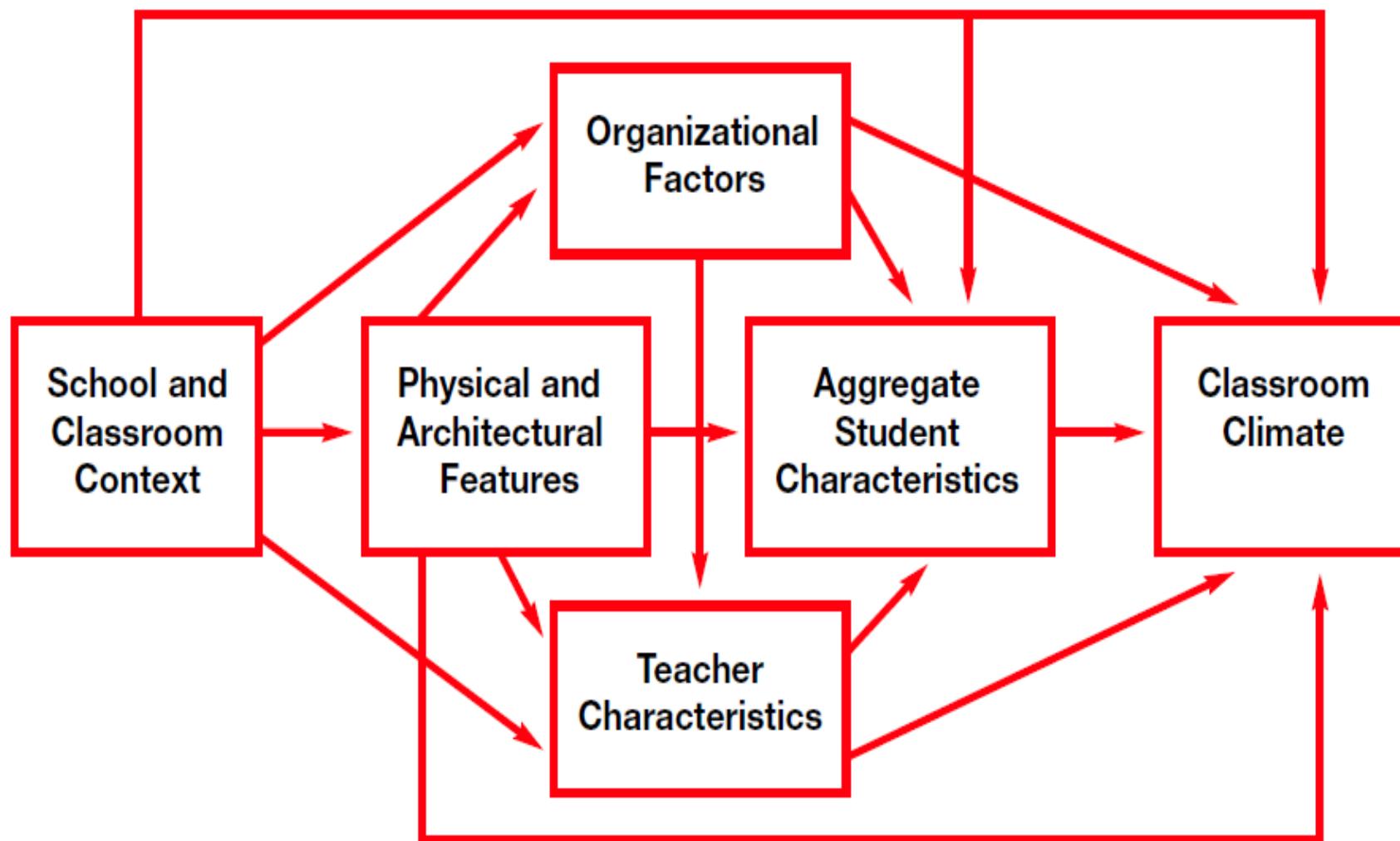


LEARNING ENVIRONMENT DEFINED

(UNESCO-UIS, 2012)

“The complete **physical, social, and pedagogical context** in which learning is intended to occur...conceptualized in relation to their **impact on learning processes and outcomes both in cognitive and affective domains**” p.12

Model of the Determinants of Classroom Climate (Moos ,1979)



3 Points

- Summer Breaks
- Climate
- Interrupted Semester

No Long Summer Break and Modified School Calendars (Cooper et.al., 2003) US, Grades K-12

Proponents	Opponents
Continuous instruction is best	Real issues in education are not addressed
Options for preventing burn-out	Teacher burn-out
Same balance in family-school time	Opportunity loss for family-child time
Adjusted job schedules for students	Loss of summer jobs for students
	Income loss (parks, camps, day care associations)

The Physical Environment

RAIN	HEAT
<p>Safety</p> <p>Class Suspensions</p> <p>Equipment</p>	<p>Safety</p> <p>Electricity</p> <p>Equipment</p>

The Spacing Effect (David Gilden, [www.saveiowasummers](http://www.saveiowasummers.com))

- learning episodes are interrupted by breaks
- “learning at 2-month intervals produced 4x greater retention after a 5-year period than learning at an interval of 2 weeks... requires more effort (Bahrick et al., 1993:
 - **Consolidation:** Encoding, Storage and Retrieval
 - **Familiarity Bias:** Breaks for greater understanding
 - **Mental Set Release:** Review with a fresh mind

The Zeigarnik Effect

(Seifert, 1991)

- Phenomenon in which the recall ratio for interrupted tasks, in the middle or the end of task completion, is higher than tasks interrupted near the beginning.
- Disturbed unfinished jobs are better recalled than finished jobs

SPACING EFFECTS

Mean Grades: 1st Sem vs. 2nd Sem

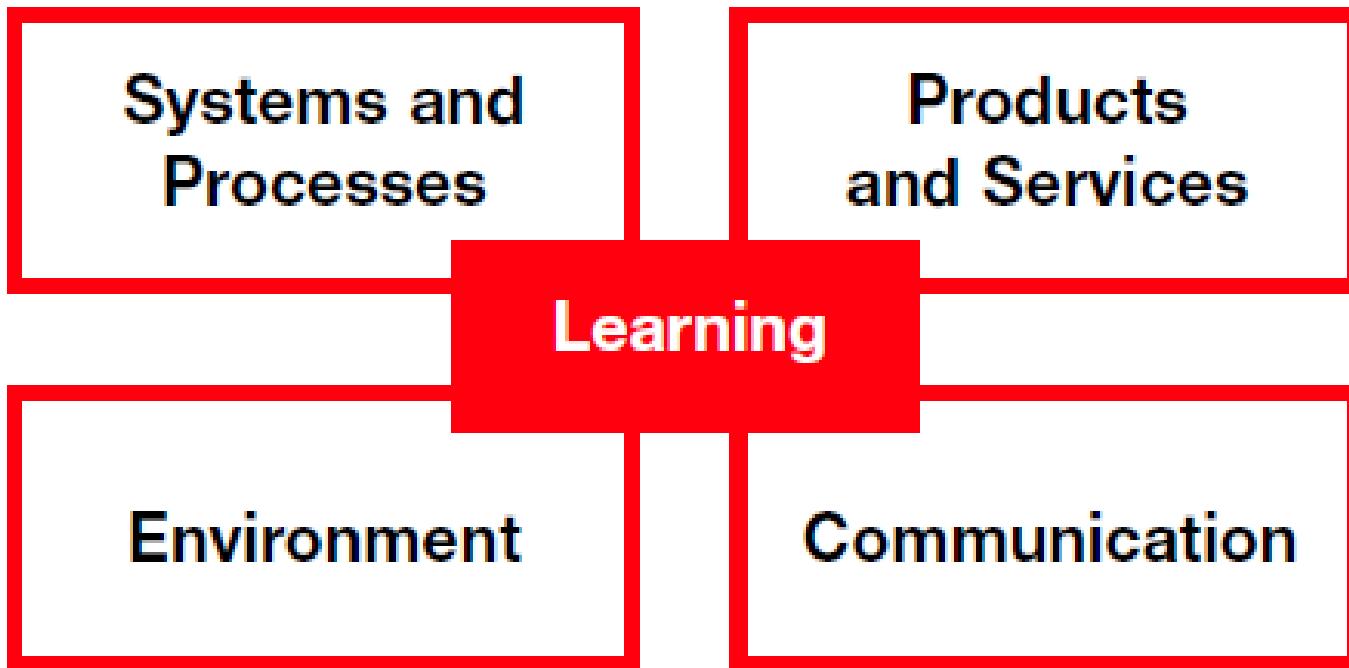
1st Sem > 2 nd Sem	Same	2 nd Sem > 1 st Sem
Fil 40	Eng 10	ES 11
Philo 1	ES 12	
Kas 1	Math 11	
STS	Math 14	
Chem 16		
Math 17		

2nd Semester and the Spacing Effect: CONSIDERATIONS

- Student's year level
- Course combination per semester
- Faculty Grading System
- SET
- Possibly linked with reasons for higher enrolment in the 1st semester than the 2nd semester

Components of Learning Environments

(Higgins, et al., Design Council)



Physical and School Built Environment

- Effect of physical environment (air, noise, heat, rain) on learning
- Different room arrangements
- Physical elements which improve comfort, well-being and attitude

Products and Services

- Teachers' role outside the classroom
- Community involvement
- Nutrition

Communication

- Effective communication with community
- Good communication within the school

Systems and Processes:

- Teachers' attitudes and behaviour
- Genuine involvement of users empowers individuals
- Staff moral is crucial
- Different users have different perspectives, often differ from designer's perspective

Recommendations from the Studies

- “ (in the US) adoption of school calendars has been driven primarily by economic factors than by educational implications.” (Cooper)
- Improving negative elements in the environment has significant benefits; but managing the change process is more important... (Higgins, et al.)

ACKNOWLEDGEMENTS

- Prof. Evangeline Amor
- Ms. Krupskaya Anonuevo
- Ms. Mellanie Daracan
- Prof. Louella B. Orillaza
- Prof. Susan C. Ortega
- Prof. Elizabeth R. Ventura

References

- CISCO, Transforming Education, Transforming Lives: A Path Toward Next Generational Learning
- Cooper, H. et al., The Effect of Modified School Calendars on Student Achievement and on School And Community Attitudes. *Review of Educational Research*, 73 , 20003
- Higgins, S. et al, The Impact of School Environments: A Literature Review, Design Council.
- Gilden, D. The Impact of Taking Breaks on Learning and Memory, The University of Texas at Austin. www.saveiowasummers
- Seifert, C. M., & Patalano, A. L. (1991). Memory for incomplete tasks: A re-examination of the Zeigarnik effect. In *Proceedings of the Thirteenth Annual Conference of the Cognitive Science Society* [refereed] (pp. 114-119). Mahwah, NJ: Erlbaum.
- Warger, T. et al, Learning environments: Where Space, Technology and Culture Converge. EDUCAUSE.

Thank you!

