



# Researching Lesson Studies: Possibilities, Emergent Trends and Three Directions A Preliminary Analysis

Jeanne M. Wolf  
Kiyomi Akita  
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Tokyo, Japan



## 問題意識

### <問題の所在>

- ▶ 日本がオリジンとなっているレッスンスタデイは、教師教育の分野で国際的な研究課題となってきた。そこでは、海外の人のレッスンスタデイ研究の報告が大きな影響を与えている。

日本は海外の研究者のレッスンスタデイについての語りから学ぶことで、自分たちのレッスンスタデイやその研究のあり方を振り返りまた相互に学ぶことができるのではないか。

日本の授業研究は本当に活性化しているのか

- ▶ WALS(World Association of Lesson Study) 2007設立  
Hong Kong, US, Japan, China, Singapore, England, Sweden, Iran, Ireland etc.

名称は異なるが、学校を基盤とした教職専門性開発の在り方、教師が共に学びあう共同体のあり方を研究していく領域として Lesson Studyや Learning Studyがある。

レッスンスタデイは始まったがその研究課題は何か。

- ▶ 授業研究における研究のトピックの広がりは何かをまず整理して考える

対象 3つの国での研究の傾向を比較して考える

アメリカ 2000年頃から様々な雑誌や本の出版によって体系的に検討されてきている

Stigler & Heibert(1999), Catherine Lewis(2004)

大学研究者が導入 さまざまなスタイルで米国全土で実施

香港 2000年から香港国立教育研究所で国のプロジェクトとして取り組まれてきている

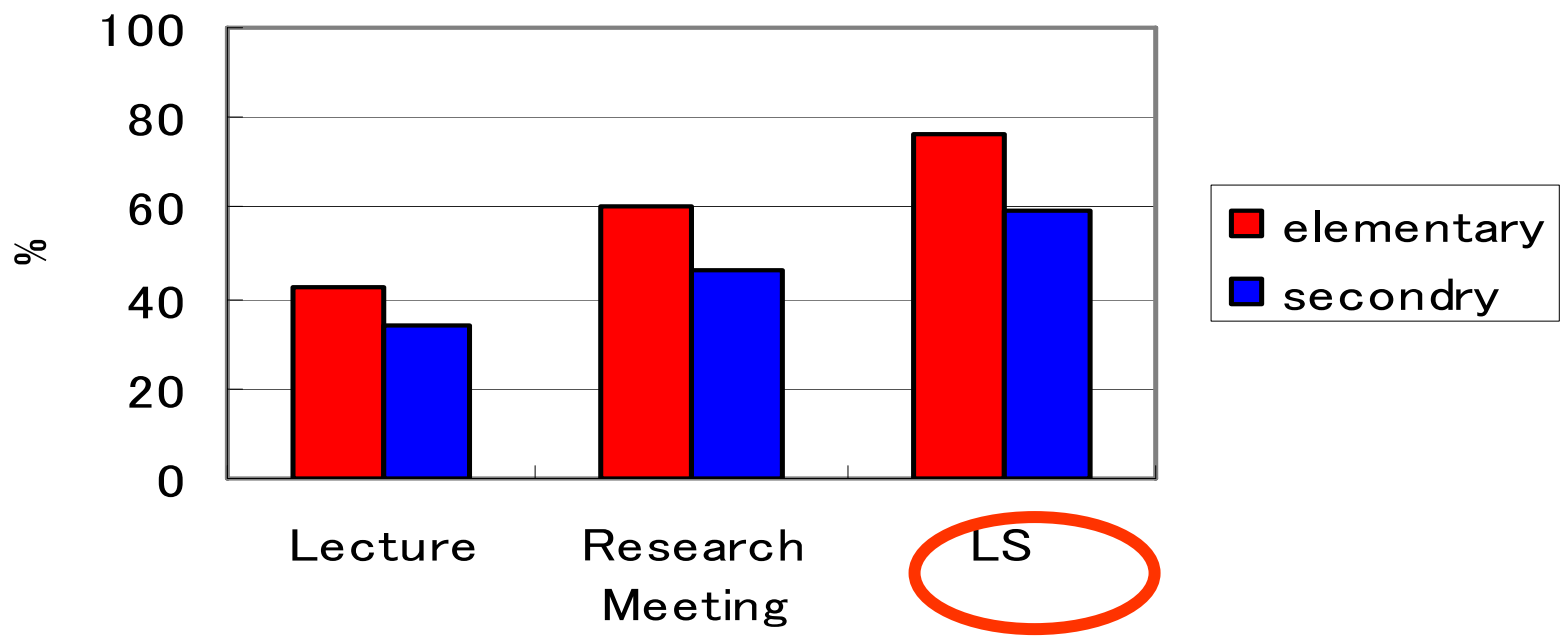
大学研究者によって導入 モデルが国家のプロジェクトとして実施されてきている

日本 歴史的にみれば明治時代から教師の手で行われてきている。そこに研究者がさまざまな形で関わってきている。

1990年代 学びの共同体等の議論によって見直し

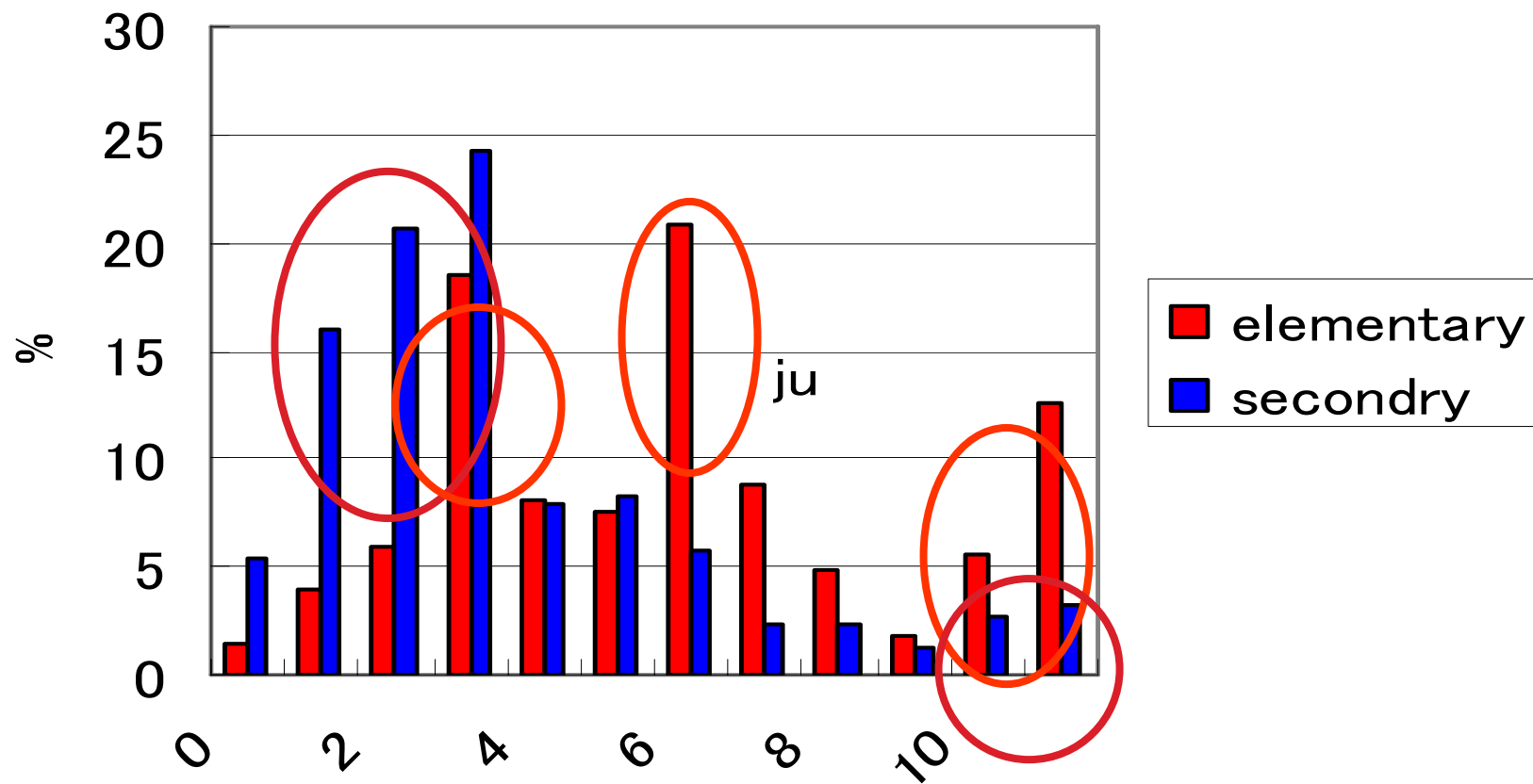
# Principals' perception of the effectiveness on Teachers' Professional Learning

## Perception of Effectiveness



How often do Japanese Teachers have LS?  
Two peaks (COE,2006)

Frequency of LS in Japan



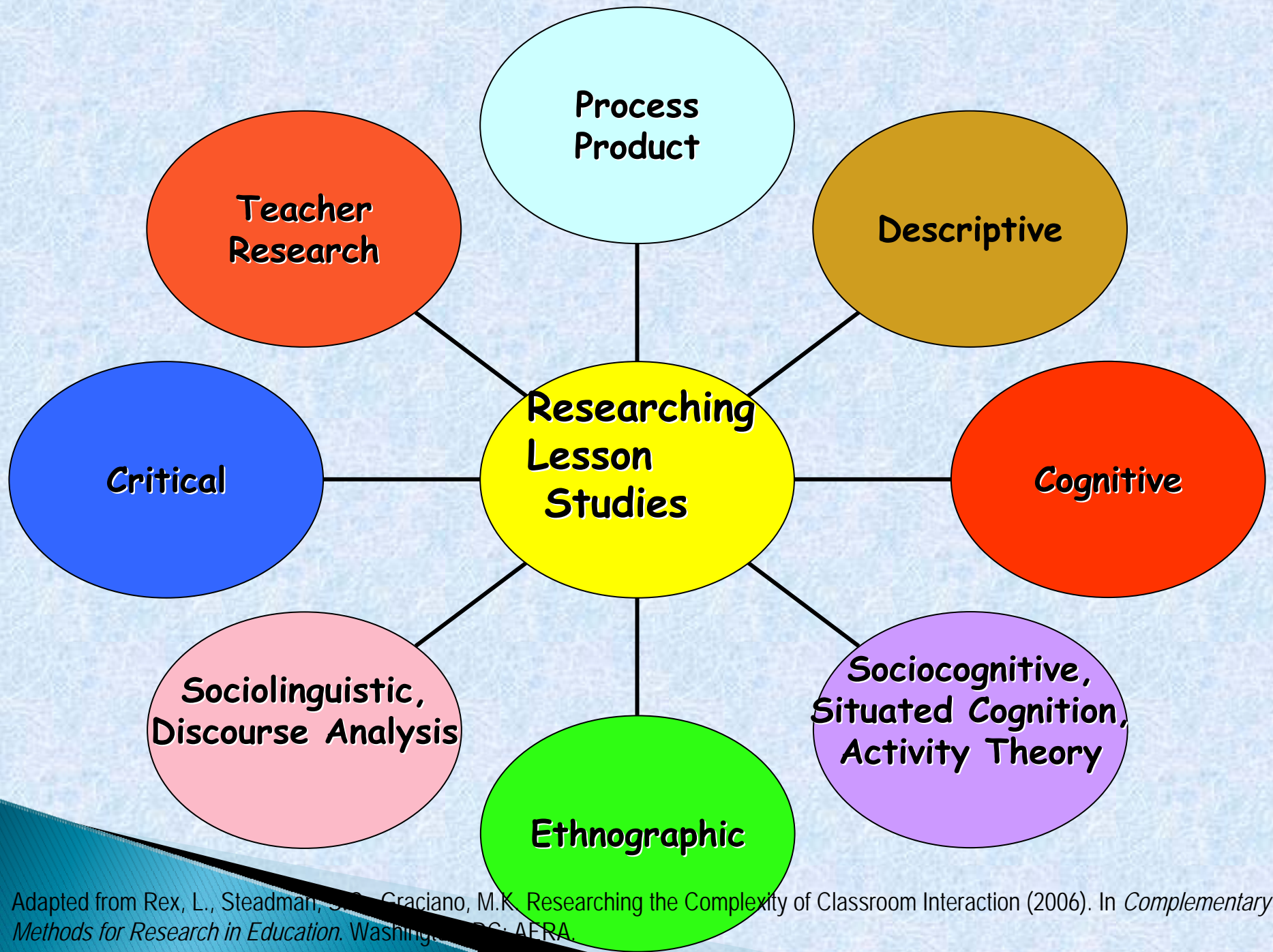
## ▶ 方法

どのような研究の問いとアプローチがあるのか  
リサーチクエッションからレビューを通して考えてみる

Rex, L., Steadman, S.C., Graciano, M.K. Researching the Complexity of Classroom Interaction (2006). In *Complementary Methods for Research in Education*. Washington, DC: AERA.

教室の学習を教師や生徒の相互作用を研究するアプローチと問いの整理がなされている。

我々 教師同士の学習のための相互作用としてのレッスンスタディを研究する  
アプローチと問いを整理していくことで考えてみる



Descriptive	<b>What are the classroom practices and products?</b>
Process Product	<b>How do classroom practices produce products, &amp; how do products emerge from classroom practices?</b>
Cognitive	<b>How do classroom practices inform cognition, &amp; how does cognition influence classroom practices?</b>
Sociocognitive Situated Cognition, Activity Theory	<b>How do classroom practices provide social interaction to influence individual learning &amp; how does individual learning prompt social engagement in the classroom ?</b>
Sociolinguistic, Discourse Analysis	<b>How do classroom practices shape discursive events &amp; how do discursive events shape classroom practices?</b>
Ethnographic	<b>How do classroom practices enact and build cultures, &amp; how do classroom and school cultures enact and build classroom practices?</b>
Critical	<b>How do classroom practices instigate and generate consequential power struggles, &amp; how do power struggles influence the consequences of classroom practices?</b>
Teacher Research	<b>How are classroom practices uniquely represented by teachers, &amp; how do teachers' views uniquely influence classroom practices?</b>



Descriptive	<b>What are LS practices and products?</b>
Process Product	<b>How do LS practices produce products, &amp; how do products emerge from LS?</b>
Cognitive	<b>How do LS practices inform teacher's cognition, &amp; how does teacher's cognition influence LS and</b>
Sociocognitive Situated Cognition, Activity Theory	<b>How do LS practices provide social interaction to influence individual learning &amp; how does individual learning prompt social engagement in the classroom?</b>
Sociolinguistic, Discourse Analysis	<b>How do LS practices shape discursive events &amp; how do discursive events shape LS?</b>
Ethnographic	<b>How do LS practices enact and build cultures, &amp; how do LS and school cultures enact and build LS practices?</b>
Critical	<b>How do LS practices instigate and generate consequential power struggles, &amp; how do power struggles influence the consequences of LS</b>
Teacher Research	<b>How are LS practices uniquely represented by teachers, &amp; how do teachers' views uniquely influence LS practices?</b>

## H.K. Descriptive Research: What are the LS practices and products?

	Research Questions	Design	Data Collection	Data Analysis
<p>Lo, M.L. (2003). <i>Lesson Study and its Impact on Teacher Development</i>. Hong Kong Institute of Education. p.4-6. (English Only)  <b>What is the basic lesson study model? How was it developed?</b></p>				
<p>Lo, M.L. and Ko, P.Y. ( 2006 ) Rethinking the Pedagogy of Teaching – Learning Study and its impact in . In W. Bokhorst-Heng, M. Osborne, and K. Lee (Eds.).  <i>Redesigning Pedagogies: Reflections on Theory and Praxis</i>. : Sense Publishers. pp.131 – 143.  <b>What are the distinctive theoretical and practical features of learning studies?</b></p>				
<p>Lo, M.L. ( 2006 ). Learning Study – the Hong Kong Version of Lesson Study: Development, impact and Challenges. In M. Matoba, KA. Crawford and M.R. Sarkar Arani (Eds.) <i>Lesson Study, International Perspectives on Policy and Practice</i>. : Educational Science Publishing House. pp. 133 - 157</p>	<p><b>What is the history of learning studies in H.K?</b>  <b>What is the H.K. version of lesson stud and what are the three phases of development?</b>  <b>What factors support their development?</b></p>	<p><b>Description s of learning studies, phases of developme nt.</b></p>	<p><b>-External evaluation &amp; follow-up questionnaire</b></p>	<p><b>Summary of follow-up survey findings to find out impact on teachers: 92% found improved teaching; 92% of principals said findings were sustainable</b></p>

Marton, F. & Pang, M.F. (2006) On some necessary conditions of learning. *The Journal of the Learning Sciences*,15(2),193-220. **What are necessary conditions for learning?**

## U.S. Descriptive Research: What are the lesson study practices and products?

Internet. Proliferation of sites that offer access to local information, tools, reports, videos, research reports and online repositories; also connect practitioners and other stakeholders through list serves, data bases, and discussion sites.

Stigler, J. and Hiebert, J, 1999. The teaching gap: Best ideas from the world's teachers for improving education in the classroom. NY The Free Press.

Lewis, C. & Tsuchida, I. (1998). A lesson is like a swiftly flowing river: Research lessons and the improvement of Japanese education. *American Educator*. 14-17, 50-52.

What are research lessons? What types are there? What is the impact?  
What are the supporting conditions?

Fernandez, C. & Chokshi, S. (2002). A practical guide to translating lesson study for a U.S. setting. *Phi Delta Kappan*. 84(2), 128-135.

What is the process and how can you get started? What are useful strategies?  
Other considerations...

Fernandez, C. & Chokshi, S. (2002). A practical guide to translating lesson study for a U.S. setting. *Phi Delta Kappan*. 84(2), 128-135. What is the process and how can you get started? What are useful strategies?  
What are other considerations?

Watanabe, T. (2002). Learning from Japanese lesson study. *Educational Leadership*. 59 (6).

Where do the lessons take place? What do research lessons do and do not do? What are some myths about professional development in Japan?  
How can you emulate research lessons and where can you try them?

## U.S. Descriptive Research: What are the lesson study practices and products?

Chokshi, S. & Fernandez, C. (March 2004). Challenges to importing Japanese lesson study: Concerns, misconceptions, and nuances. *Phi Delta Kappan*, 85(7), 520-525. What are the core principles of lesson study, the purposes of lesson study work? Identification is crucial to move beyond procedural aspects of lesson study towards richer, more sustainable lesson study practice.

Lewis, C. and Perry, R. (n.d). *Professional development through lesson study: Progress and challenges*. Retrieved from

[http://www.criced.tsukuba.ac.jp/math/apec2006/progress\\_report/Symposium/Lewis.pdf](http://www.criced.tsukuba.ac.jp/math/apec2006/progress_report/Symposium/Lewis.pdf) In what areas is progress evident and what are remaining challenges to overcome?

Chokshi, S. & Fernandez, C. (2005). Reaping the systematic benefits of lesson study: Insight from the U.S. *Phi Delta Kappan*. 84(2), 674-680. What is the current state? How can practitioners capitalize on it and extend its influence?

Cerbin, W. and Kopp, B. Lesson study as a model for building pedagogical knowledge and improving teaching. *International Journal of teaching and Learning in Higher Education*. (2006). 18(3)250-257. How can college teachers improve teaching practice in their fields, and in the process, contribute to the formation of a professional knowledge base?

## Japan. Descriptive research: What are LS practices and products?

	Research Questions	Design	Data Collection	Data Analysis
稲垣(1995)授業研究の歩み 1960年 -1995年	日本の授業研究はさまざまな 学問の影響を受けながら歴史 的にどのように変化してきた のか。 臨床研究としての授業研究の 可能性	歴史的	著者自身の経験と 研究史の記述	
伊藤(1990)校内研修	自分の授業を創るための校内 研修とは何か	事例記述	勤務校の実践事例	
橋本・坪田・池田(2003)	日本の算数授業研究はどのよ うなものか、またその特徴と実 際の事例	米国の授業研究と の関わりからの省 察	授業研究事例	

## Japan. Descriptive research: What are LS practices and products?

	Research Questions	Design	Data Collection	Data Analysis
河村(1998)(1999)校内研究の分析、校内研究と教育心理学	日本の校内研究がどのような内容で行われ受け止められているのか	調査	研究紀要 質問紙	数量、質
Arani & Matoba(2002)	校内研究としての授業研究は教師の専門性開発としてどのように寄与するか	事例からのモデル化	一人の教師の事例を基にしてさらに先行研究をふまえ理論化	質
秋田(2007)東大COE	実際にどの程度授業研究は行われているのか	調査	校長質問紙	量

## H.K. Process-Product Research: How do LS practices produce products, and how do products emerge from LS practices?

	Research Questions	Design	Data Collection	Data Analysis
<p>Pang, M.F. &amp; Marton, F. (2003). Beyond "lesson study" – Comparing two ways of facilitating the grasp of economic concepts, <i>Instructional Science</i>, 31(3), 175-194.</p>	<p>How can we develop among students a good understanding of a certain topic in economics, the incidence of a sales tax?; (2) How can the theory of variation be used as a tool that allow students to experience the object of learning in a certain way; and (3) How can the use of a learning study help teachers to improve their teaching and make a certain kind of learning possible?</p>	<p>Case study: compared two groups of secondary teachers who developed research lessons on the relative elasticity of demand and supply in determining the tax burden between buyers and sellers. One group used lesson studies and the other used a learning study.</p>	<p>interview, pre-post test, video and observational data</p>	<p>Cross-method; along with inter and intra group comparisons. Key finding was that over 70% of the students in the learning study group grasped the objects of learning in contrast to fewer than 30% of the students in the lesson study group.</p>

## H.K. Process-Product Research: How do LS practices produce products, and how do products emerge from LS?

	Research Questions	Design	Data Collection	Data Analysis
<p>Lo, M. L., Pong, W. Y. &amp; Chik, Pakey, C.P.M. (Eds). (2005) <i>For each and everyone. Catering for individual differences through Learning Studies</i>. Hong Kong, The HKU Press.</p>	<p>To what extent can worthwhile objects of learning, which will serve as a foundation of student learning, be identified?            Can the critical aspects of O.L. be identified?            To what extent can patterns of variation be identified and used in designing the lesson?            In what ways are participating teachers empowered to cater for individual differences using the three types of variation? (p32)</p>	<p>29 learning studies conducted over 3 years in 2 schools; Project went through <i>cycles of action research</i> in implemented evaluating and modifying a lesson (Math, Chinese language, General Studies).</p>	<p>Tests, videos, audio of meetings, lesson plans, classroom observations, teacher and student interviews</p>	<p>Case studies built from data; variation theory framework guides analysis.            Pre-post tests analyzed and showed improvement in student outcomes; teacher data analyzed and showed positive impact on professional development; teachers were empowered.</p>



## U.S. Process-Product research :How do LS practices produce products, and how do products emerge from LS practices

	Research Questions	Design	Data Collection	Data Analysis
<p>Cohan, A. &amp; Honigfeld, A. (2006). Incorporating 'Lesson study' in teacher preparation. <i>Educational Forum</i>. 71(1) 81-92.</p>	<p>How effective is the lesson study approach in teacher education courses?            What are the benefits of using the lesson study approach in teacher education courses?            What are the difference in using the lesson study approach in undergraduate versus courses?</p>	<p>Graduate and undergraduate students developed science research lesson, videotaped and discussed it. Professor summarized and all participated in N.Y. State peer review feedback process.</p>	<p>Videos of research lesson, lesson plan rubrics, lesson plan report rubrics and lesson study evaluation questionnaires</p>	<p>Rubrics used holistically and summarizes of all teachers on all criteria were completed. Reflection papers coded by theme and summarized.</p>

## Japan: Process-Product research :How do LS practices produce products, and how do products emerge from LS practices?

	Research Questions	Design	Data Collection	Data Analysis
太田(1996)校内研修における授業検討会の持ち方—養護学校の事例を通じて	検討会の人数でどのようにその進展がことなるのか	事例	関与	質的
サルカールアラニモハメッドレザ(1998)現職教育による教師の教育実践の質的变化	授業研究によって教師の省察がどのように変化するのか	事例	観察	質的
秋田・恒吉・村瀬・杉沢(2006)	授業研究を変えると生徒の授業態度は変わるのか	実施群—統制群	質問紙	数量的

## H.K. Cognitive Perspective How do LS practices inform cognition, and how does cognition influence LS practices?

	Research Questions	Design	Data Collection	Data Analysis
Pang, M.F. (2006). The use of learning study to enhance teacher professional learning in Hong Kong. <i>Teaching Education</i> . 17(1), 27-42.	Did the learning study have an impact on teachers ways of experiencing economics?	Teachers designed 2 lesson plans for 4 lesson on “sales tax incidence” and conducted and discussed lessons. (part of a larger study)	Open-ended pre-post lesson interviews	Phenomeno-graphic conventions used to create categories; seek agreement: 5 categories were found in order of least to most frequent: teaching for exam, transmitting knowledge, critical thinking, economic world view and reflective awareness of economics in different contexts.

# An Aside: Ongoing Discussion about the Ways in Which the Learning Study a Design Experiment.

- Both inspired by the design experiment (Brown, 1992, Collins, 1992) and use design *science* (Brown, 1992; H. A. Simon, 1969; Wittmann, 1995) with the goals of engineering a learning process and developing local instructional theories (Cobb *et al.*, 2003; Pang and Marton, 2003; Marton and Lo, 2006).
- Both cases, counter interpretations are ruled out; in learning studies this occurs over 3 or 4 cycles of systematic interventions, actions and reorganization of the learning environment until learners.
- Learning studies try to account for subtle differences in ways in which objects of learning are discerned, experienced and understood during lessons. Analyses focuses on conditions conducive to discernment of objects of learning (variation theory).
  - This implies little or no attention to social and or the individual dimensions of learning (Runesson, 2005), which can certainly be the focus in a design experiment.
- They also diverge in that learning studies fine tune one theoretical frame and do not ask if rival theories might work as well or better, and better match teacher and school priorities.

## U.S. Cognitive Perspective How do LS practices inform cognition, and how does cognition influence LS?

	Research Questions	Design	Data Collection	Data Analysis
Puchner, L.D. & Taylor, A.R. (2006) Lesson study, collaboration and teacher efficacy: Stories from two school-based math lesson study groups. <i>Teaching and Teacher Education</i> . 22, 922-234 .	How do teachers talk about math, how so they plan their lesson study and what are their perspectives? were concerns of the hybrid studies.	Two ethnographic cases; one focuses on teacher efficacy; second deals with a teacher's struggle in the move from isolation and collaboration.	lesson study observation, interviews, documents	Iterative process of reading field notes, categorizing, checking, and identifying themes
From: Lewis, C. Perry, R. and Murata. A. (2006). How Should Research Contribute to Instructional Improvement? The Case of Lesson Study. <i>Educational Researcher</i> . 35 (3) 3-14 .	What types of research are critically needed?	Lesson studies work on cycles of design, enactment, analysis and redesign.	video	Concludes that designed based research cycles are critically needed.

**Japan: Cognitive Perspective How do LS practices inform cognition, and how does LS influence classroom practices?  
(DESIGN EXPERIMENT, CONSTRUCTIVIST)**

	Research Questions	Design	Data Collection	Data Analysis
Oshima et als.(2006) Changing teachers' epistemological perspectives :A case study of teacher-researcher collaborative lesson studies in Japan	デザイン実験としての授業研究によって教師の科学的認識論がどのように変化するのか	デザイン実験	2年間の授業研究記録	

**H.K. Sociocognitive, Situated Cognition, and Activity Theory  
Perspective How do LS practices provide social interaction  
to influence individual learning and how does individual  
learning prompt social engagement in the LS?**

	<b>Research Questions</b>	<b>Design</b>	<b>Data Collection</b>	<b>Data Analysis</b>

# U.S. Sociocognitive, Situated Cognition, and Activity Theory Perspective How do LS practices provide social interaction to influence individual learning and how does individual learning prompt social engagement in LS?

	Research Questions	Design	Data Collection	Data Analysis
<p>Fernandez, C., Cannon, J. &amp; Chokshi, S. (2003). A U.S.-Japan lesson study collaboration reveals critical lenses for examining practice. <i>Teaching and Teacher Education</i>, 19(2), 171-185.</p>	<p>What lenses did participants apply during the lesson studies, and in what ways did culture shaped teacher and coach perceptions?</p>	<p>16 5<sup>th</sup> grade teachers developed lessons on the area of a triangle, with support from Japanese coaches. Participants met weekly; coaches observed the lessons and participated in conferences.</p>	<p>Observational and interview data.</p>	<p>Thematic analysis in terms of Japanese and American application of researcher, curriculum and practitioner lenses; and overall benefits.</p>



# Japan: Sociocognitive, Situated Cognition, and Activity Theory Perspective

## How do LS practices provide social interaction to influence individual learning and how does individual learning prompt social engagement in the LS?

	Research Questions	Design	Data Collection	Data Analysis
保坂(2005)	総合的学習のカリキュラム作りにおいて教師の活動システムがどのように変化するのか	アクションリサーチ	観察 インタビュー	質的
秋田(2006)	伝統型の授業研究と新たな授業研究スタイルでどのように教師の学習システムは異なるのだろうか そのモデル化	アクションリサーチ		質的

# U.S. Ethnographic Perspectives: How do LS practices enact and build cultures, and how do classroom and school cultures enact and build classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
	Yoshida, M. (1999.) . <i>Lesson Study: A case study of a Japanese approach to improving instruction through school-based teacher development. Unpublished doctoral dissertation, University of Chicago: IL.</i>			
<i>Lewis, C. and Perry, R.</i>	<i>How does instructional improvement results from the lesson study process and what constitutes credible and useful evidence of lesson study's impact on teachers?</i>	<i>Teacher-leaders in S.F. area worked with lesson study researchers on cycles of design, enactment, analysis and redesign.</i>	<i>lesson study meeting transcripts, lesson video-recordings, and periodic "theory of action interviews"</i>	<i>Drew on data and conducted analysis to show how a teacher moves from confusion about the relation of triangles and perimeter units to an understanding of the relationship between the two and how a colleague gains insight into the physical reason for the numerical pattern.</i>

## U.S. Ethnographic Perspectives: How do LS practices enact and build cultures, and how do classroom and school cultures enact and build classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
<p><i>Perry, R. and Lewis, C. (2003). Teacher initiated lesson study in a California school district. Paper presented at AERA 2003, ERIC Document No. ED478391.</i></p>	<p>How is lesson study being implemented in one N. CA. school district?</p>	<p>Describes process of implementation over 3 years, as teachers increased from 28-78.</p>	<p>Interview, video tapes of lesson study work, work-shops and artifacts</p>	<p>Analysis focused on categories of adaptations; ways of enhancing student learning, building of collaboration and shared leadership. Essential components are suggested.</p>

*Perry, R. and Lewis, C. & Murata, A. (2005). The "sandwich approach to professional development: Teacher knowledge creation through lesson study. Paper presented at AERA 2005, ERIC Document No. ED478391.*

## U.S. Ethnographic Perspectives: How do LS practices enact and build cultures, and how do classroom and school cultures enact and build classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
<p>Lewis, C.; Perry, R. Hurd, J.; O'Connell, M. P. (2006). Lesson study comes of age in North America. <i>Phi Delta Kappan</i>, 88(4) 273-281.</p>	<p>What accounts for the growth and success of lesson study at Highlands Elementary School in <i>California's</i> San Mateo-Foster City School District and what conditions are needed for scale-up?</p>	<p>How has lesson study evolved? What can be learned? What is necessary for 'scaling up?' Data drawn from a school where all teachers participate serves as an "existence proof."</p>	<p>Data drawn from 4 years of study; including conferences, end of year reports, student achievement data, observations, teacher reflections on their practices, alternative assessments</p>	<p>Qualitative analyses and triangulation of findings to show how the process of lesson studies have evolved along with changes in subject matter, teaching and learning. Further discussion of scaling up or going beyond the local level.</p>

## Japan Ethnographic Perspectives: How do LS practices enact and build cultures, and how do classroom and school cultures enact and build classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
大瀬・佐藤 (2000,2003) 学校 を創る	学びの共同体の哲学 と原理によって小学 校はどのように変わる のか	アクションリ サーチ	事例	質的 教師の声
名古屋大学・東 海市教育委員会 (2004) 授業記録 による授業改革 のプロセス	授業分析の方法を変 えることによってどの ように授業研究と実 践が変化するのか	アクションリ サーチ	事例	質的
澤本・曾我部・ 中原小学校 (2 005)	対話リフレクションの 方法によって校内研 究がどのように変わっ たか	アクションリ サーチ	事例	質的
山本 (200 3) 学校の自主性・ 自律性に関する 研究	校内研究による学 校組織文化を分析 するレベルは何か	フィールドワー ク	紀要収集と実 践事例	質的

# H.K.. Sociolinguistics and Discourse Analysis Perspectives: How do classroom practices shape discursive events and how do discursive events shape classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
<p>Tsui, A. (2002). The semantic space of learning. pp. 113-132. In Marton and Morris (Eds) <i>What matters: discovering critical conditions of classroom learning</i>. Gotenborg, Sweden: ACTA UNIVERSITATIS GOTHOBURGENSIS.</p>	<p>How does teachers' use of multiple representations as well as the students' bringing in their own experience help to make sense of the object of learning (p113)?.</p>	<p>Examined transcribed segments of classroom discourse from physics, history, English and science learning lessons to explore the semantic space of learning, <i>defined as meaning that is being assigned to the object of learning</i> .</p>	<p>Observations from one Chinese and one history lesson.</p>	<p>Analyzed classroom discourses in term of how teachers structured learning experiences and how they <i>widened and thickened spaces and/or places</i> (p130). A history class in Chinese, differed from an English class in terms of functions, imagery and opening times and effects on student interpretations of historical tasks.</p>
<p>Marton, F. &amp; Tsui, A.B.M. (2004). <i>Classroom Discourse and the Space of Learning</i>. Lawrence Erlbaum.</p>	<p>Understanding of how the space of learning is linguistically constituted in the classroom is best achieved through investigating "classroom discourse" and that finding out what the conditions are for successful learning and bringing them about should be the teacher's primary professional task.</p>			

## U.S. Sociolinguistics and Discourse Analysis Perspectives: How do classroom practices shape discursive events and how do discursive events shape classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
<p>Fernandez, C. (2005). Lesson Study: A Means for Elementary Teachers to Develop the Knowledge of Mathematics Needed for Reform-Minded Teaching? <i>Mathematical Thinking and Learning</i>. 7(4). 265-289.</p>	<p>Explores whether lesson study can afford teachers opportunities to develop two categories of knowledge of mathematics for teaching in a way that is useful for the enactment of reform minded teaching</p> <p>Do teachers have sufficient knowledge to make engaging in lesson study worthwhile?</p>	<p>Part of a larger study. Draws on four primary teachers lesson studies, over 3 months, when they planned, testing and discussed lessons about fractions.</p>	<p>Field notes and videotapes</p>	<p>Broke transcripts into conversations threads and identified all exchanges about how to teach math.. Concluded that opportunities to develop pedagogical content knowledge and how to reason mathematically were provided, but teachers did not take full advantage of the opportunities.</p>

## Japan: Sociolinguistics and Discourse Analysis Perspectives: How do LS practices shape discursive events and how do discursive events shape LS?

	Research Questions	Design	Data Collection	Data Analysis
藤岡(1993)教師の私的言語による授業研究 鹿毛(2006)	カード構造化法というシステムによって教師の私的言語を入れることが授業省察を促すか  対話とリフレクションシートでいかに教師の省察が変わるか	ツールのデザインと談話分析	事例	質的



# H.K. Critical Perspectives: How do classroom practices instigate and generate consequential power struggles, and how do power struggles influence the consequences of classroom practices?

Lo, M.L. & Lo-Fu, P. (2007). Professional support for teachers—the Hong Kong scenario. Paper presented at the ASCD Annual Conference and Exhibit Show 20

[http://www.ied.edu.hk/clasp/resources\\_e.html#1107](http://www.ied.edu.hk/clasp/resources_e.html#1107)

Two statements:

The learning study community is starting to discuss issues related to *dominant groups reproducing their own power* and *subordinate groups reproducing their own oppression*.

Lo and Lo also highlight the importance of opening up research to multiple views and communities of practices.

## U.S. Critical Perspectives: How do classroom practices instigate and generate consequential power struggles, and how do power struggles influence the consequences of classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
Hartman, M. L. (2004). Situating teacher learning in the practice of mathematics and science teaching; Unpublished dissertation, University of Michigan.	<i>How does a collaborative professional development experience, situated in teachers' own practice, help elementary public school teachers develop their knowledge of teaching?</i>	12 science and math 4th. and 5th grade teachers in 2 schools participated in a 3 month study. Author describes her qualitative methodology as <i>critical inquiry</i> because she "hoped to shift teachers' perceptions and practices by giving them an opportunity to make their beliefs about teaching and learning visible to themselves and their colleagues for discussion and reflection.	Classroom videos, audio tapes of interviews, observations, journal entries, lesson plans, student work and field note data were analyzed.	No details provided. Findings indicated that teachers who completed the program developed knowledge of teaching and that the collaborative planning process was very beneficial. Challenges included time, talk and individualism emerged. A critically focused recommendation was that teachers should learn the language and the nature of criticism when talking to other professionals.

**Japan: Critical Perspectives: How do LS practices instigate and generate consequential power struggles, and how do power struggles influence the consequences of LS practices?**

	<b>Research Questions</b>	<b>Design</b>	<b>Data Collection</b>	<b>Data Analysis</b>

## H.K. Teacher Research: How are classroom practices uniquely represented by teachers, and how do teachers' views uniquely influence classroom practices?

<p>Lo, M.L. (2005). Achieving the goals of reforms through learning studies. Paper presented at First Annual Learning Studies Conference: H.K.</p>	<p>What is a learning study? “Draws inspiration from the process of enquiry into teaching and learning by Japanese and Chinese teachers.” “Employing action research methodology.”</p>
<p>課堂學習研究 Learning Study <a href="http://cd1.emb.hkedcity.net/cd/id/index_en.html">http://cd1.emb.hkedcity.net/cd/id/index_en.html</a></p>	<p>Teachers study learning and teaching in the form of action research. The teachers involved are organized into small groups, together they identify the different understanding and the learning difficulties of students over particular learning contents. Lessons are planned on the basis of the learning theory of variation, to address those difficulties. The research lesson is then taught by each teacher and is again evaluated by analyzing the enacted lessons and students' learning outcomes.</p>

Note: Teacher research may be available and accessible in Chinese literature.

# U.S. Teacher Research: How are classroom practices uniquely represented by teachers, and how do teachers' views uniquely influence classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
<p>Antrim, J. B. (2007). Lesson study as professional development for elementary school teachers. Unpublished PhD. Dissertation. Capella University</p>	<p>To what extent did a group of teachers find lesson study to be a means of professional development that would have a positive impact on their learning and their students' learning? .</p>	<p>Action research qualitative study, conducted with five co-researchers over two lesson study cycles of – plan-observe, revise and reflect.</p>	<p>observations and reflections, pre and post interviews, a focus group</p>	<p>Qualitative analyses suggested that had opportunities to collaborate, observe each other, discuss teaching and learning all contributed to improved knowledge and pedagogy. Lesson studies enhanced teaching and learning.</p>
<p>Byrum, J. L.; Jarrell, R.; Munoz, M. (2002). <i>The Perceptions of Teachers and Administrators on the Impact of the Lesson Study Initiative</i>. ERIC Document No. ED467761.</p>	<p><i>What is the impact of lesson study as it relates to job embedded professional development?</i></p>	<p>Collaborative action research project conducted in five Kentucky high schools</p>	<p>Multiple qualitative methods were used to gather data, with classroom observations, field note and documents such as the Lesson Lab software critiques.</p>	<p>Ongoing analyses and coding in terms of impact on teachers, administrators and policy makers. Key findings were the positive views held by teachers and administrators in regard to opportunities to direct professional growth, collaborate with others and to apply what was learned. Administrators perceived that they had an “important role in its success.” Teachers cited changed practices in terms of new awareness of instructional strategies from observing other teachers and changed ways of thinking while planning lessons.</p>

Keeney, M.S., Paganelli, S., Smith, J., Krane, A., Jacobs, B., Toaz, P., Ansberry, V., Shultz, V., Kehoe, E., Craven, K., Neuin, B., Stepnicka, T., Bruce, C., Snodgrass, D. and Salzman, J. (2002). Lesson study with action research: Is the 4-Column Writing Method 4 Real? Paper presented at Mid-western Educational Research Association Conference. Columbus, OH. ERIC Document No.470303.

# U.S. Teacher Research: How are classroom practices uniquely represented by teachers, and how do teachers' views uniquely influence classroom practices?

	Research Questions	Design	Data Collection	Data Analysis
<p>Castori, P. (2002). Building a niche for lesson study in the culture of United States Education within the traditions of practitioner research. CSP Connection. 2(6), 2. Retrieved April 1, 2005 from <a href="http://www.lessonresearch.net/newsletter11_2002.pdf">www.lessonresearch.net/newsletter11_2002.pdf</a>.</p>	<p>None; the author suggests realigning lesson study within the literature on practitioner research.</p>	<p>Draw from what we know about teacher research; a dynamic systematic process for inquiry about learning, teaching and schooling; teacher researchers raise questions and answer them.</p>	<p>Reviewed teacher research literature to find lesson studies.</p>	<p>Lesson study and action research products differ but approaches and process are quite similar. Thus, teacher research offers a theoretical and practical framework.</p>

## U.S. Other: Theoretical Perspectives on How Lesson Study Improves Instruction

Lewis, C. Perry, R. and Murata. A. (2003). Lesson Study and Teachers' Collaborative Critique of a Research Model and Methods. Paper presented at AERA: Chicago, IL. ERIC Document ED478 172.

Interactive symposium to (1) provide input to a conceptual frame that represents lesson study's relationship to teacher's professional knowledge; (2) evaluate adequacy of early evidence; (3) strengthen connections among researchers study impact of lesson study and other professional approaches.

Lewis, C. Perry, R. & Hurd, J. (2004). A deeper look at lesson study. *Educational Leadership*. 61(5). 18-22.

Lewis, C. Perry, R. and Murata. A. (2006). How Should Research Contribute to Instructional Improvement? The Case of Lesson Study. *Educational Researcher*. 35(3). 3-14.

What are 3 types of research needed to sustain lesson studies?  
What changes in educational research would enhance the field's capacity to study innovation?  
Draws on examples from U.S. and Japanese lesson studies.

**Japanese Teacher Research: How are classroom practices uniquely represented by teachers, and how do teachers' views uniquely influence classroom practices?**

学校の研究紀要や実践記録の本としてきわめて多くの本がだされている

**Japanese Other: Theoretical Perspectives on How Lesson Study Improves Instruction**

この具体的研究が必要とされている

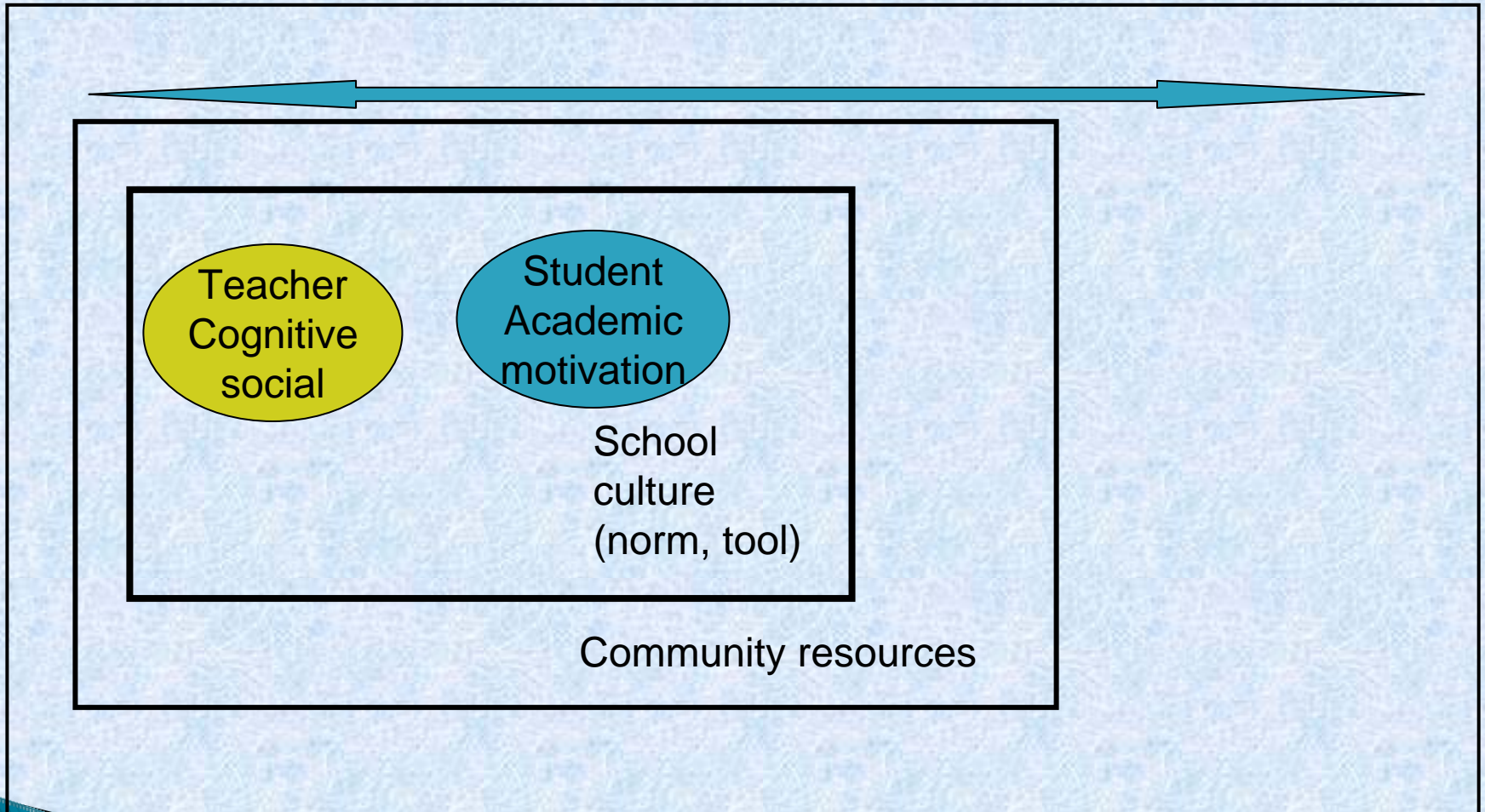


# Preliminary Conclusions and Implications

- ▶ Research base is expanding and becoming more diverse over time, depending on history and orientations in each country.
- ▶ When comparing the three countries, within the U.S., the ethnography, while within Hong Kong, the process-product study and within Japan, teacher research dominate the research agenda.
- ▶ In the U.S. and Hong Kong, the research is often conducted by a small number of experts. In Japan, there are many types of researchers and teacher experts. Most of them are action-oriented and do not have critical or systematic perspectives.
- ▶ Lesson studies as design experiments (H.K.) and action research fall at opposite ends of lesson study research.

Short span cycle

Long-term circular cycle



# Preliminary Conclusions and Implications (continued)

- ▶ Hong Kong research is more product-oriented and focuses on individual teacher's design and refinement of objects of learning while in the U.S. and Japan, the lesson study is more process-oriented and focuses on the school culture and the individual teacher.
  - In U.S., researchers are more sensitive to systematic norms, tools, artifacts and discourse styles. In Japan, recently, the importance of these aspects in becoming more widely acknowledged.
  - What is not addressed is relations between school and individual level dynamics, how collaborative knowledge building proceeds between colleagues (and the roles of facilitators) and how each teacher learns from lesson studies in relation to administrative support, resources provided and school level variables.
- ▶ Practitioners are markedly underrepresented in the U.S. and H.K. research literatures but their lesson plans, reports and research lessons at time, can be accessed online. In Japan, internet sites are being constructed but teachers can not access lessons yet.
- ▶ We posed 8 perspectives as equal. But, we could not find lesson study research employing all of the 8 perspectives.



A broader continuum of research is welcome. Diverse research perspectives can open new windows into lesson study processes and how teachers and students learn.

# Words of Caution

- ▶ Analyses reported are based on preliminary review; inter-rater analyses not yet conducted.
- ▶ Analyses based on Hong Kong English literature; thus, it may not be comprehensive.
- ▶ Conference literature was not reviewed extensively.
- ▶ Author classifications not sought.
- ▶ In some cases, questions and data analyses had to be inferred because they were not reported.