

BOT Symposium 2017

Section 3 (Commentary)

Heterogeneity in Technology Adoption of a Novel Early Childhood Teaching Practice

ความแตกต่างในการยอมรับนวัตกรรมการสอนเด็กปฐมวัย

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Quality Learning Foundation

Independent Education Reform Committee



Summary of Comments

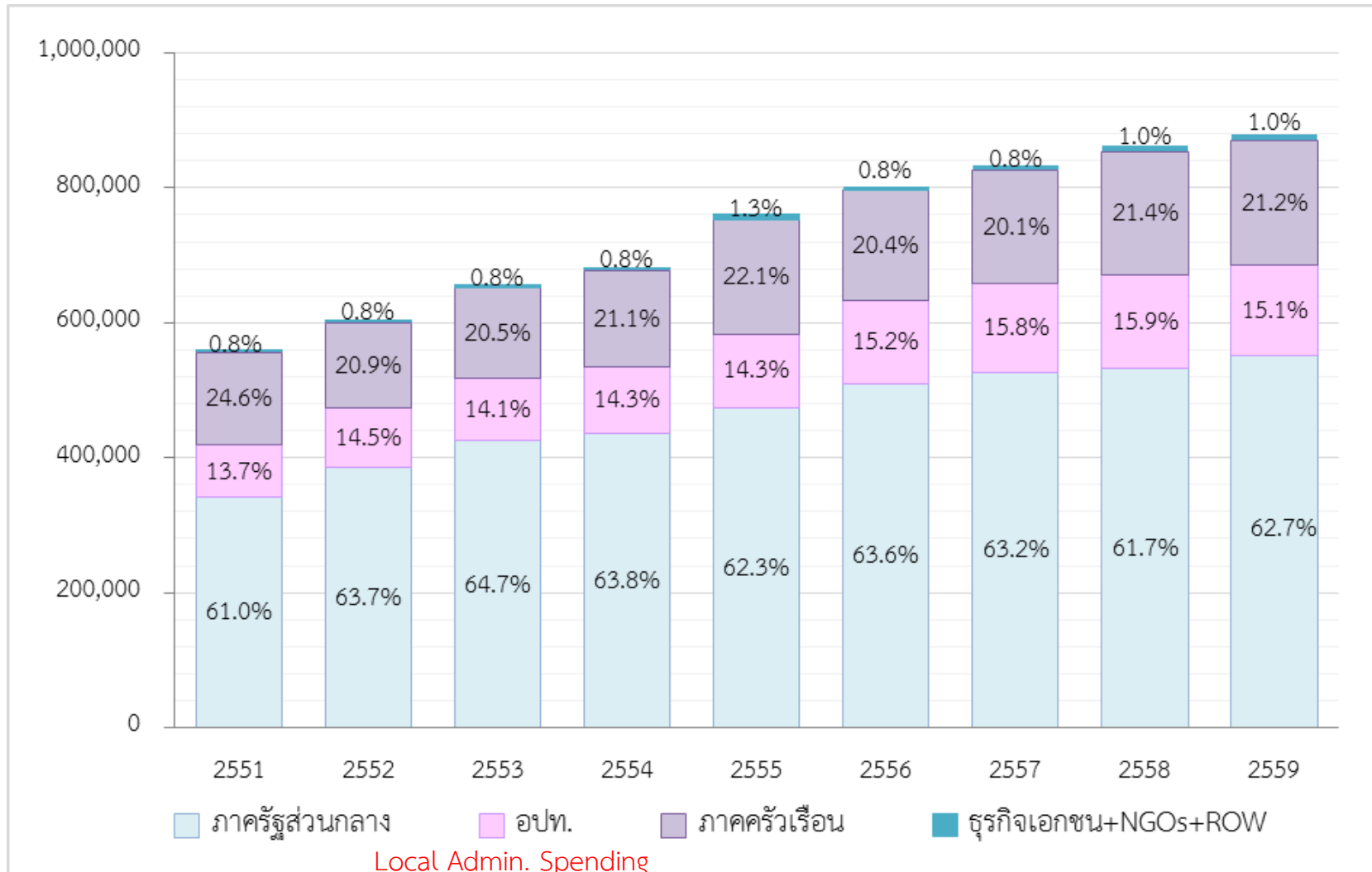
1. The contribution of this research to education reform and economic performance of Thailand
 - 1) The importance of ECD policy and research for Thai Aging Society
 - 2) Intangible technological transfer & Teacher training industry
2. Comments on the research findings
3. Policy Implication
4. Future research opportunities



Thailand Aging Society and ECD

1. **Thailand is heading toward the aging society** where we have less newborns, who will contribute more than consume, and more aging population, who will consume more than contributing to public resources
2. With the annual newborn cohort of less than 500,000 in the next decade, compare to over 2 times more population to retire, **these kids must be twice more productive than their ancestors for all of us to survive!**
3. Thailand, therefore, has no choice but to change our nation investment strategy to human resource development **(500 Billion Baht annually)**
 - 1) Invest Early
 - 2) Invest Smartly
 - 3) Invest Equally
4. What is the current situation in Thailand ECD investment?

Thailand's Education Spending by Sources

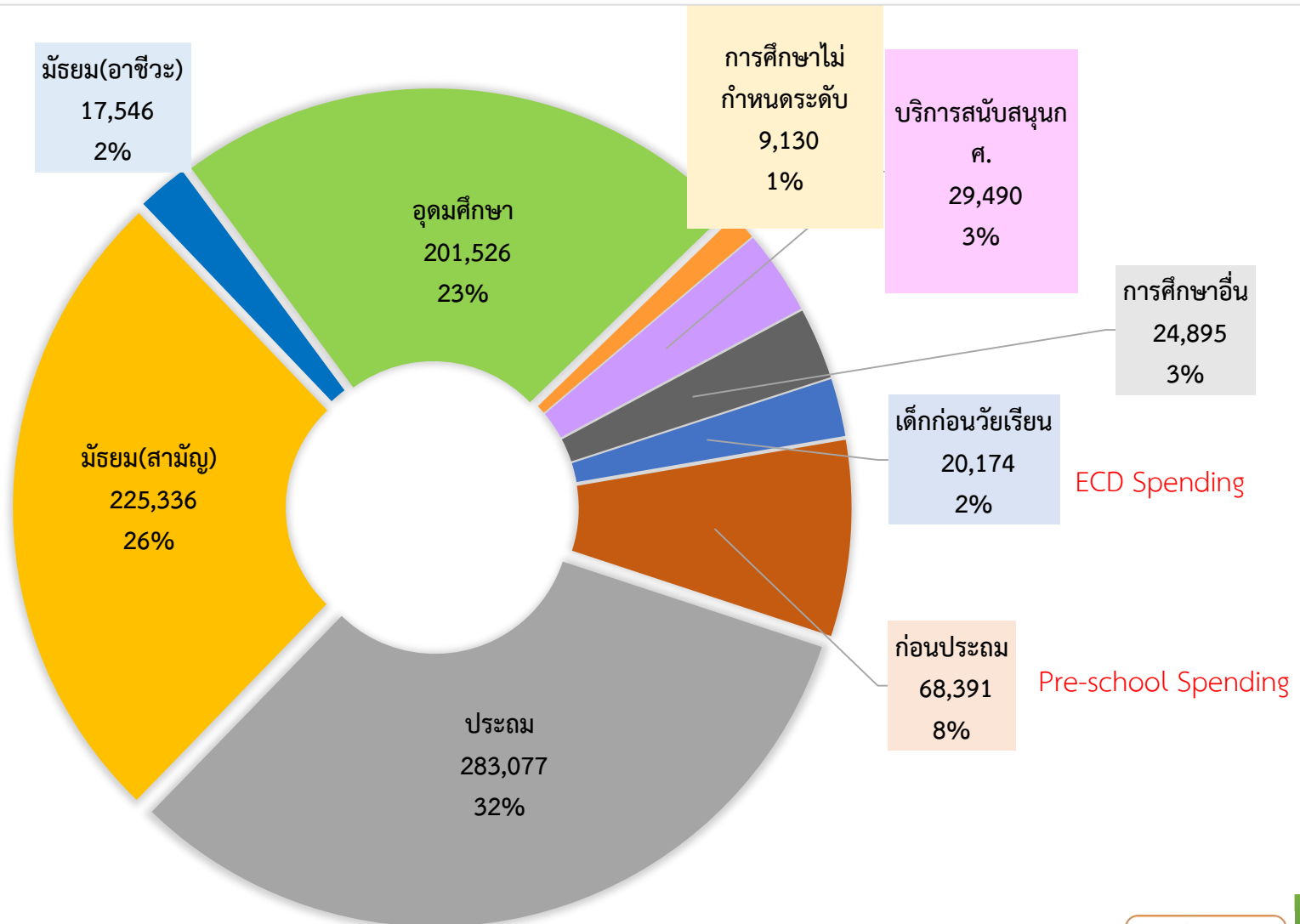


Source: National Education Account of Thailand (2017)

Budget Cycle 2016



Thailand's Education Spending by Education Levels



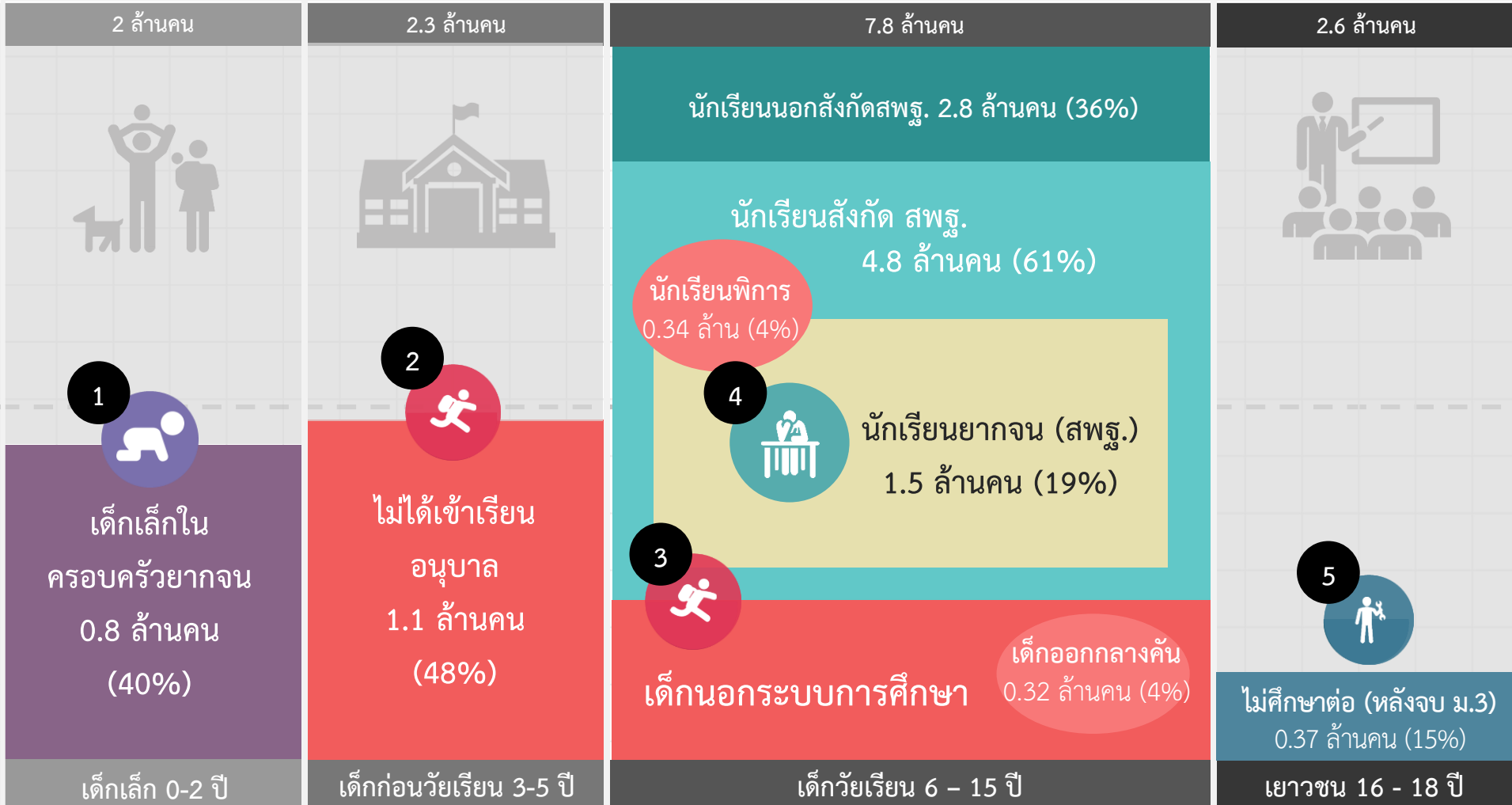


สถานการณ์ความเหลื่อมล้ำ ในระบบการศึกษาไทยปี 2559



ครูในพื้นที่ห่างไกลและครูผู้ดูแลเด็กเยาวชนกลุ่มที่ 2 - 5

เด็กเยาวชนอายุ 0 - 18 ปี ในทะเบียนราษฎร 14.7 ล้านคน



Independent Education Reform Committee

Public Consultation Conference @ Surin Province



Independent Education Reform Committee

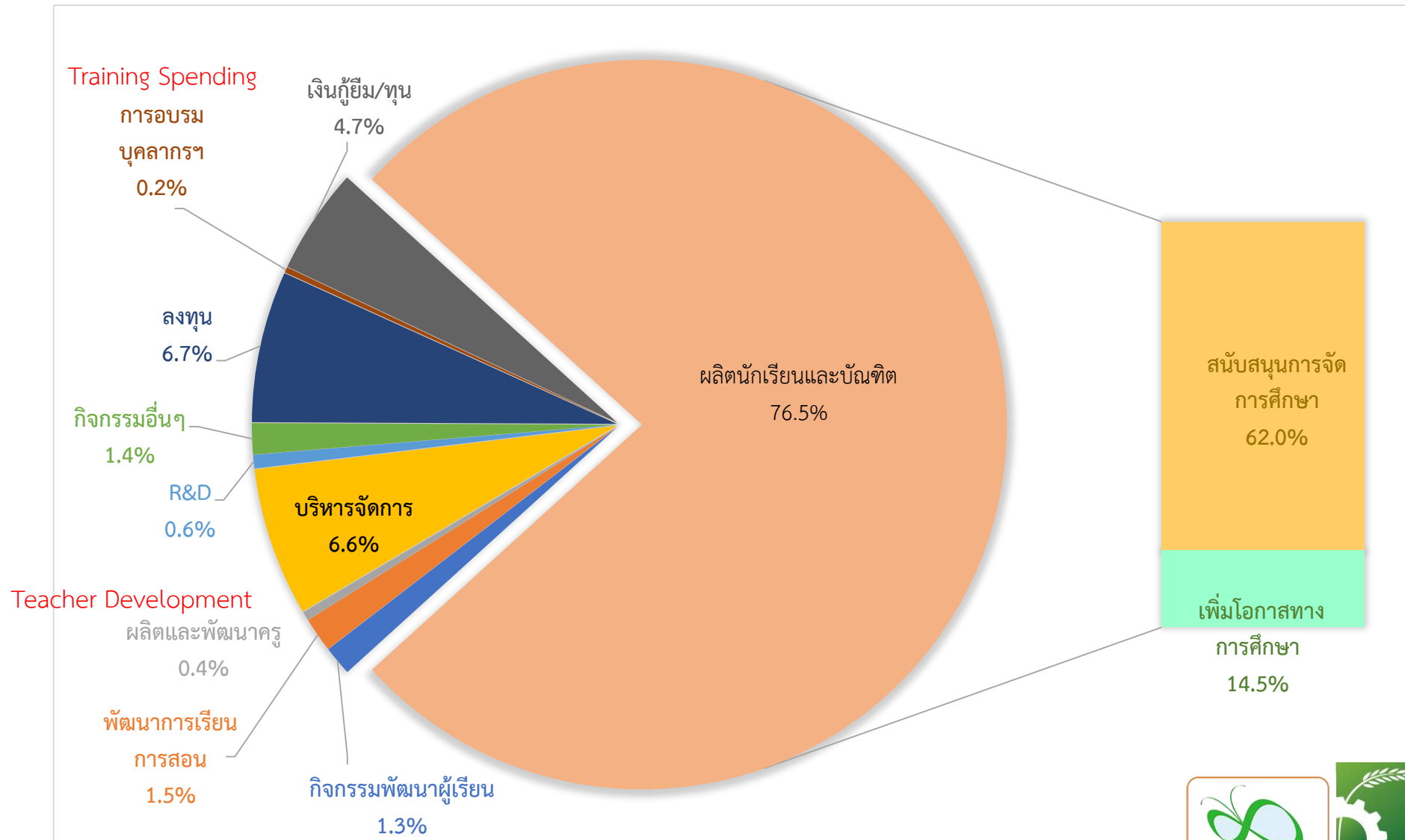
Public Consultation Conference @ Roi Et Province



Key takeaways from ICE's Public Consultations

1. The problem of inequality in Thailand originate from poor in ECD in their communities (both quantitatively and qualitatively)
2. Over 1,500 participants in 2 of the poorest provinces in NE and in Thailand demands more investment and technology on ECD
3. They actually value the investment in ECD much higher priority compare to the rest of the school-age groups and teachers
4. Over a million of pre-school aged population (48%) have yet to enter pre-school facilities, let alone having ECD
5. Given the challenges by aging society and Industry 4.0, the stake of Thai ECD has never been this high

Thailand's Education Spending by Education Levels



Source: National Education Account of Thailand (2017)

Budget Cycle 2016



Intangible technological transfer

“A Holy Grail” to Teacher Training Industry

1. Thailand invested over 2-3 billion baht annually on in-service teacher training and, let alone a pre-service investment of over 60,000 certified new teachers every year.
2. The latest policy on 10,000 Baht coupon has been both praised and highly controversial on its effectiveness and training quality
3. As the quality of Thai Education System cannot surpass the Quality of our 600,000 Teachers, any contribution on the better understanding on the effective process technological transfer is invaluable for Thai education policy and our fiscal and economic performance (STEM, PBL, ICT, Creativity etc.)

Comments on Key Research Findings

1. High-fidelity adoption occurs when
 - 1) Teacher has strong ECD preference and background
 - 2) Co-teachers exists in the facility, intensive & on-site training are necessary but not sufficient for significant adoption
 - 3) Leaders value ECD, which in turn, raise rewarding incentive to teachers who adopt new technology
 - 4) Parents value children's non-cognitive ability over ability to read and write
2. These BIG IF(s) raise questions on the design of any similar programs to ever be sustainably adopted, author can shed us some light on their experience?
3. Will these finding cast any doubt on the cost-benefit analysis of the program?

Comments on Key Research Findings (Cont.)

1. Any significant effects of high/low-fidelity adoption on children developmental outcomes both in short-term & long-term basis ?
2. Can the research address the order of magnitude/influence or the marginal effect on each factor?
3. Identification strategy in dealing with the issues of endogeneity and multicollinearity?
4. Compare to other ECD methods, how HighScope different in terms of process technology, per se, and its transfer process?

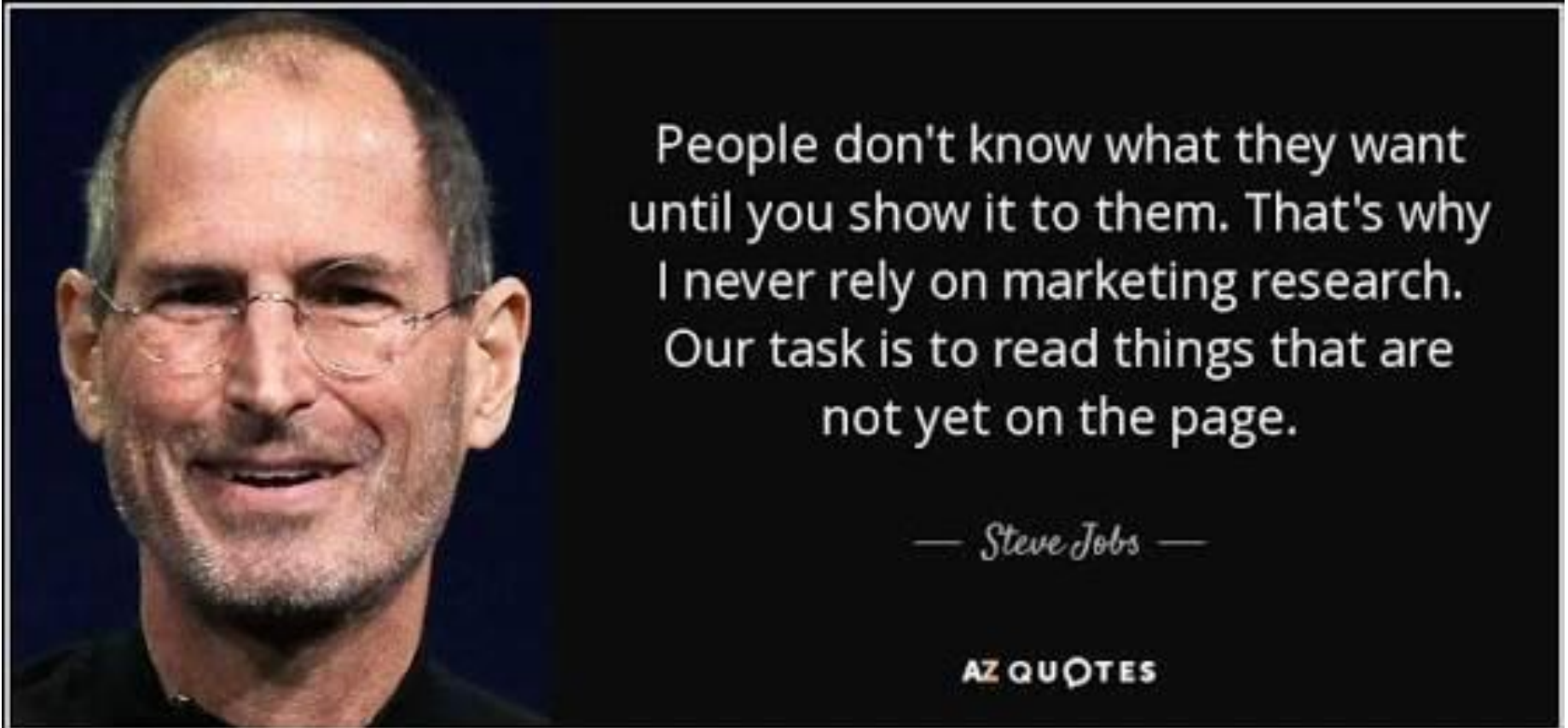
Policy Implications

1. The findings from this research draw questions on the return to investment on the “short-term teacher training” and its effectiveness on the technological transfer from the trainer to the teachers, let alone the impact on their teaching and students
2. The empirical results highlight the important role of inspectors, education district manager and governor to set the right incentive and close monitoring on teachers
3. It also show the importance of public campaign to inform parents and community on ECD and expected developmental outcome
4. Future education policy can benefit from this bottom-up research on the pilot program prior to the nationwide policy and the continuous involvement of research agency

Future Research Opportunity

1. Can we apply this exercise to evaluate other MOE's teacher training programs? For example; “Reduce study time, increase learning time policy” “English Bootcamp” or “Pracharath Schools”
2. ECD is a local service with “short accountability cycle”, for other programs that have a “longer accountability cycle” how can we improve the level of high-fidelity adoption?
3. Can this research shed some light on the policy's sustainability design and cost-benefit analysis of future teacher training program that involve technological transfer ?
4. Nationwide policy on HighScope?

High vs. Low Fidelity Adoption (Teacher & Parent)



People don't know what they want until you show it to them. That's why I never rely on marketing research. Our task is to read things that are not yet on the page.

— Steve Jobs —

AZ QUOTES