Recording the work of exemplary early childhood educators using a time-use diary app: What does exemplary early childhood practice look like in real time?

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The Exemplary Early Childhood Educators At Work Study (EES)

- By investigating the work of exemplary educators, this project aims to inform strategies to better attract, prepare, recognise, support and retain a high-quality early childhood educator workforce into the future.
- What constitutes the everyday work of educators? What do they do? How do educators feel about their work activities (stressed, satisfied, rushed)?
- Do work activities and feelings about work vary across qualification levels and service types (childcare and preschool)?
- What personal, professional and organisational resources support the work of exemplary educators?
- What are the networks of professional relationships and communication in the day-to-day work of educators?
- What skills, understandings and dispositions underpin the work of exemplary educators?
Design: Sample Selection and Data Collection (3 phases)

**NSW, QLD (2016-18) WA (2018)**

**Population of exemplary educators**
- Defined as educators working in exemplary centres:
- All centres that achieved Exceeding or above on NQS ratings for ALL Quality Areas
- Total of 256 centres identified by ACECQA in 2015 + top-up in 2017

**Recruitment strategy**
- Email invitation, phone and email follow-up, online support
- Newsletters, blog, professional sites

**Random Time Use Diary**
- >270 sites, 300-500 educators,
- >5,000 work hours

**Focus Groups**
- 168 educators: Cert III, Diploma, Degree, Directors

**Case Studies**
- 36 educators
- 12 sites
Population of centres meeting selection criteria

Red and green = all centres
Green = consenting centres

QLD N = 85
23 consenting centres (27.1%)
62 no response/refuse
Red and green = all centres
Green = consenting centres

NSW N = 151
43 consenting centres (28.5%)
108 no response/refuse
Random Time Use Diary Smartphone ‘app’

 Participating educators are asked to record 20 work hours randomly sampled over ten working days via a time-use smartphone ‘app’ downloaded to their phone. Notification ‘beeps’ arrive twice daily between 7am and 7pm. Educators can select ‘not a work day’ to stop these notifications. Otherwise, they can respond to the app immediately or at a convenient time. 2 reminder beeps are sent.

 Educators enter data in 6-minute time blocks for the previous hour in response to a set of questions that provide pre-coded response options.

 What activities was the educator engaged in: 10 Primary Codes: intentional teaching, being with children, routine care/transitions, emotional support, family communication, organise room/OH&S/maintenance, plan/assess/evaluate, administration, staff professional development, staff personal time (breaks)

 What specific activities (4-10 Secondary Codes per Primary Code) were done?

 What other primary/secondary activities was the educator engaged in during this time?
Sample Characteristics (as of June 2018)

Number of educators who submitted TUD diary data = 205
• Female = 195
• Male = 4
• Not specified = 6

Workplace of these educators
• 43.3% work in a Preschool
• 56.7% work in a Long day care centre

Qualifications of these educators
• Certificate = 56  (27.3%)
• Diploma = 66  (32.2%)
• 3-year Bachelor = 29
• 4-year Bachelor = 48  (40.5%)
• Masters/Doctorate = 7
TUD data (as of July 2018):
3,084 hours of data analysed in 15 minute intervals = 12,335 blocks of time
When did participating educators enter their TUD data?
Some results so far ........

- What data were entered by educators at what time of day?
  - Graphed entries for Time of day by Primary activities

- All primary activities were reported by educators, but most of their time was spent in activities with children
  - Intentional teaching (green)
  - Being with children (pale brown)
  - Routine care/transition (maroon)

- When are educators more likely to be engaged in these primary activities?
  - Graph based on the percent of educators who entered data for each time period
Tempograms: the percentages of respondents doing an activity in a given 15 minute period.

- When are educators engaged in the 5 most frequent primary activities?
  - Graph based on the percent of educators who entered data for each time period
    - Being with children (dark blue line)
    - Intentional teaching (pale blue line)
    - Routine care/transition (orange line)
    - Organise room/OH&S/ maintenance (grey line)
    - Family communication (yellow line)

Look for the patterns of ups and downs in the graph
  - when are educators spending more or less of their time engaged in each activity?

Look for any steady patterns over the day

Do these graphs reflect your working day?

What do you think might explain the changes in work patterns?
Percent of persons recording an activity in interval

- Intentional teaching
- Routine care transition
- Organise room and maintenance
- Family communication
- Being with children

Time:
- 7am
- 8am
- 9am
- 10am
- 11am
- 12pm
- 1pm
- 2pm
- 3pm
- 4pm
- 5pm
- 6pm
- 7pm
Across the working day, how much of their time do educators spend in each of the 10 primary activities?

- Graph based on the percent of educators who entered data for each time period
  - Staff development (top of the graph – mauve)
  - Administration (pale green)
  - Planning, assess, evaluation (bright pink)
  - Emotional support for children or other educators (grey)
  - Staff personal time (orange/brown)
  - Being with children (teal blue)
  - Family communication (purple)
  - Organise room/OH&S/ maintenance (green)
  - Routine care/transition (red)
  - Intentional teaching (blue)

Look for the patterns of ups and downs in the graph
- when are educators spending more or less of their time engaged in each activity?

Look for any steady patterns over the day
8am
9am
10am
11am
12pm
1pm
2pm
3pm
4pm
5pm
6pm
7pm

Time of day

Staff development
Administration
Planning
Emotional support
Staff personal time
Being with children
Family communication
Organise room and maintenance
Routine care transition
Intentional teaching
How do educators feel about their work activities

At the end of each hour of data entry, educators are asked to respond to 4 questions:

- how rushed did you feel during the past hour?
- how satisfied did you feel?
- how stressed did you feel?
- were different things demanded of you during this hour?

Response ratings are entered from 1 = low to 10 = high
Results so far …

• Overall ratings of feeling satisfied were high; average rating = 7.15
• Overall ratings of feeling stressed were low; average rating = 3.51
• Overall ratings of feeling rushed were low; average rating = 3.45
• Do these ratings vary by time of day?
Feeling Satisfied 1 (low) to 10 (high)

Hour of the day, 24 hr clock

- Numerical self-rated task satisfaction 1.00
- Numerical self-rated task satisfaction 2.00
- Numerical self-rated task satisfaction 3.00
- Numerical self-rated task satisfaction 4.00
- Numerical self-rated task satisfaction 5.00
- Numerical self-rated task satisfaction 6.00
- Numerical self-rated task satisfaction 7.00
- Numerical self-rated task satisfaction 8.00
- Numerical self-rated task satisfaction 9.00
- Numerical self-rated task satisfaction 10.00
Feeling Stressed 1 (low) to 10 (high)

Hour of the day, 24 hr clock

- Numerical self-rated experience of stress 1.00
- Numerical self-rated experience of stress 2.00
- Numerical self-rated experience of stress 3.00
- Numerical self-rated experience of stress 4.00
- Numerical self-rated experience of stress 5.00
- Numerical self-rated experience of stress 6.00
- Numerical self-rated experience of stress 7.00
- Numerical self-rated experience of stress 8.00
- Numerical self-rated experience of stress 9.00
- Numerical self-rated experience of stress 10.00
Next steps: investigating feelings of being rushed, stressed and satisfied

What work activities are educators doing in the hours they rate as highly stressed or highly satisfied?
- Consider type of activity (with children? Other activities?)
- Consider range of different types of activity – changeability of work tasks
- Consider multi-tasking

Do ratings of stress and satisfaction differ by workplace?
Or by qualification?
Or by years of experience?
Your thoughts?

Your questions?
Next steps:
The RTS TUD data collection has been extended to include all eligible centres in all states/territories of Australia. To date, just over 550 early childhood education and care services across Australia to participate in data collection from the RTSTUD app. Data collection closes Nov 30.

A collaboration with University of Waikato, NZ means that RTS TUD data will also be collected from educators across the ditch...

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