

Multimedia Appendix 1: questionnaire items created or modified for study

Organisational support program evaluation questions	Response options	Source
How many Stand Up, Sit Less, Move More emails do you recall receiving from [the Head of Workplace Wellbeing] over the duration of the ‘Stand Up Lend Lease’ program?	0-7 (indicates total number of emails)	Q 3M
When you received a Stand Up, Sit Less, Move More email from [the Head of Workplace Wellbeing] what did you normally do with it?	1 = Read it then delete it 2 = Read it then store it to look at later 3 = Leave it and not read it 4 = Delete it without reading it	Q 3M
How supportive were the following parties at supporting you to Stand Up, Sit Less or Move More?	1 = Not supportive 2 = Somewhat supportive 3 = Not sure 4 = Supportive 5 = Extremely supportive	Q 3M, 12M
<ul style="list-style-type: none"> • your organisation? • your main manager? • your colleagues? 		
<i>*limited to the past 6 months for 12 month Q</i>		
How useful were the Stand Up, Sit Less, Move More emails and tips for helping you to:	1 = Not at all useful 2 = Somewhat useful 3 = Not sure 4 = Useful 5 = Extremely useful	Q 3M
<ul style="list-style-type: none"> • reduce your sitting • increase your sit to stand transitions or "Stand Ups" • increase your standing • increase your step count • increase your incidental activity • increase your moderate to vigorous physical activity 		
Overall, how would you rate your satisfaction with the Stand Up, Sit Less, Move More emails and information you received?	1 = Not at all satisfied 2 = Somewhat satisfied 3 = Not sure 4 = Satisfied 5 = Extremely satisfied	Q 3M
Overall, how would you rate your satisfaction with	Free text	Q 3M

the Stand Up, Sit Less, Move More emails and information you received?

Have you experienced any discomfort or injury as a result of your study participation? 1 = Yes Q 3M,
2 = No 12M

Have you experienced any discomfort or injury as a result of your study participation? Free text Q 3M,
12M

Are there any other comments you would like to make about the 'Stand Up Lend Lease' program? Free text Q 3M,
12M

Q = questionnaire; 3M = 3-month assessment; 12M = 12-month assessment

LUMObacK evaluation questions	Response options	Source
Have you ever used a LUMObacK posture sensor device?	1 = Yes 2 = No 3 = Given, but never used (asked at 3-months only)	Q BL, 3M, 12M
When did you first start using the LUMObacK posture sensor device?	date	Q BL, 3M, 12M
Please describe your usage of the LUMObacK device in the past 6 months.	1 = Have worn in the past week 2 = Have worn in the past month, but not in the past week 3 = Have worn in the past 6 months, but not in the past month 4 = Not worn in the past 6 months	Q 12M
Did you ever wear your LUMObacK:	1 = Yes 2 = No 3 = Not applicable [(2) only]	Q 3M
<ul style="list-style-type: none"> • (1) at a Lend Lease workplace (includes your usual office and other Lend Lease sites)? • (2) while working for Lend Lease from locations other than a Lend Lease workplace (such as from home or at an external conference)? • (3) outside of work (e.g., commuting or in your leisure time)? 		
Thinking about when you wore your LUMObacK, how often did you wear your LUMObacK:	1 = Rarely 2 = Sometimes 3 = Often	Q 3M
<ul style="list-style-type: none"> • while at a Lend Lease workplace (includes your usual office and other Lend Lease sites)? • while working for Lend Lease from locations other than a Lend Lease workplace (such as from home or at an external conference)? • outside of work? 		
What phone or device did you use the LUMObacK with?	1 = iPhone 2 = iPad 3 = Android phone 4 = N/A never set up LUMObacK with phone or device	Q 3M

	5 = other	
On days when you wore your LUMObacK, how often did you check the LUMObacK app on average?	1 = More than 10 times per day	Q 3M, 12M
<i>*limited to the past 6 months for 12 month Q</i>	2 = 5-10 times per day	
	3 = 2-4 times per day	
	4 = Once per day	
	5 = Less than once a day	
	6 = Never	
When using the LUMObacK app, how often did you notice or check your goals? [goals include those set by you or the default goals created by LUMObacK]	1 = Never	Q 3M, 12M
<i>*limited to the past 6 months for 12 month Q</i>	2 = Rarely	
	3 = Sometimes	
	4 = Often	
	5 = Very often	
	6 = All the time	
When wearing your LUMObacK, how often did you re-calibrate the LUMObacK device?	1 = Never	Q 3M
	2 = Rarely	
	3 = Sometimes	
	4 = Often	
	5 = Very often	
When wearing your LUMObacK, how often did you: have it set to vibrate	1 = Never	Q 3M, 12M
<i>*limited to the past 6 months for 12 month Q</i>	2 = Rarely	
	3 = Sometimes	
	4 = Often	
	5 = Very often	
	6 = All the time	
When wearing your LUMObacK, how often did you: have a sitting alert notification enabled	1 = Never	Q 3M, 12M
<i>*limited to the past 6 months for 12 month Q</i>	2 = Rarely	
	3 = Sometimes	
	4 = Often	
	5 = Very often	
	6 = All the time	
When you used the vibration feature did you mostly set the LUMObacK to:	1 = Pulse	Q 3M
<ul style="list-style-type: none"> • pulse: the sensor buzzes gently until you move 	2 = Buzz once	

<p>into good posture</p> <ul style="list-style-type: none"> • or to buzz once: the sensor vibrates once, each time you move into bad posture? 	<p>3 = I used a combination</p> <p>4 = Not sure</p>	
<p>When you used the sitting alert notification did you mostly set it to alert every:</p>	<p>1 = 15 mins</p> <p>2 = 30 mins</p> <p>3 = 45 mins</p> <p>4 = 1 hr</p> <p>5 = 2 hrs</p>	<p>Q 3M</p>
<p>What learning videos did you watch in the app? (Please select all that apply)</p>	<p>Sitting Posture</p> <p>Standing Posture</p> <p>Chest Stretch</p> <p>Pec Stretch</p> <p>Desk Prone Stretch</p> <p>Pivot Prone Stretch</p> <p>Cervical AROM Retraction</p> <p>Did not watch any learning videos</p>	<p>Q 3M</p>
<p>How comfortable was the LUMObac device to wear?</p>	<p>1 = Not at all comfortable</p> <p>2 = Somewhat comfortable</p> <p>3 = Not sure</p> <p>4 = Comfortable</p> <p>5 = Extremely comfortable</p>	<p>Q 3M</p>
<p>How easy was it to:</p> <ul style="list-style-type: none"> • set up the LUMObac device and app • use and navigate the LUMObac app • calibrate the LUMObac device 	<p>1 = Not at all easy</p> <p>2 = Somewhat easy</p> <p>3 = Not sure</p> <p>4 = Easy</p> <p>5 = Extremely easy</p>	<p>Q 3M</p>
<p>How useful were the LUMObac and the LUMObac app for helping you to:</p> <ul style="list-style-type: none"> • reduce your sitting • increase your sit to stand transitions or "Stand Ups" • increase your standing 	<p>1 = Not at all useful</p> <p>2 = Somewhat useful</p> <p>3 = Not sure</p> <p>4 = Useful</p> <p>5 = Extremely useful</p>	<p>Q 3M</p>

- increase your step count
- improve your posture
- improve your sleep
- increase your incidental activity
- increase your moderate to vigorous physical activity

How useful were the vibrations for: 1 = Not at all useful Q 3M

- reducing your sitting 2 = Somewhat useful
 - making you aware of your posture 3 = Not sure
 - motivating you to improve your posture 4 = Useful
- 5 = Extremely useful

How useful were the sitting alerts for: 1 = Not at all useful Q 3M

- making you aware of your sitting 2 = Somewhat useful
 - motivating you to reduce your sitting 3 = Not sure
 - motivating you to increase your sit to stand transitions or "Stand Ups" 4 = Useful
- 5 = Extremely useful

In the LUMOback app, how useful was the stick figure avatar at helping you to: 1 = Not at all useful Q 3M

- correct your posture 2 = Somewhat useful
 - reduce your sitting 3 = Not sure
- 4 = Useful
- 5 = Extremely useful
- 6 = Did not notice/use

In the LUMOback app, how useful were the goals for helping you to: 1 = Not at all useful Q 3M

- reduce your sitting 2 = Somewhat useful
 - increase your sit to stand transitions or "Stand Ups" 3 = Not sure
 - increase your step count 4 = Useful
 - improve your posture 5 = Extremely useful
- 6 = Did not notice/use

How satisfied did you feel when achieving either your own or the LUMOback goal? 1 = Not at all satisfied Q 3M

- 2 = Somewhat satisfied
- 3 = Not sure
- 4 = Satisfied

	5 = Extremely satisfied	
	6 = N/A never achieved any goals	
How useful were your LUMObacK graphs and results for making you aware of your:	1 = Not at all useful	Q 3M
<ul style="list-style-type: none"> • sitting • sit to stand transitions or "Stand Ups" • standing • step count • posture 	2 = Somewhat useful	
	3 = Not sure	
	4 = Useful	
	5 = Extremely useful	
	6 = Did not notice/use	
How motivating were your LUMObacK graphs and results for:	1 = Not at all motivating	Q 3M
<ul style="list-style-type: none"> • reducing your sitting • increasing your sit to stand transitions or "Stand Ups" • increasing your standing • increasing your step count • improving your posture 	2 = Somewhat motivating	
	3 = Not sure	
	4 = Motivating	
	5 = Extremely motivating	
	6 = Did not notice/use	
When wearing your LUMObacK how often did you:	1 = Never	Q 3M
<ul style="list-style-type: none"> • share or compare your LUMObacK graphs and results with your co-workers? • share your LUMObacK graphs and results with your family or friends? 	2 = Rarely	
	3 = Sometimes	
	4 = Often	
	5 = Very often	
How likely do you see yourself using the LUMObacK in the next 6 months?	1 = Very unlikely	Q 3M, 12M
	2 = Unlikely	
	3 = Not sure	
	4 = Likely	
	5 = Very likely	
Would you recommend the LUMObacK to a friend?	1 = Yes	Q 3M
	2 = No	
Did you have any adverse experiences from using the LUMObacK?	1 = Yes	Q 3M, 12M
	2 = No	
Did you have any adverse experiences from using the LUMObacK?	Text	Q 3M, 12M

Are there any other comments you would like to make about the LUMObacK and/or the LUMObacK app? Text

Q 3M,
12M

Q = questionnaire; BL = baseline; 3M = 3-month assessment; 12M = 12-month assessment

Workplace strategy use	Response options	Source
In the past month I have:	1 = Never	Q BL, 3M, 12M
<ul style="list-style-type: none"> • stood up during a meeting • stood up when talking on the phone • walked to talk to a colleague rather than sending them an email or phoning • walked to the printer that is further away from my office • walked to the bathroom that is further away from my office • walked to a centrally located bin instead of using my own bin • attended a meeting where the chairperson indicated that it was acceptable to stand • noticed signage around the office to encourage standing up, sitting less and moving more • used prompts at my desk (such as postcards and stickers) to remind me to stand up regularly • used computer break software or computer prompts to remind me to stand up regularly • eaten my lunch away from my desk • used the stairs instead of taking the lift • cycled to work • walked to work • gone for a walk during my lunch break • had a walking meeting • walked laps of the office to increase my movement • participated in group physical activity sessions during work hours 	2 = Rarely	
	3 = Sometimes	
	4 = Often	
	5 = Very often	

Q = questionnaire; BL = baseline; 3M = 3-month assessment; 12M = 12-month assessment

Technology questions	Response options	Source
Q1 What technology do you own or have daily access to?	Multiple choice of: <ul style="list-style-type: none"> • Smartphone • iPad or tablet • Laptop or Personal Computer • None of these 	Q BL, 3M
Q2 How confident are you with a smartphone? <i>*Only asked this question if the following conditions are met:</i> <i>Answer was at question 1 'smartphone'</i>	1 = Not at all confident 2 = Slightly confident 3 = Confident 4 = Very confident 5 = Extremely confident	Q BL, 3M
Q3 How confident are you with an iPad or tablet? <i>*Only asked this question if the following conditions are met:</i> <i>Answer was at question 1 'iPad or tablet'</i>	1 = Not at all confident 2 = Slightly confident 3 = Confident 4 = Very confident 5 = Extremely confident	Q BL, 3M
Q4 How confident are you with a laptop or personal computer? <i>*Only asked this question if the following conditions are met:</i> <i>Answer was at question 1 'laptop or personal computer'</i>	1 = Not at all confident 2 = Slightly confident 3 = Confident 4 = Very confident 5 = Extremely confident	Q BL, 3M
Q5 Have you used any other apps or wearable devices to help you be more active?	1 = Yes 2 = No	Q BL, 3M, 12M
Q6 Please list all the apps and devices you have used to be more active:	text	Q BL, 3M, 12M

Q = questionnaire; BL = baseline; 3M = 3-month assessment; 12M = 12-month assessment

Musculoskeletal items	Response options	Source
Q1 Have you at any time during the LAST 1 MONTH had trouble (such as ache, pain, discomfort, numbness) in [body part]? (if yes asked Qs 2-4)	1 = No 2 = Yes	Q BL, 3M, 12M
Q2 How many days have you had trouble in your [body part] during the last 1 month?	1 = 0 days 2 = 1-7 days 3 = 8-30 days 4 = everyday	Q BL, 3M, 12M
Q3 On average, how intense was your pain in your [body part] during the last 1 month on a 0-9 scale? (where 0 means no complaints and 9 means pain as bad as it can be)	0-9 scale	Q BL, 3M, 12M
Q4 Have you during the last 1 month been prevented from carrying out normal activities (e.g. job, housework, hobbies) because of trouble from your [body part]?	1 = No 2 = Yes	Q BL, 3M, 12M
Asked for each body part including: Neck, shoulders, elbows, wrists/hands, upper back, lower back (small of back), one or both hips/thighs/buttocks, one or both knees, one or both ankles/feet		
For shoulders, elbows and wrists/hands Q1 is instead:	1 = No 2 = Yes, but only in the right side 3 = Yes, but only in the left side 4 = Yes, in both sides	