

Supplemental Table 1. Reason pattern scores and communication skills on the Communication Matrix

Participant ID	Reason pattern score*	Refuse	Obtain	Social
1	29:10:7:0	Arm movements Change in posture Coo Cry Fuss Grunt Grimace Head movements Limb movements Scream Smile Squeal Whine	Change in posture Coo Head movements Look at person Smile Squeal	Change in posture Coo Fuss Limb movements Smile
2	29:10:7:0	Arm movements Change in posture Close mouth Cry Grunt Head movements Limb movements Scream	Change in posture Coo Giggle Open and close mouth Smile Squeal	Coo Fuss Smile Squeal
3	14:3:4:0	Cry Grunt Head movements Limb movements Scream	Smile	Smile
4	43:10:14:0	Arm movements Change in posture Frown	Change in posture Coo Fuss	Arm/hand movements Change in posture Coo

Morison, L.D., Summerfield, N., Bradley, D., van Bon, B.W., Morgan, A.T. Schinzel-Giedion syndrome: Communication, feeding and motor skills in 16 individuals.

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		Fuss Grimace Head movements Limb movements Scream Whine	Head movements Leg movements Limb movements Smile Squeal	Fuss Limb movements Looks at you Reaches foot towards you Smile Squeal Touches you
5	14:3:4:0	Change in posture Cry Grimace Grunt Limb movements Scream	Change in posture Coo Squeal	Change in posture Eyes search for person
6	29:10:7:0	Arm movements Change in posture Close eyes Cry Fuss Grimace Grunt Head movements Leg movements Limb movements Scream Whine	Arm movements Change in posture Head movements Look at desired item Look at person Smile	Smile Turn head Wriggle
7	29:10:7:0	Arm movements Change in posture Cry Frown Fuss Grimace Grunt Head movements	Approaches desired object Arm movements Bangs Table Change in posture Claps Comes to you Coo Head movements	Approaches people Head banging Head movement Smile

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		Leg movements Limb movements Move away from person or object Scream Whine	Holds hand Limb movements Look at person Looks at desired item PECS block for 'more' Rocks Smile Squeal Takes desired item	
8	29:3:7:0	Change in posture Cry Fuss Grunt Head movements Leg movements Limb movements Scream Whine	Change in posture Coo Limb movements Squeal	Coo Fuss Squeal
9	43:10:14:0	Change in posture Cry Grunt Head movements Leg movements Limb movements Scream	Change in posture Coo Head movements Leg movements Limb movements Squeal Touches	Coo Fuss Limb movements Squeal Touches Turns head
10	14:3:4:0	Cry Grunt Head movements Limb movements Scream	Coo Holds finger Less crying Limb movements Squeal	Change in posture
11	29:6:7:0	Change in posture Cry Frown	Arm movements Change in posture Facial expression	Change in posture Coo

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		Fuss Grimace Grunt Leg movements Limb movements Scream Spits out food Whine		Fuss Squeal
12	43:19:14:0	Arm or hand movements Frown Fuss Grimace Head movement Head movements Scream Whine Whole body movement	Activates switch to turn on toy piano Approaches desired object Arm/hand movements Coo Fuss Head movement Head movements Leg movement Leg movements Moves head towards desired item Reaches towards, touches or taps desired item (without taking it) Squeal Whole body movement (bounce up and down) Whole body movement (lunge at object)	Arm/hand movements Coo Fuss Smile Squishes parents hands with her fingers if they put their hand in her fist. Expression is relaxed. Squeal
13	29:6:7:0	Arm movements Change in posture Cry Frown Fuss	Arm movement Change in posture Coo Head movements Reach	Coo Facial expression Fuss Squeal Smile

		Grimace Grunt Head movements Scream Spits out food Whine	Squeal Smile	
14	43:10:10:0	Change in posture Cry Fuss Grimace Grunt Head movements Limb movements Scream Stiffens Vocalisations Whine	Change in posture Coo Facial expression Head movements Limb movements Look at person Looks at desired object Quiet Squeal Smile	Change in posture Coo Laugh Looks at you Squeal Turn head
15	43:19:14:0	Close eyes Leg movement Whole body movement	Arm/hand movements Looks at desired object Tried to press button on toys	Coo Giggles Head movement Head and leg movements Smile Smiles Squeal Vocalises
16	29:3:3:0	Arm movements Change in posture Cry Fuss Grimace Grunt Head movements	Change in posture Facial expression	Change in posture Coo Fuss

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		Limb movements Scream		
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* = Reason pattern score as measured by the Communication Matrix, percent skills mastered across four reasons to communication
refuse:obtain:social:information