Appendix

The names of 40 actions categories in English and Chinese. Actions marked with \star mean the action adopt standing posture and sitting posture, rest of them only adopt standing posture. Table 1. 40 action categories

0	1 abie1. 40 act	2	3
	原地踏步提膝	开合跳	 遊伏
punching and knee	marking time and	jumping jack	
lifting	knee lifting	Juliipilig Jack	squatting
4	5	6	7
前弓步	侧弓步	体侧运动	
forward lunging	left lunging	left stretching	raising hand and
8	0	10	jumping 11*
	9 ## 白 # 至	10	
侧踢腿	转身拍手	交替前平举	拉臂力器
left kicking	rotation clapping	front raising	pulling chest
42*	42*	4.4*	expanders
12*	13*	14*	15*
直拳击打	手腕旋转	单哑铃前平举	提肩
Punching	wrist circling	single dumbbell	shoulder raising
4.5*	47*	raising	40*
16*	17*	18*	19*
肘部画圈	单臂哑铃推肩	手臂画圈	哑铃耸肩
elbow circling	dumbbell one-arm	arm circling	dumbbell shrugging
20*	shoulder pressing	22	22*
20*	21*	22	23*
夹背	头部逆时针画圈	肩外展运动	三角肌拉伸
pinching back	head anticlockwise	shoulder abduction	deltoid muscle
	circling		stretching
24	25*	26	27
直立体前屈	25* 脊柱伸展	哑铃侧弯	27 站姿肘膝转体
直立体前屈 straight forward	25*		27 站姿肘膝转体 standing opposite
直立体前屈	25* 脊柱伸展	哑铃侧弯	27 站姿肘膝转体 standing opposite elbow-to-knee
直立体前屈 straight forward flexion	25* 脊柱伸展 spinal stretching	哑铃侧弯 dumbbell side bend	27 站姿肘膝转体 standing opposite elbow-to-knee crunch
直立体前屈 straight forward flexion 28	25* 脊柱伸展 spinal stretching 29*	哑铃侧弯 dumbbell side bend 30*	27 站姿肘膝转体 standing opposite elbow-to-knee crunch 31
直立体前屈 straight forward flexion 28 站姿转体	25* 脊柱伸展 spinal stretching 29* 过头拉伸	哑铃侧弯 dumbbell side bend 30* 上背伸展	27 站姿肘膝转体 standing opposite elbow-to-knee crunch 31 膝贴胸拉伸
直立体前屈 straight forward flexion 28 站姿转体 standing rotation	25* 脊柱伸展 spinal stretching 29* 过头拉伸 overhead stretching	哑铃侧弯 dumbbell side bend 30* 上背伸展 upper back stretching	27 站姿肘膝转体 standing opposite elbow-to-knee crunch 31 膝贴胸拉伸 knee to chest
直立体前屈 straight forward flexion 28 站姿转体 standing rotation 32	25* 脊柱伸展 spinal stretching 29* 过头拉伸 overhead stretching 33	哑铃侧弯 dumbbell side bend 30* 上背伸展 upper back stretching 34	27 站姿肘膝转体 standing opposite elbow-to-knee crunch 31 膝贴胸拉伸 knee to chest 35
直立体前屈 straight forward flexion 28 站姿转体 standing rotation 32 膝关节绕环	25* 脊柱伸展 spinal stretching 29* 过头拉伸 overhead stretching 33 交替提膝	哑铃侧弯 dumbbell side bend 30* 上背伸展 upper back stretching 34 体前屈转体	27 站姿肘膝转体 standing opposite elbow-to-knee crunch 31 膝贴胸拉伸 knee to chest 35 跳绳
直立体前屈 straight forward flexion 28 站姿转体 standing rotation 32 膝关节绕环 knee circling	25* 脊柱伸展 spinal stretching 29* 过头拉伸 overhead stretching 33 交替提膝 alternate knee lifting	哑铃侧弯 dumbbell side bend 30* 上背伸展 upper back stretching 34 体前屈转体 bent over twist	27
直立体前屈 straight forward flexion 28 站姿转体 standing rotation 32 膝关节绕环 knee circling 36	25* 脊柱伸展 spinal stretching 29* 过头拉伸 overhead stretching 33 交替提膝 alternate knee lifting 37	哑铃侧弯 dumbbell side bend 30* 上背伸展 upper back stretching 34 体前屈转体 bent over twist 38	27
直立体前屈 straight forward flexion 28 站姿转体 standing rotation 32 膝关节绕环 knee circling 36 站立触脚趾	25* 脊柱伸展 spinal stretching 29* 过头拉伸 overhead stretching 33 交替提膝 alternate knee lifting 37 腓肠肌拉伸	哑铃侧弯 dumbbell side bend 30* 上背伸展 upper back stretching 34 体前屈转体 bent over twist 38 单腿侧跳	27
直立体前屈 straight forward flexion 28 站姿转体 standing rotation 32 膝关节绕环 knee circling 36	25* 脊柱伸展 spinal stretching 29* 过头拉伸 overhead stretching 33 交替提膝 alternate knee lifting 37	哑铃侧弯 dumbbell side bend 30* 上背伸展 upper back stretching 34 体前屈转体 bent over twist 38	27

	Stretch				
Table 2. Actions and persons in the second capture setting					

Table 2. Actions and persons in the second capture setting

Person ID	Action ID	Person ID	Action ID
NO.02	NO.10-NO.39	NO.03	NO.10-NO.39
NO.04	NO.10-NO.39	NO.06	NO.10-NO.39
NO.09	NO.10-NO.39	NO.35	NO.10-NO.39
NO.41	NO.11,12,13,14,15,16,17,18,19,20,21,23,25,29,30		
NO.53	NO.11,12,13,14,15,16,17,18,19,20,21,23,25,29,30		

Table 3. Actions and persons in the third capture setting

Person ID	Action ID	Person ID	Action ID	
NO.19	NO.10-39	NO.20	NO.10-39	
NO.42	NO.10-39			
Person ID		Action ID		
NO.43 44 45 46 47 48 49 50 51 52		*NO.11 12 13 14 15 16 17 18 19 20 21 23 25 29 30		
NO.56 59 62 65 68 71 74 77 80 83 86 89 92 95		NO.10 22 24 26 27 28 31 32 33 34		
NO.54 57 60 63 66 69 72 75 78 81 84 87 90 93		NO.10 22 24 26 27 35 36 37 38 39		
97				
NO.55 58 61 64 67 70 73 76 79 82 85 88 91 94		NO.28 31 32 33 34 35 36 37 38 39		
97				
NO.98 63 101 61 105		*NO.11 12 13 14 15 16 17 18 19 20		
NO.99 74 102 103 67		*NO.11 12 13 14 15 21 23 25 29 30		
NO.100 93 95 104 55		*NO.16 17 18 19 20 21 23 25 29 30		
NO.106 78 107 108 109)	NO.11 12 13 14 15 16 17 18 19 20		
NO.110 111 112 113 11	L4	NO.11 12 13 14 15 21 23 25 29 30		
NO.56 115 116 117 118	3	NO.16 17 18 19 20 21 23 25 29 30		