

QMD OF CATCHING

The fundamental pattern of catching is a good movement to use to illustrate several important points about an integrated QMD. QMD of this movement can be fine-tuned to apply to other specific catching skills. QMD of catching is somewhat simplified because the goal or mechanical purpose of catching is clear and easy to evaluate. This, combined with an understanding of the sequential nature of the movement, makes the diagnosis of performance within QMD easier than for other movements with complex objectives and contextual factors.

Critical Features

Several authors have reported models for the QMD of catching (Jones-Morton, 1991b; Kelly, Reuschlein, and Haubenstricker, 1989; Morrison and Harrison, 1985). The majority of the technique points mentioned by these authors can be summarized in terms of the four critical features of catching in table 9.2, listed roughly in order of their occurrence in catching.

Table 9.2 Critical Features and Cues for Catching

Critical features	Cues
Readiness, visual focus	Watch the ball
Intercept	Move to meet the ball; reach for the ball
Hand position	Thumbs in or out, fingers up or down
Ball momentum absorption	Give with the ball; retract hands and arms

Systematic Observational Strategy

A systematic observational strategy (SOS) for QMD of live or videotaped catching performances is based on the sequence or phases of the catching movement. Teachers should first observe the performer's state of readiness and attention to the object being caught. Next, observation focuses on the motion of the body and arms to intercept the object. The final two critical features to observe are the position of the hands and how the body, arms, and hands give to dissipate the motion energy of the object.

Subject 1

Figure 9.1 illustrates the performance of a child catching a foam ball. You may want to extend your observation by viewing the video clip of Catching, Subject 1 in QMD Practice 9.1 in the web resource at www.HumanKinetics.com/QualitativeDiagnosisOfHumanMovement. Use the critical features in table 9.2 to perform an integrated QMD of the movement illustrated before you read the following suggested QMD.

The subject has a typical immature catching pattern that is transitioning from trapping the ball against his body with some head turn, indicating apprehension, to using his hands proactively to catch. It looks as if his attention had been focused on the ball and he did not have to move to intercept the ball. His arms have limited

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Figure 9.1 Sequence images of a child catching a foam ball. What would be the best intervention to help this child improve his catching ability? Time between pictures is 0.17 seconds.

Subject 2

Figure 9.2 illustrates an attempt to catch a football by a child playing catch. Perform an integrated QMD of this performance. (Assume that several trials showed similar strengths and weaknesses.) This child and his partner are passing the ball directly to each other from a moderate distance. You can extend your observation by viewing the video clip of Catching, Subject 2 in QMD Practice 9.2 in the web resource at www.HumanKinetics.com/QualitativeDiagnosisOfHumanMovement.

This boy exhibits several strengths and weaknesses in this attempt to catch a pass. He tries to give with his arms to absorb the energy of the ball, and he has good hand positioning for a reception point that is right between the approximate height of desirable “thumbs in” and a “thumbs-out” technique. Weaknesses have to do with attention (possible inattention), visual focus, and moving to intercept the ball. Notice that he flexes at the hips and reaches late to receive the ball, when a forward step and bending in all lower extremity joints would improve the ability to absorb

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Figure 9.2 Sequence images of a child catching a football pass. What is the appropriate intervention in this case? Time between pictures is 0.17 seconds.

forward reach for intercepting the ball. Intervention could reinforce success to build confidence and then follow up with feedback to improve either hand positioning or reaching to intercept the ball earlier. Providing feedback about giving with the arms is inappropriate if the subject cannot first move the arms forward to intercept the ball in a position that allows him to “give with the ball.” A good intervention if subsequent catching movements were similar might be “Good job! On the next try, watch the ball closely and try to move your hands forward to reach the ball earlier” or “Guess where the ball will be and move your hands there early.” Is there any additional information that would improve the diagnosis and intervention? Do you think it would be useful to observe additional trials or change the catching conditions? How would the technique be different if the ball was a softball rather than a foam ball?



the energy of the ball. If several trials showed similar technique and dropped balls, an intervention strategy might include task modification to see if visual acuity or attention contributes to poor interceptive skills and success. If the boy successfully catches easier passes, it is unlikely that visual acuity and readiness are weaknesses that require intervention.

It would be good feedback for this performer to praise his effort and attempts to give with the arms and absorb the motion energy of the ball. The professional could then use an indirect style of teaching and ask, “Does the ball sometimes bounce out of your grasp? What catching cues have we discussed that would help you?” Direct or indirect, the next intervention would likely be to encourage greater whole-body motion to intercept the ball. Encouraging proactive reaching to intercept the ball early to increase the time and space available to absorb the energy of the ball would be desirable. Remember, one can “sandwich” feedback like this with performer strengths to focus on a weakness and still reinforce strengths and motivation. How might you use this strategy in this case?

