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Commentary on 'Video-modelling as an effective solution for coaching carers of autistic adults'. Building skills; that should be our priority.

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Commentary on ‘Video-modelling as an effective solution for coaching carers of autistic adults’: Building skills should be the next step.

This study used a video modelling procedure to train three support workers working with adults with severe intellectual disability who exhibited behaviour described as challenging. The focus of the training was on how to best support their clients to brush their teeth. The study produced positive results, which is particularly important, considering that the support workers had no background in applied behaviour analysis or positive behaviour support. What is more, family members reported high levels of satisfaction with the results of the study. In this commentary, I will discuss the importance of skills development from the lens of behaviour analysis. My analysis will be based on the study by Cohen and McGill (2020) who demonstrated the impact of training staff members to utilise evidence-based tactics, when supporting people to develop their skills. Finally, I will discuss both the practical and conceptual implications of this study.

Video Modelling

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4 Video modelling has been utilised for years with significant success for training
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7 students and adults with intellectual and other developmental disabilities. It has been
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10 applied in various areas such as perspective-taking (Charlop-Christy and Daneshvar,
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13 2003), language development (D'Ateno *et al.*, 2003), social skills (Nikopoulos and
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16 Keenan, 2003), daily living skills (Shiple-Beauchamp *et al.*, 2002), and even fire safety
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19 procedures (Mechling *et al.*, 2009). Video modelling has also been used within
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22 behavioural skills training (Kirkpatrick *et al.*, 2019) to improve the fidelity of
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25 behavioural interventions (Digennaro-Reed *et al.*, 2010), and train staff in areas such
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28 as discrete trial training (Catania *et al.*, 2009; Vladescu *et al.*, 2012), functional
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31 analysis (Iwata *et al.*, 2000), and graph construction (Tyner and Fienup, 2015).
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35 Years of research around video modelling have led to it being classified as an
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38 evidence-based instructional practice (Bellini and Akullian, 2007). Simply put, video
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41 modelling works, and this study adds more evidence on its effectiveness as an
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44 instructional procedure.
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52 Daily Living Skills

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55 The authors utilised video modelling to help produce improvements-indirectly- in
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58 a particularly important daily-living skill (i.e., toothbrushing). To this day, people with
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3 intellectual and developmental disabilities are reported to have poor oral health
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7 (Wilson *et al.*, 2019). This is particularly troublesome considering our understanding
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10 of oral hygiene and its relation to oral health. What is more, toothbrushing is one of
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13 many daily living skills that adults with disabilities are expected to engage in
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16 independently. That is why it is essential that the support provided is of appropriate
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19 quality, and based on the most recent evidence. Unfortunately, what is typically
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21
22 observed in services is adults who are dependent on their support workers even for
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24
25 the simplest of activities. This phenomenon is relevant for various daily-living skills
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28 such as washing their clothes, hoovering, showering, or preparing a meal. The over-
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31 reliance on staff members is typically attributed to the individuals' lack of skills. By
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33
34 doing so, however, the root cause is left unexamined.
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41 42 **Activities and Skill Building** 43 44

45 In most cases, a lack of skills is the result of inappropriate instruction. All
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48 individuals can be taught if the instruction is tailored to their level of ability (Becker
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51 and Engelmann, 1976).. However, years of research and clinical practice have
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54 demonstrated this Direct Instruction tenet to be true for the majority of individuals
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56
57 (Becker and Engelmann, 1976; Stockard *et al.*, 2018). Progress can be achieved,
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4 even if it is not as significant or quick for all individuals and of course maintenance of
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7 existing skills might also be an important goal. To paraphrase Ogden Lindsley,
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10 learners know best what they need (Lindsley, 1990a, 1990b). In other words, it is our
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13 responsibility to identify their exact abilities and deficits and make our instruction
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15
16 relevant. However, for this to be true, the critical variable is the quality of training and
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18
19 support provided and here is where a fine yet crucial distinction lies—the difference
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21
22 between skill-building and engaging in activities. Skill-building refers to a systematic
23
24
25 process of (a) assessing someone's current repertoire and identifying skills that are
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27
28 fluent, emergent, or missing, (b) creating a sequence of skills to be taught going from
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31 simple skills to more complex ones, (c) identifying which instructional strategies are
32
33
34 most appropriate for an individual, (d) identifying potential reinforcers that will
35
36
37 motivate the individual, (e) presenting the instruction and measuring its effectiveness
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39
40 through data collection, and (f) utilising the data to amend instruction as needed
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43 recursively.
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52 Engaging in activities does not always follow this systematic approach. That is why
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55 individuals might not improve their skills and achieve independence despite years of
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58 being supported to engage in various activities. The success of the support offered is
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1
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3 directly related to the way staff engage with the clients. Staff training is one of the
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7 most important variables in terms of the effectiveness of our interventions, and that is
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10 why this study is important. It demonstrates how a simple procedure can lead to
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13 significant improvements in staff performance and subsequently, the service users'
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17 independence.
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21 So does this mean that we should continuously offer training to the individuals we
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23
24 support? The answer to this question is no. We should aim to strike a balance
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28 between offering instruction or training, and allowing people to enjoy other aspects of
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31 their lives. Free time and engaging in social and recreational activities are also
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33
34 essential domains of someone's overall quality of life (Schalock *et al.*, 2002). The
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38 need for skills, however, is evident during those activities as well. One cannot enjoy
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41 reading a book if they do not know how to read. Similarly, one cannot enjoy their
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44 time with their family and friends if they are not supported to communicate in a way
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47 that is relevant to them. That is why it is important we empower people to develop
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50 their skills so that they can 'carry them' wherever they go and whatever activity they
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56 engage in.
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Staff Training

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4 So, what is the solution? Invest in staff training in a way that will impact a broad
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6
7 range of services. Although it would be great to have services staffed with
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10 professionals thoroughly trained in evidence-based procedures, the truth is that such
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13 a feat would be particularly resource-intensive. For example, thorough training in
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16 applied behaviour analysis requires a Master's degree along with the necessary
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19 supervised training. Are we able to deliver this on the scale necessary?
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24 Unfortunately, not at the present moment. However, this fact does not mean that we
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27 should give up on the people we are supporting. Although an ultimate solution might
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30 not be achievable at this point, we can always aim for a series of smaller solutions
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33 such as the one described in this study. Sometimes simple solutions can be
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36 particularly useful. So, let us start there as our first step, and as the number of
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39 professionals with thorough training in evidence-based practices increases, we could
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41
42 start thinking about other approaches such as pyramidal models of training (Haberlin
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45 *et al.*, 2012) or multi-tiered systems of support (Freeman *et al.*, 2017; Sugai and
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48 Horner, 2006).
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55 A holistic approach to supporting people 56 57 58 59 60

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4 Evidence-based instructional practices are increasingly being applied to staff
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7 members. We are moving away from the model where we only applied our
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10 technology to our students. After all, a whole field has developed by applying
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13 behaviour analytic principles to the workplace (Luke et al., 2018). Organisational
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16 behavioural management colloquially known as OBM, has carved the path. Science
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19 is now used to optimise not only our students' and clients' performance but our own
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24 (Ludwig and Frazier, 2012).
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28 Similarly, another subfield of applied behaviour analysis has started looking at the
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31 broader picture. Positive behaviour support (PBS) emphasises the need for a
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34 comprehensive approach to supporting people who exhibit behaviour described as
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37 challenging. Three primary components are highlighted within a PBS framework,
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40 namely, (a) values, (b) theory and evidence, and (c) process (Gore *et al.*, 2013). A
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43 closer examination of the third component shows us that implementation support is
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46 considered an integral part of the framework. Cohen and McGill's study operates on
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49 the level of implementation support by offering training that could lead to
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56 improvements in staff performance while being easily accessible to services. In other
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59 words, this study demonstrates how low-cost applications of evidence-based
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3 practices can produce meaningful and socially valid outcomes for service users in
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7 line with recent developments in our field.
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10 In conclusion, the study by Cohen and McGill (2020) has successfully
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12 demonstrated an important next step. A comprehensive application of behaviour
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14 analytic principles and tactics focused on all parties involved, and with the primary
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17 aim of improving the quality of life of people with disabilities. Despite being small in
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24 scope, the study's message is clear and particularly relevant.
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References

- Becker, W.C. and Engelmann, S. (1976), *Analysis of achievement data on six cohorts of low-income children-from 20 school districts in the University of Oregon direct instruction follow through model*. (Technical report 78-1). Eugene, OR: University of Oregon.
- Bellini, S. and Akullian, J. (2007), "A meta-analysis of video modeling and video self-modeling interventions for children and adolescents with autism spectrum disorders", *Exceptional Children*, Vol. 73 No. 3, pp. 264–287.
- Catania, C.N., Almeida, D., Liu-Constant, B. and Reed, F.D.D. (2009), "Video modeling to train staff to implement discrete-trial instruction", *Journal of Applied Behavior Analysis*, Vol. 42 No. 2, pp. 387–392.
- Charlop-Christy, M.H. and Daneshvar, S. (2003), "Using video modeling to teach perspective taking to children with autism", *Journal of Positive Behavior Interventions*, Vol. 5 No. 1, pp. 12–21.
- D'Ateno, P., Mangiapanello, K. and Taylor, B.A. (2003), "Using video modeling to teach complex play sequences to a preschooler with autism", *Journal of Positive Behavior Interventions*, Vol. 5 No. 1, pp. 5–11.
- Digennaro-Reed, F.D., Coddling, R., Catania, C.N. and Maguire, H. (2010), "Effects

of video modeling on treatment integrity of behavioral interventions”, *Journal of Applied Behavior Analysis*, Vol. 43 No. 2, pp. 291–295.

Freeman, J., Sugai, G., Simonsen, B. and Everett, S. (2017), “MTSS coaching: Bridging knowing to doing”, *Theory Into Practice*, Vol. 56 No. 1, pp. 29–37.

Gore, N., McGill, P., Toogood, S., Allen, D., Hughes, J.C., Baker, P., Hastings, R., *et al.* (2013), “Definition and scope for positive behavioural support”, *International Journal of Positive Behavioural Support*, Vol. 3 No. 2, pp. 14–23.

Haberlin, A.T., Beauchamp, K., Agnew, J. and O’Brien, F. (2012), “A comparison of pyramidal staff training and direct staff training in community-based day programs”, *Journal of Organizational Behavior Management*, Vol. 32 No. 1, pp. 65–74.

Iwata, B.A., Wallace, M.D., Kahng, S., Lindberg, J.S., Roscoe, E.M., Connors, J., Hanley, G.P., *et al.* (2000), “Skill acquisition in the implementation of functional analysis methodology”, *Journal of Applied Behavior Analysis*, Vol. 33 No. 2, pp. 181–194.

Kirkpatrick, M., Akers, J. and Rivera, G. (2019), “Use of behavioral skills training with teachers: A Systematic Review”, *Journal of Behavioral Education*, Vol. 28 No. 3,

1
2
3
4 pp. 344–361.
5
6

7 Lindsley, O.R. (1990a), "Precision teaching: By teachers for children", *Teaching*
8
9
10 *Exceptional Children*, Teaching Exceptional Children, Vol. 22 No. 3, pp. 10–15.
11
12

13
14 Lindsley, O.R. (1990b), "Our aims, discoveries, failures and problem", *Journal of*
15
16
17 *Precision Teaching*, Vol. 7 No. 2, pp. 7–17.
18
19

20
21 Ludwig, T.D. and Frazier, C.B. (2012), "Employee engagement and organizational
22
23
24 behavior management", *Journal of Organizational Behavior Management*, Vol.
25
26
27
28 32 No. 1, pp. 75–82.
29
30

31 Mechling, L.C., Gast, D.L. and Gustafson, M.R. (2009), "Use of video modeling to
32
33
34 teach extinguishing of cooking related fires to individuals with moderate
35
36
37
38 intellectual disabilities", *Education and Training in Developmental Disabilities*,
39
40
41
42 Vol. 44 No. 1, pp. 67–79.
43
44

45 Nikopoulos, C.K. and Keenan, M. (2003), "Promoting social initiation in children with
46
47
48 autism using video modeling", *Behavioral Interventions*, Vol. 18 No. 2, pp. 87–
49
50
51
52 108.
53
54

55
56 Schalock, R.L., Brown, I., Brown, R., Cummins, R.A., Felce, D., Matikka, L., Keith,
57
58
59 K.D., *et al.* (2002), "Conceptualization, measurement, and application of quality
60

1
2
3
4 of life for persons with intellectual disabilities: Report of an international panel of
5
6
7 experts", *Mental Retardation*, Vol. 40 No. 6, pp. 457–470.
8
9

10 Shipley-Benamou, R., Lutzker, J.R. and Taubman, M. (2002), "Teaching daily living
11
12
13 skills to children with autism through instructional video modeling", *Journal of*
14
15
16
17 *Positive Behavior Interventions*, Vol. 4 No. 3, pp. 166–177.
18
19

20 Stockard, J., Wood, T.W., Coughlin, C. and Rasplica Khoury, C. (2018), "The
21
22
23 effectiveness of direct instruction curricula: A meta-analysis of a half century of
24
25
26
27 research", *Review of Educational Research*, Vol. 88 No. 4, pp. 479–507.
28
29

30 Sugai, G. and Horner, R.R. (2006), "A promising approach for expanding and
31
32
33 sustaining school-wide positive behavior support", *School Psychology Review*,
34
35
36
37 Vol. 35 No. 2, pp. 245–259.
38
39

40 Tyner, B.C. and Fienup, D.M. (2015), "A comparison of video modeling, text-based
41
42
43 instruction, and no instruction for creating multiple baseline graphs in Microsoft
44
45
46
47 Excel", *Journal of Applied Behavior Analysis*, Vol. 48 No. 3, pp. 701–706.
48
49

50 Vladescu, J.C., Carroll, R., Paden, A. and Kodak, T.M. (2012), "The effects of video
51
52
53 modeling with voiceover instruction on accurate implementation of discrete-trial
54
55
56
57 instruction", *Journal of Applied Behavior Analysis*, Vol. 45 No. 2, pp. 419–423.
58
59
60

Wilson, N.J., Lin, Z., Villarosa, A., Lewis, P., Philip, P., Sumar, B. and George, A.

(2019), "Countering the poor oral health of people with intellectual and developmental disability: a scoping literature review", *BMC Public Health*, Vol. 19 No. 1, p. 1530.

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