

Evaluating the Lure Hypothesis via a Randomised Controlled Trial

Despite being suggested many times (e.g., Peters, 1965; Warneken & Tomasello, 2008; Watts et al., 2021, 2022), there is still no empirical evidence for the claim that rewards might be used to *lure* children into developing intrinsic motivation for morally virtuous behaviours (cf. Berkowitz, 2021, 2022). Meanwhile, although widely considered the gold standard for evaluating educational interventions (Harrison et al., 2016), randomised controlled trials (RCTs) in character education remain scarce (Arthur et al., 2014; Oldham & McLoughlin, 2024). This paper reports on a study that addresses both gaps – a school-based intervention that evaluates the "lure" hypothesis using a novel and adaptable RCT design.

The lure hypothesis is less about rewards per se and more about how engaging in intrinsically valuable behaviours might affect those who start off extrinsically motivated. The suggestion is that such engagement can prompt an internal shift toward intrinsic motivation (e.g., Watts et al., 2021).

To test this, 61 pupils (aged 11-12) were recruited from a mixed-gender comprehensive school in Coventry, UK. All were initially extrinsically motivated to engage in a journaling activity; autonomous pupils were screened out using a novel script. In short, those who volunteered prior to mention of rewards were excluded.

Participants were randomly assigned to either gratitude journaling (intervention) or generic journaling (control). Journaling sessions occurred weekly over six weeks. Intrinsic motivation was measured at three timepoints – pre, post, and follow-up – using an adapted Intrinsic Motivation Inventory (IMI) with three subscales: *Interest/Enjoyment*, *Value/Usefulness*, and *Perceived Choice* (Ryan et al., 1983). Twenty-two participants met final inclusion criteria (10 intervention, 12 control). A 2 (Group) × 3 (Time) mixed-design ANOVA was used to analyse each subscale. The lure hypothesis predicted a significant Group × Time interaction.

No such interaction was found. However, there was a significant main effect of Time for the *Perceived Choice* subscale. Implications and limitations are discussed.

While the lure hypothesis remains empirically elusive, the true contribution of this study lies in its adaptable RCT design. Any character education intervention could, in principle, be evaluated as follows:

1. Recruit children who are extrinsically motivated to engage in an activity that manifests the target virtue, screening out autonomous participants via the script.
2. Randomly assign participants to intervention or control groups.

3. Measure intrinsic motivation across timepoints using the IMI.
4. Analyse data using a mixed factorial ANOVA.
5. Evaluate the intervention: a significant Group × Time interaction supports its efficacy.

The primary constraint is designing activities that manifest the target virtue. Gratitude journaling straightforwardly manifests gratitude (Froh et al., 2008), and is easily implemented in school. Other virtues may prove more difficult.

One might object that motivation is only one component of virtue, and none can be evaluated in isolation (Kristjánsson, 2017). I argue that motivation subsumes the other components as antecedents or consequents – it is the glue that binds a virtue together. Moreover, it is only through motivation that we can make sense of virtue “internalisation”. No other component accommodates a meaningful external/internal continuum.

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