

Potential methodological artefacts	Pedagogic weaknesses
<ul style="list-style-type: none"> <li>• Small sample sizes, lack of adequate controls, single outcome measures, (Paoline, Terrill and Rossler, 2015);</li> <li>• Statistical findings explaining little variance suggestive of influence of non-measured factors and small effect sizes, some of which disappear when controlling for gender, age or length of experience (Paoline, Terrill and Rossler, 2015, Owen and Wagner 2008);</li> <li>• Poor operationalising of performance (Sanders, 2003, Baro &amp; Burlingame, 1999) and directionality- are fewer arrests a good or a bad indicator of police proficiency or ethical practice (Paynich, 2009, Worden, 1990);</li> <li>• Different ways of measuring educational level-dichotomised graduate/non graduate (Trojanowicz and Nicholson 1976), differentiated by year of 4 year US college degree (Golden,1981), scale (Cascio 1997 );</li> <li>• Different attitude scales used making comparison difficult (Worden, 1990, Sanders, 2003);</li> <li>• Use of bespoke instruments without reporting psychometric properties and not used in replication or comparative studies (Hayeslip,1989);</li> <li>• Subjective measures -self-report or supervisor ratings (Worden,1990) ;</li> <li>• Use of student CJ majors with/out police career intentions to infer future impact on policing (Carlan, 2007, Stanislas, 2014, Owen and Wagner,2008);</li> <li>• Not partialing out socialisation effects of police occupational culture once employed in a police force (Fielding 1986).</li> </ul>	<ul style="list-style-type: none"> <li>• The rapid growth in university programmes which has been ad hoc without concerns about academic credentialing (Baker, Holcombe and Baker,2017) ;</li> <li>• Lack of rigorous discussion about which is the best undergraduate programme for police officers (e.g. social science based, liberal arts, based, professionally based) (Taylor, 1983; Wilmshurst and Ransley, 2007, Cordner 2016);</li> <li>• Curricula not being based on empirically tested hypotheses (Carter and Sapp,1992) and HE providers being poor at developing suitable learning outcomes (Cox,2011);</li> <li>• Universities being too entrepreneurial and not ready to properly scope or adapt courses for police (Taylor, 1983,Southerland et al,2007, Cordner, 2016);</li> <li>• Disagreements about the efficacy of pre-entry, post-employment or in-service graduate education (Sherman, 1978, Blakemore and Simpson, 1983);</li> <li>• A waxing and waning for enthusiasm for university level education and disagreements over curriculum and delivery (Wimshurst and Ransley, 2007;Trofymowych 2007/8);</li> <li>• The body of knowledge is incomplete and remains in development (Trofymowych 2007/8);</li> <li>• Lack of professionalised police educators within the HE sector to provide practice led learning (Cox,2011; Diderichsen, 2017);</li> <li>• Tensions between competency learning models and reflective practice (Cox, 2011);</li> <li>• Degree inflation -2 years of College in 1990s said to equivalent to high school diploma of the 1960s (Baro and Burlingame 1999).</li> </ul>