

**Online teacher professional development: A research synthesis on effectiveness and evaluation;
(Technology, Knowledge and Learning) *Effectiveness of OTPD with regard to competencies of
students***

First author	Student learning	Notes
Al-Balushi (2015)	X	
An (2018)	Learning gains	self-reported (teachers)
Arifani (2020)	Learning gains	
Arifani (2019)	Learning gains	
Aykan (2022)	X	
Barquero (2018)	X	
Boltz (2021)	X	
Bosch (2019)	X	
Boulay (2013)	X	
Boumadan (2020)	X	
Brennan (2018)	X	
Brodahl (2016)	X	
Budiastra (2020)	Learning gains	
Bustamante (2013)	Learning gains	self-reported (teachers)
Chaipidech (2022)	X	
Chien (2022)	X	
Ching (2014)	X	
Choi (2014)	Learning gains	self-reported (teachers)
Clary (2017)	X	
Compen (2021)	Learning gains	
Correnti (2021)	Learning gains	
Dahri (2022)	X	
Dahri (2021)	X	
De Santo (2016)	X	
Diac (2014)	X	
Ding (2015)	X	
Engeness (2020)	X	
Francis-Poscente (2013)	X	
Gamrat (2014)	X	
Giberti (2022)	X	
Golding (2018)	X	
Gunawan (2021)	X	
Gunter (2017)	X	
Gynther (2016)	X	
Hafour (2022)	X	
Hall (2013)	X	
Hanline (2013)	Learning gains	self-reported (teachers)
Herbert (2016)	X	
Hinostroza (2021)	X	
Ho (2016)	X	
Hrytsenchuk (2021)	X	

Huilocapi-Collantes (2020)	X	
Irfannuddin (2021)	X	
Jen (2022)	X	
Jimoyiannis (2013)	X	
Jocius (2022)	X	
Joubert (2020)	X	
Kandlhofer (2021)	X	
Kao (2014)	X	
Kaul (2018)	X	
Kennedy (2019)	X	
Kim (2020)	X	
Knie (2022)	X	
Krasnova (2019)	X	
Laurillard (2016)	X	
Lazarinis (2019)	Learning gains	self-reported (teachers)
Lee (2020)	X	
Lee (2014)	X	
Lee (2016)	X	
Luebeck (2017)	X	
Lynch (2021)	X	
Mailizar (2021)	X	
Marchak (2021)	Learning gains	self-reported (teachers)
Marocco (2019)	X	
Martínez (2020)	X	
Mavroudi (2018)	X	
McConnell (2013)	X	
Michos (2020)	X	
Milewski (2018)	X	
Moen (2018)	X	
Mswazie (2019)	X	
Murai (2020)	X	
Mystakidis (2021)	X	
Ndlovu (2018)	X	
Onguko (2014)	Learning gains	self-reported (teachers)
Papadakis (2012)	X	
Pombo (2016)	X	
Power (2016)	X	
Ramírez-Montoya (2017)	X	
Ravitz (2017)	X	
Reeves (2012)	X	
Riel (2021)	Learning gains	
Russel (2019)	X	
Sahin-Topalcengiz (2020)	X	
Saiful (2020)	X	
Sánchez-Narváez (2017)	X	
Schreiber (2020)	X	
Şenel (2021)	X	

Simpson (2016)	X	
Situmorang (2022)	X	
Siyamta (2020)	X	
Sompong (2016a)	X	
Sompong (2016b)	X	
Stevenson (2019)	Learning gains	
Syamsuri (2020)	X	
Tahiri (2019)	X	
Tamani (2021)	X	
Terrazas-Arellanes (2019)	Learning gains	self-reported (teachers)
Tinoca (2013)	X	
Topuzov (2021)	X	
Ulmame-Ozolina (2019)	X	
Ung (2022)	X	
Urban-Waldron (2013)	X	
Vezetiu (2020)	X	
Vinagre (2017)	X	
Vu (2014)	X	
Walkington (2021)	X	
Wathne (2017)	X	
Weinhandl (2020)	X	
Wuryaningsih (2019)	X	
Xie (2017)	X	
Zacharias (2017)	X	
Zhang (2019)	X	
Zhou (2020)	X	
Zimmer (2022)	X	

X = not investigated in the study