

The Relationship Between Positive Youth Development and Attitudes Toward Artificial Intelligence



Antonio-David Martin-Barrado^{1,*} & Diego Gomez-Baya¹.

¹ Department of Social, Developmental and Educational Psychology, Universidad de Huelva, Huelva (Spain).

*Correspondence: antoniodavid.martin@dpee.uhu.es.

INTRODUCTION & AIM

THE CONTEXT

In the current technological era, Artificial Intelligence (AI) permeates both personal and professional spheres of undergraduates [1]. **Attitude** (perceptions, beliefs, and intended use) are the primary drivers of **responsible** and **ethical technology adoption** [2].

FRAMEWORK

Positive Youth Development (PYD):

A strengths-based model centered on youth potential, known as 5Cs [3]:

- Competence:** Domain-specific skills.
- Confidence:** Self-worth and self-efficacy.
- Character:** Moral compass and integrity.
- Connection:** Positive social bonds.
- Caring:** Empathy and compassion.

GAP

This study addresses the **lack of prior research linking PYD assets to AI attitudes**.

AIM: To examine AI attitudes and analyze their relationship with the 5Cs among Spanish undergraduates.

METHOD

DESIGN: Quantitative, empirical-analytical, and cross-sectional study (2025).

SAMPLE: $N = 407$ undergraduate students from all 10 public universities in Andalusia, Spain.

DEMOGRAPHICS: 63% female ($M = 21.3$; $SD = 3.61$).

INSTRUMENTS:

- **AIAS-4** (*Artificial Intelligence Attitudes Scale*; [2]): Adapted to Spanish [4]. 4 items assessing optimism and intended future use of AI (Scale 1-10; $\alpha = 0.93$). CFA showed excellent unidimensional fit: $\chi^2(2) = 5.17$, $p = 0.076$, CFI = 0.996, RMSEA = 0.063.

- **PYD-SF** (*Positive Youth Development Short Form*; [5]): Adapted for Spanish undergraduates [6] ($\alpha = 0.65$ to 0.86).

RESULTS & DISCUSSION

1. GENERAL DESCRIPTIVES

Attitude toward AI: It was moderately positive ($M = 6.26/10$; $SD = 2.48$). The highest-scoring item was intended future use (item 3; $M = 7.24/10$; $SD = 2.76$).

PYD profile: Students scored highest in Caring ($M = 4.13/5$) and lowest in Competence ($M = 2.99/5$).

2. DIFFERENCES BY ACADEMIC FIELD

Significant effect of degree area was found ($F(3, 396) = 21.66$, $\eta^2p = 0.14$, $p < 0.001$). See Table 1.

Table 1

Differences across degree area

Academic Field	AI Attitude (M)	SD	Impact
Sciences, Engineering & Architecture	7.15/10	2.23	Embrace automation as a professional tool.
Social and Legal Sciences	6.50/10	2.19	Intermediate score; functional and practical approach.
Health Sciences	6.43/10	2.48	Intermediate, functional view of technology.
Arts & Humanities	4.35/10	2.59	Lowest score; high concern over creative job displacement.

3. PYD PREDICTORS OF AI ATTITUDES

Global model: Significant ($F(10, 384) = 5.99$, $p < .001$, $R^2 = 0.14$). See Table 2.

Exception: Item 4 ("AI is positive for humanity") was predicted only by Competence and degree area.

Table 2

Hierarchical multiple linear regression analysis AIAS-4

	t	β	p
Degree area	3.76	0.19	< .001
Character	-2.20	-0.14	.028
Competence	3.06	0.19	.002
Confidence	3.11	0.20	.002

4. DISCUSSION

Higher self-efficacy (**Competence**) and self-worth (**Confidence**) positively predict **AI optimism and future intent**, empowering youth to adopt and trust automated technologies [7].

Character showed a negative relation, this reflects a vital protective asset where **strong moral awareness** fosters critical vigilance toward AI ethical risks and social biases [8-9].

LIMITATIONS	IMPLICATIONS
<ul style="list-style-type: none"> - Gender imbalance. - Sample restricted to university students from Andalusia. - Modest explanatory power (10-14%) suggests unmeasured constructs. - AI was assessed as a general construct, future work should test specific tools like Generative AI. 	<ul style="list-style-type: none"> - Implement structured training on AI mechanisms to dispel misconceptions and boost student competence. - Educate teachers to prevent them from transmitting technological mistrust to students. - Communication campaigns aligned with youth values to build trust in regulation.

CONCLUSION

Promoting youth well-being in the AI era requires cultivating the 5Cs: Competence and Confidence facilitate technology adoption -with Arts & Humanities emerging as the most vulnerable group- while Character acts as a moral compass fostering critical vigilance toward AI ethical risks.

