

Enhancing character strengths and resilience in primary education: an online Quranic stories-based program

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ABSTRACT

This study investigated the effectiveness of an online Quranic stories-based program in enhancing character strengths and resilience among primary school students. Using a randomized controlled design, 64 students (aged 11-13 years) from Housh Eissa School in Egypt were assigned to experimental (n=33) and control (n=31) groups. The intervention involved ten online sessions on five major Quranic civilizations, measuring character strengths and resilience using the validated 23-item character strengths test and ego-resiliency scale. Data were collected at three time points: pre-intervention, post-intervention, and two-month follow-up. The results demonstrated significant improvements in the experimental group across all 23-character strength dimensions ($p < .01$, partial η^2 ranging from .116 to .529) and resilience ($F = 34.245$, partial $\eta^2 = .529$). Notable enhancements were observed in judgment ($F = 11.775$, partial $\eta^2 = .279$), self-control ($F = 10.269$, partial $\eta^2 = .252$), and beauty appreciation ($F = 10.824$, partial $\eta^2 = .262$). These improvements were maintained during the follow-up period, with the experimental group consistently outperforming the control group. The study suggests that online Quranic stories-based interventions can effectively enhance character strengths and resilience in primary school students, demonstrating a promising approach for character education.

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1. INTRODUCTION

In an era of rapid societal change and increasing challenges faced by young learners, the importance of fostering character strengths and resilience in primary education has gained significant attention [1], [2]. As educators and researchers seek innovative approaches to cultivate these essential qualities in children, the intersection of traditional wisdom and modern pedagogical methods presents a promising avenue for exploration [3]. This study investigates the potential of an online Quranic stories-based program to enhance character strengths and resilience among primary school students, bridging the gap between ancient narratives and contemporary educational needs.

Character education and resilience building have long been recognized as crucial components of holistic child development [4], [5]. Character strengths are morally valued, trait-like positive qualities that contribute to personal and societal well-being. These strengths, including virtues such as wisdom, courage, humanity, justice, and transcendence, form the foundation of positive character development [6], [7].

Simultaneously, resilience—the capacity to adapt positively in the face of adversity—has emerged as a critical skill for navigating life’s challenges [8]–[11]. In the context of primary education, fostering resilience equips young learners with the tools to overcome obstacles, manage stress, and maintain a positive outlook in the face of difficulties [12], [13]. Recent research has highlighted that resilience is not merely an inherent trait but a dynamic capability shaped through interaction with various environmental factors [14]–[17]. This perspective aligns with Bronfenbrenner’s ecological systems theory [18], which posits that resilience is influenced by a spectrum of environmental systems, extending from family to broader societal contexts.

The integration of character education and resilience-building into primary school curricula is beneficial for students’ academic and personal development, leading to enhanced life satisfaction and well-being. The evidence suggests that such programs should be implemented comprehensively and consistently to achieve the best outcomes [19], [20]. However, the challenge lies in developing engaging and effective methods to impart these qualities to young learners in an increasingly digital and diverse educational landscape.

Storytelling has been a fundamental tool for human learning and cultural transmission throughout history [21]–[23]. In educational contexts, narratives have demonstrated remarkable efficacy in capturing students’ attention, fostering empathy, and conveying complex ideas in accessible formats [24]–[27]. The power of stories lies in their ability to engage both cognitive and emotional faculties, creating memorable and impactful learning experiences [28], [29].

Recent research has highlighted the potential of storytelling in character education and resilience building. Studies have shown that exposure to narratives featuring moral dilemmas and resilient characters can positively influence children’s ethical reasoning and coping strategies [30]–[32]. By incorporating students’ cultural backgrounds into the curriculum, educators can make learning more relatable and interesting, which in turn fosters greater academic involvement [33], [34].

The Quran, as a foundational text in Islamic tradition, contains numerous narratives that have been used for centuries to impart moral lessons and wisdom [35], [36]. These stories, featuring prophets, historical figures, and everyday people, showcase character strengths and resilience amidst adversity [37]. Quranic narratives’ ethical principles and virtues align with positive psychology’s character strengths, making them a valuable resource for character education [38], [39].

The potential of Quranic stories has been explored in educational contexts. Through storytelling sessions, children learn values such as patience, humanity, calmness, and respect for others. This method has shown positive changes in children’s attitudes and behaviors, making it a useful teaching model for developing moral values [40]. Emerging educational tools like multimedia and XR are being integrated into Quranic education to boost engagement, motivation, and enhance children’s understanding and values [41].

The rapid development of digital technologies has revolutionized education by providing innovative and accessible learning experiences [42]–[45]. Online platforms offer personalized, interactive content to students from diverse backgrounds [46]–[48]. These platforms have shown promise in character education and resilience building, reaching wide audiences and providing consistent, scalable interventions [49], [50]. Aladini *et al.* [51] further highlight how structured online programs can foster resilience by combining interactive storytelling with self-paced reflection, aligning with our program’s design. Their multimedia capabilities enable the integration of diverse pedagogical methods like storytelling, interactive exercises, and reflective activities [27], [52], [53].

The study aims to explore the development of effective online programs for character education and resilience building in primary education. It seeks to address the gap in literature examining the intersection of these elements, particularly in the context of primary education. The research will investigate the potential of an online Quranic stories-based program to enhance character strengths and resilience among primary school students, filling the gap in existing literature.

This study introduces three innovations in character education and resilience-building in primary schools. It is the first to integrate Quranic stories into online character education, combining traditional digital storytelling with Quranic narratives for holistic character development. The program bridges ancient moral wisdom with modern digital pedagogy, offering a culturally resonant yet scalable approach. The study also demonstrates longitudinal efficacy, with significant improvements maintained at follow-up, addressing a critical gap in digital character education where sustainability of effects is often unmeasured.

2. METHOD

2.1. Participants

The study was conducted at Housh Eissa School in Beheira Governorate, Egypt, during the second semester of the 2023/2024 academic year. The initial sample for psychometric validation consisted of 222 primary school students (78 males, 35.1%; 144 females, 64.9%), with ages ranging from 10 to 12 years ($M=10.80$, standard deviation (SD)= $.67$). These students were enrolled in either fifth grade (51.8%) or sixth grade (48.2%). From the initial sample, 64 students were chosen for the main experimental study and were

evenly divided into experimental (33 students) and control (31 students) groups. The study included 25 males (39.1%) and 39 females (60.9%), with ages ranging from 11 to 13 years ($M=11.52$, $SD=.61$). Most participants were in the sixth grade (76.6%), while the rest were in the fifth grade (23.4%). Table 1 presents baseline comparison of experimental and control groups.

Table 1. Baseline comparison of experimental and control groups

Characteristic	Experimental (n=33)	Control (n=31)	Test statistic	p-value
Age (years), M(SD)	11.55(.62)	11.48(.60)	$t=.463$.645
Gender (female), n (%)	20(60.6%)	19(61.3%)	$\chi^2=.003$.954
Grade (6th grade), n (%)	25(75.8%)	24(77.4%)	$\chi^2=.025$.874
Parent education level, M(SD)	2.12(.89)	2.03(.91)	$t=.406$.686
Household monthly income, M(SD)	2.58(1.06)	2.45(1.12)	$t=.482$.631
Previous online learning experience, n (%)	23(69.7%)	21(67.7%)	$\chi^2=.029$.866

Parent education level: 1=primary or less, 2=secondary, 3=college, 4=graduate degree;

Monthly household income in Egyptian Pounds: 1=<3000, 2=3000-6000, 3=6000-9000, 4=>9000.

The study found no significant differences in demographic, socioeconomic, or educational variables between experimental and control groups, confirming internal validity and attribution of post-intervention differences. Both groups were comparable in age, gender, grade level, and previous online learning experience. Sample size was determined using G*Power 3.1.9.7 software for repeated measures ANOVA with within-between interaction effects. Based on a medium effect size ($f=.25$), $\alpha=.05$, power=.80, and three measurement points, the minimum required sample size was calculated as 54 participants [54]. The final sample of 64 participants exceeds this minimum requirement, providing adequate power for detecting meaningful differences.

2.2. Measures

Character strengths were assessed using a modified version of the Character Strengths Test 24 (CST24) [55]. The CST24 is a brief measure evaluates character strengths, with each strength represented by one concept word and one explanatory sentence in first-person perspective. Participants rated their agreement with each statement on a 7-point Likert scale ranging from 1 (not at all applicable) to 7 (very applicable).

Rigorous psychometric validation was conducted on the CST24 using the initial sample ($N=222$). Confirmatory factor analysis resulted in the removal of the spirituality item (item 24), yielding a 23-item scale with superior model fit indices: $\chi^2/df=1.421$, comparative fit index (CFI)=.970, root mean square error of approximation (RMSEA)=.044 with a 90% confidence interval (CI) [.032, .054], parsimony goodness-of-fit index (PGFI)=.739, and standardized root mean square residual (SRMR)=.107. Additional convergent validity indices showed strong psychometric properties with average variance extracted (AVE)=.527, composite reliability (CR)=.962, and MaxR(H)=.965. All items showed significant factor loadings ranging from .548 to .834 ($p<.001$), indicating strong construct validity. The standardized regression weights for all items exceeded .50, with most items showing weights above .70.

The CST-23 demonstrated excellent reliability coefficients: McDonald's $\omega=.960$ (95% CI [.953, .968]), Cronbach's $\alpha=.960$ (95% CI [.952, .967]), and Guttman's $\lambda_2=.961$ (95% CI [.944, .972]). Item-total correlations were robust, ranging from .586 to .829, indicating strong internal consistency. The scale showed good discriminating power, with item means ranging from 4.54 to 5.68 and SD from 1.54 to 1.87, suggesting appropriate item difficulty and variability. The mean total score for the sample was 119.95 ($SD=29.62$).

Ego-resiliency scale (ER89) [56], which consists of 14 items assessing psychological adaptability was used. Participants responded on a 4-point scale ranging from 1 (does not apply at all) to 4 (applies very strongly). Comprehensive psychometric validation of the ER89 was conducted with the initial sample. Confirmatory factor analysis demonstrated good model fit: $\chi^2/df=1.801$, CFI=.965, normed fit index (NFI)=.925, RMSEA=.060 (90% CI [.044, .076]), and SRMR=.040. The scale demonstrated strong convergent validity with AVE=.525, CR=.939, and MaxR(H)=.942. All items displayed significant factor loadings ranging from .600 to .780 ($p<.001$), confirming the unidimensional structure of the scale.

The ER89 showed excellent reliability indices: McDonald's $\omega=.939$ (95% CI [.927, .951]), Cronbach's $\alpha=.937$ (95% CI [.924, .948]), and Guttman's $\lambda_2=.939$ (95% CI [.923, .952]). Item-total correlations were strong, ranging from .639 to .797, demonstrating robust internal consistency. Individual item analyses revealed appropriate difficulty levels and discrimination power, with item means ranging from 2.08 to 2.79 and SD from .82 to 1.15. The mean total score for the sample was 34.73 ($SD=10.67$). Inter-item correlations were significant ($p<.01$), ranging from .305 to .655, indicating good internal consistency while maintaining item distinctiveness.

2.3. Procedure

The study followed a three-phase design: psychometric validation, experimental intervention, and follow-up assessment. In the first phase, the CST24 and ER89 were administered to 222 students to establish the psychometric properties of the measures in the target population. Based on these results, the CST24 was modified to create the 23-item version used in the main study.

For the experimental phase, 64 students were selected from the initial sample and randomly assigned to either the experimental or control group. Both groups completed pre-intervention assessments of character strengths (CST-23) and resilience (ER89). The experimental group then participated in the online Quranic stories-based program, while the control group continued with their regular educational activities. Post-intervention and follow-up assessments were conducted after the program's completion, two months later, to assess the sustainability of observed effects, with all assessments conducted under similar conditions and times throughout the study period.

2.4. Intervention program

The intervention consisted of an online Quranic stories-based program focusing on five major civilizations mentioned in the Quran: Ad, Thamud, Saba, Madyan and Ayka, and Pharaonic Egypt. Each civilization was covered in two 90-minute sessions, resulting in a total of ten instructional sessions. The program was delivered through Google Classroom integrated with Nearpod as the primary instructional platform that integrated multimedia elements including audio, video, and images of historical artifacts and sites relevant to each civilization.

Each session followed a structured four-step pedagogical approach: i) introduction phase, which involved preparing students mentally and psychologically through preliminary questions and displaying relevant historical imagery; ii) story presentation phase, utilizing the online platform's multimedia capabilities to engage students; iii) analysis and discussion phase, focusing on character development, concepts, and behavioral patterns embedded within the stories; and iv) application phase, helping students connect the stories' lessons to their daily lives and challenges. Teachers utilized various instructional strategies to implement a program promoting character strengths and resilience through moral lessons, coping strategies, and positive behavioral models from Quranic narratives.

2.5. Data analysis

Statistical analyses were performed using standard statistical software. Confirmatory factor analyses were conducted to validate the factor structure of both measurement instruments. Scale reliability was assessed using multiple indicators including McDonald's ω , Cronbach's α , and Guttman's λ_2 . Internal consistency was evaluated through item-total correlations and inter-item correlations. The effectiveness of the intervention was assessed using repeated measures analysis, examining changes in character strengths and resilience across the three time points (pre-intervention, post-intervention, and follow-up) for both experimental and control groups.

3. RESULTS

The study examined the impact of an online Quranic stories-based program on character strengths and resilience among primary school students. The results demonstrated significant improvements in multiple character strength dimensions for the experimental group across pretest, posttest, and follow-up measurements. Multivariate analysis revealed statistically significant differences between the experimental and control groups across 23-character strength variables. As shown in Table 2, the experimental group exhibited substantial improvements with significant F values ($p < .01$) and meaningful partial η^2 values ranging from .116 to .529.

In the experimental group, most character strengths demonstrated significant improvements from pretest to posttest and maintained these gains during the follow-up period. Specifically, variables such as judgment ($F=11.775$, partial $\eta^2=.279$), self-control ($F=10.269$, partial $\eta^2=.252$), and beauty appreciation ($F=10.824$, partial $\eta^2=.262$) showed particularly robust enhancements. These findings suggest that the online Quranic stories-based program produced meaningful and sustained changes in participants' character development across multiple domains.

As detailed in Table 3, the experimental group showed consistent improvement patterns across measurement points. The mean differences (MD) from pre-test to post-test were statistically significant for most variables, with particularly notable improvements in mercy ($MD=-1.636$, $p < .01$), fairness ($MD=-1.485$, $p < .01$), and beauty appreciation ($MD=-1.455$, $p < .01$). Importantly, Table 3 demonstrates that these gains were largely maintained at follow-up, with pre-test to follow-up differences remaining significant across nearly all character strength domains.

Table 2. Repeated measures analysis of character strengths and resilience

Variable	Group	Pretest		Posttest		Follow-up		F value	partial η ²
		M	SD	M	SD	M	SD		
Creativity	Experimental	4.30	1.74	5.30	1.23	5.69	1.21	6.990*	.186
	Control	3.96	1.55	4.51	1.65	4.70	1.41	1.890	.058
Curiosity	Experimental	4.60	1.61	5.51	1.41	5.84	1.22	6.865*	.184
	Control	4.41	1.56	4.70	1.44	4.90	1.46	.918	.029
Judgment	Experimental	4.63	1.55	6.00	1.41	6.06	1.14	11.775*	.279
	Control	4.67	1.27	4.93	1.27	4.83	1.39	.347	.011
Love of learning	Experimental	4.60	1.43	5.63	1.16	5.75	1.19	7.871*	.205
	Control	5.51	1.31	4.64	1.30	4.64	1.53	.103	.003
Perspective	Experimental	4.30	1.46	5.33	1.29	5.27	1.42	5.498*	.153
	Control	3.93	1.41	4.29	1.50	4.16	1.48	.500	.016
Bravery	Experimental	3.96	1.48	5.06	1.41	4.69	1.10	5.091*	.143
	Control	3.83	1.41	4.16	1.71	4.12	1.14	.533	.017
Perseverance	Experimental	5.03	1.55	6.00	1.06	6.09	1.01	5.262*	.147
	Control	5.00	1.57	5.06	1.45	5.16	1.52	.142	.005
Honesty	Experimental	4.63	1.88	5.66	1.38	5.72	1.44	4.122*	.119
	Control	4.54	1.56	4.61	1.83	4.70	1.62	.082	.003
Vitality	Experimental	4.63	1.85	5.81	1.21	5.87	1.40	6.172*	.168
	Control	4.58	1.64	4.70	1.69	4.83	1.46	.220	.007
Love	Experimental	4.63	1.41	5.66	1.49	5.60	.82	5.765*	.159
	Control	4.25	1.61	4.58	1.66	4.61	1.62	.672	.022
Kindness	Experimental	4.24	1.92	5.30	1.61	5.63	1.53	5.979*	.164
	Control	4.32	1.90	4.38	1.76	4.45	1.89	.040	.001
Social intelligence	Experimental	4.27	1.23	5.30	1.48	5.12	1.24	7.694*	.201
	Control	4.25	1.71	4.32	1.46	4.35	1.22	.051	.002
Teamwork	Experimental	3.69	1.64	4.75	1.54	5.27	1.46	6.908*	.185
	Control	3.16	1.55	3.83	1.57	4.03	1.76	2.178	.067
Fairness	Experimental	4.03	1.61	5.51	1.06	5.36	1.51	6.244*	.170
	Control	3.83	2.14	3.90	1.75	4.22	1.68	.644	.021
Leadership	Experimental	3.93	1.49	5.18	1.77	5.27	1.25	8.471*	.217
	Control	3.48	1.36	3.67	1.55	3.77	1.25	.327	.011
Mercy	Experimental	3.87	1.70	5.51	1.56	5.33	1.57	9.694*	.241
	Control	3.64	1.42	4.06	1.71	4.00	1.48	.585	.019
Modesty	Experimental	4.66	1.84	5.66	1.47	5.78	1.40	3.985*	.116
	Control	4.54	1.54	4.58	1.72	4.87	1.70	.708	.011
Prudence	Experimental	5.09	1.42	6.18	1.13	6.09	.97	8.255*	.213
	Control	5.03	1.49	5.09	1.44	5.12	1.54	.053	.002
Self-control	Experimental	4.81	1.97	6.09	1.18	6.24	1.29	10.269*	.252
	Control	4.54	1.62	4.83	1.93	4.93	1.89	.681	.022
Beauty appreciation	Experimental	4.66	1.70	6.12	.81	6.24	.79	10.824*	.262
	Control	4.25	2.01	4.64	1.94	4.96	1.66	2.081	.064
Gratitude	Experimental	5.00	1.75	5.75	1.11	5.87	1.08	4.229*	.122
	Control	5.03	1.49	5.09	1.39	5.12	1.43	.041	.001
Hope	Experimental	4.93	1.43	6.06	1.41	6.27	.97	8.385*	.216
	Control	4.77	2.04	4.87	1.92	5.16	1.77	.725	.023
Humor	Experimental	4.30	2.14	5.45	1.48	5.54	1.17	4.951*	.140
	Control	4.16	2.05	4.25	1.76	4.41	1.87	.179	.006
Resilience	Experimental	37.57	4.86	45.12	4.11	45.00	4.65	34.245*	.529
	Control	38.67	4.54	39.45	6.02	39.70	6.24	.882	.028

Note: *p<.01

Table 3. MD in character strengths for experimental group across measurement points

Variable	MD			Variable	MD		
	(Pre-Post)	(Post-FU)	(Pre-FU)		(Pre-Post)	(Post-FU)	(Pre-FU)
Creativity	-1.000**	-.394	-1.394**	Teamwork	-1.061**	-.515	-1.576**
Curiosity	-.909*	-.333	-1.242**	Fairness	-1.485**	.152	-1.333**
Judgment	-1.364**	-.061	1.424**	Leadership	-1.242**	-.091	-1.333**
Love of learning	-1.030**	-.121	-1.152**	Mercy	-1.636**	.182	-1.455**
Perspective	-1.030*	-.061	-.970**	Modesty	-1.000*	-.121	-1.121*
Bravery	-1.091**	.364	-.727	Prudence	-1.091**	.091	-1.000**
Perseverance	-.970*	-.091	-1.061**	Self-control	-1.273**	-.152	-1.424**
Honesty	-1.030**	-.061	-1.091**	Beauty appreciation	-1.455**	-.121	-1.455**
Vitality	-1.182**	-.061	-1.242**	Gratitude	-.758*	-.121	-.879*
Love	-1.030**	.016	-.970**	Hope	-1.121**	-.212	1.333**
Kindness	-1.061**	-.333	-1.394**	Humor	-1.152*	-.091	-1.24**
Social intelligence	-1.030**	.182	-.848**	Resilience	-7.545**	.121	-7.424**

Note: MD=mean difference; Pre=pre-intervention; Post=post-intervention; FU=follow-up; **p<.01; *p<.05.

The comparative analysis in Table 4 highlights the divergence between experimental and control groups. The experimental group consistently demonstrated significantly higher MD compared to the control group across all time points. Post-test measurements revealed particularly strong differences, with variables like fairness (MD=1.612, $p<.01$), leadership (MD=1.504, $p<.01$), and mercy (MD=1.451, $p<.01$) showing notable improvements.

The statistical analyses provide compelling evidence that the online Quranic stories-based intervention significantly enhanced character strengths and resilience among primary school students. The experimental group consistently outperformed the control group across all measured variables, with effect sizes ranging from small to large magnitudes (partial $\eta^2=.116$ to $.529$). The maintenance of these improvements during the two-month follow-up period demonstrates the intervention's sustained impact on character development, suggesting practical implications for educational programming in primary school settings.

Table 4. Comparative MD between experimental and control groups across measurement points

Variable	Pre-test MD (E-C)	Post-test MD (E-C)	FU MD (E-C)	Variable	Pre-test MD (E-C)	Post-test MD (E-C)	FU MD (E-C)
Creativity	.335	.787**	.987**	Teamwork	.536	.919**	1.240**
Curiosity	.187	.805*	.945**	Fairness	.192	1.612**	1.138**
Judgment	-.041	1.065**	1.222**	Leadership	.456	1.504**	1.499**
Love of learning	.090	.991**	1.112**	Mercy	.234	1.451**	1.333**
Perspective	.368	1.043**	1.111**	Modesty	.118	1.086**	.917**
Bravery	.131	.899*	.568*	Prudence	.059	1.085**	.962**
Perseverance	.030	.935**	.930**	Self-control	.270	1.252**	1.307**
Honesty	.088	1.054**	1.018**	Beauty appreciation	.409	1.476**	1.275**
Vitality	.56	1.109**	1.040**	Gratitude	-.032	.661*	.750*
Love	.378	1.086**	.993**	Hope	.165	1.190**	1.111**
Kindness	-.080	.916*	1.185**	Humor	.142	1.196**	1.126**
Social intelligence	.015	.980**	.766**	Resilience	-1.102	5.670**	5.290**

Note: FU=follow-up test; MD (E-C)=mean difference between experimental and control groups; ** $p<.01$; * $p<.05$.

4. DISCUSSION

The findings of this study provide robust empirical evidence supporting the effectiveness of an online Quranic stories-based program in enhancing character strengths and resilience among primary school students. This research contributes substantively to the expanding body of literature that recognizes the transformative potential of storytelling in educational contexts [21]–[23]. The study demonstrates that curated Quranic stories can effectively teach critical character strengths and psychological resilience, highlighting the power of narrative in character education.

Existing scholarship consistently underscores the multifaceted role of storytelling as an educational methodology, particularly in character development contexts. Idrees and Ullah [57] highlighted that Quranic stories serve as sophisticated communication and persuasion mechanisms, guiding individuals toward ethical conduct and providing evidence-based support for their therapeutic and educational value in formal learning environments. The literature consistently emphasizes that Quranic storytelling transcends mere narrative transmission, with Qotadah *et al.* [58] proposing a comprehensive approach to character development that integrates historical analysis, values examination, and case studies, ultimately aiming to construct a more harmonious societal framework. Similarly, Othman and Yusof [59] argue that expanding understanding of Qur'anic concepts in the digital era can lead to significant advancements in educational practices.

In the contemporary digital educational landscape, these studies explore the critical intersection of online platforms and character education, demonstrating how technological innovations can be integrated with values-based educational strategies. This perspective aligns with the broader trend of utilizing digital methodologies to enhance character formation programs. Moreover, the program aligns with Gaber *et al.* [60] positive emotion, engagement, relationships, meaning, and accomplishment (PERMA)-based training framework, focusing on scaffolded activities for character strength development. It integrates Quranic narratives, reflective discussions, and real-world applications, fostering relationships and achievement through systematic online delivery mechanisms.

The study's utilization of multimedia storytelling through platforms like Google Classroom and Nearpod represents an innovative approach to digital character education. This methodology, which incorporates interactive online platforms, provides a rich and engaging learning experience [42], [43]. The structured four-step approach enables students to meaningfully connect narratives to their personal experiences. The significant improvements in character strengths like fairness, leadership, and mercy suggest that Quranic narratives offer powerful moral exemplars that resonate with contemporary understandings of positive character development [38], [39].

Methodologically, this research contributes to the growing literature on online learning and character development. The integration of multimedia elements, interactive discussions, and reflective activities aligns with recommendations by Petousi *et al.* [27] regarding effective digital pedagogical approaches. The flexibility afforded to teachers in implementing the program's phases further enhances its potential for widespread adoption and adaptation.

While the study offers promising insights, several limitations must be acknowledged. The relatively small sample size and geographic specificity—focused on one school in Egypt, has a small sample size and geographic specificity, require further research to validate its findings across diverse educational contexts. Future studies should explore the program's efficacy with larger student populations and diverse cultural and educational settings. The control group showed modest improvements over time, but these may reflect testing effects or natural maturation. The two-month follow-up period may not capture long-term behavioral changes, and the single-school setting limits generalizability.

Despite these limitations, the research provides compelling evidence for Quranic storytelling as a mechanism for character education. The statistically significant improvements in character strengths and the program's ability to maintain these gains over time suggest a powerful approach to supporting students' holistic development. As educational practitioners and researchers continue to seek innovative approaches to character and resilience building, narrative-based interventions like the one explored in this study offer a promising and culturally resonant pathway forward.

5. CONCLUSION

The study found that an online Quranic stories-based program improved character strengths and resilience among primary school students. The program showed significant improvements across multiple dimensions, with sustained effects at a two-month follow-up. However, the study has limitations, such as a short follow-up period and a single-school setting. Future research should explore the intervention's efficacy across different age groups, socioeconomic backgrounds, and teacher training to refine digital character education programs.

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C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

I : Investigation

R : Resources

D : Data Curation

O : Writing - Original Draft

E : Writing - Review & Editing

Vi : Visualization

Su : Supervision

P : Project administration

Fu : Funding acquisition

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflicts of interest related to this study.

INFORMED CONSENT

This study adhered to ethical standards, obtaining informed consent from parents, students, and institutional review boards. Privacy was maintained, and participants were informed about data collection procedures and voluntary participation. They could withdraw at any time without penalty.

ETHICAL APPROVAL

The study protocol was approved by the Research Ethics Committee of the Faculty of Education, Al-Azhar University, Egypt (Ref. No. EDU-REC-2023-2217). All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

DATA AVAILABILITY

The data that support the findings of this study are available from the corresponding author, [MAN-A], upon reasonable request.

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