



# REIMAGINING HAND HYGIENE EDUCATION

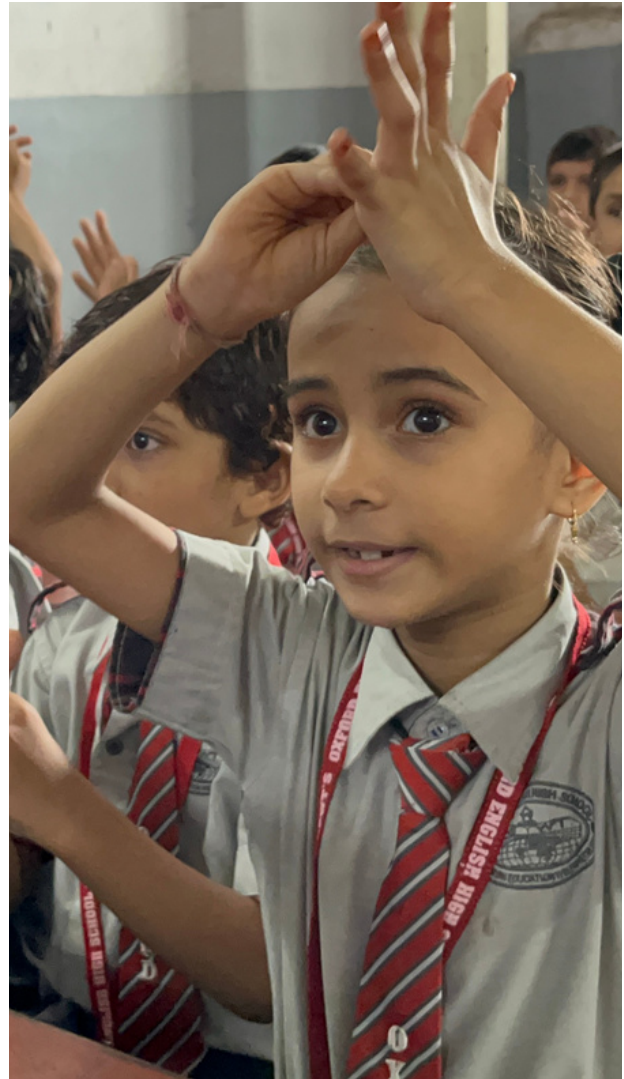
Lifebuoy's Play and Learn Approach

# About Lifebuoy

Lifebuoy, the world's number one selling germ protection soap, is recognized and sold in over 50 countries, securing its position as the sixth most-chosen consumer goods brand globally. With a rich history dating back to its inception in 1894, Lifebuoy has been synonymous with cleanliness and personal hygiene, initially gaining recognition for its classic red bar of soap and its distinctive medicated carbolic scent.

Today, the brand has evolved significantly, offering a myriad of soap variants, liquid body washes and hand washes, and hand sanitizers, ensuring daily hygiene and freshness for the entire family. Lifebuoy is not just a product but a movement towards healthier societies. Through its dedicated efforts, Lifebuoy aims to make a tangible difference by creating quality, affordable products and promoting healthy hygiene habits among diverse populations.

Since 2010, Lifebuoy has successfully reached over 1 billion people through its hand hygiene programs and impactful TV communications, steadfastly working towards its clear purpose of preventing illness through the pivotal act of handwashing with soap. Lifebuoy's commitment extends beyond products, actively engaging in Social Mission programmes and communications that have significantly contributed to shaping and improving handwashing habits across the globe.



This White Paper unfolds a new chapter in Lifebuoy's journey, exploring the transformative power of play-based learning in enhancing handwashing behaviours among children.

It delves deep into this innovative approach, exploring its genesis, its underlying principles, and its potential to reshape the future of hand hygiene education. Through a blend of research, expert insights, and real-world applications, we embark on a journey to understand how play can indeed be the catalyst for change in the realm of hand hygiene.



# About Imagimake



Imagimake believes in the power of PLAY! Play gives children agency. It engages their innate curiosity and wondrous dispositions. From the space of learning to skill development, Imagimake has experimented with and seen how playful experiences can be crafted into being crucial drivers of intrinsic motivation and action in children. Imagimake is passionate about channelizing this understanding into creating avenues for children to Play, Learn and Create.

This White Paper highlights Imagimake's enthusiastic collaboration with Lifebuoy for the 'H for Handwashing' campaign, reflecting a shared commitment to fostering global health. The document spotlights the impactful role of play-based learning in advancing handwashing behaviours among children and fortifying global health initiatives.

Imagimake is one of the fastest growing innovation driven toy companies from India. With a portfolio of over 100 products, reaching more than 20 countries across the globe, Imagimake not only creates delightful experiences for children but aims to address holistic child development.



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# FOREWORD

BY GWEN HINES, CEO,  
SAVE THE CHILDREN UK

Over the past three years, as the world has grappled with the challenges of a global pandemic, handwashing and good hygiene have taken on an even greater importance as a frontline defence against the spread of disease, saving countless lives. As we navigate the aftermath of a pandemic that has reshaped our world, it is vital that handwashing is not forgotten, and that we continue to raise awareness of its importance even as the global news cycle moves on. We also need to ensure that those living in the poorest countries around the world have access to soap and clean water to practice good hygiene. This is even more important for girls, who often drop out of school because of lack of toilets and hygiene provision, especially once they reach puberty.

Recent data reveals that unsafe water, sanitation, and hygiene is still responsible for the deaths of around 400,000 children under the age of 5 each year, or 1,000 every day. Handwashing with soap, a seemingly simple act, can reduce diarrheal diseases by 30% and respiratory infections by over 20%. This is why it is vitally important to work with children and communities on the importance of handwashing with soap, so that it becomes a routine part of their daily lives. We've seen firsthand the transformative power of hygiene education on children and their communities. The lessons we teach our children about health and hygiene will shape the future of global health for generations to come.

Save the Children and Lifebuoy's shared purpose of improving lives has created a trusted partnership in which we are working together to increase awareness of the importance of handwashing with soap. This year, to celebrate Global Handwashing Day, I was delighted to learn of Lifebuoy's innovative "Play and Learn" approach, as part of Lifebuoy's "H for Handwashing" initiative. By harnessing the universal language of play and innate curiosity of children, Lifebuoy is making learning about hand hygiene engaging, memorable, and most importantly, effective.



**This approach aligns with Save the Children's own experience of recognising that play is the natural, self-driven way children explore the world around them. Save the Children is a leading advocate for the importance of providing the right support to children during their early years. We know from our Early Years programmes that play is a crucial component for learning. It helps children connect to and make sense of information and knowledge, making it fun and exciting.**

An interesting example, included in this White Paper as a case study, comes from a trial conducted by Save the Children in Northern Iraq with children who had fled their homes because of conflict.



In the trial, "Surprise Soap" - a transparent soap with a toy embedded inside - was used to encourage handwashing. The more regularly children washed their hands, the sooner the toy could be retrieved from inside the soap! Results showed that children were four times more likely to wash their hands with soap if it was made fun, using this innovative new approach.

Another excellent example of harnessing the power of play comes from Save the Children's Championing Play project, in partnership with the Lego Foundation. Through this initiative, in seven countries across Asia and Africa, children are benefitting from quality play-based interventions to improve learning, wellbeing, happiness, and resilience.

**Lifebuoy's "H for Handwashing" campaign, with its emphasis this year on board games to teach handwashing, resonates with Save the Children's belief that children are active participants in their own development. The "Play and Learn" approach is a testament to Save the Children and Lifebuoy's shared vision to put children at the forefront of positive change.**

Save the Children is grateful to Lifebuoy for their dedication and commitment to a world where every child understands, values, and practices the life-saving habit of handwashing. We know that together we can help children build the future they deserve. I hope that this White Paper serves as a catalyst for further innovation in health education and inspires others in their efforts to create a healthier, brighter future for all.

A handwritten signature in black ink, appearing to read "Gwen Hines".

**GWEN HINES**  
CEO, Save the Children UK

## PERSISTING THROUGH HYGIENE FATIGUE:

# The Enduring Importance of Handwashing with Soap

Hand hygiene, a cornerstone of public health, has been thrust into the global spotlight, especially in the aftermath of the COVID-19 pandemic. This simple yet critical act serves as the first line of defence against a plethora of infectious diseases, safeguarding individuals, and communities alike. The World Health Organization (WHO) and other leading health entities have consistently emphasized its significance, advocating for its widespread adoption as a routine practice.

Yet, despite its undeniable importance, hand hygiene practices have seen a concerning decline worldwide. This trend is not just limited to regions with limited resources but is evident across diverse socio-economic landscapes.

Lifebuoy, with its century-long commitment to health & hygiene, recognized the urgent need to address the alarming decline in consistent handwashing practices. Building on its legacy of promoting health and hygiene, Lifebuoy launched the "H for Handwashing" movement in 2020, a testament to the brand's foresight and commitment to creating a healthier world. The foundation of this campaign is rooted in the belief that the children of today will be the torchbearers of tomorrow. As they stand poised to inherit this world, it becomes imperative to instil in them the values and practices that will ensure a healthier, safer future for all. Hand hygiene, being a foundation of this vision, needs to be more than just a practice; it should be a way of life.

**For instance, at the University of Chicago Medical Center, before the pandemic in September 2019, hand hygiene compliance was at 54.5%; it peaked to 92.8% in March 2020, but declined to 51.5% by August 2020.**

This showcases a global trend of diminishing hand hygiene practices post the initial pandemic wave. The reasons for this decline are multifaceted, ranging from a complacency, lack of awareness and access to resources to the challenges of ingraining it as a habitual behaviour.







The H for Handwashing campaign encapsulates this vision, emphasizing the importance of introducing hand hygiene behaviours as an integral part of early education. By doing so, the campaign aims to ensure that these practices become lifelong habits, deeply ingrained in the daily routines of the younger generation. This approach believes in empowering children with knowledge and tools, transforming them from mere beneficiaries to active participants and catalysts of change in their communities.

Building on the established foundation of traditional hand hygiene promotion methods and acknowledging their significant contributions in fostering a culture of cleanliness, Lifebuoy has taken a step further by evolving the H for Handwashing movement into the "Play and Learn" methodology. This innovative approach intertwines the intrinsic appeal of play with hand hygiene education, ensuring the process is not only informative but also engaging, interactive, and most importantly, effective.

Lifebuoy, through this methodology, aspires to augment the existing narrative around hand hygiene, transforming it from a routine task into an engaging activity. This approach aims to cultivate a sense of responsibility and awareness among children, thereby not only creating an immediate impact but also instilling hand hygiene as a lifelong habit, further enhancing the successes achieved by traditional interventions.

"At the core of our brand's purpose lies our unwavering mission to inspire and foster good hygiene habits that last a lifetime. This mission continuously drives us forward, establishing us as a powerful leader in the industry. The H for Handwashing Play and Learn approach aims to address hygiene fatigue by making handwashing fun, exciting, and a part of everyday play. Capturing children's attention and imagination, we believe we can re-establish the importance of handwashing as a lifelong habit, even in the post-pandemic era, in a fun and engaging manner."

**KHIM YIN POH**  
Global Brand VP, Lifebuoy

# A New Approach to Traditional Interventions

Hand hygiene has been championed through various interventions, aiming to embed it consistently across diverse demographics. Traditional interventions, including public awareness campaigns, school programs, and technological solutions, have made significant strides in promoting handwashing. These methods have successfully navigated numerous challenges, such as ensuring sustained effects, enhancing engagement, and overcoming cultural barriers, thereby establishing a foundational understanding and practice of hand hygiene across communities.



Historically, handwashing promotion interventions have adeptly utilized strategies centred around communicating the health risks associated with germs and have seen substantial success in various contexts. Lifebuoy, for instance, has been at the forefront of such initiatives, leveraging educational and knowledge-based messaging through various media, including television commercials, to drive behaviour change. The involvement of skilled health workers in delivering these messages has been pivotal, even though in certain contexts, like conflict-torn regions or emergency settings, consistent message delivery poses its own set of challenges.



97% OF FAMILIES  
POSSESSING SOAP



85% OF WOMEN BEING EXPOSED TO  
HEALTH MESSAGING



PEOPLE REGULARLY  
HANDWASHING

A study involving refugees in South Sudan underscored the complexities of handwashing promotion highlights that while traditional methods have laid a robust foundation and achieved noteworthy successes, there is an opportunity to explore and integrate innovative strategies to further enhance their efficacy and sustainability.





Play-based learning emerges as a particularly relevant innovation, especially in the context of engaging young minds. This approach not only builds upon the successes of traditional interventions but also opens new avenues for instilling and sustaining handwashing behaviours across various scenarios and demographics.

It offers a fresh, engaging, and adaptable approach, uniquely positioning itself as a method that captivates the intrinsic curiosity and dynamism of children, fostering not only the adoption of handwashing habits but also ensuring their sustainability by making the learning process joyful and memorable.





# The H for Handwashing Games



Embracing the successes and learnings from traditional hand hygiene promotions, Lifebuoy, with its storied legacy in health and hygiene, identified an opportunity to further amplify impact through innovative strategies.

Recognizing the power of play in learning and behaviour change, Lifebuoy evolved the H for Handwashing campaign into the "Play and Learn" methodology—a strategy that seamlessly blends the joy of games with essential hand hygiene lessons. This innovative approach aims not just to teach, but to instil handwashing as a cherished and lifelong habit.

Taking inspiration from universally loved board games, Lifebuoy embarked on a creative journey in collaboration with a leading toy and game company, Imagimake, to reimagine and adapt them with a focus on hand hygiene. And the result was the "H for Handwashing Games Kit", a collection of four reimaged board games:



**Germs & Ladders**



**Handwashing Ludo**



**Soap-Tac-Toe**



**Lose the Germs**

The team meticulously crafted these games to resonate with children while driving home the message of hand hygiene. Innovative play interventions were designed to create meaningful learning experiences through play.

Each game was designed with a dual purpose: to entertain and to educate. To ensure that players take something distinct from each experience, the features and narratives of each game reflected the respective core messages

Whether it was the reappearing germs in 'Germs & Ladders' that needed to be swiped away with the 'Soaper Swiper', a soap shaped tool, emphasizing the message of regular handwashing; or the rule to demonstrate the '7 Handwashing Steps' each time a player lands on a germ-catching spot in 'Handwashing Ludo', driving home the awareness of common germ-catching spots while ingraining the handwashing steps into players' muscle memory through play!

Vibrant visuals, interactive gameplay elements, and relatable scenarios were incorporated, ensuring that the lessons on hand hygiene were seamlessly woven into the fabric of the game.



**This unique blend of fun and learning was designed to ensure that children are not just passively receiving information but actively engaging with it, making the lessons more memorable and impactful. Imagimake's proficiency in infusing novelty across play patterns and materials, ensured that the games designed felt familiar and easy to follow, yet were refreshingly different enough to draw the children in repeatedly.**



The H for Handwashing Games combine credibility with design precision. Crafted in collaboration with specialists and experts in behaviour change, child development, game design, and public health, these games were tested for their effectiveness among 190 children aged 5-8 years in a school in Mumbai. It employed pictorial worksheets and direct observation, led by schoolteachers, to gather data on children's awareness, attitudes, and practices regarding handwashing with soap both before and after engaging with the games.

A comparative analysis of the data pre- and post-gameplay revealed significant enhancements in handwashing awareness and behaviours among the children. This included:



### A five-fold surge

in awareness of key handwashing with soap occasions.



### A 17X improvement

in knowledge of handwashing with soap steps.



### 42% improvement

in understanding of handwashing with soap as a shield against diseases.



### Nearly double

the familiarity with germ hotspots and transmission mechanisms.



### Nearly 40% improvement in handwashing behaviours

children practicing handwashing with soap before eating at school, using correct handwashing steps, and reminding their peers to wash hands with soap.

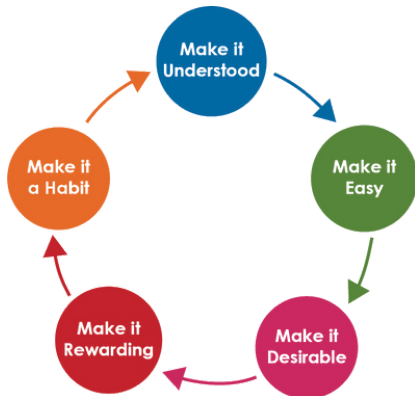
Austin Davis, Faculty at the National Institute of Design, emphasized the significance of play in shaping children's development. He stated,



Extensive research has demonstrated the enduring influence of games and play on children's behaviour and development, and designing for play can help direct the influence of games for the right impact. I am thrilled to collaborate with and endorse Lifebuoy's commendable initiative of integrating the power of design and play to tackle hygiene fatigue effectively.



# The Science Behind H for Handwashing Games



In an era where digital distractions are ubiquitous, the timeless allure of board games remains undiminished. Board games, traditionally seen as sources of entertainment, have evolved into powerful tools for education, awareness, and behaviour change. The nature of board games fosters social interactions against the backdrop of narratives, rules, and feedback. This makes them particularly effective in driving positive behaviours while providing a safe space for children to exercise their agency.

Lifebuoy's H for Handwashing campaign is deeply anchored in behaviour change principles. The science of behaviour change is rooted in psychology and pedagogy. The approach to game design is aligned to Lifebuoy's behaviour change pillars – awareness, commitment, reinforcement, and reward. These pillars are brought to life in a simple model aimed at making handwashing with soap a lifelong habit.

Each of these games is designed based on theories that explain how humans learn and how behaviours are formed and changed. For instance, the Constructivist Learning Theory posits that learners construct knowledge based on their experiences.



## DISHA KATHARANI

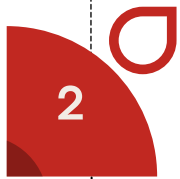
### Co-Founder of Imagimake

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“One of the most proven pathways to driving long term change is when it comes from within the individual. Play connects children with the purpose and helps them not only own it for themselves, but also become inspiring agents of change for the community.”



Board games provide a structured environment where players can have experiences, reflect on them, and construct knowledge. The H for Handwashing Game Kit is, thus, meticulously crafted to align with these principles, ensuring that every game element, from game mechanics to player interactions, reinforces handwashing behaviours.



As the socio-cultural theory of child development puts forth, learning in childhood largely happens through social interactions. Board games inherently promote social interactions. Players discuss, negotiate, cooperate, and sometimes compete. These interactions, combined with the game's narrative, immerse players in the learning experience. When children play the "H for Handwashing" board games, they actively engage with the content and with each other, leading to better retention and application of knowledge.



Board games offer immediate feedback. As players navigate the game, they face challenges and make decisions, receiving feedback through game outcomes. This feedback, whether in the form of game progression or discussions with fellow players, reinforces the learning and nudges players towards the desired behaviour. The H for Handwashing Games encourage children to support each other in navigating the What, How, When & Why of Handwashing.

In essence, the H for Handwashing games are more than just playful diversions; they are strategic tools that harness the power of social interaction, immediate feedback, and immersive narratives. By intertwining the principles of behaviour change with the engaging mechanics of board games, Lifebuoy has created a unique platform that not only educates but also inspires and motivates children to adopt and maintain essential handwashing habits. It's a testament to the potential of merging traditional play with modern pedagogical insights to drive meaningful and lasting change.

# Global Consensus on Play-Based Learning

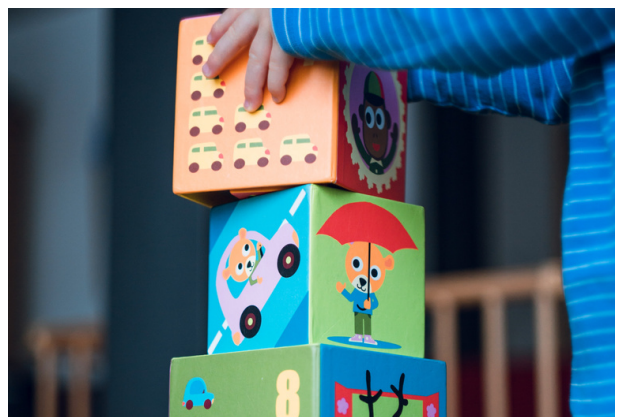
The transformative power of play in children's learning and development has been universally acknowledged by leading global institutions and experts. This consensus is not just based on intuitive understanding but is deeply rooted in extensive research and empirical evidence. As we delve into the global perspectives on play-based learning, it becomes evident that play is not merely an activity but a cornerstone of holistic child development.



## According to the WHO guideline

on early childhood development, play is not only a fundamental right of every child as set forth in the Convention on the Rights of the Child by United Nations International Children's Emergency Fund (UNICEF), but is also critical for their cognitive, physical, social, and emotional growth, emphasizing the indispensable role of play-based interventions in enhancing early learning and overall child development. The Center on the Developing Child, Harvard University, also resonates that play-based activities are crucial for the cognitive and socio-emotional growth of children.

The LEGO Foundation's "Learning Through Play" movement underscores play's essential role in holistic child development, advocating that playful experiences enhance cognitive growth, creativity, collaboration, and problem-solving, equipping children for future challenges. Alliance for Childhood and the US Play Coalition promote play because it greatly contributes to children's healthy development. International Play Association promotes play as essential in developing "effective systems for learning".





Sesame Workshop, renowned for its global educational initiatives, champions the concept of playful learning. They believe that from birth to age six, children's rapid brain development is significantly enhanced by positive, playful experiences. This form of learning not only bolsters cognitive, physical, and social-emotional growth but also lays the groundwork for lifelong creative and engaged learning.



**Lucy Williams, Head of Early Years at Save the Children UK, encapsulates the essence of play's significance, stating, "Play is how young children learn and is the foundation for all their learning and development. Children learn and express themselves through play."**

- According to the National Association for the Education of Young Children (NAEYC), playful learning methods resonate with the science of learning, utilizing active, engaging, meaningful, and social techniques that enhance human learning and understanding. What's more, learning that emerges through play is deep and meaningful to children because they have shaped it themselves.
- The Brookings Institution champions playful learning as a transformative approach, highlighting its potential to foster educational equity, enhance 21st-century skills, and seamlessly integrate learning into everyday spaces, especially amidst the challenges posed by the COVID-19 pandemic.

As the global consensus on the importance of play-based learning continues to grow, experts from renowned institutions are voicing their support.

**// Play is an important medium to motivate handwashing and instil lasting hygiene habits in children. Drawing from extensive research, it's evident that innovative, playful strategies, including using games, can have a profound influence on shaping children's hygiene behaviours, making them more receptive to the importance of handwashing with soap.**

**DR. JULIE WATSON**

Assistant Professor at the London School of Hygiene and Tropical Medicine



Play-based learning, widely supported globally, crucially shapes future generations by enhancing cognitive development and life habits. Its integration into ongoing educational and health strategies ensures children develop necessary skills and habits for a changing world.

# Evidence in Action

The power of play in promoting essential behaviours, especially hand hygiene, has been explored by various organizations worldwide. These initiatives, backed by rigorous research and innovative methodologies, offer a glimpse into the transformative potential of play-based learning in the WASH sector. Some notable examples that underscore the efficacy of such interventions are explored in this section.

Sesame Workshop, in collaboration with Lifebuoy, explored the potential of digital play in promoting positive behaviours, specifically handwashing, among children. Leveraging the universal appeal of Muppets like Elmo and Cookie Monster, they designed a series of interactive digital games as part of the 'H for Handwashing' campaign.



A proof-of-concept study conducted by Save the Children, the London School of Hygiene & Tropical Medicine (LSHTM), and Field Ready in a camp for Internally Displaced People in Northern Iraq, tested the use of "Surprise Soap", a transparent soap with a small toy embedded inside, designed to appeal to children's curiosity and love of play. The concept is simple; children are motivated to wash their hands more often in order to reach the toy. Children from forty households were introduced to 'Surprise Soaps' accompanied by engaging, interactive sessions that steered clear of health discussions. In contrast, another forty households, serving as the control group, received standard soap and traditional sessions emphasizing the health benefits of handwashing, reflecting common emergency response strategies. Remarkably, after just four weeks, children exposed to the 'Surprise Soap' approach were four times more inclined to wash their hands with soap during critical times, such as before meals or post-toilet use, compared to their counterparts in the control group. This innovative, play-based approach not only significantly improved hand hygiene behaviors at critical times, such as before meals or after using the restroom, but also achieved these results without the need for labor-intensive hygiene-promotion.

A partnership between Stanford University's Program on Water, Health, and Development (WHD), World Vision and Sesame Workshop, through their WASH UP! Programme emphasized the role of interactive games in teaching children about water conservation and hygiene practices. The playful approach ensured better retention and application of knowledge. UNHCR's initiatives in refugee settlements in Northern Uganda have enhanced nutrition and WASH.

Children from 10 schools gained increased access to information on nutrition, WASH, and menstrual hygiene. School enrolment and retention rates improved due to school feeding and engagement through play-based learning.

**In a study conducted with 115 families with children aged 3-8 in Johannesburg, South Africa, aimed at gauging the appeal, relevance, and understanding of digital games among internet-accessible families, children were encouraged to play each of the four digital games at least once, over two weeks. The results were promising: despite high pre-existing awareness due to COVID-19 messaging, 94% of caregivers observed a positive shift in their child's handwashing habits post-gameplay. Furthermore, 82% noted their children emulated handwashing skills from the games, and over 90% reported sustained good handwashing practices post-study.**

A study in Curug village, Cimanggis Depok, Indonesia, revealed significant improvements in handwashing behaviour among school-age children who participated in a game-based educational program.

**The program saw a 45% increase in knowledge, suggesting more children understand proper handwashing behaviour, a 65% increase in attitude, indicating a better attitude toward handwashing behaviour, and a 64% increase in the number of children practicing handwashing well.**

A pilot quasi-experimental study showcased a notable improvement in handwashing behaviour among kindergarten children who participated in the "Hand Hygiene Fun Month". Children in the intervention group played a musical game to understand germ transmission. They passed around a toy coated with a fluorescent powder (Glo Germ powder), representing germs. When the music stopped, the child holding the toy identified a hand region, earning stickers for correct answers. After several rounds, an ultraviolet light revealed the "germs" on their hands, highlighting the significance of handwashing. The experimental group had significantly higher scores than the control group after the intervention.

The children in the experimental group generally had a higher coverage of hand sanitizer in all hand regions than those in the control group after the intervention.



The myriad of initiatives and studies highlighted above underscore the profound impact of integrating play into hygiene promotion strategies. From digital games to tangible incentives like the "Surprise Soap", the common thread is the element of play, which not only engages children but also instils lasting habits. These evidence-backed interventions reiterate the importance of continuous innovation and collaboration in the quest to foster better hygiene practices globally.



# Conclusion

The global decline in handwashing practices, especially among children, poses a significant threat to public health. In the wake of the COVID-19 pandemic, the importance of hand hygiene has been underscored, yet traditional methods of promoting handwashing have shown limitations in ensuring sustained behaviour change. Lifebuoy's innovative "Play and Learn" approach, with its emphasis on board games, offers a promising solution to this challenge.

The H for Handwashing Game Kit created in collaboration with Imagimake, is not just fun and games; it's a movement towards transforming hygiene education. By leveraging the power of play, Lifebuoy aims to make handwashing second nature for children worldwide. The integration of insights from global health and education bodies further enhances the credibility and potential impact of this initiative.



**This initiative is a reflection of Lifebuoy's enduring commitment to not only promoting health and well-being but also effectuating tangible behavioural change through continuous innovation and impactful health campaigns. The ultimate aim is to weave these playful learning experiences into the fabric of everyday habits, thereby contributing to the safeguarding of public health and the reduction of illness, one handwash at a time.**

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