



Development of Interactive Voice Response (IVR) Remote Training in Ethiopia:



Prevention of Harmful Practices Programme

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Background

Empowering in and out-of-school adolescent girls with information, skills, and support networks is one of the strategies that UNICEF is employing to prevent girls from harmful practices and violence. This includes life skills development training to enhance self-efficacy, agency and promote role models to influence the behavior of adolescent girls to act as change agents. This is crucial as it targets those at risk and vulnerable to increase knowledge and transferable skills to build resilience and be able to make informed decisions about their life. UNICEF has supported the Ministry of Women and Social Affairs (MoWSA) in developing a National Out of School-Girls Empowerment Manual which covers both skills and knowledge components including topics on self-efficacy, self-esteem, negotiation, problem-solving, leadership, communication, menstrual hygiene management (MHM) and gender-based violence (GBV), violence against children (VAC), etc. The sessions are being provided through the traditional face-to-face method and a mobile phone-based through Interactive Voice Response (IVR) technology which is led by UNICEF in close collaboration and coordination with MoWSA and Regional Bureaus of Women and Social Affairs.

In response to the COVID-19 pandemic and to country-wide social distancing measures affecting face-to-face life skills interventions with adolescent girls, UNICEF has tested mobile phone-based communication initiatives with Girls' Club leaders (out-of-school) in Southern Nations and Nationalities Peoples Region (SNNPR) to continue to support them remotely and keep the momentum moving to eliminate Female Genital Mutilation (FGM) and end Child Marriage. While the initiative started in response to the pandemic, the approach has been proven to enhance access to information and shown that it can also be used to reach girls in humanitarian and hard-to-reach contexts. The pilot phase of the Harmful Practices digital training project was implemented from February to September of 2021 and at the end of the testing modules, 86 percent of the participants mentioned that they would recommend others to receive messages on similar topics through mobile phones.

The key innovation leveraged is the use of Interactive Voice Response (IVR) which is a phone-based life skills training programme to reach girls both in development and humanitarian settings. UNICEF has partnered with VIAMO¹, to equip girls club leaders with the necessary knowledge, life skills, and confidence to continue their important work as change agents in their communities and trigger social and behavioral change. This innovative technology provides real-time progress monitoring and allows two-way communication that allows girls to provide feedback on what is being sent and participate in quizzes to test their knowledge. Also, the IVR training approach is flexible and takes into account the limited time girls have due to household chores.

¹ VIAMO Inc: A global social enterprise improving lives via mobile phone - https://viamo.io/

Key Learning from the Testing

The SNNP Bureau of Women and Social Affairs, UNICEF's partner for the prevention of Harmful Practices programming including girl's empowerment intervention, has indicated its interest to continue the initiative and scale up to other areas within the region to reach more girls. They have also expressed their willingness to link this initiative to the ongoing activities under the out-of-school life skills strategy. Considering the highly volatile context of the country and an increasing number of adolescent girls living in humanitarian contexts scale-up of the intervention is recommended and the specific lessons drawn from the testing phase are as follows:

- The need to mix mobile phone-based engagement with face-to-face interactions.
- The need for strong collaboration with government partners (BoWSA).
- Orientation and review meetings to be held with adolescent girls' representatives.
- Continuous motivation and gamification of content to strengthen engagement.
- Human-centred design approaches to tailor content to end-user needs and interests.

Upon the successful completion of the pilot in September 2021, a scale-up plan has been hatched by widening IVR targeted regions from one to seven² with 4,500 participants. The methodology of the training delivery has shifted from the training of trainers for group leaders into life skills training for adolescent girls with Interactive Voice Response (IVR) to enhance the skill of girls on the risks of harmful practices, trigger reflection on social and gender norms and inform available services and reporting mechanisms.

² Afari, Amharic, Agnuwa, Nuer, Oromifa, Sidama and Somali

Objective



To enhance the knowledge, life skills, and confidence of adolescent girls through a mobile phone-based interactive voice response platform to end harmful practices in the seven regions³ based on lessons learned from the pilot phase in the SNNP region.

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The specific objectives are:

- Increase the percentage of adolescent girls opposing FGM and child marriage among the targeted adolescent girls.
- Enhance knowledge of adolescent girls about the multi-dimensional impact of child marriage and FGM and available services among targeted adolescent girls.
- Increase the proportion of girls who expressed readiness to report on their own and/or others' child marriage arrangements.

The Expected Results

Using IVR technology, the engagement is going to deliver the following results:

- Co-create 24 pieces of content with adolescent girls suitable for the IVR platform and regional context based on the national out-of-school girls empowerment manual.
- Translate and contextualize the content in seven languages.
- Provide 24 modules of life skill IVR sessions to 4,500 adolescent girls in seven languages.
- Administer three rounds of surveys: baseline, midline, and endline in seven languages with 12 questions to all remote training participants.
- Include gamification and motivation sessions to encourage the full participation of girls.
- Avail all the sessions into the VIAMO Infoline platform to be reused by the remote training participants.

³ Afar, Amhara, Gambella, Oromia, Sidama, SNNP and Somali

The Interactive Voice Recording (IVR) approach

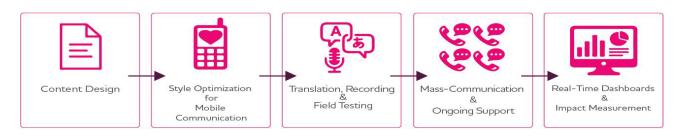
Interactive voice response (IVR) is an automated telephone system that combines pre-recorded messages or text-to-speech technology with a dual-tone multi-frequency (DTMF) interface to engage callers and provide information without a live agent. Globally ownership of mobile phones is growing rapidly compared to radio and television. According to the Ethio telecom website live count, 67.7 Ethiopians own mobile phones as of December 2022⁴. Though this is a significant number, still the coverage is dominated in urban areas. The key innovation leveraged the life skills training programme to reach girls both in development and humanitarian situations. Applying the IVR approach for programming, especially for adolescents has benefits as it can be easily scaled up and requires minimum literacy. This innovative technology also provides real-time progress monitoring and allows two-way communication so that girls can provide feedback on what is being sent and participate in quizzes to test their knowledge.



Critical steps that were taken for the rollout and implementation of Phase II of the IVR in seven regions of Ethiopia.

Implementation of Empowerment (Life Skills) Training

Frequent consultation was done at the inception phase with UNICEF field office colleagues, VIAMO colleagues, and regional BOWSA for devising an appropriate structure, content, and quality assurance mechanism. The consultation allows all involved to understand the key objectives, deliverables, proper audiences, success measurement, and key responsibilities of each party. Accordingly, based on the output of the consultation the following key processes were followed that help deliver the expected results.



⁴ https://www.ethiotelecom.et



1. Registration

Based on the agreed criteria⁵, registration of adolescent girls aged 10-19 from the ninety-four Prevention of Harmful Practices programme target woredas has been done. For the successful implementation of the remote training programme, identifying the right audience is key, and registering adolescent girls of the right age, mainly out of school and with mobile phone access was not an easy task. Basic demographic data such as sex, age, geographic area, language preference, education, and prior engagement in similar activities were collected. Ensuring personal safety and security was a priority, and a unique identifier number was used while uploading the data to the cloud - no personal data is openly available. With the first registration attempt from May 2022 a total number of 3,250 registered and after a series of efforts such as discussion with woreda officers and reminder texts 4,600 adolescent girls were registered for the programme. However, 4,082 girls had access to their telephone devices, and 518 girls used the telephone of their parents/caregivers and teachers. Additionally, 221 girls from Internally Displaced Persons (IDPs) sites in the Oromia region with 169 girls, Somali region with 31 girls, and Afar regions with 21 girls were enrolled in the IVR skill building and specific follow-up mechanisms were put in place through linking them with local implementing partners.

2. Content Creation

One of the key learnings from the testing is to involve adolescent girls in the content creation so that the sessions are relatable to their context which increases engagement. Thus, a regional-based co-creation workshop was organized in five⁶ of the seven target regions with participation of up to 35 girls per region. A total of 136 adolescent girls have participated in the co-creation. The workshop facilitated the validation and contextualization of the training content, agreed on the methodology of session delivery, testing of the IVR approach, and selected girls who will be involved in the telegram group for regular feedback. Accordingly, 24 session contents were adopted from the National Out of School Girls training manual which is developed based on formative field-level evidence and validated into IVR-suitable modules. These sessions were organized in an age-appropriate manner and employed a gender-transformative approach by integrating key contents of gender equality and power dynamics. The topic covered both skills and knowledge components including self-efficacy, self-esteem, negotiation, problem-solving, leadership, and communication skills, and provides knowledge on menstrual hygiene management (MHM), Adolescent health and Nutrition, and gender-based violence (GBV), violence against children (VAC), and harmful practices.

⁵ Have phone access, read and write, age group 10-19, both in and out of school and willing to participate

⁶ Afar, Sidama, SNNP, Oromia and Gambella



3. Translation, Recording and Testing

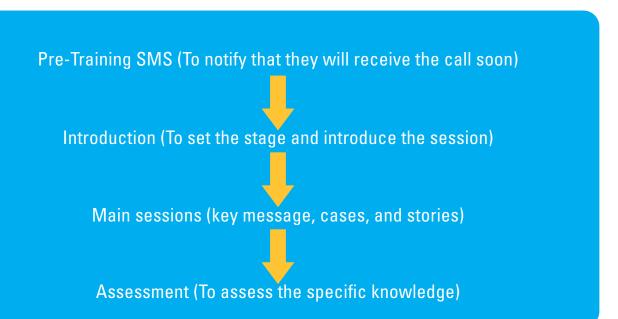
Once the content co-creation and contextualization have been completed, the translation of contents into seven languages⁷ that are compatible with the seven target regions. The translation has been done by a professional language translator, reviewed, and revised by the staff from UNICEF Field Offices and their respective regional Bureaus of Women and Social Affairs (BoWSA) staff in all regions. The review focused both on the consistency of dialect and the context of the respective community. Once the content has been validated in the above-stated languages, the recording has been done by VIAMO into text-to-speech technology with a Dual Tone Multifrequency (DTMF) interface and tested with 2 girls form each language which is a total of 14 girls form all the seven regions.

4. Training Launching/Broadcasting

A virtual launching was organized on November 8, 2022, with the presence of the Ministry and Bureaus of Women and Social Affairs focal persons, staff from the UNICEF field offices, and VIAMO to officially introduce the IVR objectives, different roles, and responsibilities to be played by relevant stakeholders, actors and start the training. The next step was to transmit the modules on a weekly basis using the IVR technology for the registered phone numbers as calls (pre-recorded audio files).

⁷ Afari, Amharic, Agnuwa, Nuer, Oromifa, Sidama and Somali.

Every week before the training starts pre-call Short Message (SMS) is sent to participants informing the upcoming lesson, its purpose, and timing. The participants then received a call with the IVR modules on the agreed date and time. Upon picking up the call, they have been given the chance to choose the language in which they want to listen to the content. Once they select a language, they will listen to the rest of the content in that language including the assessment questions. The participants have been given with options to select when answering a question by pressing numbers on their phone's keypad. A call retry pattern of 3 times, every 1 hour is used to engage participants, and inbound lines were set up for participants to call back to listen to missed lessons or complete unfinished lessons. The training call steps are done as follows for all 24 sessions.



5. Quality Assurance, Monitoring and Evaluation

To ensure quality and successful implementation of the IVR intervention and enhance its effectiveness a key activity is devising a regular monitoring mechanism. The main measurement strategy for IVR engagement is the baseline, mid-line, and end-line survey to assess changes in knowledge and attitudes. The survey questions were developed from the content and organized to measure the knowledge, attitude, and practice of girls participating in this capacity-building training. The survey dashboard measures and shows the change in knowledge and attitude once all three surveys are completed. In addition, working closely with the regional bureau of Women and Social Affairs together with the leaders of girls; organizing a review meeting preferably with some of the participating girls as a monitoring and feedback mechanism. A telegram group has been created

and updated biweekly for participants with access to social media, staff from UNICEF field offices, and the Bureau of Women Social Affairs focal persons. A biweekly virtual meeting has been set up between VIAMO and UNICEF for regular progress updates based on the real-time pickup and completion monitoring dashboard, to discuss bottlenecks, and propose solutions for improved delivery of results. An example of the real-time dashboard looks as below.



6. A Snapshot of Phase II Results⁸

The IVR training is set up in such a way that registered participants would receive calls on a specific date in their chosen time window. Alternatively, girls who call-in and self-register would also be directly connected to the training module in a sequential mode. Participants of the training received one call every week to listen in to IVR messages with training content. The project's sessions commenced in January 2023 with an introductory IVR lessons and, initially planned to involve 4,500 participants which grew into a cumulative total of 6,202 participants at the end. A total of 355,846 calls were made to interact with the training, of which 295,217 were outbound⁹ calls and 60,629 inbound calls. Meaning, 17% of the calls were initiated by the trainees themselves by calling back to the toll-free phone number.

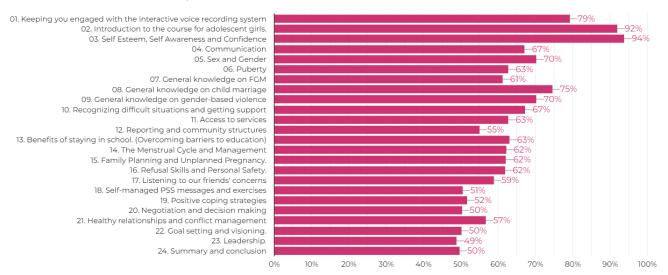
⁸ IVR Training Progress Dashboard

⁹ Outbound calls are initiated from VIAMO, and inbound calls are initiated by the participants

Overall, the session completion rate stood at 64%, and the average quiz response rate for correct answers was 63.16%. The response rates the survey component, were as follows: 77.68% for the baseline, 67.5% for the midline, and 92.56% for the endline survey. The snapshot of the narrative completion rate from the monitoring dashboard is as follows. During field visit to Afar and Sidama Regions, it is learned that adolescent girls are very positive about the IVR engagement in relation to understanding of the consequence of FGM and CM; and creating an opportunity to initiate a discussion with their families, friends, and nearby communities. Through the increased awareness, adolescent girls engaged in the IVR training has also reported FGM and CM arranged cases to the Bureau of Women and Social Affairs and even following up for cancellation.

Narrative completion rate

Out of the trainees who started the lesson, what % listened to the entire narrative?



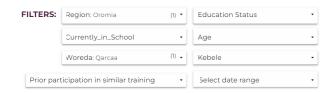
There is encouraging engagement is witnessed from the participants in the humanitarian situation. For instance, 169 girls were registered from drought-affected of Oromia region Yabelo, Moyale, and Qercha woredas. As shown in the below dashboard, the completion rate of the girls is 68% on average. Similarly, from the 31 girls registered from Dolo Ado Woreda of the Somali region about 63% of them were regularly participating in the IVR training.

Remote Training Dashboard



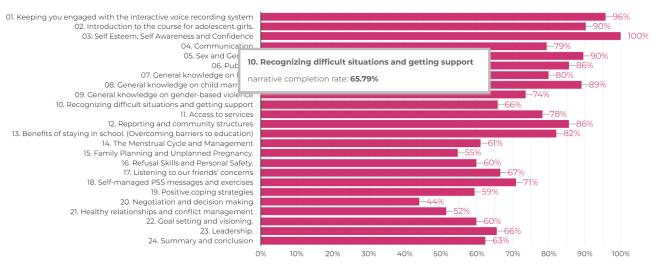
Main Report

On this page, you will find an overview of the interactions across all the lessons. You can also view the performance of the individual lessons.



Narrative completion rate

Out of the trainees who started the lesson. what % listened to the entire narrative?



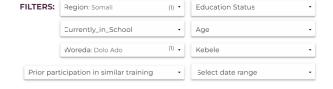
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Remote Training Dashboard



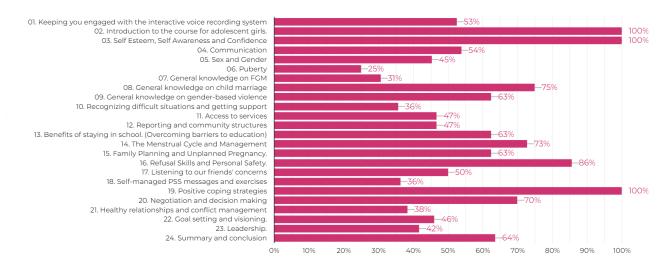
Main Report

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Narrative completion rate

Out of the trainees who started the lesson, what % listened to the entire narrative?



7. Lessons learnings and challenges

Challenges	Lessons Learned	Remedial Actions
Access to telephone and network	The major challenge especially in the preparation period was identifying adolescent girls from the rural target areas with access to telephone and good network connectivity.	This has been resolved to some extent, by utilizing the telephone numbers of family members, teachers, and kebele administrators so that the adolescent girls in the rural areas to be able to benefit from the sessions of the training. With the above interventions, the number of girls registered for the IVR training has increased.
Low pickup and completion rate and dropping out of the training	From the start of the session, the pick-up rate is as low as 40% and the completion rate is about 20% for some of the regions. Working with regional colleagues, regular communication, and other measures have been shown to increase uptake The second reason for dropping off is the length of the sessions. The lesson learned from the participants is that for adolescents especially the out of schoolgirls 24 sessions are too long.	 Throughout the training delivery, the following measures are continuously being taken and so far about 2000 outbound calls received. Regularly notify the toll-free call back number through social media and SMS Pushing the call repeatedly – up to 3 times Changing the name of the caller from VIAMO to UNICEF Provide the training to all outbound callers even though not registered Removing the mother call tree arrangement Select some number of girls from each area and regularly follow up with them Organize a midterm review meeting at the regional level Developing and translating congratulatory and encouraging messages

Programme delivery delay

The major reasons that created the overall programme delivery timeline are

a) due to the shift in the approach of delivery of the co-creation workshop (both in place and participation) to organize in five regional cities than in a central place to ensure the safety and security of the adolescent girls

b) delay in the Out of School Girls Manual finalization

c) delay in identification and registration of adolescent girls with telephone access

This challenge has been solved by revising the planning and develop an accelerated schedule and by extending the contract period with no cost.

8. The way forward and recommendation for third phase III

- Based on the performance of the participants, identify and capacitate adolescent girls' champions/ambassadors and provide them with a proper support system so that they can make use of the knowledge and experience gained to advocate change in their community and beyond.
- Strengthen engagement with regional and woreda Bureau of Women and Social Affairs to closely follow-up successful participation
- Device shorter and more tailored trainings to target groups supplemented with a peer-to-peer engagement
- Device a Realtime monitoring mechanism using the high performer groups for a regular monitoring of Ending Harmful Practices interventions

Annex 1

LS_UNICEF_HP_EN	To listen to this call in Amharic, press 1
	To listen to the call in Afan Oromo, press 2
	To listen to this call in Somali, press 3
	To listen to this call in Af Afar, press 4
	To listen to this call in Nuer, press 5
	To listen to this call in Agnuak, press 6
	To listen to this call in Sidama, press 7
Intro_UNICEF_HP_EN	Hello, this is a call from UNICEF in collaboration with the Ministry and Bureau of Women and Social Affairs as part of the girls empowerment virtual training called "It starts with you." This survey is being done to set a baseline for the training and the answers you share with us will be kept confidential. Please listen carefully and take a few minutes to respond to these questions. Your response will be registered when you press the required button or digit on the keypad of your phone
Q1_UNICEF_HP_EN	What is your education status?
	For uneducated (not able to read or write), press 1
	For informal education (through religious, Adult education etc) press 2
	For primary (between 1-8 grade), press 3
	For Secondary (Between 8-12 grade), press 4
	For tertiary (currently attending or completed college), press 5
Q2_UNICEF_HP_EN	What is your age range?
	If you are between 10-14, press 1
	if you are between 15-17, press 2
	if you are between 18-19, press 3
	if you are 20 years and above, press 5
Q3_UNICEF_HP_EN	What is your marital status?
	If not married, press 1
	If married, press 2
	If separated/divorced, press 3
	If you have children, press 4

Q4_UNICEF_HP_EN	Do you live in an urban or rural area? If you live in an urban area, press 1 f you live in a peri-urban area, press 2 If you live in a rural area, press 3
Q5_UNICEF_HP_EN Knowledge	In your community what do you think is the reason for practicing female genital mutilation (FGM)? If FGM is a religious requirement practiced on girls, press 1 If FGM is a social and cultural requirement that should be practiced on girls, press 2 If FGM is a required for girls to be able to get married, press 3 If you think all the above are the reason e, press 4
Q6_UNICEF_HP_EN Knowledge	Which one of the below you think is a consequence of FGM? For psychosocial distress, press 1 For health complications, such as infections, or complications during childbirth, press 2 For pain and severe bleeding at the time of cutting, press 3 If all of the above are complications of FGM, press 4
Q7_UNICEF_HP_K_EN Knowledge	From the below list, which do you think is the minimum legal age of marriage? If you think is 15, press 1 If you think is 18, press 2 If you think is 20, press 3 If you don't know, press 4
Q8_UNICEF_HP_EN Knowledge	What are the consequences for a girl who gets married as a child? If it will disrupt her education, press 1 If it will affect her health, for example, due to complications in early pregnancy and delivery, press 2 If she will be more vulnerable to abuse and violence due to power imbalance, lack of knowledge and experience, press 3 If all of the above, press 4

Q9_UNICEF_HP_EN Attitude/ Practice	What do you do if you learn that your family is arranging a marriage for you, your sister or friendship circle? If you accept their decision, press 1 If you negotiate and convince them against it, press 2 If you talk to the community structures in your area, press 3 If you are not sure, press 4
Q10_UNICEF_HP_EN Attitude	Do you think that FGM and CM should continue? If yes, press 1 If no, press 2 If you don't know, press 3
Q11_UNICEF_HP_EN Knowledge	Do you know any reporting system in your area for Child Marriage (CM) and FGM cases? If yes, press 1 If no, press 2 If you don't know, press 3
Q12_UNICEF_HP_EN Attitude	Which one do you believe is the benefit of continuing your education? For less likely to marry young, press 1 For leading healthy and productive lives, press 2 For building better futures, press 3 For I don't know, press 4
Q13_UNICEF_HP_EN Practice	Do you agree with the following statement: It is important to take action to protect girls from child marriage and FGM by all stakeholders including myself? If you agree, press 1 If you don't agree, press 2
Q14_UNICEF_HP_EN Practice	Which one of the words summarizes the following statement: The experience of feeling competent to cope with challenges in life and of being worthy of happiness is: - If it is wishful thinking, press 1 If it is self-esteem and confidence, press 2 If you don't know, press 3

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Q15 UNICEF_HP_EN Attitude	Do you agree in the following sentence: girls and women can be strong and successful leaders If you agree, press 1 If you don't agree, press 2 If you are not sure, press 3	
Addition for the Endline		
MSG	For these questions, we would like to know your experience with this mobile training. Note that the responses you share with us will be kept confidential.	
M1	Were you able to receive the calls on your phone without any problems? If yes, press 1 If no, press 2	
M2	Did you find the content of the messages clear and easy to follow? If all the messages were clear, press 1 If most of the messages were clear, press 2 If some of the messages were not clear, press 3 If most of the messages were not clear, press 4	
M3	Did you find the content of the training useful to change your opinion about CM and FGM? If yes, press 1 If no, press 2 If you don't know, press 3	

Annex 2

Remote Training Content Outline - Adolescent girls

- 1. Introduction to your learning journey
- 2. Keeping girls engaged
- 3. Safe facilitation under COVID-19 safety measures
- 4. Self Esteem, Self-Awareness and Confidence
- **5.** Communication
- 6. Sex and Gender
- 7. Puberty
- 8. General knowledge on FGM
- 9. General knowledge on child marriage
- 10. General knowledge on Gender Based Violence
- 11. Benefits of staying in school (Overcoming Barriers to Education)
- 12. The Menstrual Cycle and Family Planning
- 13. Refusal Skills and Personal Safety
- **14.** Listening to girls' concerns to be revised
- 15. Recognizing difficult situations and getting support
- 16. Access to services
- 17. Reporting and community structures
- 18. Self-managed PSS messages and exercises
- 19. Positive coping strategies
- 20. Negotiation and decision making
- 21. Healthy relationships and conflict management
- 22. Goal setting and visioning
- 23. Leadership
- 24. Summary and conclusion

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