



by Joan Bruno, Ph.D., CCC-SLP

Quick Start Guide



Table of Contents

What is Gateway?	3
What is Mind Express?	3
The Origin of Gateway©	4
Gateway Page Sets	5
Why Gateway©	8
Implementing Gateway©?	9
Summary	15





What is Gateway?

Gateway to Language and Learning[©], (Gateway) is a series of core word page sets that supports the language learning needs of young children and facilitates efficient communication for the competent communicator. There is consistency in the design of all Vocabulary Levels to enable a user to seamlessly advance to the next level of complexity (e.g., Developing Language to Advanced Communicator) while maintaining ones level of communicative competence.

The underlying philosophy of Gateway is to enable effective and efficient communication. All individuals need to be able to say what they want to say, when they want to say it, and to be able to do so with a minimum of effort. Within Gateway, effective communication is achieved by providing AAC users access to a high frequency core vocabulary and fringe vocabulary that is selected to match a user's age, needs, interests, and linguistic abilities. Efficient communication is achieved by minimizing the number of key selections required to speak each word. The Gateway vocabulary was organized to give the user access to its core vocabulary using an average of less than 1.5 key selections per word.

What is Mind Express?

Mind Express© is a Windows-based communication software developed and distributed by Jabbla. It helps individuals who have little or no speech communicate independently using letters or symbols. Mind Express incorporates more than 20 years of experience supporting users worldwide with cerebral palsy, autism, MS, ALS, aphasia and other conditions that impact one's ability to speak. It incorporates the latest access technologies such as switch, eye gaze, or head mouse and is one of the most powerful solutions for individuals relying on scanning as a mode of access. Children and adults can use this communication software to interact with family, friends, participate in school, work, community activities and a wide range of leisure activities. Mind Express software enables an individual to excel in face-to-face conversation and it provides easy access to use remote communication tools such as email, text messaging, and WhatsApp.

Mind Express offers a variety of ready-made AAC vocabularies. Several of the Gateway[©] page sets are now included as an option in the English (US and UK) and German versions of Mind Express.

This manual is intended to provide an overview of Gateway[©] as it has been designed for use with Mind Express. It defines targeted user abilities for each vocabulary level, key design features and how these features affect language development and effective communication.

The Origin of Gateway©

In 1997 Gateway was designed as a custom page set to enable Frankie, a 6-year old 1st grader with cerebral palsy, to efficiently and effectively communicate his needs and wants and to be able to compete educationally in his mainstreamed educational environment. Prior to using Gateway, he had a manual communication board with well over 150 symbols that he effectively used to express needs and wants. It did not provide him a voice to interact with his typically developing peers nor did if offer him a means to independently function in his educational setting or achieve to the fullest of his potential.

Frankie need a page set for his high tech device that he could use to not only respond to questions in class but one that enabled him to create complex messages. He wanted to read his 1st grader reader aloud in class, like other students did. The school wanted him to achieve to his highest potential. As his speech-language pathologist I was charged with the task of making these requests a reality. The original page set contained a core of approximately 800 root words, selected word morphology functions keys, and strategically designed auto-close popups. His MAIN page was linked to pages containing words from grammatical categories such as people, verbs, descriptive words, objects and places in a format similar to his manual board. It also contained a link to a spelling page with word prediction. The initial core vocabulary included many words identified as frequently used by young children. It also contained all of the words on his manual communication board and high frequency core words from his 1st grade curriculum. His high tech page set allowed efficient message generation and enabled unrestricted communication. On average, he was able create a sentence using an average of 1.3 key selections per word.

In 1998, Gateway to Language and Learning[©] became commercially available page set for the DynaVox device. It presented a new approach for storing vocabulary on a dynamic display device (Bruno, 1997). Over time, with input from users and the field, Gateway evolved to become a series of page sets that addressed the needs of young children through adults. Many children, like Frankie, who began using Gateway[©] as a child, have become effective communicators and college graduates.

Over the years Gateway has evolved and continues to reflect advances in technology and best practices in AAC. At present, Gateway continues to meet the needs of children and adults.

Gateway Page Sets

Gateway for Mind Express offers four user Vocabularies, each targeting a different set of user abilities and goals.

C	Gateway for Mind Express
, ,	

Each level contains a high frequency core and fringe vocabulary relevant to the targeted population. An associated set of theme pages, matches leisure, educational and recurring conversational needs.

Each page set can be downloaded and customized to support individual abilities and needs.

Gateway page sets can be imported directly from Mind Express 5 or can be downloaded from the Mind Express website <u>Mind-Express.com</u> and then imported into the software.

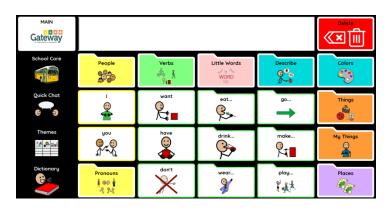
Gateway page sets can be tried for **free for 30 days**. After the trial ends, users will need to purchase a **license** to activate the page sets.

https://www.jabbla.com/en/how-to-buy/

Gateway page sets are built with **SymbolStix** symbols.



(a) Gateway 20 targets preschool and school-aged children who communicate using 1-2 word messages. They recognize symbols of nouns, verbs, and some adjectives and adverbs. These emerging communicators have the potential to improve their expressive language abilities. Consistency of vocabulary organization supports the principles of language acquisition through motor planning. It contains MAIN and SCHOOL CORE pages that seamlessly link to relevant topical vocabulary without losing access to the high frequency core. Theme pages provide activities to promote communication in educational and social settings. Mind Express features have been integrated into this page set to support literacy development.



(b) Gateway 40 is designed to meet the needs of school-aged children who are learning to combine symbols to form multi-word messages. These users have the potential to learn to use word endings, articles, and prepositions and to create syntactically complex sentences. This page set is constructed to facilitate teaching of these language features within an intervention context. Gateway 40 may be the next logical step for children using Gateway 20 who now require a more complex vocabulary and/or have made significant gains in their expressive language performance. Mind Express features have been integrated into this page set to support literacy development and academic performance.

Gateway	Word Endings							Delete
School Core	Question Starters	People	Verbs	Little Words	Describe	Colors	Things	Places
Quick Chat	Mom+	- @	want	eat	go	more	My Things	Clothes
Themes	Dad+	you Den Den	have	drink	Make+	and	for	Food
Dictionary	we	π 	help	wear	play	^{the}	۵	Party
Spell+	Pronouns 🗍 ଓତ 🛔 ନ୍ସ ହୁନ୍ଦ୍ୱ	Do+	Helping Verbs	See+	Write+	This+	with	Toys

jabbla.com

(c) Gateway 120 Developing Language (120DL) is designed for children acquiring language following the typical sequence of language development. It can benefit children who are learning to combine symbols to form multi-word messages as well as those beginning to form syntactically correct sentences. It contains HOME and SCHOOL CORE pages that seamlessly link to relevant topical vocabulary enabling active participation in the classroom. Semantic Power Strips enable users to access related vocabulary without scrolling through pages or complex arrays. Mind Express features have been integrated into this page set to support many advanced reading, writing, and academic tasks.

Gateway	Change Topic	Word Endings									Delete Word
School Core	Question States	People	Pronouns \$ 00 \$ -8 94	be be	Verbs र्के <u>के</u> श्रेत्र	Liffle Words	Describe @%	Colors	Time	Things	Places
Quick Chat	who 🚱	me ©‡	- @f	am/is/are	want C	ea 👀	go 🕇	more 1	at 🗸	My Things	bathroom
Social Exchange	what	your Office	کی 2000 ک	was/were	have	diink Ç	Make+	and 🛨	because	Body Parts	home
interes A A au	where	Boy+	he (D)	can	help	wear	play M	but	by	Clothes	inside
Dictionary	when	at por	she 	wii 1	a 📕	give Que Que A	put O	for	from ■+□	Events	mal 🙀
Spel	why I I I I I I I I I I I I I I I I I I I	aide	, ,	Do+	like Ş	feel	take S	in A	on L	Food	outside
Number Words	how V	fiend	т. А.	finob X	work	stop STOP	Know+	Ľ.	the the	Household	pool
0 1 1 1 1 1	which	leacher	we ©©	Could+	send	come	ride	This+	10 	Party 0.0 ¹⁰	school
Care	not 🗙	therapist	hey	lefs PrS2	See+	Write+	Say+	very very		Toys	heropy 누스럽

(d) Gateway 120 Advanced Communicator (120AC) is designed for advanced or linguistically competent individuals needing an efficient and powerful core vocabulary to engage in routine dialogues and compete in an educational or work setting. It is a logical next step for children using the Developing Language Vocabulary, who now require a more mature vocabulary and greater efficiency in message generation. The Advanced Communicator vocabulary incorporates Gateway's *Dynamic Morphology* features enabling users to rapidly create messages using an average of less than 1.2 key selections per word. Mind Express features have been integrated into this page set to support both face-to-face and remote communication.

Gateway	Change Topic	Word Endings									Delete Word
Community	Question Storters	People	Pronouns 1 00 1 -8 94	be be	Verbs र्के र्स्	Little Words	Describe @%	Colors	Time	Things	Places
Quick Chat	who 🚱		- @Ç	am/is/are	come	diink Ç	* *	more 1, R	a (My Things	bathroom
Social Exchange	what	your Office	уси 94 95 95 95 95 95 95 95 95 95 95 95 95 95	was/were	feel	5 F	give Page	and ♣	because	Body Pats	home
incaso 14,0-iai	where	Boy*	he 💭	can 	°	have ()	help A	but	by	Clothes	inside
Dictionary	when	Gil+	she J	Could+	Know+	like	Make+	for	from	Events	mal A
Spell	how V	aide 潘	-	Do+	play M	put S	ride Care	'n	on L	Food	outside
Number Words	why I	friend	n /	finob K	Say+	See+	send		the	Household	pool
0 ¹	which	leacher	** ©©	etei 22ngi	stop STOP	lake	want R	This+	•	Party 00%	school
Cara E	×	therapist	they	₹ †	wear J	work	Wile+	very very	with	Toys	heropy 누석

Gateway for Mind Express comes with built-in tutorials and links to online resources to support parents and professionals in implementing the communication system.

Why Gateway©

- -Simple to Learn
- -Developmental Model for Language Acquisition
- -Consistent Vocabulary Placement Supports Learning through Motor Planning Principles
- -Efficient Organization Results in Minimal Keystrokes Per Word
- -Achieving Core Curriculum Competences

Simple to Learn

Gateway is easy to learn. The cognitive demands associated with learning symbol meanings are minimized by the use of single-meaning icons and/or written words to represent vocabulary. For nouns and many other word classes, the selected symbols provide a transparent or intuitive means of representing vocabulary. Text is used to represent many function words. This helps to reduce the need for learning arbitrary symbols to represent the words of our language that cannot be easily be represented by an iconic symbol. Symbols for verbs, adjectives and adverbs are less transparent and may require instruction to be understood by an individual who either is young or demonstrates perceptual and/or cognitive limitations. Young children tend to separate pictures according to categories. That is, children can easily sort pictures into categories of people, colors, foods, places, and so on. The organization of Gateway reflects this developmental ability and uses a modified Fitzgerald Key Format to represent vocabulary.

Developmental Model for Language Acquisition

Using Gateway, the course of a child's expressive language acquisition can mirror the normal language development sequence. A child can begin communicating using single words. By learning to combine symbols across pages, they can begin to form telegraphic messages. Once a child understands verb tenses, use of plurals and other morphologic endings, the child can learn to use these features to create syntactically correct sentences. Using the vocabulary and word morphology keys embedded systematically within Gateway, a child can learn to recode our language to achieve the same level of language competence as speaking peers.

While Gateway[©] meets the needs with children acquiring language through the normal sequence of language development, these children require intervention directed towards improving their expressive communication performance.

The following table presents sample sentences in different Vocabulary Levels.

Keystroke Examples

We are going to eat chicken = 6 words with 8 hits (Lev. 40)
We are going to eat chicken = 6 words with 7 hits (Lev. 120)
Yesterday they helped me with my computer = 7 words with 11 hits (Lev. 40)
Yesterday they helped me with my computer = 7 words with 9 hits (Lev. 120)
I want to get my sister a present = 8 words with 11 hits (Lev. 40)
I want to get my sister a present = 8 words with 10 hits (Lev. 120)

Achieving Core Curriculum Competences

Many of the individuals who use Gateway[©] are school-aged children and teens. To enhance a user's classroom participation and to better enable his or her ability to demonstrate mastery of the core curriculum competencies, all versions of Gateway contain requisite vocabulary for Morning Meeting and links to pages where targeted academic vocabulary can be added. Many of the page sets provide access to the states, capitals, countries and planets. Academic pages have been designed to interface with the Main page so that a user can respond using single words or complete sentence. A TEST page can enable a user to complete a test or worksheet without significant adult assistance.

Implementing Gateway©?

- -Understanding Mind Express Functions and Features.
- -Understanding Gateway's Distinct Features
- -Access the Appropriate Gateway Manual
- -Customize the Vocabulary to Meet User Needs, Interests and Goals
- -Implement the Appropriate AAC Intervention Strategies

Understanding Mind Express Functions and Features

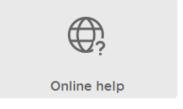
Gateway was designed using Mind Express 5. Personalization or customization of Gateway[©] requires that that the person assigned with this responsibility demonstrates a basic level of competency with Mind Express editing and operational functions. That is, a person needs to know how to switch to Edit Mode and how to edit a cell. Minimally editing a cell can involve changing the label, the symbol, the message to be spoken or the cell's style. Gateway uses the standard Fitzgerald key color-coding. A user may opt to change cells borders and backgrounds.

Please note that each Gateway page set includes a "Help" section that provides directions on basic editing functions in Mind Express. There are also direct links to video tutorials online.

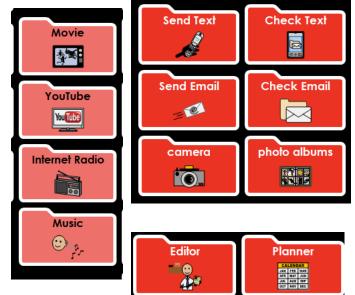
The Gateway page sets for Mind Express also include additional functionalities and type of pages to support communication for different purposes and in different contexts. For example, it is possible to send the message box content via email or text, watch movies or YouTube videos, listen to books, use a planner, take selfies, use a calculator, watch photos or listen to Internet radios.

To learn more about these Mind Express functionalities and how to use them, check the Mind Express online manual.

Select Menu>Help>Online help



or watch the online tutorials



Understanding Gateway's Distinct Features

The Gateway Vocabulary features such as *Sentence Development Link, Semantic Power Strips,* Dynamic Morphology, and the Spell+ page, were created using the programming features of Mind Express. The Sentence Development links are explained above and these do not require any special considerations when customizing.

The *Spell+* page provides access to the keyboard. This keyboard may also provide the user access to letters, numbers and punctuation. It also offers word prediction by default but this feature can be turned off.

Different keyboard layouts (qwerty and alphabetical) are included in Gateway 120 DL and Gateway 120 AC.

Since access the word prediction function and adding text into the message window using it adds a significant number of hits, the Spell+ page was added as a means to quickly add text. This should not be used as a primary spelling function, but instead as a quick way to add words not found within the Gateway pages or perhaps to respond quickly within an educational activity.

Gateway uses *Semantic Power Strips* as a tool to provide the user access to semantically related words. After selecting a word from the semantic power strip, the popup automatically closes. This is done as a keystroke saving minimizing the need for a user to close the page after each word.



This same auto-close feature is used throughout Gateway's core vocabulary. When composing a message, a user can select words from the Home page and then access fringe vocabulary selecting folders such as Things, Play, Events, and the like. Each time a word is accessed on the fringe vocabulary page, the page automatically closes.

Depending upon where the page is and for what purpose, it will either return to the Home Page or to the Previous Page.

The Advanced Communicator Vocabulary Level makes use of Gateway's Dynamic Morphology feature. That is, word endings are automatically added to some verb forms without requiring additional key selections. This occurs for 3rd person plural, the infinitive form of the verb following words, such as want and have and for the present progressive verb tense (i.e. –ing). Subject pronouns are automatically converted to object pronouns after selecting the pronouns "at, by, for, to and with".

≡ Menu												
Gateway	Change Topic	Word Endings	he likes								Delete Word	
Community	Question Starters	People	Pronouns 1 00 1 	be be	Verbs	Little Words	Describe	Colors	Time	Things	Places	
Quick Chat	who 🚱	my A	me @	am/is/are	to come	to drink	to eat	more S	a C	My Things	bathroom •••	
Social Exchange	what	your O 1 0 0 0 0 0 0 0 0 0 0 0 0 0	уси Ф. Ф.	was/were	to feel	to get	to give	and 🖶	because	Body Parts	home	
incines 14 a sul	where	Boy+	him ©	can 	to go	lo have	to help	but	by	Clothes	inside	
Dictionary	when	Gill+	her ©	Could+	Know+	to like	Make*	for	from ■→ □	Events	mal	
Spell	how V	cide	, ,	Do+	lo play	to put	to ride	in	on L	Food	outside	
Number Words	why 😵	friend	т. А.	findb	Say+	See+	to send	out L	the	Household	pool	
0 ¹	which	leacher	US COM CAM	lers Prof	to stop	to take	to want	This+	⊳ ∕	Party 00% C	school	
	The second secon	theropist	them	will 🕇	to wear	to work	Write+	very very	with	Toys	therapy	

Customize the Vocabulary to Meet User Needs, Interests and Goals

Unless Gateway's vocabulary matches the needs, wants, interests and "personality" of the user, it is unlikely that the user will maximize use of the program. A second step in customizing Gateway is to add and/or change key vocabulary items and expressions. For example, the *Foods* page contains an assortment of foods and beverages considered representative of the typical foods people eat. This may or may not match the preferences of the individual using Gateway. Changes should be made to this page as needed to allow the user to communicate effectively. Family and user input should be considered in determining what changes, if any, are needed. Other pages such as Things and Places will also require the same type of consideration in evaluating the "appropriateness" of the vocabulary provided.

In order to help an individual meet his or her educational goals, it is imperative that the child be able to express the vocabulary targeted for the range of spoken and written educational tasks associated with each core curriculum competency. While it is recognized that Gateway does not contain all of the educational vocabulary needed by each user of this program, it is believed that Gateway does create a framework to enable a child to meet most educational competencies. Individuals working with a Gateway user (i.e., the teachers, therapist, aides, parents) must take an active role in adding appropriate vocabulary to this program as needed. This requires that these individuals become familiar with the contents of Gateway. It also requires that they know what vocabulary is needed to complete daily lessons. Vocabulary that is needed, and that is *not* currently stored within the Gateway vocabulary, should be added if and when determined necessary by the child's team. Within the school curriculum, there are several areas targeted for potential device use. These include *Math, Calendar* or the morning routine, and *Monthly thematic* activities. Pages have been created for each of these areas and they also should be customized to maximize the child's classroom participation.

Implement the Appropriate AAC Intervention Strategies

The specific approach used to implement Gateway will vary with the needs and language abilities of the user. It is the philosophy of this author that Gateway be introduced to the user in a variety of functional contexts. Successful implementation requires a commitment on the part of the individuals working with the user (i.e., the facilitator, teacher, SLP, parent) become familiar with Gateway's vocabulary contents and the location of these words. It also requires a commitment to personalize the vocabulary to match the needs, interests and abilities of the user.

Teaching Language Through Use of the Single Word Vocabulary: Each Gateway file contains a core of high frequency words. Learning the contents and location of this core vocabulary is only the first step in helping someone to become a competent communicator. Variables such as cognitive/language abilities, behavior, attention, motivation and frequency of use of Gateway will all impact a user's ability to gain proficiency using Gateway to communicate. The key to helping a child become a successful communicator when using Gateway is to provide effective and appropriate language intervention. That is, if a child is communicating using single words, that child needs to have guided intervention to systematically learn to combine words to form more complex messages. The environment needs to be engineered to promote device use and strategically target various language forms. Teaching language to an AAC user is not radically different from teaching language to a child who speaks. The major difference is that for an AAC user, the medium for expression is an AAC device as opposed to speech. This being the case - (1) the therapist must be knowledgeable of the vocabulary contents and location of words contained in the system, (2) the child must learn the contents and location of available vocabulary, and (3) words targeted for intervention activities or routine daily activities must be available within the communication device or the AAC user cannot express them.

With that in mind, the procedure for teaching language to an AAC user requires that the therapist: (a) evaluate the user's abilities; (b) define appropriate long and short term language intervention goals and (c) establish effective intervention activities to enable the AAC user to achieve the goals.

<u>Aided Language Stimulation as an Intervention Approach</u>: Prior to initiating intervention with the child, the therapist must first become familiar with program's vocabulary. The therapist must know what words are included in the Gateway Vocabulary and how to access these words. Unless a therapist is competent in communicating with the child's vocabulary set, the therapist can neither develop appropriate therapy activities nor serve as a model in demonstrating or expanding the child's utterances.

Aided language stimulation (ALS) is an appropriate and effective language intervention technique that a therapist can use when working with an AAC user. This technique can be used to teach the Gateway core word vocabulary and to improve syntactic performance. Using this technique, a communication partner interacts with the AAC user using the user's AAC system. Use of aided language stimulation requires the partner to know the contents and location of the Gateway Vocabulary.

<u>Teaching Vocabulary Contents and Location</u>: Teaching contents and location can be accomplished through focused intervention as well as through games and recreational activities. If the user does not know what words are available to him/her to create a message, unless the user can spell, he will not be able to formulate messages to express needs, wants, or ideas.

Regardless of which Gateway level and arrangement is selected for the user, the augmented communicator should be systematically introduced to the MAIN page, which is the core of the single word vocabulary. Each of the color-coded word categories should be highlighted along with its corresponding color-coded page link. Color-coding may help some augmented users learn to locate words more quickly.

<u>Using the Theme Pages:</u> There is no question about the fact that most people enjoy leisure or unstructured activities. Children can and do learn through play. So too can teens and adults. Within Gateway there are a variety of pages designed included to help individual develop and expand their language skills during recreational, social and community-based activities.

Summary

Gateway is a powerful core word page set complemented with rich pragmatic pages. Since 1998, Gateway has helped many young children to become competent communicators and to achieve academic success. It has enabled competent communicator to efficiently and effectively meet their daily communication needs across environments. Success in using Gateway is highly correlated with how its user is supported in learning and in having access to his or her device.

Jabbla

Foreestelaan 3, 9000 Gent Belgium +32 (0)9 331 58 58 info@jabbla.com

www.jabbla.com