



WORKING PAPER

COUNCIL — 20^{XX}RD SESSION

**EVALUATION OF THE USE OF E-LEARNING PLATFORM TO IMPROVE
SKILLS ON AVIATION PROFESSIONAL'S TRAINING CENTERS**

(Presented by Chile)

EXECUTIVE SUMMARY

The first NGAP meeting's theme was "Looking beyond the economic crisis: mobilizing the aviation community to recruit, educate, train and retain the next generation of aviation professionals".

At the present, many of those goals can be reached by the use of e-learning, as we know, this technology has revolutionized the education sector and completely changed the way we view the acquisition of knowledge and skills, becoming in the present as a better way to develop training models to acquire competences.

Increasingly, students are using e-learning for their undergraduate degrees, build your knowledge base and develop new skills. So now higher educational institutions are offering a growing number of online courses in order to meet growing demand.

In the second meeting of NGAP, the main issues are:

- 1.- Best practices to attract and retain new generations of aeronautics professionals.
- 2.- Why are competencies useful for aviation careers?
- 3.- How will they learn in the future ?

The e-learning could be the answer and we invite to the Council to analyze this working paper and support the conclusions presented.

Strategic Objectives:	This working paper relates to Strategic Objectives A: Safety and C: Aviation Security and Facilitation.
Financial implications:	This initiative should reduce the costs of training and upgrading of aviation professionals.
References	http://www.icao.int/Meetings/AMC/NGAP

1. INTRODUCTION

1.1 The increasing popularity of e-learning shows no signs of slowing. In fact, the industry's future is brighter than ever. We can see by using this technology increased productivity and better retention rates of information, among other results, goals sought in the formation of future professionals in aeronautics.

1.2 The Top 10 Stats for e-learning in 2014

1.2.1 In 2011, it was estimated that globally spent about 35.6 billion dollars in self-managed e-learning processes. Today, the e-learning industry is reaching to 56.2 billion and will double by 2015.

1.2.2 Companies now report that e-learning is the second most valuable training method they use. This is not surprising, since it saves at least 50% of training costs when replacing traditional instruction by the online learning. This, without mentioning that the e-learning reduces training time by up to 60%.

1.2.3 Today, it is estimated that about 46% of college students are taking at least one online course. However, in 2019, about half of all college classes will be based on e-learning.

1.2.4 E-learning is also environmentally friendly. Recent studies by the British University Open University have discovered that e-learning consumes 90% less energy than traditional courses. The amount of CO2 emissions (per student) is also reduced by up to 85%.

1.2.5 41.7 percent of worldwide Fortune 500 companies are currently using some form of educational technology to instruct its employees during the hours of formal learning. And that figure is set to increase steadily in the coming years.

1.2.6 Markets that show a faster growth of e-learning are Malaysia and Vietnam. In fact, the estimated annual growth rate of 5 years for the Asian market is 17.3%. That's the highest compound annual growth rate of any region in the world. Here are some e-learning's statistics of the most important parts of the world: Middle East: the growth rate of online self-managed learning (self-paced e-learning) is 8.2%, and expects revenues to reach US \$ 560.7 million in 2016.

Western Europe: market growth rate of self-managed e-learning is 5.8% and it is estimated that its revenues will be 8.1 billion dollars in 2015.

Africa: its annual growth rate is 15.4% and it expects its revenues to reach 512.8 million by 2016.

- 1.2.7 According to a report published by IBM, companies that use tools and e-learning strategies have the potential to increase productivity by up to 50%. For every dollar the company spends, it is estimated that they can receive \$ 30 in productivity.
- 1.2.8 According to a recent study by the Research Institute of America (The Research Institute of America), e-learning has the power to increase information retention rates to 60%. That means that e-learning is not only more profitable, is also more effective (in terms of the amount of knowledge that is actually acquired during the learning process).
- 1.2.9 It has been estimated that almost 25% of all employees leave their job because there is simply not enough opportunities for training or learning opportunities. On the other hand, companies that offer e-learning and the opportunity to train on the job, generate about 26% more revenue per employee.
- 1.2.10 72% of the companies that were included in a recent survey indicated that e-learning helps them to keep up with changes in your industry, which helps you stay competitive within your niche. It was also determined in a study conducted by Bersin & Associates, which companies and organizations that have a strong learning culture fared better in their market than those who do not. For example, 46% of these organizations are interested in being a leader in its sector (are checking a 34% increase in their ability to respond to customer needs) and are 17% more likely to become market leaders.

2. **DISCUSSION**

- 2.1 As seen, the use of e-learning could be a way to attract and retain future professionals from the aeronautical environment, not only in the process of acquiring the skills required to do their job, but also to keep updated in matters of regulations and procedures.
- 2.2 ICAO should generate the skills and competencies required by the next generations of aviation professionals, and evaluate the use of a central platform of e-learning, based on the regional offices or headquarters to prepare and certify teachers of aviation training centers so they can generate competencies needed in next generations.

- 2.3 This mode will allow states to have teachers trained and updated on the latest regulations and procedures, which will ensure that students receive updated materials and also it will allow to students to taking courses online to reinforce their knowledge and commitment.
- 2.4 A specialist working group should study feasibility and the necessary changes of current documentation. This special group must be composed by interested states that can contribute to the goals of NGAP.

3. **COUNCIL DECISION**

- 3.1 It invites the Council to:
 - 3.1.1 Recognize and support the importance of e-learning technology to achieve the goals desired by the NGAP.
 - 3.1.2 Create a working group that study feasibility and coordinate with NGAP the use of e-learning platform to improve skills on aviation professional's training centers.