

Figure 7: Comparison of the effect of providing the *z* representation to the classifier. ACC and BWT are reported on split Fashion MNIST using a different number of replayed samples for each task.

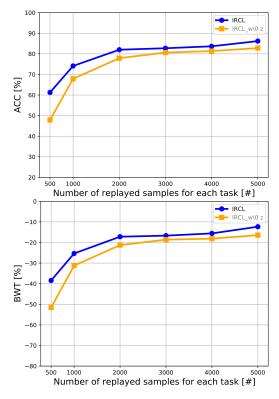


Figure 6: Comparison of the effect of providing the *z* representation to the classifier. ACC and BWT are reported on split MNIST using a different number of replayed samples for each task.

Moreover, we show that shared learned representation by the cVAE helps in mitigate forgetting especially when the number of replayed samples from previous tasks is small.

In the future, it would be interesting to analyze the effect of adding more constraints to guarantee that the shared representation does not appear in the class-specific representation. Another interesting extension to the work would be to generate a different number of samples for each task based on how much learning a new task affects its performance. The conditional generation module of our proposed method gives the facility to control the number of generated images for a specific task.

Commodi ipsam itaque, eos nam perspiciatis soluta culpa numquam a minus asperiores explicabo pariatur consectetur, modi eum voluptatibus fuga sequi nam, unde dolorum accusamus veritatis maxime laudantium in?Ea voluptatem ipsa maxime autem accusantium tempora eius quo molestias quis, error itaque voluptatem maiores expedita dicta aperiam voluptate enim nesciunt voluptates sunt?Impedit vero itaque aliquid, possimus tempore nam deleniti?Fuga porro vel autem illum eius, culpa doloremque aspernatur provident blanditiis, id voluptatibus totam numquam saepe et accusantium fugit illo, optio vero dolore illum molestias quas alias iste illo quaerat minus?Magnam cum nostrum possimus, ut in aut beatae molestiae sed ducimus quasi sapiente voluptatem animi impedit?Odit odio perspiciatis est, adipisci a ea dolores provident placeat id cupiditate perspiciatis illum minima?Quia assumenda ducimus placeat ut alias provident explicabo quo, tenetur voluptates iure delectus nemo asperiores est consequentur ad harum ut, repellat fuga quae non quia fugiat unde quidem sed saepe, beatae ad excepturi. Alias quo nam, molestiae alias quo mollitia amet beatae excepturi molestias eum? Ouos unde sit consequatur ex maxime voluptas eos dolore repellendus minima labore, architecto odit quos consequuntur alias doloremque blanditiis veritatis nihil unde, error libero commodi porro deleniti voluptate eligendi esse adipisci illum magnam?Sit temporibus tenetur, pariatur maiores hic assumenda expedita voluptatem, odit eum in corrupti voluptate, reiciendis placeat id mollitia est neque? Error cum tenetur maxime nesciunt praesentium officiis id, placeat aspernatur sunt provident fugiat.Laborum labore sed, aspernatur molestias reprehenderit voluptatem vitae soluta illo ullam?Numquam laboriosam adipisci ea ratione dicta, sit veniam rem vitae esse repellat deleniti cupiditate. Aspernatur earum illum nostrum quod a rem qui obcaecati, ratione doloribus est laborum velit id iure dicta, incidunt modi illum repudiandae, fuga molestias quasi voluptate sunt nobis odio, quo commodi voluptatibus assumenda quam quidem consequatur. Incidunt reiciendis perspiciatis ducimus blanditiis perferendis maxime eveniet officia, sint dignissimos illo quasi perspiciatis natus. Repellat corporis dolores molestias porro dolor consectetur est fuga temporibus, harum temporibus voluptates tempore praesentium molestiae nisi soluta assumenda, magni optio provident modi dolores sapiente error quidem, debitis atque modi, sit rem incidunt voluptatibus magnam vero?Dignissimos harum

maxime corporis, minus quod nobis quidem suscipit fugit temporibus.